FINAL REPORT

YINNETHARRA LITHIUM PROJECT

DETAILED FLORA AND VEGETATION SURVEY

DATE: 04/12/2024 **Ref: 30003674**

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Revision Schedule

Revision No.	Date	Description	Prepared by	Quality Reviewer	Independent Reviewer	Project Manager Final Approval
A	30/09/24	Yinnetharra Flora & Vegetation Survey Report 2024	Scott Pansini	Loraine Roberts	Alice Bott	Tracy Schwinkowski
B	15/10/24	Review of changes		Delta Lithium	Green Values	
C	4/12/24	Updating draft report following client review	Scott Pansini	Loraine Roberts	Alice Bott	Tracy Schwinkowski
D	10/12/24	Review of changes		Delta Lithium	Green Values	
E	31/01/25	Final report issued	Scott Pansini	Jac Clark	Alice Bott	Tracy Schwinkowski

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Executive Summary

Delta Lithium Limited (Delta) is a lithium exploration company currently seeking to develop the Yinnetharra Lithium Project (the Project) in the Gascoyne bioregion of Western Australia. Stantec Australia Pty Ltd (Stantec) was commissioned to undertake a dual phase Detailed Flora and Vegetation Survey and Targeted Significant Flora Survey of three tenements held by Delta: E09/2169, E09/2170, and E09/2283 (the Survey Area). The Survey Area, totalling 11,215.3 ha, is located 110 kilometres (km) north-east of Gascoyne Junction.

The objective of the Survey was to understand the flora and vegetation values of the Survey Area to inform future environmental approvals. The field work for the Survey was undertaken in 2023 and 2024, and comprised quadrat and relevé sampling, targeted searches and opportunistic collections of flora. The surveys were completed in accordance with the Environmental Protection Authority's Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment.

Survey effort consisted of four surveys: Preliminary Survey conducted between 6 and 11 April 2023 (5 person days), Phase 1 of the Detailed Flora and Vegetation Survey conducted between 15 and 28 August 2023 (44 person days), Phase 2 of the Detailed Flora and Vegetation Survey conducted between 18 and 28 March 2024 (40 person days), and the Targeted Survey conducted between 2 and 11 July 2024 (18 person days). A total of 142 quadrats, 11 relevés and 203 mapping notes were recorded over the course of the four surveys between 2023 and 2024.

A total of 325 fully identified vascular flora (including species, subspecies, varieties, forms, hybrids, native and introduced species) have been recorded within the Survey Area. The 325 vascular flora comprises 55 families and 159 genera. The most represented families were Fabaceae (peas), Poaceae (grasses) and Chenopodiaceae (goosefoots), and the most diverse genus was *Acacia.* No species listed as Threatened flora under either Commonwealth or State legislation were recorded within the Survey Area.

The desktop assessment identified two Threatened species (*Pityrodia augustensis* (T/Vu) and *Thryptomene wittweri* (T/Vu) listed under both the *Environment Protection and Biodiversity Conservation Act 1999* and *Biodiversity Conservation Act 2016*, and 38 Priority flora listed by the Department of Biodiversity, Conservation and Attractions as occurring within 100 km of the Survey Area. The post-survey likelihood of occurrence results indicated that both Threatened species are unlikely to occur, while 25 Priority species are unlikely to occur, seven are possible, one is likely to occur, and six identified in the likelihood assessment have been confirmed to be present. During the Surveys, a total of seven Priority flora species were recorded within the Survey Area comprising two Priority 1 (*Acacia curryana* and *Isotropis forrestii*), two Priority 2 (*Wurmbea fluviatilis* and *Acacia petricola*), one Priority 3 (*Sporobolus blakei*) and two Priority 4 species (*Dodonaea amplisemina and Goodenia berringbinensis*).

Within the Survey Area, records of *Acacia curryana* (P1) were primarily found in association with large stony plains. A total of 769 surveys were recorded wby Stantec within the Survey Area at an estimated abundance of 5,284 individuals. Five vegetation types (*AcuAkSahCcPooAhhAc*, *AcuEeSahAc*, *AcuEffSaoEcrAc*, *AcuSahAc*, *AfAcuSgAc*) covered 9.58% of the area, all occurring on stony plains and are considered core habitat for the species. Records within the survey area of *Isotropis forrestii* (P1) were identified in two vegetation types (AfAciSahPooCczAcCc and AssHpReAsSahCc). *Isotropis forrestii* (P1) was recorded in eight locations with an estimated abundance of 161 individuals.

There were 16 introduced flora taxa (weed species) recorded during the Survey, none of which represent a Weed of National Significance or Declared pest for the Gascoyne bioregion; the suite of weeds recorded during the Survey are common across the Gascoyne bioregion. The diversity of weeds within the Survey Area is considered moderate compared to similar locations within the Gascoyne bioregion with comparable features and landforms. Weeds were found to be typically most prolific in habitats of deeper floodplain soils and riparian vegetation.

Twenty-five species recorded were classified as range extensions to their existing distributions. This classification is based on two key factors: Their proximity to established bioregional distributions and the identification of certain populations as outliers. These range extensions may be significantly influenced by the relative scarcity of comprehensive studies conducted in this region.

Thirty-two vegetation types were mapped within the Survey Area, none of which represent a Threatened ecological community or a Priority ecological community. The dominant vegetation type within the Survey Area comprised *Acacia xiphophylla* over *Acacia synchronicia*, *Senna* sp. Meekatharra (E. Bailey 1-26) and *Eremophila cuneifolia* open shrubland over *Sclerolaena densiflora* scattered herbs (AxAsSmEcuSd), accounting for 1,297.69 ha (11.57% of the Survey Area).

Eucalyptus camaldulensis subsp. *obtusa* was a dominant feature of the upper strata in one vegetation type (EcoAciCvCc), typically associated with the Gascoyne River and larger creek systems in the Survey Area. *Eucalyptus camaldulensis* subsp. *obtusa* is a key facultative phreatophyte that indicates potential groundwater-dependent vegetation. The extent of the vegetation types in which *Eucalyptus camaldulensis* subsp. *obtusa* was dominant within the upper strata was 363.3 hectares (3.2% of the Survey Area).

Vegetation condition ranged from 'Excellent' to 'Completely Degraded', with the majority of the Survey Area (approximately 58.0%) mapped as 'Excellent' condition. A total of 15.7% of vegetation was mapped as 'Very Good' condition, with weeds present and evidence of cattle grazing, typically most notable within riparian vegetation associated with minor to moderate creeklines. A further 10.5% of the vegetation showed signs of structural damage due to historical clearing activities, cattle grazing, as well the presence of weed species (*Cenchrus* spp.) and was rated as 'Good'. A total of 8.7% (972.3 ha) of vegetation was mapped as 'Poor' condition due to heavily degraded vegetation structure as a result of cattle grazing and high covers of **Cenchrus ciliaris*. Vegetation mapped as 'Degraded' was impacted by historical clearing, cattle grazing, presence of aggressive weeds, and exploration activities and accounted for 6.8% (765.5 ha) of the Survey Area. Cleared road and the exploration camp accounted for approximately 39.5 hectares (0.35%) of vegetation in the Survey Area and was mapped as 'Completely Degraded'.

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1. Introduction

1.1 Project Background

Delta Lithium Limited (Delta) is a lithium exploration company currently seeking to develop the Yinnetharra Lithium Project (the Project) in the Gascoyne bioregion of Western Australia. Stantec Australia Pty Ltd (Stantec) was commissioned to undertake a dual-phase Detailed and Targeted Flora and Vegetation Survey (the Survey) of three tenements held by Delta: E09/2169, E09/2170, and E09/2283 (the Survey Area). The Survey Area, totalling 11,215.3 ha is located 110 kilometres (km) northeast of Gascoyne Junction (**Figure 1-1**).

Stantec undertook a dual-phase Detailed and Targeted Flora and Vegetation Survey to determine the suite of flora species that occur within the Survey Area and to map the vegetation communities present. Surveys were completed in accordance with the Environmental Protection Authority's Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment.

1.2 Scope and Objectives

The overarching objective of the Survey was to define the flora and vegetation values of the Survey Area to inform an environmental impact assessment for future mining activities. The specific objectives included the following:

- complete a comprehensive desktop assessment of the Survey Area;
- conduct a dual-phase Detailed Flora and Vegetation Survey to assess the occurrence and likely distribution of flora and vegetation within the Survey Area;
- conduct targeted searches for significant flora and vegetation types to ascertain their occurrence and distribution;
- identify, describe and map vegetation types and vegetation condition within the Survey Area; and
- assess the findings of the Survey in a local and regional context, providing comparison with available data within the bioregion.

The objectives and methods adopted for these surveys are aligned with the following relevant regulatory guidelines.

- *Environment Protection and Biodiversity Conservation Act 1999*;
- *Biodiversity Conservation Act 2016;*
- *Environmental Protection Act 1986;*
- Instructions for the preparation of data packages for the Index of Biodiversity Surveys for Assessment (IBSA) (EPA 2021a);
- Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (EPA 2016a);
- Statement of environmental principles, factors, objectives and aims of EIA (EPA 2021b);
- Environmental Factor Guideline: Flora and Vegetation (EPA 2016b); and
- Matters of National Environmental Significance – significant impact guidelines – *Environment Protection and Biodiversity Conservation Act 1999* (DoE 2013).

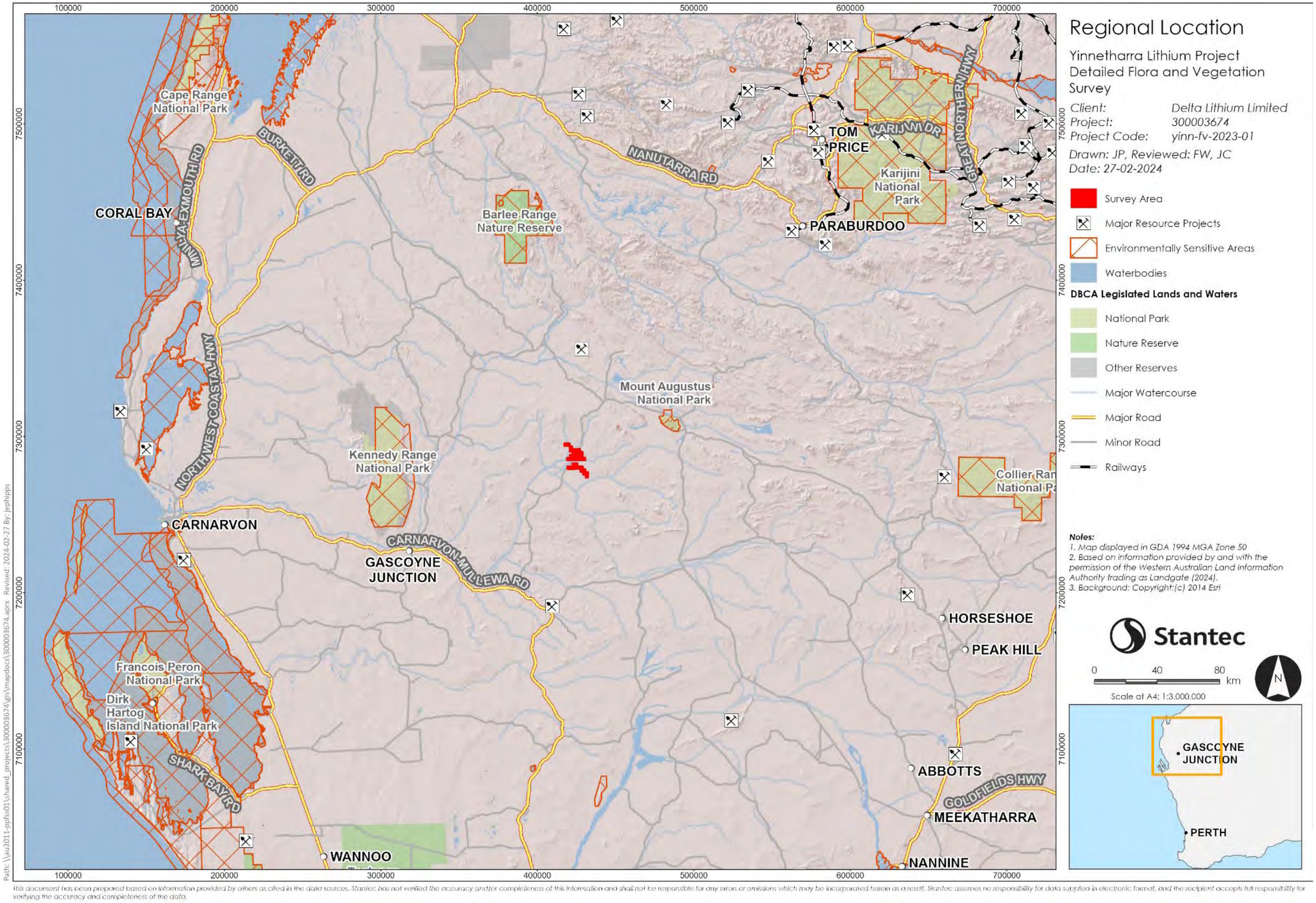


Figure 1-1: Regional location of the Survey Area

2. Existing Environment

2.1 Biophysical Environment

2.1.1 Biogeographical Location

The Interim Biogeographic Regionalisation for Australia (IBRA) is a bioregional framework that divides Australia into 89 biogeographic regions and 419 subregions on the basis of climate, geology, landforms, vegetation, and fauna (Thackway and Cresswell 1995). It was developed through collaboration between state and territory conservation agencies with coordination by the Department of the Environment, Water, Heritage, and the Arts (now the Department of Climate Change, Energy, the Environment and Water). The bioregions and subregions are the reporting unit for the systematic development of a comprehensive, adequate, and representative National Reserve System.

The Survey Area occurs within the Augustus (GAS3) subregion of the Gascoyne bioregion (**Figure 2-1**). The Gascoyne bioregion encompasses approximately 180,752 km² of land in northern Western Australia (DoAWE 2022b), with the GAS3 comprising approximately 53% of the Gascoyne bioregion (10,687,739 ha) (Desmond *et al*. 2001). The GAS3 sits on the northern margin of the Yilgarn Craton and consists of low rugged areas of Proterozoic sedimentary and granite ranges partitioned by broad flat valleys (Desmond *et al*. 2001). The Gascoyne River provides the main drainage of the subregion; however, the subregion is also the headwaters of both the Ashburton and Fortescue Rivers. The vegetation of the subregion includes Mulga (*Acacia aneura* complex and its close relatives) woodland over *Triodia* grasses on shallow stony loams found on rises, and Mulga woodland on the earthy loams of the hardpan plains (Desmond *et al*. 2001).

2.1.2 Land Systems

Land systems are defined as an area or group of areas throughout which there is a recurring pattern of topography, soils and vegetation (Tille 2006). An understanding of land systems provides an indication of the occurrence and distribution of vegetation types within and surrounding the Survey Area.

A rangeland survey was undertaken in the Gascoyne River catchment in 1969, by the then Department of Agriculture (now the Department of Primary Industries and Regional Development) and the then Department of Land Administration (now Landgate). The objective of the Survey was to develop a comprehensive description of biophysical resources and assess the vegetation composition and soil condition within the region from an agricultural perspective (Wilcox and McKinnon 1972). This information was used to classify and map the land systems of the Gascoyne River catchment according to landform, soil, vegetation, geology and geomorphology (Wilcox and McKinnon 1972).

The Survey Area intersects eight land systems (**Table 2-1**; **Figure 2-2)**, the most dominant being the Durlacher (44.25%) and Phillips System (34.81%). These land systems typically comprise stony plains and low hills supporting mulga (*Acacia aneura* complex) shrublands. All of the land systems, greater than 99% of the mapped occurrences are located outside the Survey Area.

Table 2-1: Description of land systems associated with the Survey Area (van Vreeswyk *et al.* 2004)

Land System	Description	Extent of Land System in the bioregion		Extent in the Survey Area	
		Ha	%	Ha	%
Durlacher System	Stony plains, lower tributary drainage plains and low stony rises, supporting scattered tall shrublands of Mulga, other *Acacia* and chenopod low shrubs.	644,119.43	3.56	4,963.1	44.25
Phillips System	Low hills and undulating uplands on gneiss and quartz supporting Mulga and other *Acacia* tall shrublands	812,073.73	4.49	3,904.3	34.81
Yinnetharra System	Scattered granite tors and domes above stony slopes, broad sandy plains with groved vegetation and wide drainage tracts; supporting tall shrublands of Mulga and other *Acacias*.	141,295.87	0.78	759.0	6.77
James System	Low hills, ridges and tors of granite and quartz, with stony lower plains, rises and drainage floors, supporting scattered tall shrublands of Mulga and other *Acacias*.	20,2841.64	1.12	745.6	6.65
Gascoyne System	River channels and associated narrow alluvial plains and inclusions, supporting river redgum fringing woodlands, also Mulga and other acacias, *Senna* spp. and Buffel grass.	215,174.88	1.19	613.2	5.47
Augustus System	Rugged ranges, hills, ridges and plateau with skeletal soils supporting Mulga and other *Acacia* shrublands in southern parts or hard *Triodia* grasslands in northern parts	1,918,236.55	10.61	175.1	1.56
Agamemnon System	Low hills and undulating uplands and gneiss and quartz supporting Mulga and other *Acacia* tall shrublands.	425,827.23	2.36	28.5	0.25
Nadarra System	Plains and calcrete rises with chenopod shrublands and hard *Triodia* grasslands.	115,605.35	0.64%	26.5	0.24
Total		**4,475,174.68**	**24.76%**	**11,215.3**	**100.00%**

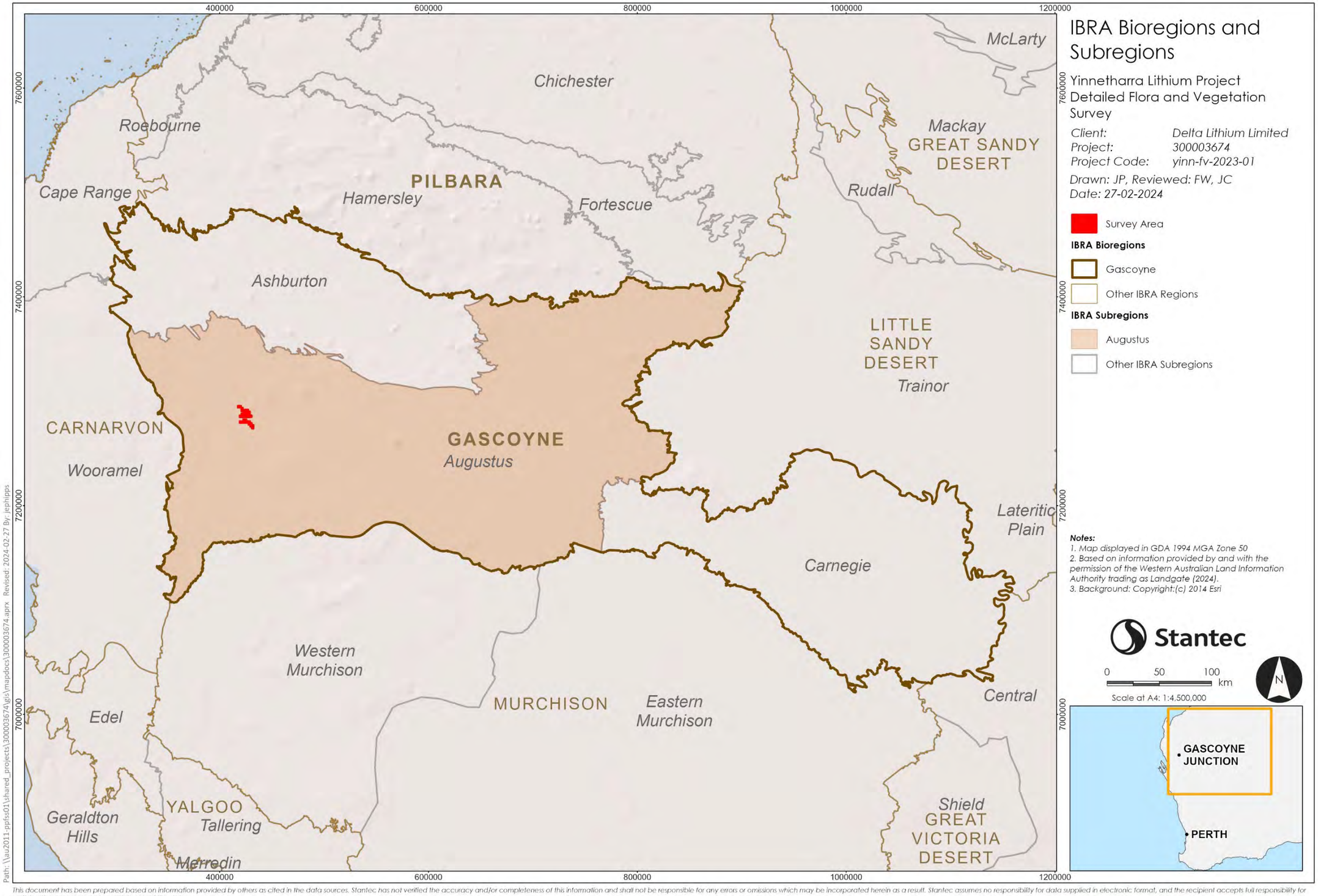


Figure 2-1: IBRA regions and subregions in relation to the Survey Area

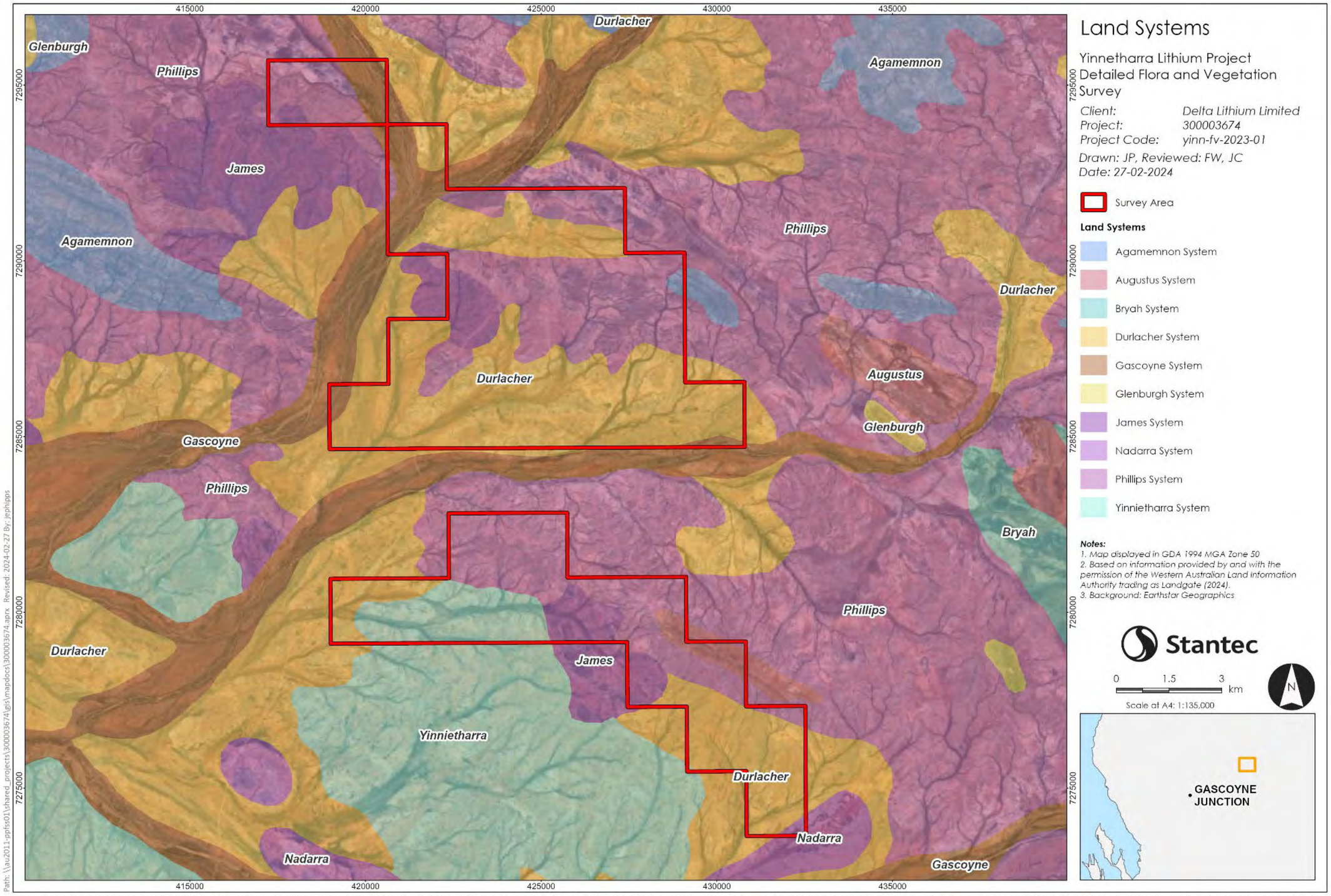


Figure 2-2: Land systems of the Survey Area.

2.1.3 Pre-European Vegetation

The Survey Area occurs in the Ashburton Botanical District of the Eremaean Botanical Province (Beard 1990). The Ashburton Botanical District is described as predominantly mulga (*Acacia aneura* complex) often with snake wood (*Acacia xiphophylla*) and other *Acacia* spp. as scrub on the hills and as low woodland on the plains. Some areas of dwarf scrub of *Eremophila* and *Senna* (Beard 1990).

Vegetation mapping of Western Australia (WA) was completed on a broad scale (1:1,000,000 and 1:250,000) by Beard (1975), defining broad vegetation associations. These vegetation associations were re-assessed by Shepherd *et al*. (2002), to account for clearing in the intensive land use zone of WA, and to divide some of the larger vegetation units. In addition, Shepherd *et al*. (2002) also developed a series of systems to assist in the removal of mosaics, although some mosaics still occur.

The Survey Area intersects five vegetation associations mapped by Beard, mainly comprising the Yinnetharra Hills 163.1 (62.47%) association (Beard 1975) (**Table 2-2, Figure 2-3)**. This association is described as shrublands comprising *Eremophila* and *Senna* species. The remaining associations comprise shrublands and woodlands of mulga and various other *Acacia* species. The significance of clearing a vegetation association can be determined by comparing current extents (ha) with pre-European extents. **Table 2-3** summarises the current and pre-European extent of these five vegetation associations across three scales: state, bioregion and subregion. The current extents shows that minimal land clearing has occurred across the four scales of assessment (state, bioregion, subregion and Local Government Area (LGA)), with close to 100% of pre-European vegetation remaining.

Table 2-2: Pre-European vegetation system associations and extent within the Survey Area.

System Association	System Code	Description	Extent in the Survey Area	
			Ha	%
Yinnetharra Hills 163	163.1	Shrublands; *Eremophila* and *Senna* dwarf scrub.	1298.4	11.58%
Yinnetharra Hills 160	160.1	Shrublands; snakewood and *Acacia victoriae* scrub.	7006.0	62.47%
Yinnetharra Hills 166	166	Low woodland; mulga and Acacia victoriae.	1302.0	11.61%
Yinnetharra Hills 181	181	Shrublands; mulga and snakewood scrub.	6.7	0.06%
Yinnetharra Hills 39	39	Shrublands; mulga scrub.	1602.2	14.29%
Total			**11,215.3**	**100**

Table 2-3: Extent of pre-European vegetation systems associations for the Survey Area remaining across three scales (state, bioregion and subregion).

System	Scale	Pre-European extent (ha)	Current extent (ha)	Proportion remaining (%)	Current extent within the IUCN Class I-IV Reserves (ha)	Proportion of extent protected within IUCN Class I-IV Reserves (%)1
Yinnetharra Hills 160	State-wide	789,353.06	789,338.63	100.00		
	Bioregion	789,078.22	789,063.79	100.00		
	Subregion	789,078.22	789,063.79	100.00		
Yinnetharra Hills 163	State-wide	251,835.95	251,833.75	100.00		
	Bioregion	251,774.61	251,772.41	100.00		
	Subregion	251,774.61	251,772.41	100.00		
Yinnetharra Hills 166	State-wide	87,059.47	87,054.76	99.99		
	Bioregion	86,833.89	86,829.17	99.99	-	-
	Subregion	86,833.89	86,829.17	99.99		
Yinnetharra Hills 181	State-wide	5,416.00	5,416.00	100.00		
	Bioregion	5,416.00	5,416.00	100.00		
	Subregion	5,416.00	5,416.00	100.00		
Yinnetharra Hills 39	State-wide	33,707.06	33,707.06	100.00		
	Bioregion	33,707.06	33,707.06	100.00		
	Subregion	33,707.06	33,707.06	100.00		

[1]Includes existing National Parks, Nature Reserves, Conservation Parks, 5(g) Reserves (Conservation Reserves managed by the Department of Biodiversity, Conservation and Attractions (DBCA)), DBCA conservation estate.

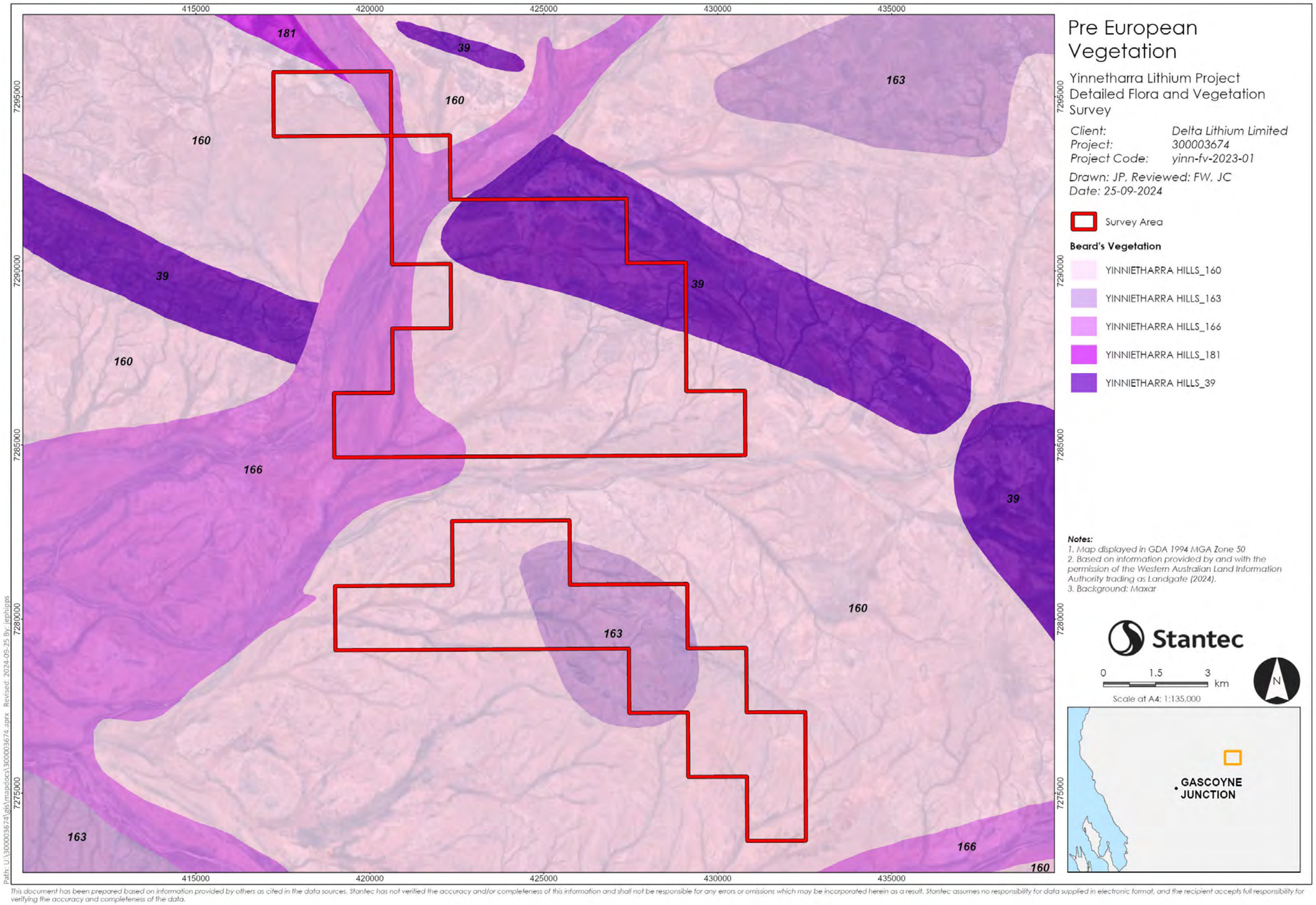


Figure 2-3: Pre-European Vegetation of the Survey Area

2.2 Physical Environment

2.2.1 Climate

The Augustus IBSA sub-region (GAS3) is characterised by a desert climate with bimodal rainfall (Desmond *et al.* 2001), meaning that the subregion may experience two wet and dry seasons per year. The nearest Bureau of Meteorology (BoM) weather station to the Survey Area with rainfall data is Cobra Airstrip Station (Station no. 7209), approximately 32 km to the northeast. The long-term mean annual rainfall for the station (2012 to 2024) is 223.4 mm (BoM 2024b) (**Figure 2-4**). Rainfall is received during two main periods: January to March and May to July.

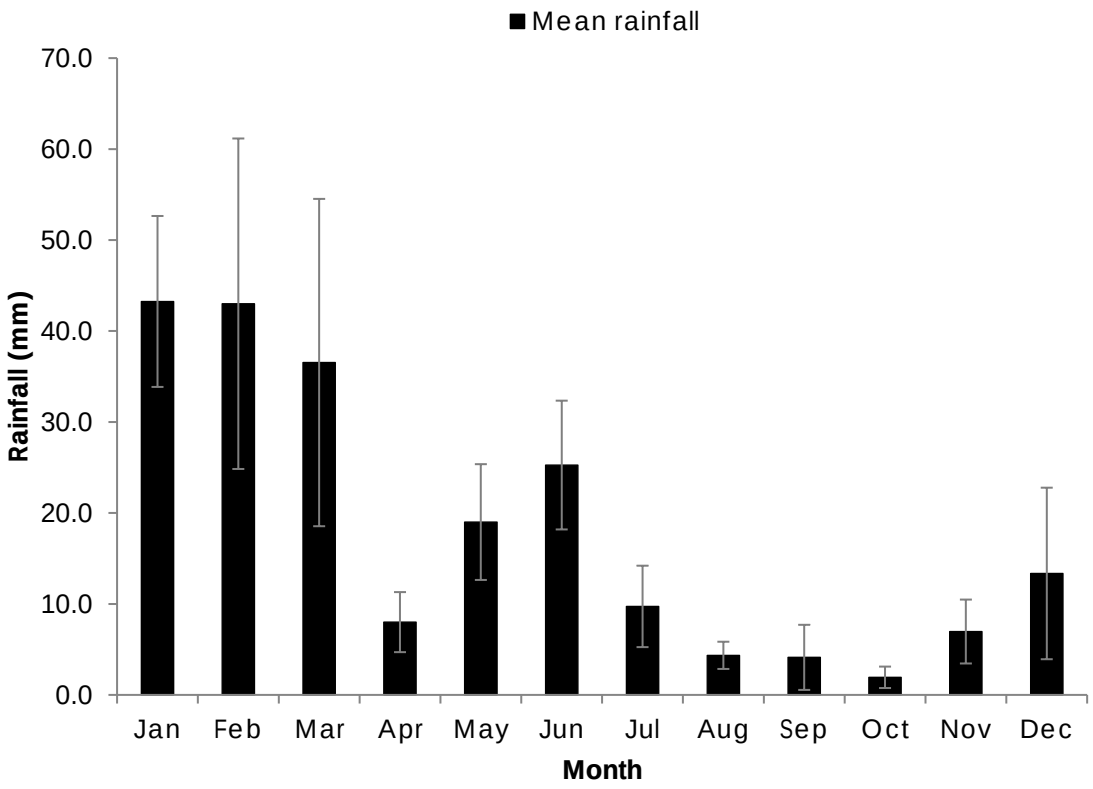


Figure 2-4: Long-term (2012 to 2024) rainfall data from Cobra Airstrip Station (Station no. 7209) (BoM 2024).

2.2.2 Surface Geology and Soils

The GAS3 is characterised by rugged, low Proterozoic sedimentary and granite ranges divided by broad flat valleys. It also includes the Narryera Complex and Bryah Basin of the Preoterozoic Capricron Orogen (on the northern margin of the Yilgarn Craton), as well as the Archaean Marymia and Sylvanian Inliers (Desmond *et al*. 2001).

The surface geology of the Survey Area is comprised of eight geological units that were mapped at a scale of 1:1,000,000 by Geoscience Australia (2012) (**Table 2-4, Figure 2-5**). The dominant geological unit in the Survey Area is Colluvium 38491, which accounts for 69.93% of the Survey Area.

The Survey Area occurs within the Yaragner Hills and Plains Soil-landscape Zone of Western Australia (Tille 2006). The soil of the region is described as stony with red shallow loamy duplexes, red deep sandy duplexes, red shallow loams, some red shallow sandy duplexes, and some red/brown non-cracking clays.

Table 2-4: Geological units occurring within the Survey Area.

Name (code)	Geological Description	Extent in the Survey Area	
		Ha	%
Colluvium 38491 (Qrc)	Colluvium and/or residual deposits, sheetwash, talus, scree; boulder, gravel, sand; may include minor alluvial or sand plain deposits, local calcrete and reworked laterite	3,921.6	34.97%
Alluvium 38485 (Qa)	Channel and flood plain alluvium; gravel, sand, silt, clay; may be locally calcreted.	2,074.3	18.50%
Perseverance Supersuite (Ngp)	Leucocratic medium-grained muscovite-tourmaline (-biotite) monzogranite; equigranular to porphyritic.	1,446.6	12.90%
Morrissey Metamorphics (Lym)	Comprise pelitiic schist with numerous thin layers and lenses of amphibolite and psammitic schists (after feldspathic sandstone) interlayered with calc-silicate rock.	1,435.6	12.80%
Durlacher Supersuite (Lgdr)	Monzogranite and granodiorite, minor tonalite, syenogranite, gabbro.	1,035.7	9.24%
Moorarie Supersuite (Lgmo)	Monzogranite, granodiorite and tonalite, diorite, gneissic to schistose granodiorite to monzogranite; local schist, amphibolite, calc-silicate and quartzite.	949.5	8.47%
Pooranoo Metamorphics (Lnpo)	Pelitic schist, gneiss and granofels, and metamorphosed feldspathic sandstone and conglomerate	296.00	2.64%
Muntarra Formation, Kiangi Creek Formation (Msd3)	Siltstone and mudstone; sandstone, dolostone, minor conglomerate	56.0	0.50%
Total		**11,215.3**	**100.00**

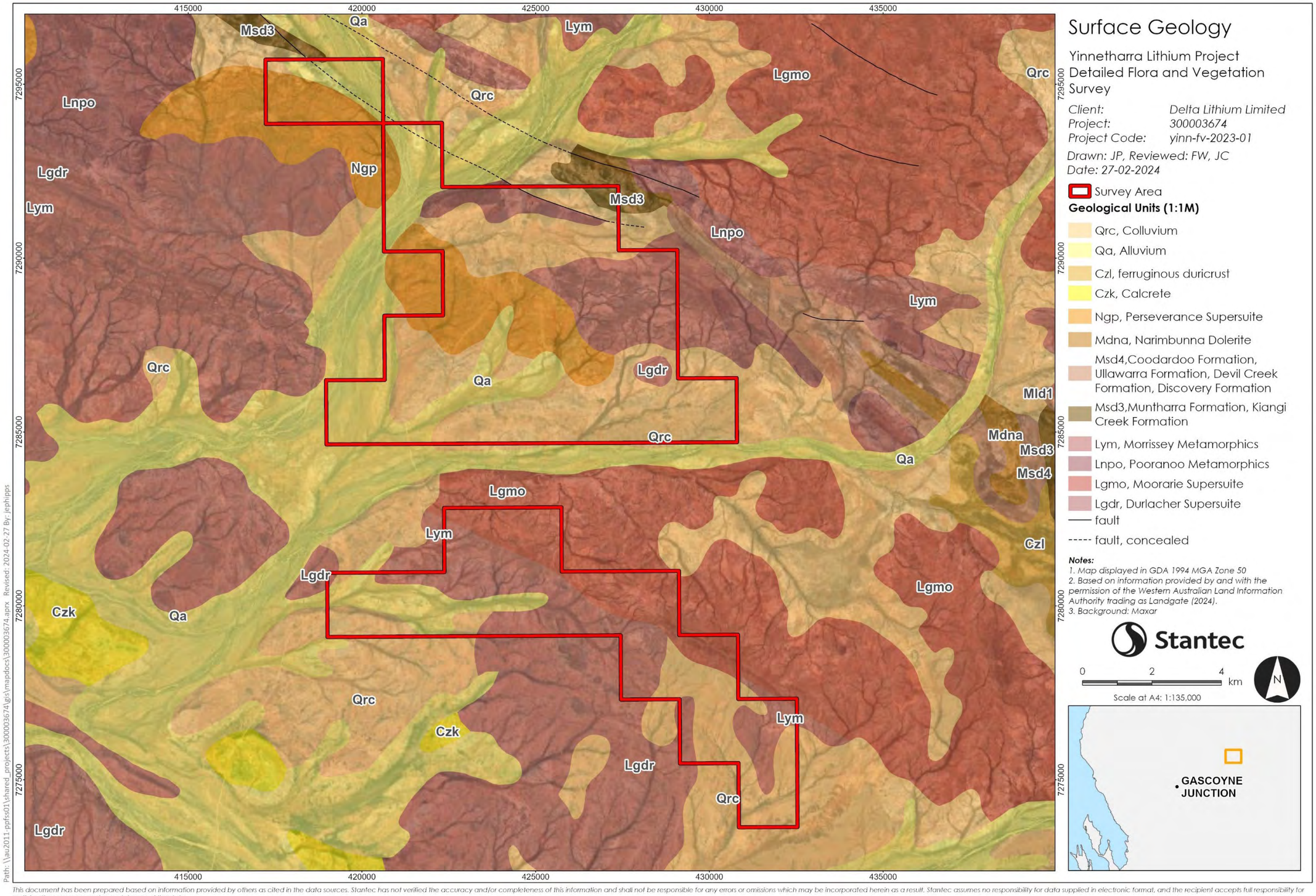


Figure 2-5: Surface geology of the Survey Area

2.2.3 Surface Hydrology and Drainage

The Survey Area is located within the northern portion of the Gascoyne River catchment, which is drained primarily by the Gascoyne River System. (**Figure 2-6)**. The Survey Area is located 12 km north of the Gascoyne River and is intersected by Thirty-Three River in the south and Morrissey Creek to the northwest. Both watercourses are considered ephemeral and only flow after substantial rainfall.

2.2.4 Groundwater Dependent Ecosystems

Groundwater-dependent ecosystems (GDEs) refer to ecosystems that require groundwater to maintain their current composition, structure and functioning. GDEs may be represented as aquatic ecosystems, subterranean ecosystems or terrestrial ecosystems. Terrestrial ecosystems are those GDEs that show episodic or seasonal reliance on groundwater, river base flow systems, wetlands and estuarine systems, and includes all groundwater-dependent vegetation (GDV) (BoM 2024a; Murray *et al.* 2003; Sommer and Froend 2011).

Terrestrial GDEs are primarily characterised by phreatophytes (species that rely on groundwater) being dominant in the landscape, while riparian species that may or may not utilise groundwater often co-occur. Phreatophytes may be classified as either obligate or facultative, depending on their reliance on groundwater (Eamus *et al.* 2016). A suite of hydrophytic and mesophytic understorey species are reliant on a regular supply of soil moisture and are therefore often restricted to riparian communities considered to potentially represent GDV. Spring and river pool ecosystems in the Pilbara are known to be dependent on groundwater (Johnson and Wright 2001). Further discussion regarding GDV assessment pertaining to the mapped vegetation types within the Survey Area is provided in **Section 5.2.3**

The Groundwater Dependent Ecosystem Atlas (GDE Atlas) was developed by BoM as a national dataset of Australian GDEs to inform groundwater planning and management under the Bioregional Assessment Program (BAP 2016). Two GDE evaluation types (regional study and national assessment) each list five categories for ecosystem analysis (BoM 2024a):

- known GDE;
- high potential GDE;
- moderate potential GDE;
- low potential GDE; and
- unclassified potential GDE.

GDEs have been mapped by the BAP across Australia using remote sensing. Approximately 2,552.37 ha (22.76 %) of the Survey Area has been classified as 'low to moderate ' potential GDE (BAP 2016; BoM 2024a) (T**able 2-5, Figure 2-6)**.

Table 2-5: Groundwater-dependent Ecosystem mapping within the Survey Area (BAP 2016; BoM 2024a)

GDE potential (from national assessment)	Description	Extent within Survey Area (ha)	Percentage of the Survey Area (%)
Low potential GDE - from national assessment	Parallel ranges and dissected plateaus with intervening hardpan wash plains and stony plains.	1,912.70	17.05
Moderate potential GDE - from national assessment	Parallel ranges and dissected plateaus with intervening hardpan wash plains and stony plains.	639.67	5.70
Total		2,552.37	22.76%

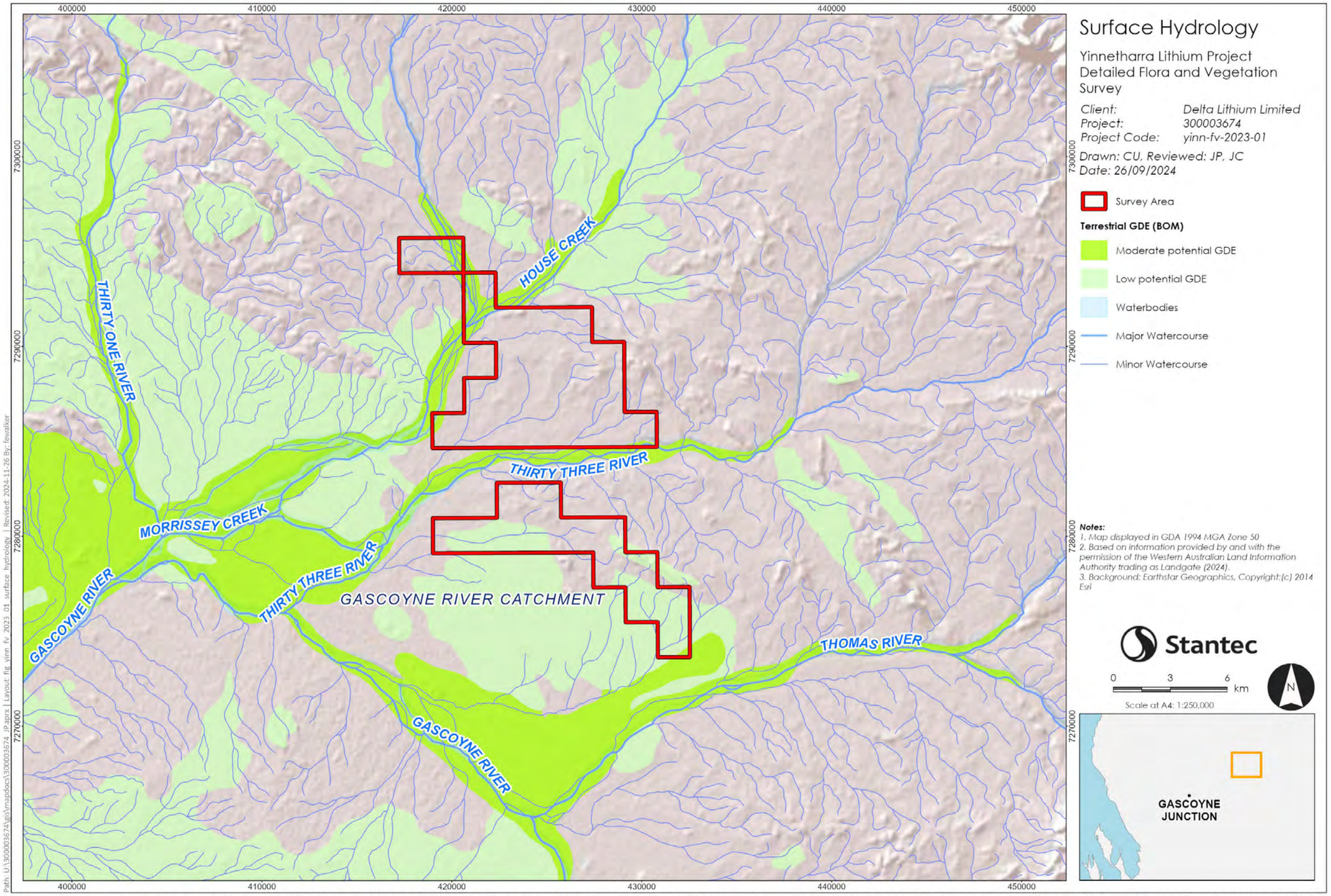


Figure 2-6: Surface hydrology of delineated watercourses and GDE classifications within the Survey Area and surrounds.

2.2.5 Land Tenure and Use

Land tenure in the GAS3 is dominated by pastoral leases (84.2%) (DPIRD 2018) with the Survey Area lying within the Yinnetharra and Mount Phillips Pastoral Stations (**Figure 2-7**). Lesser areas of unallocated crown land/reserves (9.76%), Aboriginal reserves (3.37%) and conservation (2.5%) comprise the minority of the GAS3 (Desmond *et al.* 2001). The Survey Area spans two separate native title determination areas: Wajarri Yamatiji (Part A), and Gnulli, Gnulli #2 and Gulli # 3 – Yinggarda Baiyungu and Thalanyji People (National Native Title Tribunal 2024).

2.2.6 Conservation Reserves and Environmentally Sensitive Areas

Conservation Reserves (including National Parks, Conservation Parks and Nature Reserves) are lands managed by the Department of Biodiversity Conservation and Attractions (DBCA) for the preservation of wildlife and ecological values. National Parks often also represent Environmentally Sensitive Areas (ESA) as declared under Section 51B of the *Environmental Protection Act 1986* (Government of Western Australia 2005). There are two conservation reserves within approximately 100 km of the Survey Area: Kennedy Range National Park (101 km to the west) and Mount Augustus National Park (53 km to the east) (**Figure 2-7**). Mount Augustus National Park is also considered an ESA and is the closest ESA to the Survey Area. Mount Augustus National Park encompasses 9,168 ha and features Mount Augustus, a large granite formation 8 km in length and rising 715 m above sea level. The park encompasses a range of habitats and supports a diversity of flora species including *Acacia*, *Senna*, *Eremophila*, and *Triodia.*

No wetlands of international importance (i.e., Ramsar wetlands) or nationally important wetlands occur within the Survey Area (DoAWE 2022a).

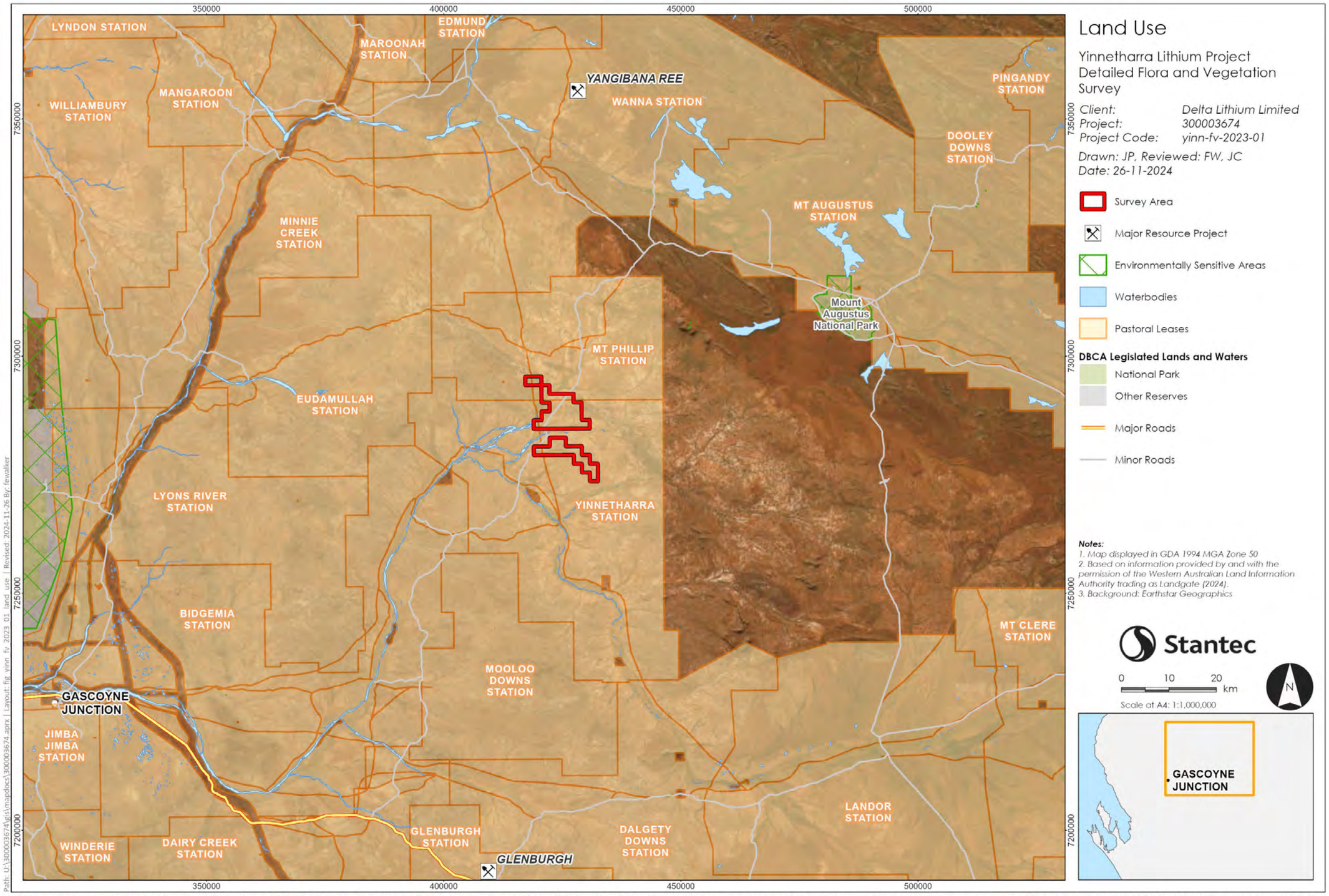


Figure 2-7: Land use of the Survey Area.

3. Desktop Assessment

3.1 Approach

A desktop assessment, comprising database searches and a literature review, was undertaken to gather contextual information on the Survey Area. The purpose of the desktop assessment was to identify flora and vegetation potentially occurring within, and in the vicinity of, the Survey Area, particularly species of significance.

Conservation significance and rankings used under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), *Biodiversity Conservation Act 2016* (BC Act), as well as the DBCA Priority List, are defined in **Appendix A**.

3.2 Literature Review

Background information relating to the Survey Area and surrounding landscape was compiled, focusing on the occurrence of significant flora and significant vegetation. Historic vegetation mapping (Beard 1975; Shepherd *et al.* 2002) soil and landform mapping and characteristics (Tille 2006), geological mapping (Geoscience Australia 2012) and IBRA classification system information (Kendrick 2001; van Vreeswyk *et al.* 2004) were reviewed to provide broad context.

A search of the Index of Biodiversity Surveys for Assessments (IBSA) revealed a lack of surveys previously undertaken within or in close proximity to the Survey. Consequently, additional searches were undertaken for mine tenements to identify potential historical survey data. This work included a search for mining tenements within a 50 km buffer of the Survey Area using Mineral Titles Online. Reports and data pertaining to several mining tenements were investigated to determine if any relevant biological surveys were publicly available for inclusion in this desktop assessment.

The literature review considered five available flora and vegetation reports within 100 km of the Survey Area that were considered relevant to the desktop assessment (**Table 3-1, Figure 3-1**). The quadrat data from the Ecoscape (2015) report was used in the contextual floristic analysis.

Table 3-1: Summary of reports considered in the literature review

Reference	Survey Details	Proximity to Survey Area	Survey Effort	Fauna Habitats/ Vegetation Types	Flora Recorded & Vegetation Condition	Significant Species Recorded/ Species and Communities of Conservation of Significance
Ecoscape (2015)	Project: Yangibana Project Biological Assessment: Flora and Vegetation Client: Hastings Rare Metals Ltd. Survey Type: Detailed Flora and Vegetation Survey Survey Dates: May and August 2015	55 km north	Detailed Survey, Targeted Searches, Vegetation Mapping and Vegetation Types, Condition mapping 103 quadrats	20 vegetation types One GDV (EcMgCc)	472 vascular flora taxa 58 taxa having significant range extensions one undescribed species, *Elacholoma* sp. 'Showy Flowers' 24 introduced species, two Declared Pests	Threatened species: None Significant species: *Acacia curryana* (P1), *Rhodanthe frenchii* (P2), *Solanum octonum* (P2), *Wurmbea fluviatilis* (P2), Gymnanthera cunninghamii (P3), *Sporobolus blakei* (P3), *Goodenia berringbinensis* (P4) and *Goodenia nuda* (P4).
Eco Logical (2018)	Project: Yangibana Rare Earths Project Flora and Fauna Survey Client: Hastings Technology Metals Ltd. Survey Type: Basic Flora and Fauna Survey Dates: 28 April – 3 May 2017	39 km north	Targeted searches for significant species and habitats Fauna habitat mapping	Fauna habitats: Rocky Plain Granite Outcrop Minor creekline Rocky Slopes and Foothills Claypan	Not reported.	Species list not provided
Ecoscape (2019)	Project: Yangibana Flora and Vegetation Addendum Report Client: Hastings Technology Metals Ltd. Survey Type: Detailed Flora and Vegetation Survey Dates: 12 – 17 March 2019	55 km north	Detailed Survey, Targeted Searches, Vegetation Mapping and Vegetation Types	Nine vegetation types: AaSaEs ApSgAc AtBp EcBp Fs Mp AaSaEs EvReMg AtGc Fs	Flora: 83 vascular flora Condition: General condition of the site is very good.	Threatened species: None Priority species: *Acacia curryana* (P1), *Elcholoma* sp. Showy flowers (C.P. Campbell 1762) (P1), *Rhodanthe frenchii* (P2), *Solanum octonum* (P2), *Wurmbea fluviatilis* (P2), *Acacia atopa* (P3), *Gymnanthera cunninghamii* (P3), *Sporobolus blakei* (P3), *Goodenia berringbinensis* (P4), *Goodenia nuda* (P4)

Reference	Survey Details	Proximity to Survey Area	Survey Effort	Fauna Habitats/ Vegetation Types	Flora Recorded & Vegetation Condition	Significant Species Recorded/ Species and Communities of Conservation of Significance
Eco Logical (2020)	Project: Yangibana Targeted Flora and Vegetation Survey Client: Hastings Technology Metals Ltd. Survey Type: Targeted Flora and Vegetation Survey Dates: 3 – 9 April 2020 15 – 21 June 2020	50 km north	Targeted Searches, Vegetation Mapping	Targeted vegetation types: AaSaEs AtGc Fs	Not reported.	Threatened species: None Priority species*: Acacia curryana* (P1), *Solanum octonum* (P2), *Gymnanthera cunninghamii,* (P3) *Sporobolus blakei* (P3), *Goodenia berringbinensis* (P4).
(Anders 2022a)	Project: Acacia curryana targeted flora survey Client: Hastings Technology Metals Ltd. Survey Type: Targeted Flora and Vegetation Survey Dates: February 2022	53km north	Targeted Searches,	Targeted vegetation types: AcAcCc, AcSaAc, AmEcPo, AsEcPo and AxEcPo.	*Acacia curryana* (P1)	Threatened species: None Priority species*: Acacia curryana* (P1) (8,761 individuals)
(Anders 2022b)	Project: Acacia curryana targeted flora survey Client: Hastings Technology Metals Ltd. Survey Type: Targeted Flora and Vegetation Survey Dates: 2022 (specifics not specified)	North, intersecting, and south of the Survey Area	Targeted Searches,	N/A	*Acacia curryana* (P1)	Threatened species: None Priority species*: Acacia curryana* (P1) (34,395 individuals)

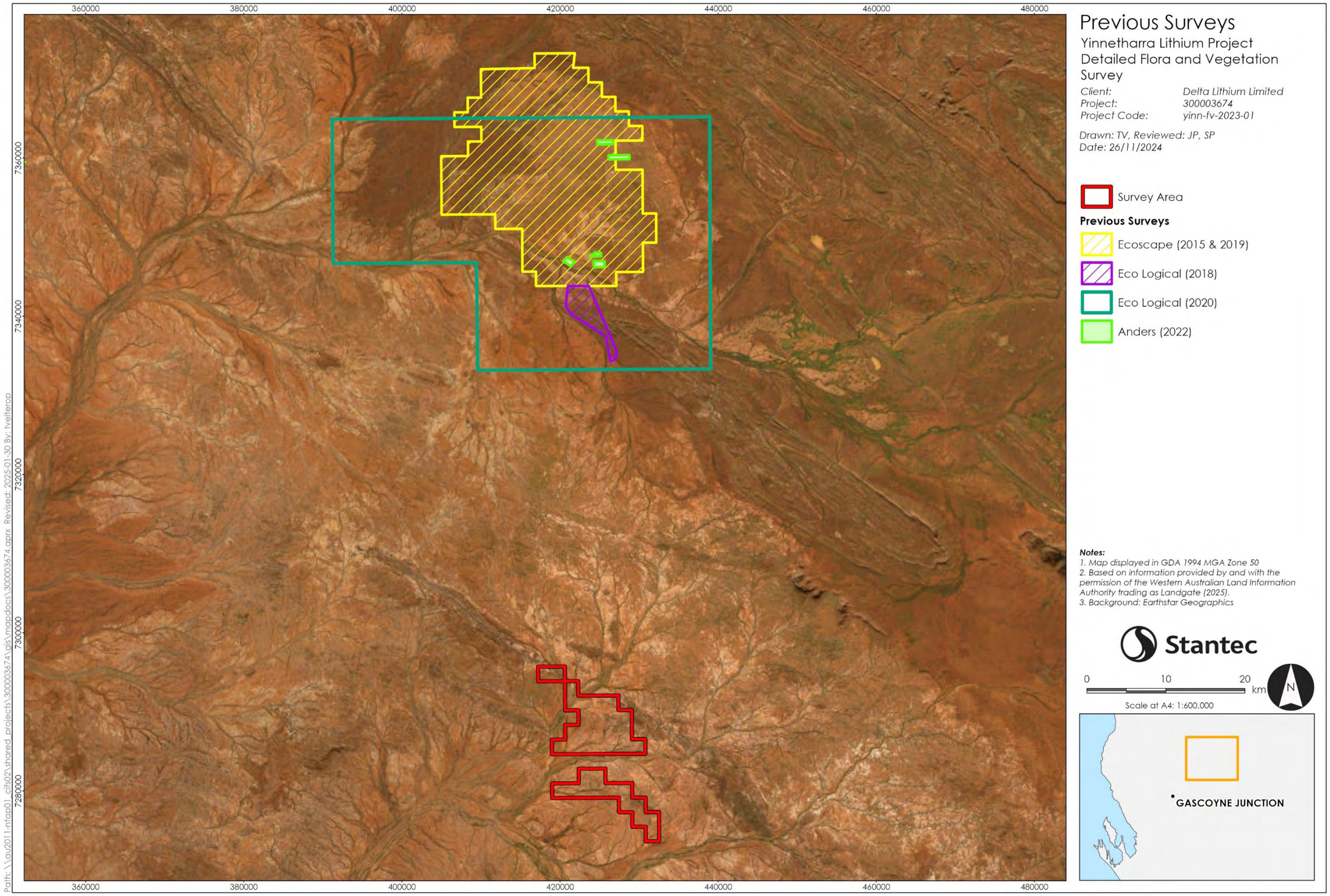


Figure 3-1: Previous surveys in relation to the Survey Area.

3.3 Database Searches

Six database searches were conducted to generate a list of significant flora and vegetation within the Survey Area and surrounding landscape. Database searches were conducted using a buffer around the Survey Area. Appropriate search buffers were established according to the technical capabilities of the databases and the ecological features of the area (**Table 3-2**).

The database search results are presented in **Appendix B** and the conservation framework for flora and ecological communities of significance is provided in **Appendix A**.

Table 3-2: Database searches conducted for the desktop assessment.

Custodian	Database Name	Buffer (km)	Date of Receipt
Department of Agriculture, Water and the Environment (DoAWE) (DoAWE 2023)	Protected Matters Search Tool (PMST)	50	18-04-23
Department of Biodiversity, Conservation and Attractions (DBCA 2023b)	Threatened and Priority Ecological Communities	100	20-06-23
DBCA (DBCA 2023d)	Threatened and Priority Flora Database	100	03-05-2023
(DBCA 2023a)	Western Australian Herbarium Specimen Database	100	03-05-2023
DBCA (DBCA 2023c)	Naturemap	50	19-04-23
Department of Water and Environmental Regulation (DWER 2023)	Environmentally Sensitive Areas	N/A	May 2023
Register of the National Estate spatial database (Australian Heritage Database) (DCCEEW 2023)			

3.4 Likelihood of Occurrence of Significant Flora

Prior to undertaking the field survey, all significant flora species identified from the literature review and database searches were assessed for their likelihood of occurrence within the Survey Area. This assessment was based on the interpretation of habitat types from aerial imagery, known preferred habitat of species, age of previous records and the nearest known location of each significant species. Each species was categorised according to the criteria presented in **Table 3-3.**

Table 3-3: Criteria used for assessing the occurrence of significant flora species in the Survey Area.

Likelihood Levels and Criteria
Likelihood: Confirmed
The species has been recorded unambiguously within the Survey Area during the last 10 years from: • Recent surveys of the Survey Area; • Reliable records obtained via database searches; and/or • From a current vouchered specimen at WA Herbarium.
Likelihood: Likely

Likelihood Levels and Criteria
There is a medium to high likelihood that the species occurs in the Survey Area, as: • The Survey Area occurs within the known distribution of the species; • The Survey Area contains suitable habitat; and/or • The species has been recorded recently nearby (within 10 years).
Likelihood: Possible
There is potential for the species to occur in the Survey Area, as: • The species has not been recorded recently nearby (within 10 years); however: - the species may not have been detectable during current or previous surveys (e.g. rare, patchily distributed, non-optimal survey timing/conditions); and/or - the species is known to be cryptic and may not have been detectable despite extensive surveys. • The species has been recorded recently nearby and species presence cannot be ruled out due to factors such as species ecology or distribution; however: - doubt remains over taxonomic identification; - the majority of habitat does not appear suitable; and/or - coordinate accuracy of previous records.
Likelihood: Unlikely
The species is unlikely to occur in the Survey Area as: • The species has not been recorded locally, as evidenced by DBCA database searches; • The Survey Area lacks potential habitat providing, at best, marginally suitable habitat, and/or being severely degraded; • The species has only been recorded from a few historic record/s and no other collections are documented from the area; and/or • The species has not been recorded in the Survey Area despite adequate survey efforts, such as a standardised methodology or targeted searching within potentially suitable habitat.

Following the field survey, the significant flora species identified from the database searches and literature review were re-assessed to determine the post-survey likelihood of occurrence within the Survey Area (**Appendix C**). Species were categorised based on the proximity of known populations to the Survey Area, the presence and level of inspection of habitats within the Survey Area, the life form, preferred habitat, and flowering period for each species.

3.5 Desktop Assessment Findings

3.5.1 Significant Flora

No significant species have previously been recorded within the Survey Area. Two Threatened species listed under both the EPBC Act and BC Act have been recorded from DBCA database records within 100 km of the Survey Area*; Pityrodia augustensis* (T/Vu) and *Thryptomene wittweri* (T/Vu).

The literature review and database searches identified 38 current Priority flora that have been recorded within 100 km of the Survey Area, comprising, 15 Priority 1 (P1), eight Priority 2 (P2), 13 Priority 3 (P3) and two Priority 4 (P4) taxa (**Appendix C**). The locations of significant flora from the desktop assessment within 100 km of the Survey Area are presented in **Figure 3-2.**

3.5.2 Likelihood of Occurrence Assessment

Of the two Threatened and 38 significant flora species identified during the desktop assessment as occurring within 100 km of the Survey Area, two P1 species are considered likely to occur within the Survey Area based on the proximity of known populations to the Survey Area, the life form, and preferred habitat:

- *Acacia* sp. *Yinnetharra* (L. Sweedman 8229) (P1); and
- *Calandrinia butcherensis* (P1).

The remaining significant flora species were considered possible and/or unlikely to occur within the Survey Area, as detailed in **Appendix C.**

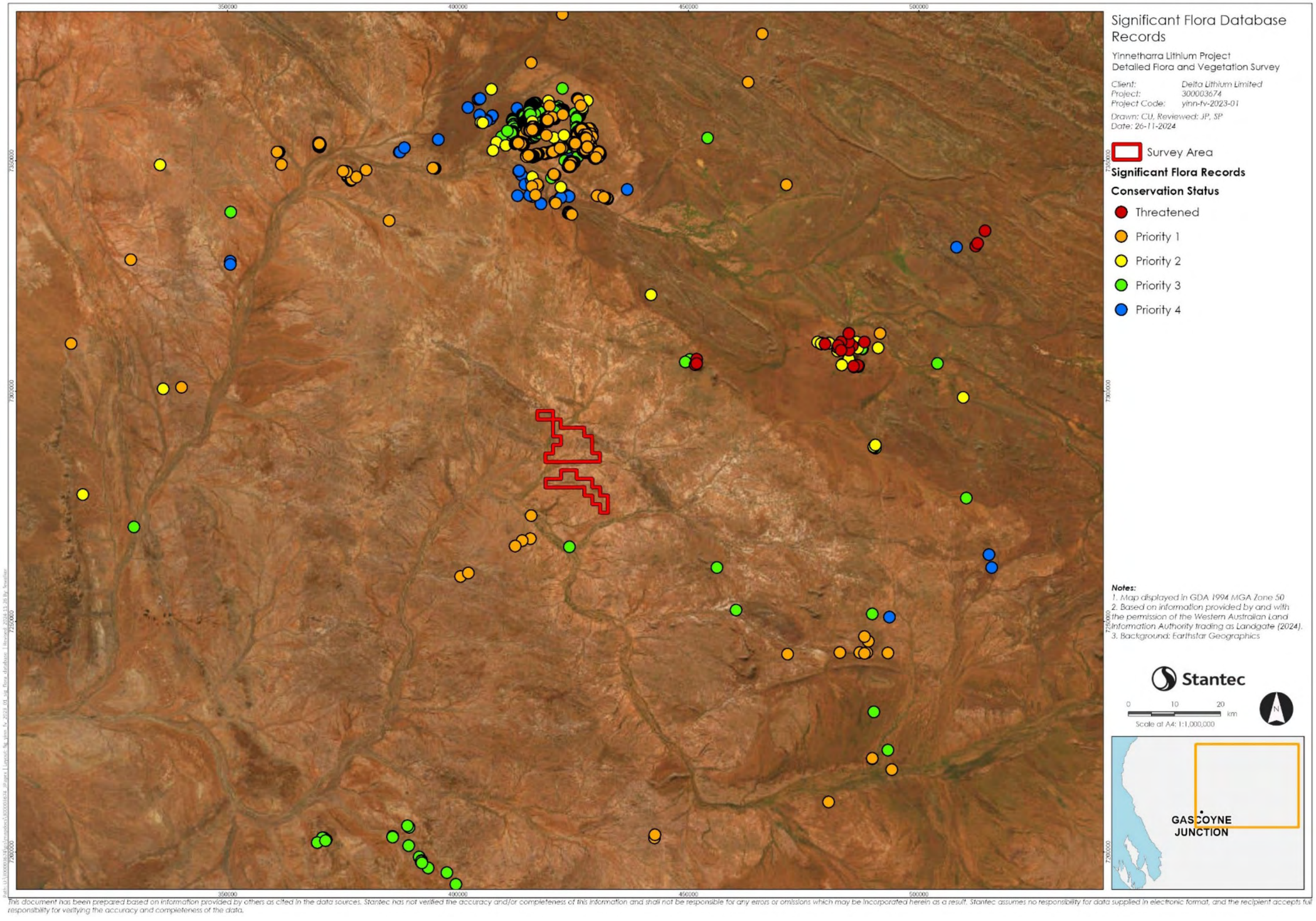


Figure 3-2: Locations significant flora recorded in the literature review and database searches within 100 km of the Survey Area.

3.5.3 Introduced Flora

The literature review and database searches identified 24 introduced flora (weeds) species that have been recorded within the vicinity of the Survey Area (**Table 3-4**). None of these species are Declared pests under Section 22 of the *Biosecurity and Agriculture Management Act 2007* (BAM Act) and the Weed of National Significance (WoNS) list identified by the Commonwealth Government. The classification of each weed species based on their DBCA region ranking is presented in **Table 3-4** (DPaW 2013; 2014).

Table 3-4: Introduced flora species previously recorded within, or nearby to, the Survey Area.

Species	Common Name	DBCA prioritization rankings (DPaW 2013; 2014)	
		Ecological Impact	Invasiveness
**Rumex vesicarius*	Ruby Dock	Low	Moderate
**Argemone ochroleuca*	Mexican Poppy	Unknown	Rapid
**Asphodelus fistulosus*	Onion Weed	Medium	Rapid
**Bidens bipinnata*	Bipinnate Beggartick	Unknown	Rapid
**Cenchrus ciliaris*	Buffel Grass	High	Rapid
**Cenchrus setiger*	Birdwood Grass	High	Rapid
**Chenopodium murale*	Nettle-leaf Goosefoot	Unknown	Rapid
**Citrullus amarus*	Pie Melon	Low	Rapid
**Cucumis myriocarpus*	Prickly Paddy Melon	Unknown	Rapid
**Cuscuta planiflora*		Unknown	Rapid
**Cynodon dactylon*	Couch	High	Rapid
**Datura leichhardtii*	Native Thornapple	High	Rapid
**Echinochloa colona*	Awnless Barnyard Grass	High	Rapid
**Eragrostis tenella*		-	-
**Flaveria trinervia*	Speedy Weed	-	-
**Lolium multiflorum*	Italian Ryegrass	Unknown	Rapid
**Lysimachia arvensis*	Pimpernel	Low	Rapid
**Malvastrum americanum*	Spiked Malvastrum	High	Rapid
**Setaria verticillata*	Whorled Pigeon Grass	Low	Moderate
**Sisymbrium erysimoides*	Smooth Mustard	Unknown	Unknown
**Sisymbrium orientale*	Indian Hedge Mustard	Unknown	Unknown
**Sonchus oleraceus*	Common Sowthistle	Unknown	Rapid
**Tribulus terrestris*	Caltrop	Low	Rapid
**Vachellia farnesiana*	Needle Bush	High	Moderate

3.5.4 Significant Vegetation

The Environmental Factor Guideline for Flora and Vegetation (EPA 2016b) states that vegetation may be considered significant for a range of reasons, including:

- Where vegetation is identified as Threatened Ecological Communities (TECs) or Priority Ecological Communities (PECs) **(Appendix A)**;
- Where vegetation represents a restricted distribution;
- The degree of historical impact from threatening processes to vegetation;
- Where vegetation provides important refuge, including vegetation supporting Priority flora;
- Where vegetation supports Priority flora; and
- Where vegetation provides an important function required to maintain ecological integrity of a significant ecosystem.

The TEC and PEC database search indicates no significant communities have been recorded within the Survey Area (DBCA 2023d). Three State-listed terrestrial PECs are located within 50 km of the Survey Area, as detailed in **Table 3-5** and presented in **Figure 3-3.** The nearest mapped terrestrial vegetation PEC is located approximately 33.1 km from the Survey Area and represents the Frederick LS (P3).

Table 3-5: Threatened Ecological Communities and Priority Ecological Communities within 50 km of the Survey Area (DBCA 2023b).

Community	Description	Category (BC Act)	Closest mapped representation
Frederick LS	Frederick Land System	P3	33.1 km northeast of the Survey Area
Jingle LS	Jingle Land System	P3	46.1 km northeast of the Survey Area
Peedawarra LS	Peedawarra Land System	P3	47.3 km northeast of the Survey Area

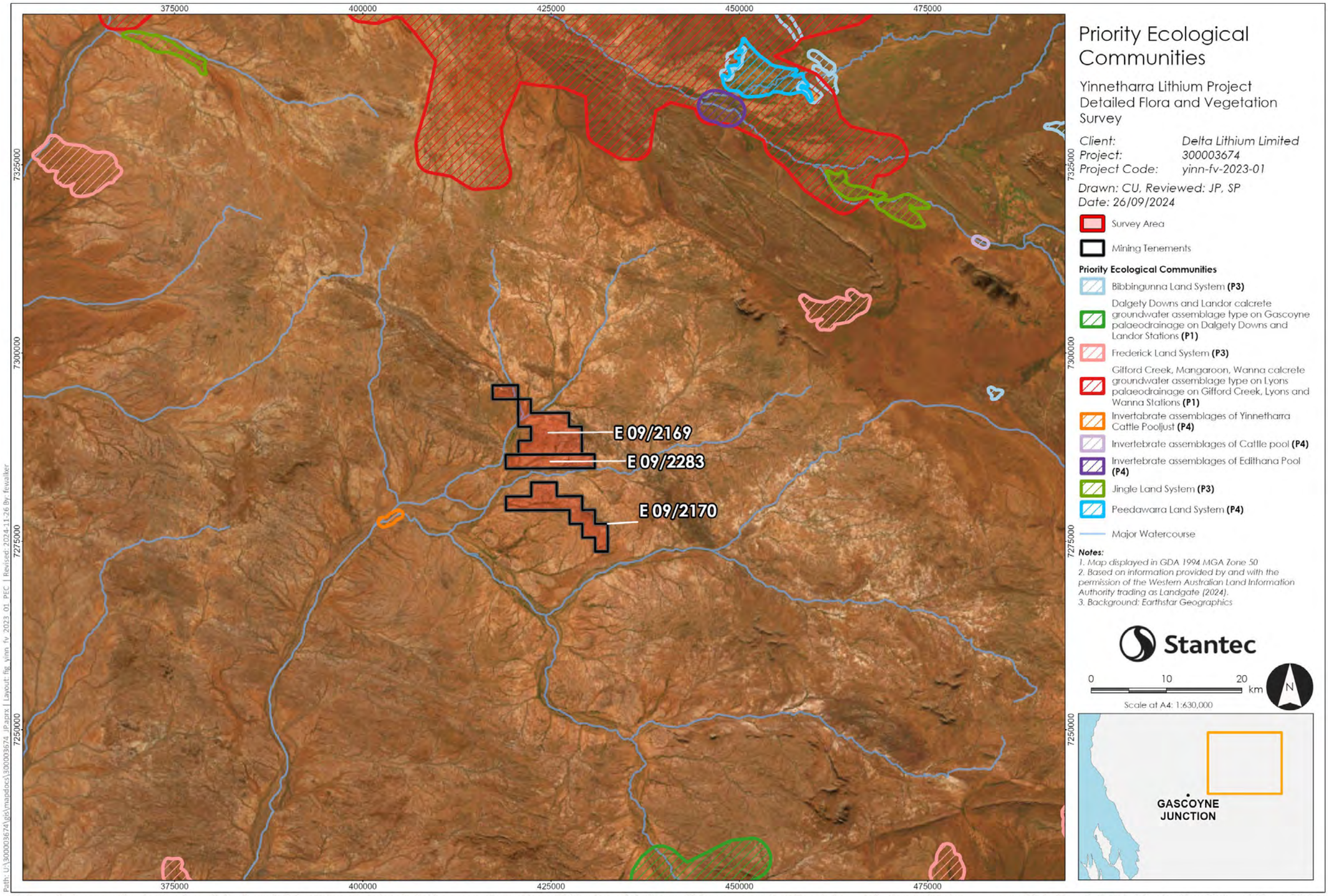


Figure 3-3: Location of Priority Ecological Communities within 50 km of the Survey Area (DBCA 2023b)

4. Methods

The survey work was undertaken over four separate field surveys. The dates below are inclusive of mobilisation and demobilisation:

- Preliminary Survey: 6 to 11 June 2023
- Detailed Survey Phase 1: 15 to 28 August 2023
- Detailed Survey Phase 2: 16 to 28 March 2024
- Targeted Survey: 2 to 11 July 2024

These below are inclusive of mobilisation and demobilisation:

The broad tasks of each field survey were as follows:

- **Preliminary Survey:** Given the Detailed Survey was anticipated to be logistically complex as well as covering a broad range of habitats, a Preliminary Survey was undertaken for planning and reconnaissance purposes. This involved gathering information relating to access within the Survey Area as well as an understanding of diversity of vegetation types, to inform planning for the Detailed Surveys. This survey was undertaken two personnel for a duration of ten person days.
- **Detailed Surveys (Phase 1 and 2):** Installation and assessment of 142 quadrats, vegetation type mapping, vegetation condition mapping and targeted surveying. The Phase 1 Survey consisted of 44 person days. The Phase 2 Survey, originally planned for 12 days, was reduced by two days due to the Shire of Upper Gascoyne closing access roads due to heavy rainfall in the region. Two days were added to the targeted survey to make up for this loss. The Phase 2 Survey consisted of 40 person days. The detailed surveys were undertaken by four botanists for a total of 84 person days.
- **Targeted Survey:** Significant flora recorded within the Survey Area and significant flora considered likely to occur were reviewed prior to undertaking the Targeted Survey. This facilitated the selection of habitats considered most likely to support significant flora and for undertaking targeted searches. Two additional days for Detailed Survey were added into the survey schedule to compensate for the shortened the Phase 2 Survey. In total, this survey was undertaken by two botanists for a total of 18 person days.

4.1 Survey Timing and Weather

The EPA (2016a) recommends that flora and vegetation surveys be undertaken following the season of highest rainfall, to optimise the likelihood of encountering flowering and fruiting taxa, and capturing ephemeral species (a primary survey). The recommended primary survey timing for the Eremaean Botanical Province, within which the Survey Area lies, is six to eight weeks post-wet season (indicative: March to June). The EPA also recommends undertaking a supplementary survey during the dry season (after rain if available). Phase 1 was conducted during the dry season, and Phase 2 was conducted in the post-wet season.

To understand the influence of weather conditions and rainfall leading up to the Surveys, weather data was collated from active weather stations in the vicinity of the Survey Area (Figure 4-1). In the six months prior to the Preliminary Survey, Cobra Airstrip weather station recorded 123.4 mm of rainfall, which is 51.7 mm below the long-term average of 175.1 mm. In March 2023 (three months prior), rainfall was 18.9 mm above the long-term average of 36.5 mm. In the two months before the Survey, April's rainfall was 3.4 mm below the long-term average of 8 mm, and May had no recorded rainfall, compared to the long-term average of 19 mm for the same month.

In the six months preceding the Phase 1 Survey 69.0 mm of rain fell at Cobra Airstrip weather station, 33.9 mm less than the long-term average of 102.9 mm. In the six months preceding the Phase 2 Survey, the actual rainfall at Cobra Airstrip weather station was 13.8 mm, 131.2 mm lower than the long-term average of 145 mm for the same period.

In the three months prior to the Targeted Survey, the total amount of actual rainfall (46.8 mm) at Cobra Airstrip weather station was slightly less than the long-term average of 54 mm. However, two months before the Targeted Survey, in June 2024, 39.4 mm of rain fell which was 25.3 mm more than the long-term average for that month. Additionally, rainfall events that occurred during the Phase 2 Survey (March 24) were not reflected in the data recorded at Cobra Airstrip weather station. The considerable rainfall events during Phase 2 and in June of 2024 prior to the Targeted Survey were observed to be conducive to adequate seasonal conditions for the purpose of identifying a representative suite of species within the Survey Area.

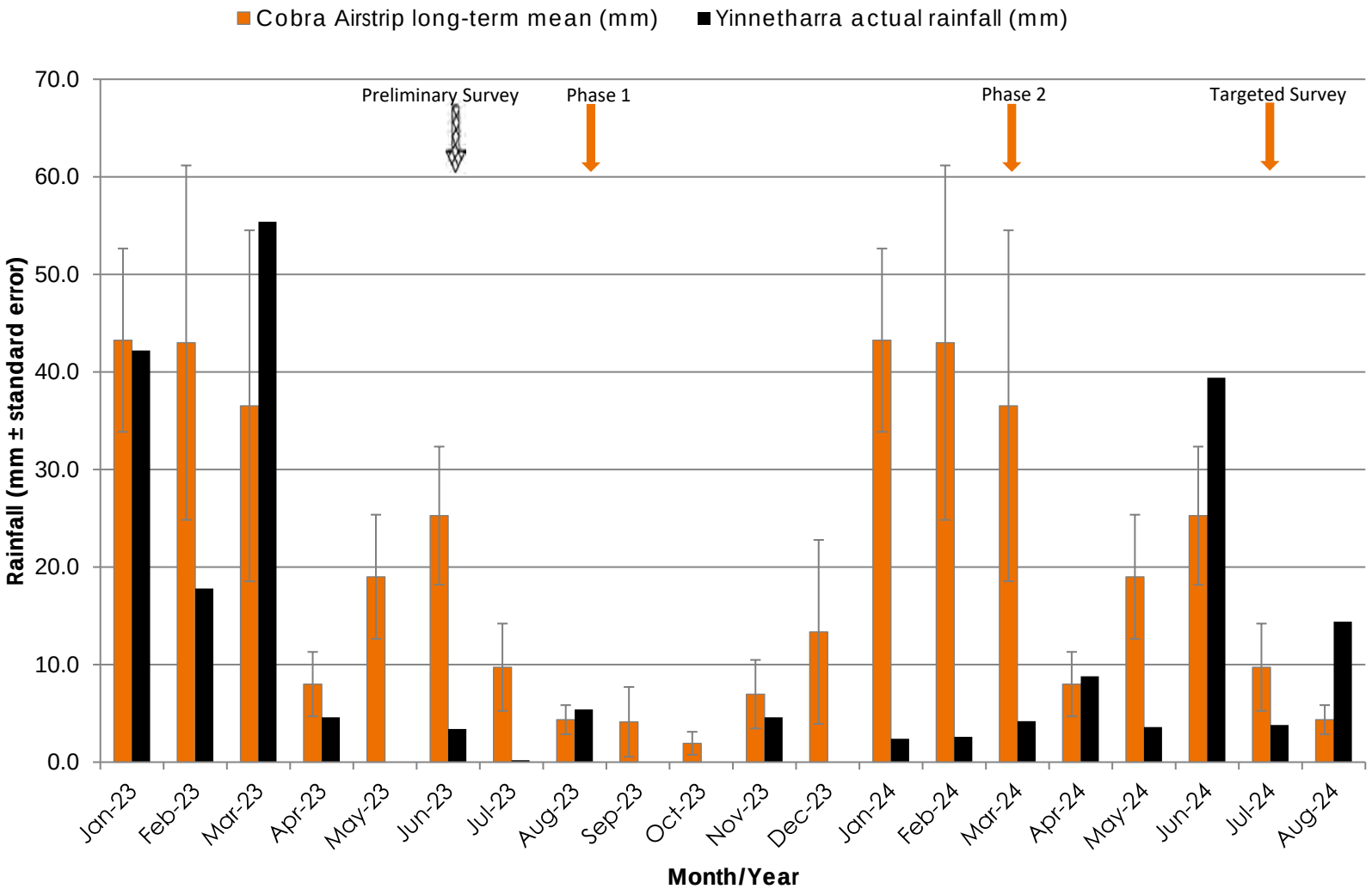


Figure 4-1: Total monthly and long-term average rainfall data from Cobra Airstrip Station (Station no. 7209)(BoM 2024b). Black hatched arrow indicates the timing of the Preliminary Survey and orange arrows indicate Phase 1, Phase 2 and the Targeted Survey.

4.2 Survey Team and Licencing

The Stantec personnel who were responsible for the design and execution of the Survey have extensive experience in survey planning, logistics, significant species and sampling methods employed in the arid zone of WA. Scott Pansini (Senior Botanist) led the planning and implementation of the Survey and reporting. All staff who undertook the field surveys are experienced in conducting flora and vegetation assessments. In accordance with EPA Technical Guidance (EPA 2016a), all phases of the Detailed Survey were led by a botanist with more than five years(**Table 4-1**).

A Preliminary Survey was undertaken by Senior Botanist, Scott Pansini and Zoologist, Caitlin Robers between the 6th and 11th of June 2023 to conduct reconnaissance of the Survey Area and identify limiting factors that may constrain the forthcoming Detailed Survey. Phase 1 of the Detailed Flora and Vegetation Survey was conducted between the 15th and 28th of August 2023, while Phase 2 was conducted between the 16th and 28th of March 2024. Scott Pansini led both Phase 1 and Phase 2 field surveys. The Targeted Survey was undertaken by Scott Pansini and Jac Clark between the 2nd and 11th of July 2024.

The field team was unable to mobilise to site as planned for the Phase 2 Survey due to road closures following rainfall events. As a result, the Targeted Survey was extended by two days to compensate this lost time.

Table 4-1: Summary of Stantec personnel responsible for the field surveys.

Personnel	Survey role	Qualifications	Years of botanical survey experience	Flora licence(s)
Preliminary Survey 1 (06/07/2023 - 11/07/2023)				
Scott Pansini	Survey Lead	BSc (Conservation and Wildlife Biology and Biological Sciences)	5	FB6200012A2-2, 2223-000
Phase 1 (15/8/2023 - 28/08/2023)				
Scott Pansini	Survey Lead	BSc (Conservation and Wildlife Biology and Biological Sciences)	5	FB6200012A2-2, 2223-000
Jonas Mitchell	Field Team Lead	BSc (Environmental Science and Conservation Biology) MSc (Environmental Management)	3	FB62000315, 146-2021
Jacquie Mason	Botanist	BSc (Conservation and Wildlife Biology).	1	FB62000534, 2223-0142
Jac Clark	Botanist	BSc (Environmental Management, Marine and Freshwater Science)	1	FB62000506, 2223-0108
Phase 2 (15/03/2024 – 28/03/2024)				
Scott Panisi	Survey Lead	BSc (Conservation and Wildlife Biology and Biological Sciences)	6	FB6200012A2-2, 2223-000
Jac Clark	Field Team Lead	BSc (Environmental Management, Marine and Freshwater Science)	2	FB62000506, 2223-0108
Owen Raynor	Botanist	BSc (Conservation and Wildlife Biology)	1	FB62000577, TFl: 2223-0172
Stuart Eaton	Botanist	BSc (Botany)		FB62000653 TFL 23240108
Targeted Survey (02/07/2024 – 12/07/2024)				
Scott Panisi	Survey Lead	BSc (Conservation and Wildlife Biology and Biological Sciences)	6	FB6200012A2-2, 2223-000
Jac Clark	Field Team Lead	BSc (Environmental Management, Marine and Freshwater Science)	2	FB62000506, 2223-0108

4.3 Survey Design

Prior to the Phase 1 Detailed Survey, broad vegetation types were mapped on aerial imagery, based on observations made during the Preliminary Survey, vegetation and landform signatures, as well as other relevant contextual information (Beard 1975; Kendrick 2001; Shepherd *et al.* 2002; van Vreeswyk *et al.* 2004). Based on this mapping, proposed sampling site locations were identified according to the estimated number of vegetation types within the Survey Area. Following the completion of the Phase 1 Survey and statistical analysis of the data collected, additional quadrats were selected for installation during the Phase 2 Survey to support vegetation mapping and ensure adequate replicates of quadrats to meet EPA (2016a) guidelines.

4.3.1 Sampling Techniques

4.3.1.1 Quadrats and Relevés

Sampling sites were established as either:

- **Quadrats (Phase 1 and Phase 2 surveys)**: Bounded sampling sites established by measuring a square of 20 m x 20 m (400 m^2) in accordance with the recommended size for quadrats in the Gascoyne bioregion (EPA 2016b). Quadrats were permanently marked using galvanised steel fence droppers in the north-western corner.
- **Relevés**: Unbounded sampling sites of similar total area to quadrats (400 m^2), not permanently marked. Relevés were typically sampled when supplementary data was required to inform vegetation type mapping. Relevés were sampled as to supplement the information collected from quadrats.

Table 4-2 presents the data recorded in each quadrat and relevé throughout the Phase 1 and Phase 2 Surveys.

Table 4-2: Summary of data recorded from each quadrat and relevé during the Phase 1 and Phase 2 surveys.

Parameter	Description
Site ID	The unique name that was assigned to the site that was sampled.
Coordinates	Measured using a handheld GPS-enabled device from the northwest corner of the site, in GDA94 format.
Quadrat dimensions	Specific dimensions of the quadrat in metres.
Recorder and Date	The recorder(s) involved in sampling the site and date.
Site photograph	At least one landscape photograph taken from the northwest corner looking towards the southeast corner.
Habitat type	A description of the landform type, slope and aspect.
Geology type	A description of the outcropping geology (if present) and coarse fragments.
Soil description	A description of the soil colour and types based on the guide in the Australian Soil and Land Survey Field Handbook (McDonald *et al.* 1998).
Surface water presence	Yes or no, with any applicable notations.
Disturbances	A list of any disturbances in the quadrat and surrounding, if present.
Time since fire	An estimation of the time since the vegetation was last burnt in categories of 0-2, 2-5, 5-10, 10+ years, and no evidence.
Vascular flora species[#]	A record of each flora species present.
Height	The average height of each species in metres.
Percent foliar cover (PFC)	An estimate of the PFC for each species recorded.
Specimen ID	Unique identifier code assigned to any species that cannot be identified in the field.
Vegetation structure	A description of the vegetation in accordance with Aplin (1979) adaptation of the vegetation classification system of Specht (1970) and the National Vegetation Information System (NVIS), Level 5 – Association (ESCAVI 2003). (**Appendix D**)
Vegetation condition	Assessed according to the (Trudgen 1988) 6-point condition scale, as presented in EPA (2016a).

A total of 142 quadrats and 11 relevés were established and sampled to compile a representative species list and to characterise the vegetation types within the Survey Area. Of the 112 quadrats installed in Phase 1, all were resampled during Phase 2, while an additional 30 quadrats were installed in Phase 2 (**Table 4-3**). Given relevés are not permanently marked, no re-sampling of theses sample sites occurred. The locations of all quadrats, relevés and survey tracklogs are presented in **Figure 4-2, Appendix E,** and the details of the quadrat sampling over the course of the survey are provided in **Appendix F.**

Table 4-3: Summary of quadrats and relevés sampled during the Phase 1 and Phase 2 surveys.

Phase	Number of new quadrats installed	Number of resampled quadrats previously sampled during Phase 1	Total number of quadrats sampled per phase	Number of relevés sampled
1	112	N/A	112	8
2	30	112	142	3

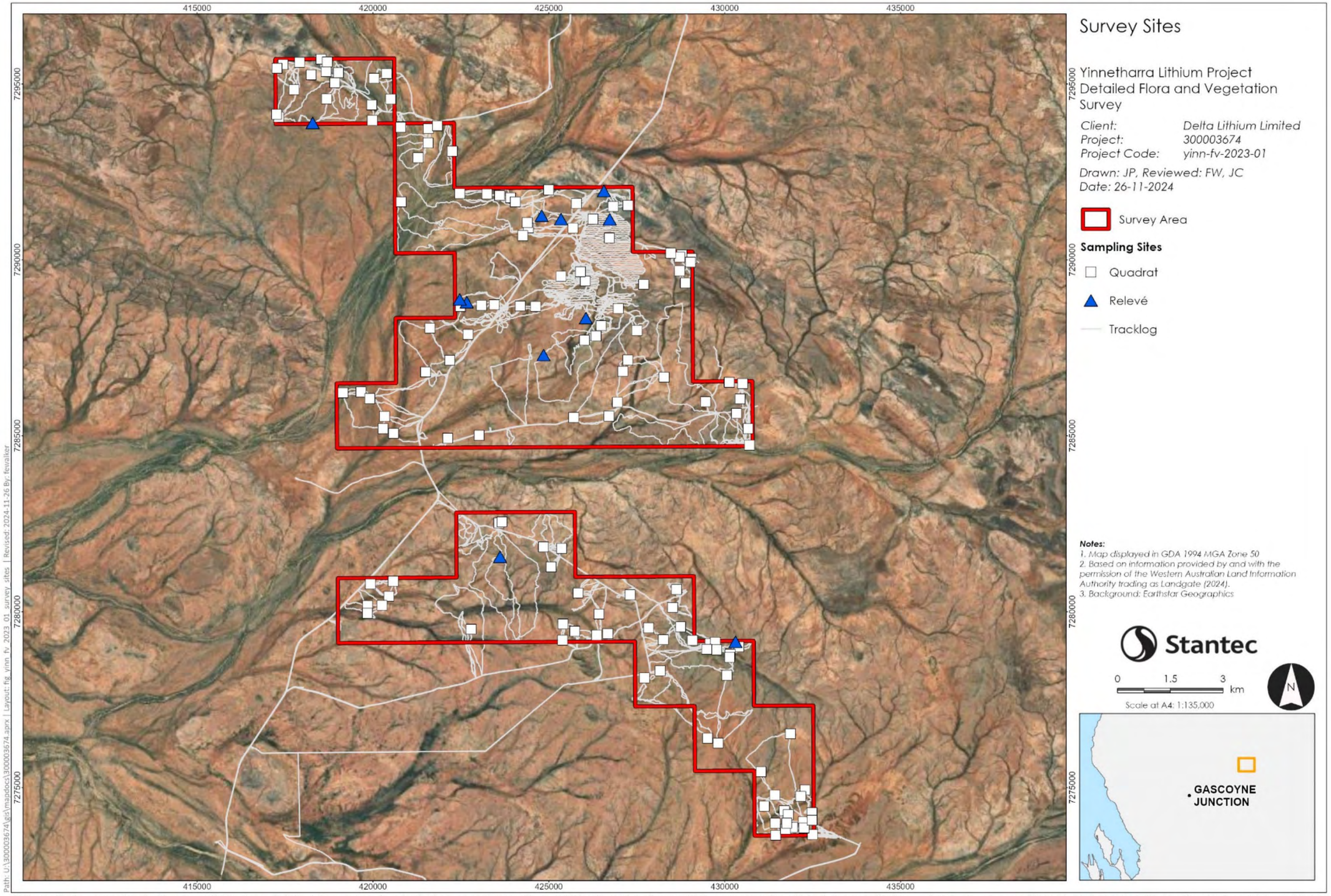


Figure 4-2: Survey effort within the Survey Area.

4.3.1.2 Vegetation Type Mapping

Vegetation types were described and mapped using the data collected from quadrats and relevés, and in-field observations made while traversing the Survey Area informed the delineation of vegetation type boundaries. A total of 203 mapping notes (brief annotations of dominant species, stratum, and other habitat attributes) were recorded in vegetation types and landforms while traversing the Survey Area to support vegetation type mapping.

Vegetation types were described based on their structure and species composition, consistent with NVIS Level V – Association, whereby up to three dominant species from the upper, mid and ground strata are categorised based on dominant growth form, percent foliar cover and height (**Appendix D**). The vegetation descriptions from sample sites were compared and grouped by similarity; descriptions that were considered alike typically shared dominant species with similar cover values.

Following completion of the Phase 1 survey, a floristic composition analysis was undertaken to investigate the relationship between the vegetation recorded at the Phase 1 quadrats. The results of the analysis informed the description and delineation of preliminary vegetation types as well as site selection for the Phase 2 survey.

Each vegetation type was given an alphabetical code representing the dominant flora species from the tallest to lowest stratum. Species names were typically abbreviated to capital letter(s) for the genus, followed by lower case letter(s) for species and sub-species, with multiple letters used where necessary to differentiate taxa with similar abbreviations. Vegetation codes with taxa listed in parentheses refer to sub-dominant taxa and the +/- symbol was used to abbreviate “with or without” for instances where there was heterogeneity in the vegetation type.

4.3.1.3 Vegetation Condition Mapping

Vegetation condition was mapped according to the (Trudgen 1988) 6-point condition scale, as presented in EPA (2016a).This mapping was conducted according to vegetation type polygons across the Survey Area, using a combination of quadrat data and opportunistic observation. Aerial imagery was used to identify and delineate cleared vegetation which included roads, tracks, mining operations and other infrastructure. Cleared vegetation was mapped as ‘Completely Degraded’.

4.3.1.4 Targeted and Opportunistic Flora Searches

The location and habitat preferences of the significant flora and introduced flora records identified in the desktop assessment were reviewed to assist in identifying vegetation types and habitat within the Survey Area that have the potential to support significant or introduced flora. Targeted searches for significant flora and introduced species were undertaken during the Targeted Survey as well as opportunistically during the Phase 1 and Phase 2 surveys. Population information and coordinates of potentially significant flora and weed species was captured electronically using a GPS-enabled handheld device (**Table 4-4**).

Representative data was recorded where the abundance of certain weeds (such as **Cenchrus ciliaris* (Buffel Grass)) made it impractical to record every individual or population, and in these instances, they were only indicatively mapped. Introduced flora recorded within the Survey Area were compared to the Declared pests listed under Section 22 of the BAM Act and the WoNS list identified by the Commonwealth Government.

Opportunistic flora records of additional species beyond those recorded within quadrats and relevé were taken to maximise the floristic inventory of the Survey Area. Attributes of opportunistic records were assessed within a 20 m radial circumference from the point location recorded. Each opportunistic collection was recorded electronically and geospatially referenced **(Table 4-4).**

Table 4-4: Summary of data collected for potential significant flora and weed species.

Parameter	Description
Coordinates	Recorded using a handheld GPS-enabled device in GDA94 format
Recorder and Date	The recorder(s) involved in sampling the site and date
Vascular flora species	A record of each flora species present
Specimen ID	Unique identifier code assigned to any species that cannot be identified in the field

Parameter	Description
Abundance	The number of individuals of the taxa represented by the record within a 20 m radial circumference, or a mapped polygon (for large populations)
Height	Recorded in metres
Lifestage	Whether the species is a seedling, juvenile, mature or senescing
Reproductive characteristics	Whether the species is fruiting, flowering, vegetative
Health	Qualitative assessments as either: healthy, moderate, poor, or senescent
Vegetation condition	Assessed according to the Trudgen (1988) 6-point condition scale as presented in EPA (2016a) and Appendix G.
Photograph	A representative photograph of the species showing reproductive characteristics (if present) and habitat/form

4.3.1.5 Specimen Identification and Nomenclature

Flora that could not be fully identified in the field were collected and specimens were pressed for identification by Senior Taxonomists Sharnya Yates and Udani Sirisena, both of whom are highly experienced with the flora of the Eremaean Botanical Province. The identities of some significant flora were also confirmed by the Mike Hislop at the Western Australian Herbarium (WAH). The nomenclature of flora recorded during the Survey was assigned according to the current listing of scientific names recognised by the WAH. Where a species had inadequate diagnostic material to allow for a confident identification, a 'sp.' epithet was assigned, indicating that identification could not be confirmed beyond family or genus level. Where a question mark precedes a taxon name, this indicates a lack of confidence in confirming a particular identity, usually due to a lack of diagnostic characteristics available on a specimen.

4.4 Data Analysis

Following each survey, the data underwent a process of quality assurance and quality control, commonly referred to as 'data cleaning' to enhance the reliability and validity of the data, allowing for precise data analysis and the production of accurate results. The assessment of sampling adequacy, local floristic composition analysis, and regional contextual analysis was undertaken by Conrad Slee (Principal Botanist). Conrad is highly experienced in analysing large datasets and similar assessments.

4.4.1 Sampling Adequacy

The analysis of known species richness provides a statistical method to evaluate the proportion of taxa detected during the Survey relative to the estimated total species richness for the area. Sampling adequacy is assessed by determining if the species accumulation curve (SAC) is approaching its asymptote, indicating that further survey efforts are unlikely to significantly increase species richness.

An analysis was completed on a site by species matrix of Stantec's quadrats from the Survey Area, comprising 142 quadrats (samples) and 119 species (variables). The EstimateS software package (Colwell 2013)V9) was used to assess the adequacy of the survey using species accumulation rarefaction and extrapolation curves, as well as various species richness estimators (Chao1, Chao2, Bootstrap and Jacknife 1). Bootstrapping was not included in the analysis due to the reported underestimations of species richness in Chiarucci *et al*. (2003) and Hortal *et al*. (2006). A range in the predicted total number of species within the Survey Area was developed using EstimateS to provide a robust approach to the analysis (Hortal 2006). The 95% confidence intervals for both observed and extrapolated SACs were calculated using equations from Colwell (2013); Colwell *et al.* (2004).

4.4.2 Data Preparation

Prior to the local analysis and regional contextual analysis, the first step was a data cleaning phase to compile and reconcile all species records from all surveys to ensure consistency in use of current nomenclature and treatment. All records were compiled in MS Excel spreadsheets and edited to standardise species name presentation. Any records that included a "?" in their name were excluded unless they comprised a possible dominant species such as *Acacia* or dominant grasses or were likely aligned with an existing confirmed species, and these were considered on an individual basis.

Two separate datasets were created. The first was the Stantec 2024 Yinnetharra (local) dataset with species records and percentage foliage cover for quadrats sampled within the Survey Area. This was used for the statistical floristic analysis and classification of local vegetation community types. The second was a regional dataset with flora species presence/absence data from Yinnetharra quadrats, combined with data from the publicly available Ecoscape (2015) Yangibana Project Biological Assessment: Flora and Vegetation Report. The Yangibana floristic Site by Species matrix data was kindly provided electronically by Ecoscape on 24 September 2024. The regional dataset was undertaken in the following steps: Firstly, the Yangibana site by species matrix was subjected to data cleaning described above, including the removal of 87 null species records that were not present in any quadrat and probably were residual from earlier opportunistic records in the list.

The second step involved combining both the Stantec Yinnetharra and Ecoscape Yangibana datasets. This was completed using a reverse pivot table function to covert both site-by-species matrices into two separate Site and Species lists of presence/absence data. These two lists were then combined into a single pivot table and new single combined site-by-species matrix for both project areas. This combined database is referred to as the Regional Dataset.

The third step was the removal of singletons (single records of a species), doubletons (two records of a species), annual species and weeds (non-dominant) from the datasets prior to analysis to reduce skewing and to assist with assessment of floristic vegetation groups. There were 123 singleton records, 36 doubleton records, plus 50 annual species and weeds that were removed from the local Yinnetharra dataset. There were 97 singleton records, 47 doubleton records, plus 109 annual species including weeds that were removed from the Regional Dataset.

4.4.3 Floristic Composition

Hierarchical classification (cluster analysis) was performed on the Stantec sample site data using Primer7 to support the relationship between vegetation types throughout the Survey Area. It should be noted, however, that vegetation types were assigned and mapped based on an a-priori (prior knowledge) group basis and the results of the statistical analysis are primarily to assist in confirmation of observed field groupings (Clarke and Gorley 2015). The final Stantec 2024 Yinnetharra (Local) dataset used for analysis was imported in Primer7 software as a final standard site-by-species matrix of floristic data (PFC data) of 142 quadrats (sites) and 119 species (**Appendix H**).

The Yinnetharra PFC (local) data was square root transformed and then the Bray-Curtis index was applied to calculate similarities between quadrats and generate a resemblance matrix. A Group Average Classification analysis was applied, using the group-average linking algorithm, the results of which were presented in the form of a dendrogram. The dendrogram indicates the percentage similarity between quadrats using a 42% cutoff, according to vegetation community structure.

Nonmetric multidimensional scaling (nMDS) was implemented for the analysis of community structure as this technique provides a valuable tool for comparing data between sites and surveys. The results of the nMDS procedure are represented by a plot, grouping sites with similar species composition together and separating sites that are dissimilar.

4.4.4 Regional Contextual Analysis

For the regional analysis, the final dataset was reduced to presence format (1 = present, 0 = absent) and the Bray-Curtis (B-C) similarity was applied. The final dataset used for analysis was imported in Primer7 software as a standard site-by-species matrix of floristic data (presence/absence data) of 254 quadrats (sites) and 174 species (reduced from 427 species) (**Appendix H**). Two separate classification approaches were tested. In the first approach, Group Average Classification analysis was applied, using the group-average linking algorithm, the results of which were presented in the form of a dendrogram. The second approach used Flexible Beta range from -1 to 1 to determine Cophenetic Distance and provide reliable space-conserving classification groupings that align with the observed vegetation community types observed and mapped for both areas. A cophenetic distance of 78 was used as a cutoff to create vegetation groups within the floristic classification dendrogram. The Flexible Beta approach was used to represent the best fit for the regional dataset.

5. Results and Discussion

5.1 Flora

5.1.1 Floristic Composition

A total of 325 fully identified vascular flora (including species, subspecies, varieties, forms, hybrids, native and introduced species) were recorded within the Survey Area. The 325 vascular flora comprise 55 families and 159 genera. The most represented families were Fabaceae (peas) and Poaceae (grasses), and the most diverse genus was *Acacia* (wattles) which is considered typical of most botanical surveys in the Gascoyne bioregion (**Table 5-1**).

Comprehensive quadrat and relevé data from the Survey is provided in **Appendix I**, and their locations within the Survey Area are mapped in **Figure 4-2**. A site by species matrix that incorporates all quadrats and relevés sampled in this survey is presented in **Appendix D**.

Table 5-1: Most represented families and general of the Survey Area.

Family	**Number of confirmed taxa recorded within the Survey Area**
Fabaceae	54
Poaceae	46
Chenopodiaceae	30
Genus	**Number of confirmed taxa recorded within the Survey Area**
Acacia	20
Eremophila	18
Senna	12
Ptilotus	11

In addition to the 325 species recorded within the Survey Area, there were 119 records that could not be fully identified due to poor material and/or lack of diagnostic characteristics. This includes 23 records that could not be confidently identified to genus level, 114 that could not be confidently identified to species level and two (2) that could not be confidently identified to intraspecies level. The majority of these species are likely to represent species already included in the inventory for the Survey Area, and it is unlikely that any represent additional Threatened of Priority flora identified in the Desktop and Likelihood of Occurrence Assessments.

5.1.2 Species Richness

A SAC was calculated to determine whether sampling effort from the Stantec survey was adequate to describe the species richness of the Survey Area. Based on the 142 quadrats used in the analysis, the SAC is still approaching the asymptote of total species richness (**Figure 5-1**). The sample-based extrapolation of the SAC indicates additional sampling up to 220 quadrats (+155%) would only increase the total species richness by 13.7% (+39 species). The SAC also demonstrates that the total species richness for the Survey is above the threshold where a 10% increase in sampling effort would result in less than a 5% increase in total species richness (**Figure 5-1**). Mueller-Dombois and Ellenberg (1974) suggest that an adequate level of sampling has been achieved within a given Survey Area when a 10% increase in sampling intensity results in a 5% (or less) increase in species richness.

The three asymptotic richness estimators (Chao2, Jackknife1, and Jackknife2) are presented in **Table 5-2**. Based on these estimators, it is expected that between 77% and 88% of the total species richness of the Survey Area was captured by systematic sampling sites (quadrats). While quadrats represent the primary method used to record species within the Survey Area, supplementary methods such as opportunistic sampling, mapping notes, weed and significant flora searches were

also used to record species within the Survey Area. A further 41 flora records representing additional species were recorded using these methods. With these species included, it is expected that between 82% and 99% of the total species richness of the Survey Area was recorded.

Based on the SAC, sample-based extrapolation, and total species richness indicators any further systematic sampling effort would be unlikely to achieve a substantial increase in total species richness once supplementary methods are considered. As such, the survey effort is considered appropriate to adequately describe the species richness of the Survey Area.

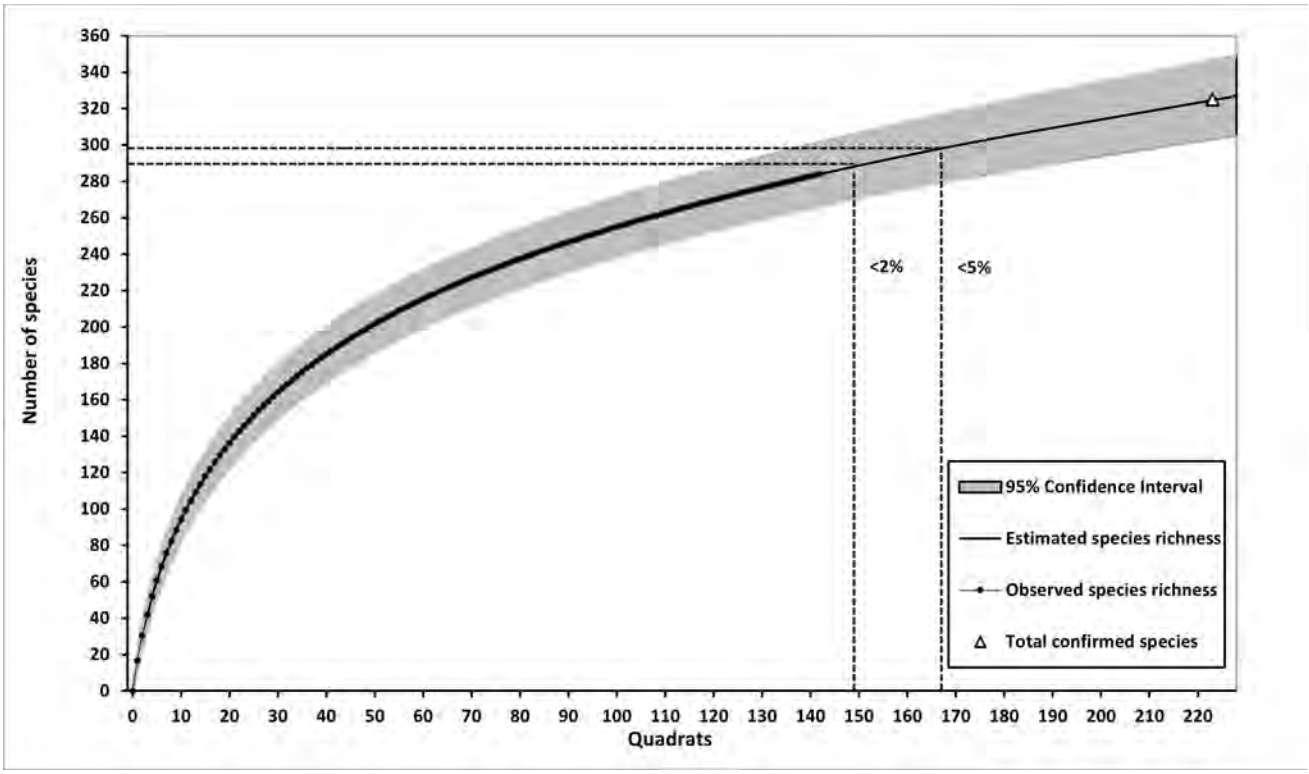


Figure 5-1: Species Accumulation Curve of all quadrats within the Survey Area. The dotted lines represent thresholds where a 10%* increase in sampling effort would result in less than a 5% and 2% increase in total species richness of the Survey Area. *Percentages are calculated using the total extrapolated sample site number (220) determined for the Bernoulli model analysis.

Table 5-2: Total and extrapolated species richness *(following exclusions and mergers for statistical analysis) of the Survey Area, with asymptotic richness estimators for comparable incidence data. Brackets indicates the percentage of the richness estimator recorded during the Survey.

Taxa recorded	Bernoulli model	Chao2	Jackknife1	Jackknife2
325	327 (99%)	392 (82%)	369.39 (88%)	420.9 (77%)

5.1.3 Significant Flora

No species listed as Threatened flora under either Commonwealth or State legislation were recorded within the Survey Area. A total of seven Priority flora species were recorded within the Survey Area, including two P1, two P2, one P3 and two P4 species (**Table 5-3**, **Figure 4-2**). Information regarding the known distribution of each significant flora species is presented in the following subsections, while specific vegetation types associated with the significant flora within the Survey Area are summarised in **Table 5-3**. The distribution and abundance estimates presented in **Table 5-3** and **Figure 4-2** should be considered indicative, as the actual populations for some species within the Survey Area is likely to be higher than what could be practically documented during the Survey.

Detailed attributes of Priority flora and their coordinates within the Survey Area are presented in **Appendix J** and the locations of Priority flora are mapped in **Figure 5-2**. Search effort, represented by GPS tracklogs recorded during traverses of the Survey Area, are displayed in **Figure 4-2.**

Table 5-3: Priority flora recorded within the Survey Area

Species	Records within the Survey Area	Estimated abundance of individuals	Vouchered specimen records (WAH 2024)	Vegetation types within the Survey Area
Priority 1				
Acacia curryana	769	5,284	9	AcuAkSahCcPooAhhAc, AcuEffSaoEcrAc, AcuSahAc, AdAssHpSscReCcCs, AfAccAkSahCcAcDc, AfAciSahPooCczAcCc, AfAcuSgAc, AkAfSahAcEaCc, AkAtApPooSahEtEf, AssHpReAsSahCc, AtEeSahAc, AtSahAcCcCa, AtSglEcuAc, AxAsSmEcuSd, EffErSahAc, EffSahAtCczIdAc, HpAcsAsEcuSaoScoSd, AxAcsSmEcuSdSc, AcsAsAcdSd, EcoAciCvCc
Acacia ?curryana^	29	103		Ac, AcuAkSahCcPooAhhAc, AcuEeSahAc, AcuSahAc, AfAcuSgAc, AkAtApPooSahEtEf, AssHpReAsSahCc, EffErSahAc, EppAc
Isotropis forrestii	8	161	6	AfAciSahPooCczAcCc, AssHpReAsSahCc
Priority 2				
Acacia petricola	1	1	9	EffSahAtCczIdAc
Acacia ?petricola^	17	61		AfAccAkSahCcAcDc, AkAfSahAcEaCc, AtSahAcCcCa, AtSglEcuAc, AxAsSmEcuSd, EppAc
Wurmbea fluviatilis	1	150	9	EcoAciCvCc
Priority 3				
Sporobolus blakei	9	165	11	AcuEeSahAc, AkAfSahAcEaCc, AssHpReAsSahCc
Priority 4				
Dodonaea amplisemina	14	195	40	AxAsSmEcuSd, EcoAciCvCc
Goodenia berringbinensis	1	1	32	AtAsyErSaoEaCcEs

^ Species that were not able to be fully identified due to lack of diagnostic material and may represent significant species. These are further discussed in **Section 5.1.4**.

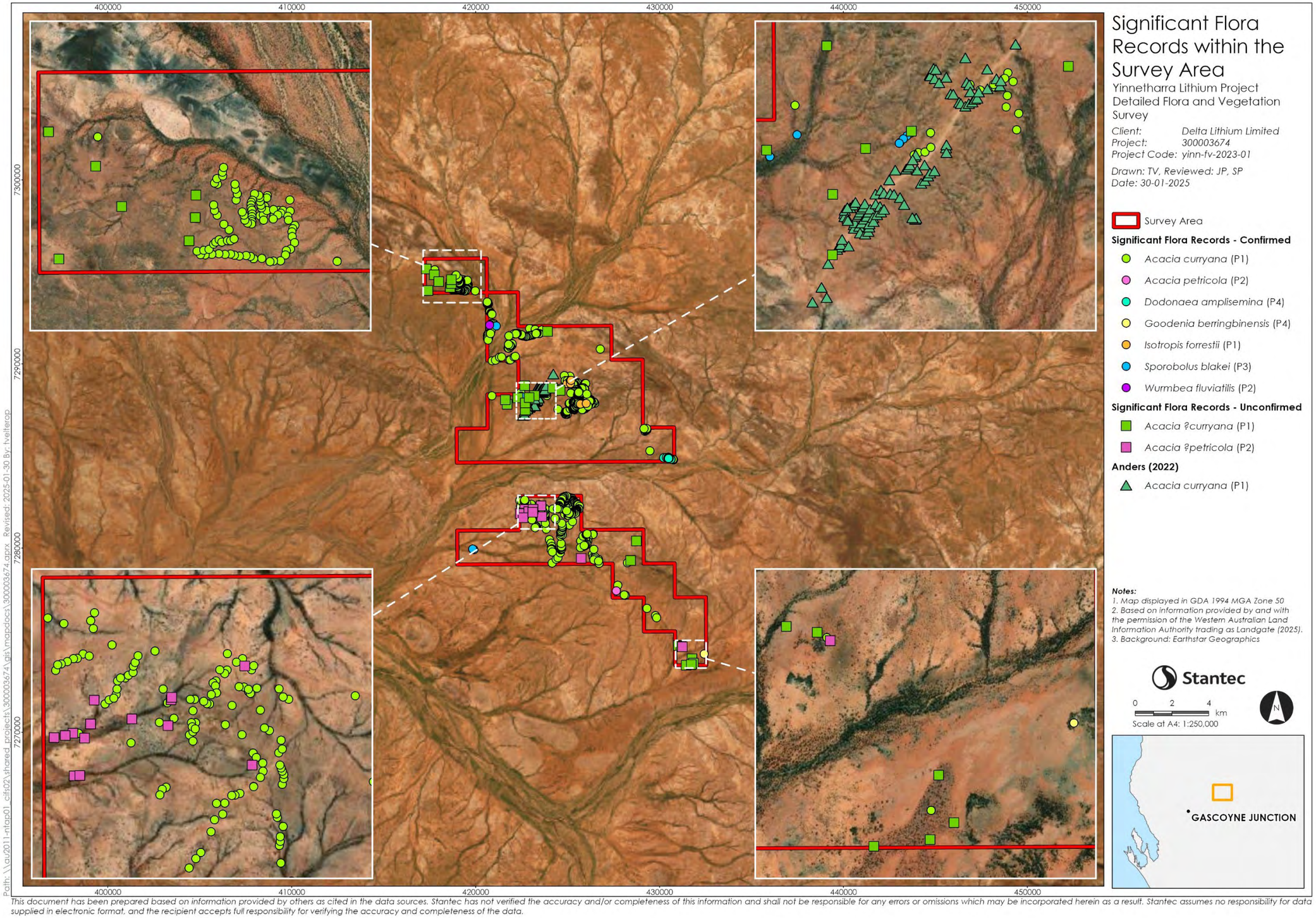


Figure 5-2: Locations of all significant flora recorded by Stantec within Survey Area.

Acacia curryana (P1)

A total of 769 records of *Acacia curryana* (P1), representing 5,284 individuals were recorded within the Survey Area. Records of *Acacia curryana* (P1) occur consistently across the Survey Area on open stone plain landforms consisting of granite and quartz gravel / boulders on red-brown sandy loam substrate. *Acacia curryana* has been vouchered on FloraBase nine times in a relatively small distribution, approximately 80 km north of the Survey Area and is known from both the Augustus and Wooramel subregions (WAH 2024). A further 29 records representing 103 individuals of *Acacia ?curryana* were recorded within the Survey Area, which possibly represent Acacia curryana (P1). These records lacked sufficient diagnostic material to be confidently identified by the taxonomist. An additional 42,468 individual A. curryana plants have been recorded by Anders (2022b) within, and surrounding, the Yinnetharra Survey Area (**Figure 5-3**).

Isotropis forrestii (P1)

A total of eight records of *Isotropis forrestii* (P1), representing 161 individuals were recorded within the Survey Area. This species is an erect shrub with yellow/orange flowers from April to September or December and was found in a small vicinity of the central Survey Area, along minor drainage lines on stoney quartz hill slopes. *Isotropis forrestii* (P1) is represented by six vouchered specimens on FloraBase, with a distribution surrounding the Survey Area and is known from the Ashburton, Augustus, Hamersley and Wooramel subregions (WAH 2024).

Acacia petricola (P2)

A single individual of *Acacia petricola* (P2) was recorded along a minor drainage line in vegetation type AkAfSahAcEaCc. It superficially resembles *Acacia kempeana*, differentiated by its shorter pedicel length of 2-4 mm rather than 4-12 mm. A further 18 records representing 62 individuals of *Acacia ?petricola* were recorded within the Survey Area, which possibly represent *Acacia petricola*(P2). These records lacked sufficient diagnostic material to be confidently identified by the taxonomist. *Acacia petricola* (P2) is represented by nine vouchered records on FloraBase, on and surrounding Mount Augustus and is only known from the Augustus subregion (WAH 2024).

Wurmbea fluviatilis (P2)

One record of *Wurmbea fluviatilis* (P2), representing 150 individuals was recorded within the Survey Area. This population was observed within a 20 m x 20 m area along a minor drainage line in the AcuEeSahAc vegetation type. *Wurmbea fluviatilis* (P2) is an annual herb growing to 30 cm tall with pink to white flowers favouring sandy soils. *Wurmbea fluviatilis* (P2) is represented by nine vouchered records on FloraBase, between 70 and 100 km to the north and east of the Survey Area and is only known from the Augustus subregion (WAH 2024).

Sporobolus blakei (P3)

Nine records of *Sporobolus blakei* (P3), representing 165 individuals were recorded within the Survey Area. *Sporobolus blakei* (P3) is a perennial tufted grass with a dense panicle inflorescenceand within the Survey Area was found along minor sandy drainage lines in the AtSahAcCcCa vegetation type. *Sporobolus blakei* (P3) is represented by nine 9 vouchered records on FloraBase, across a large area of northern Western Australian and into the Northern Territory (WAH 2024).

Dodonaea amplisemina (P4)

A total of 14 records of *Dodonaea amplisemina* (P4), representing 195 individuals were recorded within the Survey Area. *Dodonaea amplisemina* (P4) is a dioecious multi-stemmed shrub that grows to 1 m high on red-brown sandy clay soils. Within the Survey Area this species was recorded among sandy stoney break-aways in a small portion of the Survey Area. *Dodonaea amplisemina* (P4) is represented by 40 vouchered records on FloraBase, with the records within the Survey Area located a significant distance (200 km to 500 km) from the vouchered records (WAH 2024).

Goodenia berringbinensis (P4)

A single individual of *Goodenia berringbinensis* (P4) was recorded within the Survey Area. *Goodenia berringbinensis* (P4) is an ascending annual herb that flowers yellow in October and grows along red sandy loam watercourses. The single record of *Goodenia berringbinensis* (P4) was found in a seasonally inundated soak in the AtAsyErSaoEaCcEs vegetation type. *Goodenia berringbinensis* (P4) is represented by 32 vouchered records on FloraBase, situated to the north, east and south of the Survey Area (WAH 2024).

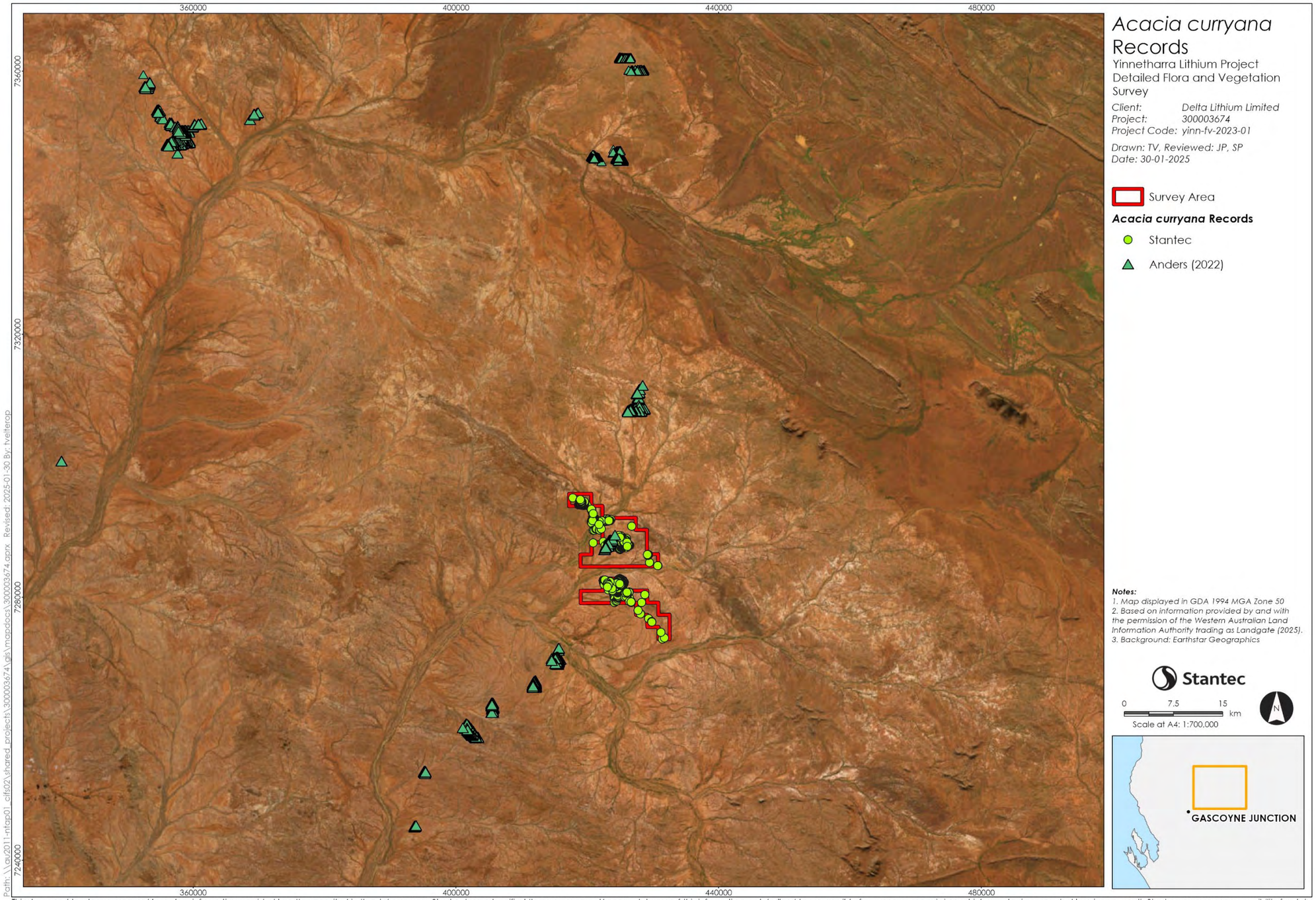


Figure 5-3: *Acacia curryana* records in relation to the Survey Area recorded by Stantec and Anders Environmental Consulting.

5.1.4 Flora of Other Significance

The EPA (2016a) advises that flora species, subspecies, varieties, hybrids and ecotypes may be considered significant for reasons other than listing as a Threatened or Priority flora species, and include the following:

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

Range Extensions

The extension of the known range of distribution for flora recorded during the surveys was subdivided into two categories within this report, according to the criteria below as stated by EPA (2016a):

- **Category A – Bioregional Extension:** the taxon has not previously been recorded in the IBRA bioregion from which the specimen was recorded;
- **Category B – Outlier:** A record is an isolated outlier of the main range of the species' distribution.

To determine if a species is a Category B outlier, it is assessed whether the species is found outside its known Extent of Occupancy (EOO). The EOO is a boundary that defines the area where a species is distributed, based on confirmed records. This boundary is essentially a polygon drawn around the outermost known points of the species' distribution. If a species recorded in the Survey Area is located beyond this EOO boundary, it is considered an isolated outlier (**Appendix K**). This indicates that the species is found outside its usual range, signifying a significant extension of its known distribution. Both the EOO and Bioregion Occupancy were used to determine range extensions for all confirmed species in the Yinnetharra survey area. Bioregion Occupancy refers to the presence of a species within specific bioregions, providing additional context to the species' distribution. By combining these two measures, range extensions can be accurately identified and categorised, ensuring a comprehensive understanding of the species' distribution patterns.

The Survey conducted by Stantec identified 25 taxa that are classified as range extensions. This relatively large number of species is possibly due to the lack of comprehensive scientific surveys conducted in the bioregion, in comparison to other parts of WA. Each of these records have not previously been recorded within the IBRA bioregion or correspond to isolated outliers of the primary distribution of the respective species. Consequently, these findings are deemed significant as range extensions. **Table 5-4** provides a comprehensive list of the species identified as range extensions, along with their nearest known records in relation to the Survey Area. (WAH 2024).

Table 5-4: Flora collected from the Survey Area that represent range extensions.

Taxon	Nearest record to Survey Area	Records within the Survey Area	Vouchered specimens (WAH 2023)	Category	Supporting vegetation type codes within the Survey Area
Abutilon fraseri subsp. fraseri	188.2 km	12	21	A and B	AfAccAkSahCcAcDc, AiAkAtSahPooDbAc, AkAfSahAcEaCc, AkAtApPooSahEtEf, AtAsyErSaoEaCcEs, AxAcsSmEcuSdSc, AxAsSmEcuSd, HpAtAsEcuReSmEaEf
Acacia curryana (P1)	52.3 km	765	9	B	AcsAsAcdSd, AcuAkSahCcPooAhhAc,

Taxon	Nearest record to Survey Area	Records within the Survey Area	Vouchered specimens (WAH 2023)	Category	Supporting vegetation type codes within the Survey Area
					AcuEeSahAc, AcuEffSaoEcrAc, AcuSahAc, AdAssHpSscReCcCs, AfAccAkSahCcAcDc, AfAciSahPooCczAcCc, AfAcuSgAc, AkAfSahAcEaCc, AkAtApPooSahEtEf, AssHpReAsSahCc, AtEeSahAc, AtSahAcCcCa, AtSglEcuAc, AxAcsSmEcuSdSc, AxAsSmEcuSd, EcoAciCvCc, EffErSahAc, EffSahAtCczIdAc, HpAcsAsEcuSaoScoSd
Acacia incurvaneura	137.0 km	1	363	B	AiAtEllEppAc
Acacia petricola (P2)	56.1 km	1	9	B	EffSahAtCczIdAc
Calandrinia monosperma	57.0 km	2	37	B	AiAtEllEppAc, EppAc
Calandrinia schistorhiza	60.0 km	2	75	B	AiAkAtSahPooDbAc
Cyperus cunninghamii subsp. cunninghamii	67.0 km	1	61	B	EcoAciCvCc
Dodonaea amplisemina (P)	194.1 km	14	40	B	AxAsSmEcuSd, EcoAciCvCc
Exocarpos aphyllus	159.8	3	295	A	AxAsSmEcuSd, AtSglEcuAc, HpAcsAsEcuSaoScoSd
Gomphrena canescens subsp. canescens	177.4 km	1	95	A and B	AiAtEllEppAc
Goodenia muelleriana	76.0 km	4	108	B	HpAcsAsEcuSaoScoSd, AkAfSahAcEaCc, AcsHpAsEcuSmReMspp.Sspp.
Gossypium australe	213.1 km	1	210	A	AkAfSahAcEaCc
Homalocalyx staminosus	58.4	2	12	B	AaAtEppAc, AiAtEllEppAc
Oxalis perennans	308.1 km	1	70	A	AtAsyErSaoEaCcEs
Ptilotus clementii	86.0 km	2	137	B	AkAfSahAcEaCc, HpAtAsEcuReSmEaEf
Sclerolaena beaugleholei	156.9 km	2	5	B	AcsHpAsEcuSmReMspp.Sspp., HpAcsAsEcuSaoScoSd
Sclerolaena limbata	244.9 km	2	4	A	AcsHpAsEcuSmReMspp.Sspp., AxAsSmEcuSd
Sclerolaena tridens	87.8 km	10	26	A	AcsAsAcdSd, AcsAssHpReSaoFs, AcsHpAsEcuSmReMspp.Sspp., AssHpReAsSahCc
Sisymbrium irio	111.0 km	2	26	B	EcoAciCvCc
Solanum lachnophyllum	295.1 km	1	26	B	AtAsyErSaoEaCcEs
Streptoglossa odora	87.8 km	5	96	A	AaSglEcr, AfAccAkSahCcAcDc, AtAsyErSaoEaCcEs, AxAsSmEcuSd, EffSahAtCczIdAc
Trachymene cyanopetala	297.8 km	1	312	A and B	AtSahAcCcCa

Taxon	Nearest record to Survey Area	Records within the Survey Area	Vouchered specimens (WAH 2023)	Category	Supporting vegetation type codes within the Survey Area
Trachymene oleracea subsp. oleracea	86.1 km	8	95	B	AcuEeSahAc, AfAccAkSahCcAcDc, AfAcuSgAc, AfEllCc, AtEeSahAc, AtSahAcCcCa, EcoAciCvCc
Wurmbea densiflora	146.7 km	1	86	A and B	AfAcuSgAc
Wurmbea fluviatilis (P)	58.6 km	1	9	B	EcoAciCvCc

5.1.5 Post Survey Likelihood of Occurrence

The post-survey assessment was based on a greater understanding of the landforms, soils and habitats present within the Survey Area, and targeted searches focusing on these likely features. Seven Priority flora have been confirmed as occurring within the Survey Area. Of the remaining 33 significant flora species identified during the desktop assessment, post-survey, none are Threatened species; while one was considered likely to occur, and seven were considered as possible to occur (**Table 5-5**, **Appendix C**). This is based on known records of these species occurring in relatively close proximity to the Survey Area, and/or suitable habitat occurs within the Survey Area. *Calandrinia butcherensis* (P1) is considered likely to occur as the species has been recorded in close proximity to the Survey Area, and includes habitat analogous to its known habitat, specifically sand banks in riverbeds on yellow-brown sand. Due to sub-optimal seasonal conditions preceding the Preliminary and Detailed Surveys, the species may not have been detectable at the time of the surveys.

Table 5-5: Significant flora considered likely or possible to occur in the Survey Area, post-survey.

Species	Likelihood of Occurrence	Justification
Priority 1		
Calandrinia butcherensis	Likely	This species has been recorded 7 km from the Survey Area and the Survey Area contains suitable habitat: yellow brown sand bank within riverbed. This species is an annual herb and despite several other *Calandrinia* spp. recorded within the Survey Area, it is possible that this species was not detectable at the time of the surveys.
Acacia sp. Yinnetharra (L. Sweedman 8229)	Possible	This species has been recorded 12 km from the Survey Area and the Survey Area contains suitable habitat: flat, red sandy clay. This species is a perennial tree, however if lacking diagnostic material, it may not have been detectable at the time of the Surveys.
Elacholoma sp. Showy flowers (C.P. Campbell 1762)	Possible	Although this species has not been recorded in proximity to the Survey Area, the Survey Area contains marginally suitable habitat: seasonally inundated clay swamp.
Eremophila rhegos	Possible	This species has been recorded 25 km from the Survey Area and the Survey Area contains suitable habitat: skeletal brown stony loams over granite.
Euphorbia sarcostemmoides	Possible	This species has not been recorded in proximity to the Survey Area, however, the Survey Area contains suitable habitat: rocky hillside and quartzite hills.
Rhodanthe frenchii	Possible	This species has been recorded within 40 km of the Survey Area, and the Survey Area contains suitable habitat: stony hills, rocky river banks and outcrop.
Priority 3		
Acacia atopa	Possible	This species has been recorded 25 km from the Survey Area, and the Survey Area contains suitable habitat: red clay and red loam.

Species	Likelihood of Occurrence	Justification
Ptilotus luteolus	Possible	This species has been recorded 11 km from the Survey Area and the Survey Area contains suitable habitat: low stony lateritic rises.

5.1.6 Introduced Flora

A total of 16 confirmed weed species were recorded during the Survey (**Table 5-6**), none of which represent a WoNS or Declared pest for the Gascoyne bioregion. The ecological impact and invasiveness classifications (DPaW 2013, 2015) for these weed species are provided in (**Table 5-6**). The diversity of introduced flora within the Survey Area is considered typical for the Gascoyne bioregion (**Table 3-1)**. The distribution and abundance estimates should be considered indicative, as the actual populations for most weed species within the Survey Area is likely to be higher than what could be practically documented during the surveys.

The weed species with the highest number of records within the Survey Area were **Cenchrus ciliaris* (Buffel Grass) and **Argemone ochroleuca* subsp. *ochroleuca* (Mexican Poppy). These weeds were particularly prolific in habitats of deeper flood plain soils and riparian vegetation, typical of these habitats in the Gascoyne bioregion. Species descriptions, preferred habitat information and representative photographs of all weeds recorded is provided in **Appendix L**.

Table 5-6: **Summary and Weed prioritisation Process Classification of introduced flora recorded within the Survey Area.**

Weed species	Common Name	Number Of Records	DBCA prioritization rankings (DPaW 2013; 2014)	
			Ecological Impact	Invasiveness
*Argemone ochroleuca subsp. ochroleuca	Mexican Poppy	5,491	Unknown	Rapid
*Asphodelus fistulosus	Onion Weed	1,194	medium	Rapid
*Bidens bipinnata	Bipinnate Beggartick	2,764	Unknown	Rapid
*Cenchrus ciliaris	Buffel Grass	392,864	High	Rapid
*Cenchrus setiger	Birdwood Grass	9,179	High	Rapid
*Citrullus amarus	Pie Melon	2	Unknown	Rapid
*Citrullus colocynthis	Colocynth	1	Low	Rapid
*Citrullus sp.	N/A	38	-	-
*Datura leichhardtii subsp. leichhardtii	Native Thornapple	3	High	Rapid
*Echinochloa colona	Awnless Barnyard Grass	3	Low	Rapid
*Flaveria trinervia	Speedy Weed	206	-	-
*Malvastrum americanum	Spiked Malvastrum	3,362	High	Rapid
*Rumex vesicarius	Ruby Dock	3	Low	Moderate
*Sisymbrium irio	London Rocket	2	Unknown	Unknown
*Sonchus oleraceus	Common Sowthistle	4,140	Unknown	Rapid
*Vachellia farnesiana var. farnesiana	Needle Bush	40	High	Moderate

5.2 Vegetation

5.2.1 Vegetation Types

A total of 32 vegetation types (**Table 5-7**) were described and mapped within the Survey Area, none of which represent a TEC or PEC. Detailed descriptions and representative photographs of each vegetation type recorded during the Survey are presented in **Table 5-7**. An overview of vegetation type mapping within the Survey Area is presented in **Figure 5-4**, with detailed figures presented in **Appendix M**. Approximately 4.45 ha (0.04%) of the Survey Area has been cleared of vegetation, predominantly for roads and tracks. These areas were mapped as 'Completely Degraded' and mapping was largely informed by the most recent aerial imagery supplied by Delta. No vegetation within the Survey Area was adversely affected by recent fire activity **(Figure 5-5)**.

The vegetation in the Survey Area was considered typical of the Gascoyne bioregion; comparable to previous descriptions by Beard (1975), Ecoscape (2015; 2019) and Eco Logical (2018; 2020). The dominant vegetation type within the Survey Area is described as *Acacia xiphophylla* tall open shrubland over *Acacia synchronicia, Senna* sp. Meekatharra (E. Bailey 1-26) and *Eremophila cuneifolia* open shrubland over *Sclerolaena densiflora* scattered herbs (AxAsSmEcuSd). This vegetation type occurs on quartz stone plains and comprises 1,297.7 ha or 11.57% of the Survey Area.

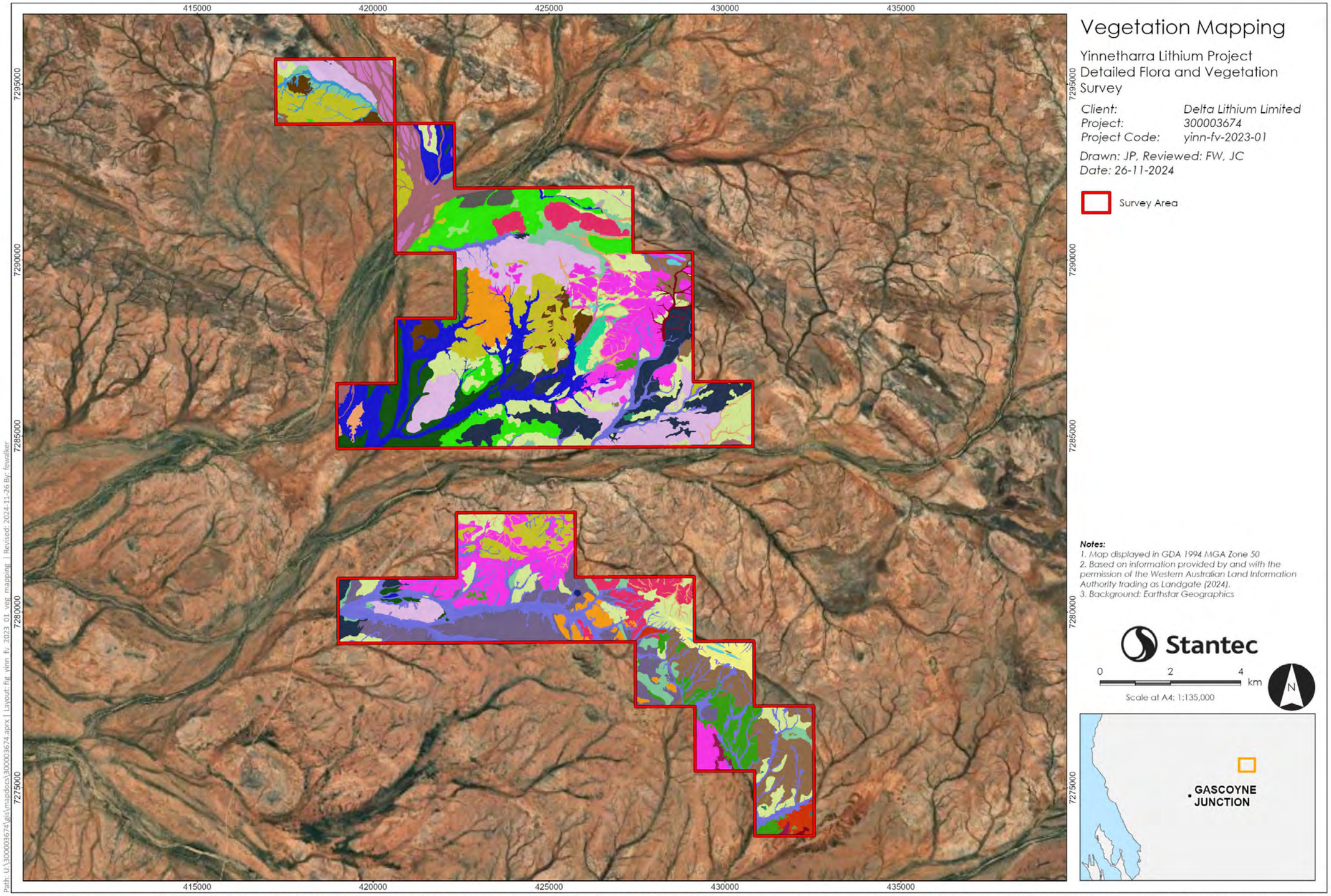


Figure 5-4: Vegetation type mapping within the Survey Area.

Vegetation Types of the Yinnetharra Study Area

Vegetation Type

AaAtAc: *Acacia aptaneura* and *Acacia tetragonophylla* tall shrubland over *Aristida contorta* very open tussock grassland.

AaSglEcr: *Acacia aptaneura* tall open shrubland over *Senna glutinosa* subsp.*xluerssenii* scattered shrubs over *Enneapogon caerulescens* very open tussock grassland.

Ac: *Aristida contorta* open tussock grassland.

AcsAsAcdSd: *Acacia cuspidifolia* and *Acacia syncronicia* tall open shruband over *Atriplex codonocarpa* and *Sclerolaena densiflora* scattered chenopods.

AcsAssHpReSaoFs: *Acacia cuspidifolia, Acacia sclerosperma* subsp. *Sclerospermaand Hakea preissii* tall open shrubland over *Rhagodia eremaea* and *Senna artemisioides* subsp. *oligophylla* scattered shrubs over *Frankenia setosa* low open shrubland.

AcsHpAsEcuSmReMspp.Sspp.: *Acacia cuspidifolia, Hakea preissii* and *Acacia syncronicia* tall open shrubland over *Eremophila cuneifolia, Senna* sp. *Meekatharra* (E. Bailey 1-26) and *Rhagodia.*

AcuAkSahCcPooAhhAc: *Acacia curryana* and *Acacia kempiana* tall open shrubland over *Senna artemisioides* subsp. *helmsii, Corchorus crozophorifolius* and *Ptilotus obovatus* var. *obovatus* open shrubland over *Aristida holathera* var. *holathera* and *Aristida contorta* open tussock grass.

AcuEeSahAc: *Acacia curryana, Eremophila exilifolia* and *Senna artemisioides* subsp. *helmsii* open shrubland over *Aristida* contorta very open tussock grassland.

AcuEffSaoEcrAc: *Acacia curryana* tall open shrubland over *Eremophila torrestii* subsp. *torrestii* and *Senna artemisioides* subsp. *oligophylla* low open shrubland over *Enneapogon caeruiescens* and *Aristida contorta* open tussock grassland.

AcuSahAc: *Acacia curryana* and *Senna artemisioides* subsp. *helmsii* scattered shrubs over *Aristida contorta* very open tussock grassland.

AdAssHpSscReCcCs: *Acacia demissa, Acacia sclerosperma* subsp. *Sclerosperma* and *Hakea preissii* woodland over *Santalum spicatum* and *Rhagodia eremaea* open woodland over *Cenchrus ciliaris* and *Cenchrus setiger* tussock grassland.

AfAccAkSahCcAcDc: *Acacia fuscaneura, Acacia cuthbertsonii* subsp. *cuthbertsonii* and *Acacia kempeana* tall open shrubland over *Senna artemisioides* subsp. *helmsii* scatter shrubs over *Cenchrus ciliaris, Aristida contorta* and *Digitaria ctenantha* very open tussock grassland.

AfAciSahPooCczAcCc: *Acacia fuscaneura* and *Acacia citrinoviridis* open woodland over *Senna artemisioides* subsp. *helmsii, Ptilotus obovatus* var. *obovatus* and *Carchorus crozophorifolius* scattered shrubs over *Aristida contorta* and *Cenchrus ciliaris* very open tussock grassland.

AfAcuSgAc: *Acacia fuscaneura* tall open woodland over *Acacia curryana* and *Senna glaucifolia* open shrubland over *Aristida contorta* open tussock grassland.

AfEllCc: *Acacia fuscaneura* low open woodland over *Eremophila latrobei* subsp. *latrobei* scattered shrubs over *Cenchrus ciliaris* very open tussock grassland.

AiAkAfSahPooDbAc: *Acacia incurvaneura* and *Acacia kempeana* low woodland over *Acacia tetragonophylla, Senna artemisioides* subsp. *helmsii* and *Ptilotus obovatus* var. *obovatus* open shrubland over *Digitaria brownii* and *Aristida contorta* open tussock grassland.

AiAtEllEppAc: *Acacia incurvaneura* tall open shrubland over *Eremophila latrobei* subsp. *latrobei* and *Eremophila phyllopoda* subsp. *phyllopoda* open shrubland over *Aristida contorta* very open tussock grassland.

AkAfSahAcEaCc: *Acacia kempeana* and *Acacia fuscaneura* tall shrubland over *Senna artemisioides* subsp. *helmsii* scattered shrubs over *Aristida contorta, Eriachne aristidea* and *Cenchrus ciliaris* open tussock grassland.

AkAtApPooSahEtEf: *Acacia kempeana, Acacia tetragonophylla, Acacia pruinocarpa* tall shrubland over *Ptilotus obovatus* var. *obovatus* and *Senna artemisioides* subsp. *helmsii* scattered low shrubs over *Eriachne aristidea* and *Eriachne flaccida* tussock grassland.

AssHpReAsSahCc: *Acacia sclerosperma* subsp. *sclerosperma* and *Hakea preissii* tall open shrubland over *Rhagodia eremaea, Acacia synchronicia* and *Senna artemisioides* subsp. *helmsii* shrubland over *Cenchrus ciliaris* scattered tussock grasses.

AtAsyErSaoEaCcEs: *Acacia tetragonophylla* and *Acacia synchronicia* tall open shrubland over *Eremophila reticulata* and *Senna artemisioides* subsp. *oligophylla* low scattered shrubs over *Eriachne aristidea, Cenchrus ciliaris* and *Eragrostis setifolia* tussock grassland.

AtEeSahAc: *Acacia tetragonophylla, Eremophila exilifolia* and *Senna artemisioides* subsp. *helmsii* open shrubland over *Aristida contorta* open tussock grassland.

AtSahAcCcCa: *Acacia tetragonophylla* tall open shrubland over *Senna artemisioides* subsp. *helmsii* scattered shrubland over *Aristida contorta, Cenchrus ciliaris* and *Cymbopogon ambiguus* very open tussock grassland.

AtSglEcuAc: *Acacia tetragonophylla* tall open shrubland over *Senna glutinosa* subsp. *xluerssenii* and *Eremophila cuneifolia* open shrubland over *Aristida contorta* open tussock grassland.

AxAcsSmEcuSdSc: *Acacia xiphophylla* and *Acacia cuspidifolia* tall open shrubland over *Senna* sp. *Meekatharra* (E. Bailey 1-26) and *Eremophila cuneifolia* scattered shrubs over *Sclerolaena densiflora* and *Sclerolaena cuneata* very open herbland.

AxAsSmEcuSd: *Acacia xiphophylla* over *Acacia synchronicia, Senna* sp. *Meekatharra* (E. Bailey 1-26) and *Eremophila cuneifolia* open shrubland over *Sclerolaena densiflora* scattered herbs.

EcoAciCvCc: *Eucalyptus camaldulensis* subsp. *obtusa* and *Acacia citrinoviridis* woodland over *Cyperus vaginatus* very open sedgeland over *Cenchrus ciliaris* open tussock grassland.

EffErSahAc: *Eremophila fraseri* subsp. *fraseri* scattered tall shrubs over *Eremophila reticulata* and *Senna artemisioides* subsp. *helmsii* scattered shrubs over *Aristida contorta* open tussock grassland.

EffSahAtCczIdAc: *Eremophila fraseri* subsp. *fraseri, Senna artemisioides* subsp. *helmsii* and *Acacia tetragonophylla* open shrubland *Corchorus crozophorifolius* and *Indigofera decipiens* scattered low shrubs over *Aristida contorta* open tussock grassland.

EppAc: *Eremophila phyllopoda* subsp. *phyllapoda* open shrubland over *Aristida contorta* open tussock grassland.

HpAcsAsEcuSaoScoSd: *Hakea preissii* and *Acacia cuspidifolia* scattered tall shrubs over *Acacia synchronicia, Eremophila cuneifolia* and *Senna artemisioides* subsp. *oligophylla* open shrubland over *Sclerolaena cuneata* and *Sclerolaena densiflora* scattered herbs.

HpAtAsEcuReSmEaEf: *Hakea preissii, Acacia tetragonophylla* and *Acacia synchronicia* tall shrubland over *Eremophila cuneifolia, Rhagodia eremaea* and *Senna* sp. *Meekatharra* (E. Bailey 1-26) open shrubland over *Eriachne aristidea* and *Eriachne flaccida* tussock grassland.

CD: Completely degraded

Vegetation Type Descriptions
Legend Sheet 1

Stantec

Table 5-7: Summary of vegetation types described and mapped within the Survey Area.

Vegetation Type Code	Vegetation type description	Sample Sites	Associated species	Extent within the Survey Area		Representative Photograph
				Area (ha)	Proportion (%)	
Stone Plains						
AxAsSmEcuSd	*Acacia xiphophylla* tall open shrubland over *Acacia synchronicia*, *Senna* sp. Meekatharra (E. Bailey 1-26) and *Eremophila cuneifolia* open shrubland over *Sclerolaena densiflora* scattered herbs.	2-J5 A2 A4 C5 C6 C9 L1 L4 L5 L7 Yinn05	*Aristida contorta, Acacia curryana* (P1), *Acacia tetragonophylla, Dodonaea amplisemina* (P4), *Maireana melanocoma, Maireana tomentosa* subsp. *tomentosa, Ptilotus obovatus* var. *obovatus, Senna artemisioide*s subsp. *helmsii, Senna glutinosa* subsp. ×*luerssenii, Solanum lasiophyllum.*	1297.7	11.57%	
AtSglEcuAc	*Acacia tetragonophylla* tall open shrubland over *Senna glutinosa* subsp. *xluerssenii* and *Eremophila cuneifolia* open shrubland over *Aristida contorta* open tussock grassland.	2-Yinn20 A3 C10 C4 O9 O9B P3 Yinn08 Yinn13 Yinn15 *Reljm05	*Acacia curryana* (P1), *Acacia synchronicia, Senna artemisioides* subsp. *Helmsii, Solanum lasiophyllum, Tribulus suberosus.*	1061.5	9.46%	

Vegetation Type Code	Vegetation type description	Sample Sites	Associated species	Extent within the Survey Area		Representative Photograph
				Area (ha)	Proportion (%)	
AxAcsSmEcuSdSc	*Acacia xiphophylla* and *Acacia cuspidifolia* tall open shrubland over *Senna* sp. Meekatharra (E. Bailey 1-26) and *Eremophila cuneifolia* scattered shrubs over *Sclerolaena densiflora* and *Sclerolaena cuneata* very open herbland.	2-V1 2-V2 A1 L11 L3 L9	*Acacia curryana* (P1), *Acacia synchronicia, Rhagodia eremaea, Senna artemisioides* subsp. *helmsii, Senna artemisioides* subsp. *oligophylla*	986.0	8.79%	
AcsAsAcdSd	*Acacia cuspidifolia* and *Acacia syncronicia* tall open shrubland over *Atriplex codonocarpa* and *Sclerolaena densiflora* scattered chenopods.	2-Yinn04 L10 L6 *Reljm32	*Atriplex bunburyana, Acacia curryana* (P1), *Sclerolaena cuneata, *Cenchrus ciliaris, Sporobolus caroli.*	588.7	5.25%	

Vegetation Type Code	Vegetation type description	Sample Sites	Associated species	Extent within the Survey Area		Representative Photograph
				Area (ha)	Proportion (%)	
EffSahAtCczIdAc	*Eremophila fraseri* subsp. *fraseri*, *Senna artemisioides* subsp. *helmsii* and *Acacia tetragonophylla* open shrubland *Corchorus crozophorifolius* and *Indigofera decipiens* scattered low shrubs over *Aristida contorta* open tussock grassland.	2-W1 2-W2 O5	**Cenchrus ciliaris, Acacia curryana* (P1), *Acacia cuthbertsonii* subsp. *cuthbertsonii*, *Acacia petricola (P2), Arivela viscosa, Evolvulus alsinoides* var. *villosicalyx*, *Indigofera decipiens*, *Ptilotus obovatus* var. *obovatus, Solanum lasiophyllum*.	579.5	5.17%	
EppAc	*Eremophila phyllopoda* subsp. *phyllopoda* open shrubland over *Aristida contorta* open tussock grassland.	2-Yinn11 L12 O2	*Solanum lasiophyllum*	564.7	5.03%	

Vegetation Type Code	Vegetation type description	Sample Sites	Associated species	Extent within the Survey Area		Representative Photograph
				Area (ha)	Proportion (%)	
EffErSahAc	*Eremophila fraseri* subsp. *fraseri* scattered tall shrubs over *Eremophila reticulata* and *Senna artemisioides* subsp. *helmsii* scattered shrubs over *Aristida contorta* open tussock grassland.	2-X1 C3 Yinn14 *Reljm03	*Acacia curryana* (P1), *Eremophila exilifolia, Solanum lasiophyllum, Ptilotus obovatus* var. *obovatus.*	340.1	3.03%	
HpAcsAsEcuSaoScoSd	*Hakea preissii* and *Acacia cuspidifolia scattered tall* shrubs over *Acacia synchronicia, Eremophila cuneifolia* and *Senna artemisioides* subsp. *oligophylla* open shrubland over *Sclerolaena cuneata* and *Sclerolaena densiflora* scattered herbs.	L2 N5 N7 O3	*Acacia curryana* (P1), *Acacia tetragonophylla, Aristida contorta, Atriplex codonocarpa, Enteropogon ramosus, Goodenia muelleriana, Maireana carnosa, Maireana tomentosa* subsp. *Tomentosa, Ptilotus exaltatus, Ptilotus obovatus* var. *obovatus*, *Senna* sp. Meekatharra (E. Bailey 1-26).	307.7	2.74%	

Vegetation Type Code	Vegetation type description	Sample Sites	Associated species	Extent within the Survey Area		Representative Photograph
				Area (ha)	Proportion (%)	
AfAciSahPooCczAcCc	*Acacia fuscaneura* and *Acacia citrinoviridis* open woodland over *Senna artemisioides* subsp. *helmsii*, *Ptilotus obovatus* var. *obovatus* and *Corchorus crozophorifolius* scattered shrubs over *Aristida contorta* and *Cenchrus ciliaris* very open tussock grassland.	F1 F2 F3	*Arivela viscosa, Acacia curryana* (P1), *Boerhavia coccinea, Eriachne aristidea, Isotropis forrestii* (P1), *Salsola australis, Solanum lasiophyllum.*	168.6	1.50%	
AcuSahAc	*Acacia curryana* (P1) and *Senna artemisioides* subsp. *helmsii* scattered shrubs over *Aristida contorta* very open tussock grassland.	F4 O10 O6 *Yinn03 *YnTr01	*Eremophila exilifolia, Ptilotus obovatus* var. *obovatus, Solanum lasiophyllum*.	146.7	1.31%	

Vegetation Type Code	Vegetation type description	Sample Sites	Associated species	Extent within the Survey Area		Representative Photograph
				Area (ha)	Proportion (%)	
Ac	*Aristida contorta* open tussock grassland.	2-C12 C1 C2 N4	*Acacia tetragonophylla, Eremophila phyllopoda subsp. phyllopoda, Senna artemisioides* subsp. *helmsii.*	71.5	0.65%	
AcuEffSaoEcrAc	*Acacia curryana* (P1) tall open shrubland over *Eremophila forrestii* subsp. *forrestii* and *Senna artemisioides* subsp. *oligophylla* low open shrubland over *Enneapogon caerulescens* and *Aristida contorta* open tussock grassland.	2-S1 2-S2 Yinn04	**Cenchrus ciliaris, Ptilotus obovatus* var. *obovatus*, *Sida* sp. spiciform panicles (E. Leyland s.n. 14/8/90), *Solanum lasiophyllum.*	66.3	0.59%	

Vegetation Type Code	Vegetation type description	Sample Sites	Associated species	Extent within the Survey Area		Representative Photograph
				Area (ha)	Proportion (%)	
AaSglEcr	*Acacia aptaneura* tall open shrubland over *Senna glutinosa* subsp. *xluerssenii* scattered shrubs over *Enneapogon caerulescens* very open tussock grassland.	2-R1 2-R2 C8	**Cenchrus ciliaris, Eremophila cuneifolia, Senna artemisioides* subsp. *helmsii, Solanum lasiophyllum.*	8.3	0.07%	
Flood Plains						
AssHpReAsSahCc	*Acacia sclerosperma* subsp. *sclerosperma* and *Hakea preissii* tall open shrubland over *Rhagodia eremaea*, *Acacia synchronicia* and *Senna artemisioides* subsp. *helmsii* shrubland over **Cenchrus ciliaris* scattered tussock grasses.	H7 I3 I5 N1 Yinn10 Yinn18	*Acacia curryana* (P1), *Acacia tetragonophylla, Eremophila maitlandii, Goodenia forrestii, Isotropis forrestii* (P1), *Salsola australis, Senna artemisioides* subsp. *Oligophylla, Senna glaucifolia, Sporobolus blakei* (P3), *Streptoglossa bubakii, Stylobasium spathulatum.*	791.1	7.05%	

Vegetation Type Code	Vegetation type description	Sample Sites	Associated species	Extent within the Survey Area		Representative Photograph
				Area (ha)	Proportion (%)	
AcsHpAsEcuSmReMspp.Sspp.	*Acacia cuspidifolia*, *Hakea preissii* and *Acacia syncronicia* tall open shrubland over *Eremophila cuneifolia*, *Senna* sp. Meekatharra (E. Bailey 1-26) and *Rhagodia eremaea* open shrubland over *Maireana* spp. and *Sclerolaena* spp. scattered herbs.	I6 L8 M3 M4 O7	**Cenchrus ciliaris, Acacia tetragonophylla, Acacia xiphophylla, Aristida contorta, Dissocarpus paradoxus, Enteropogon ramosus, Maireana carnosa, Maireana melanocoma, Maireana tomentosa* subsp. *tomentosa, Ptilotus exaltatus, Scaevola spinescens, Sclerolaena cuneata, Senna artemisioides* subsp. *helmsii, Senna artemisioides* subsp. *oligophylla, Solanum lasiophyllum.*	625.5	5.58%	
AcsAssHpReSaoFs	*Acacia cuspidifolia*, *Acacia sclerosperma* subsp. *sclerosperma* and *Hakea preissii* tall open shrubland over *Rhagodia eremaea* and *Senna artemisioides* subsp. *oligophylla* scattered shrubs over *Frankenia s*etosa low open shrubland.	M1 M2 N3	**Cenchrus ciliaris, Boerhavia coccinea, Dactyloctenium radulans, Enteropogon ramosus, Eremophila pterocarpa* subsp. *Pterocarpa, Salsola australis, Sclerolaena densiflora, Sclerolaena tridens, Senna* sp. Meekatharra (E. Bailey 1-26), *Senna glutinosa subsp.* ×luerssenii, *Stylobasium spathulatum.*	347.5	3.10%	
Stone Plains and Outcropping						

Vegetation Type Code	Vegetation type description	Sample Sites	Associated species	Extent within the Survey Area		Representative Photograph
				Area (ha)	Proportion (%)	
AcuEeSahAc	*Acacia curryana* (P1), *Eremophila exilifolia* and *Senna artemisioides* subsp. *helmsii* open shrubland over *Aristida contorta* very open tussock grassland.	C7 N6 O11 O12 Z1 *Yntr02	*Acacia kempeana, Acacia tetragonophylla, Solanum lasiophyllum, Sporobolus blakei* (P3).	762.6	6.80%	
AtEeSahAc	*Acacia tetragonophylla, Eremophila exilifolia* and *Senna artemisioides* subsp. *helmsii* open shrubland over *Aristida contorta* open tussock grassland.	2-C11 2-Yinn01 K2 O8 *Reljm02	*Acacia curryana* (P1), *Ptilotus obovatus* var. *obovatus*	325.2	2.90%	

Vegetation Type Code	Vegetation type description	Sample Sites	Associated species	Extent within the Survey Area		Representative Photograph
				Area (ha)	Proportion (%)	
AtSahAcCcCa	*Acacia tetragonophylla* tall open shrubland over *Senna artemisioides* subsp. *helmsii* scattered shrubland over *Aristida contorta*, **Cenchrus ciliaris* and *Cymbopogon ambiguus* very open tussock grassland.	K3 K4 K5 K6 K7	*Acacia citrinoviridis, Acacia curryana* (P1), *Acacia kempeana, Arivela viscosa, Boerhavia coccinea, Corchorus crozophorifolius, Eremophila latrobei* subsp. *latrobei, Eriachne aristidea, Eriachne pulchella* subsp. *Domini, Evolvulus alsinoides* var. *villosicalyx, Gomphrena kanisii, Portulaca oleracea, Ptilotus obovatus* var. *obovatus, Solanum lasiophyllum.*	287.5	2.56%	
Drainage - Minor to Moderate						
AkAfSahAcEaCc	*Acacia kempeana* and *Acacia fuscaneura* tall shrubland over *Senna artemisioides* subsp. *helmsii* scattered shrubs over *Aristida contorta, Eriachne aristidea* and *Cenchrus ciliaris* open tussock grassland.	H1 I1 I2 I4 Yinn06 *Spr01	*Acacia cuthbertsonii* subsp. *Cuthbertsonii, Acacia curryana* (P1), *Acacia synchronicia, Acacia tetragonophylla, Arivela viscosa, Corchorus crozophorifolius, Digitaria brownii, Dodonaea petiolaris, Enneapogon caerulescens, Eragrostis cumingii, Eragrostis leptocarpa, Eremophila phyllopoda* subsp. *phyllopoda, Evolvulus alsinoides* var. *villosicalyx, Hibiscus* sp. Gardneri (A.L. Payne PRP 1435), *Leichhardtia australis, Portulaca oleracea, Ptilotus obovatus* var. *obovatus, Senna artemisioides* subsp. *oligophylla, Senna glaucifolia, Senna glutinosa* subsp. *×luerssenii, Solanum lasiophyllum, Sporobolus blakei* (P3), *Trachymene pilbarensis.*	917.1	8.18%	
Drainage – Major						

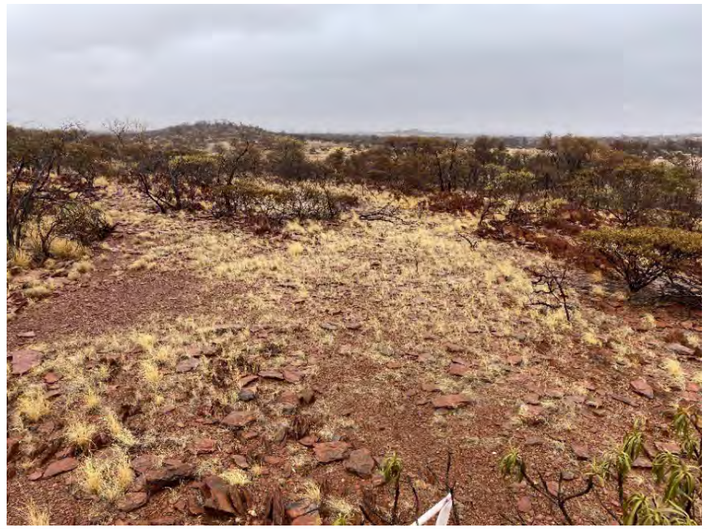
Vegetation Type Code	Vegetation type description	Sample Sites	Associated species	Extent within the Survey Area		Representative Photograph
				Area (ha)	Proportion (%)	
EcoAciCvCc	*Eucalyptus camaldulensis* subsp. *obtusa* and *Acacia citrinoviridis* woodland over *Cyperus vaginatus* very open sedgeland over **Cenchrus ciliaris* open tussock grassland.	G2 G3 G4 G5 Yinn09	**Argemone ochroleuca* subsp. *Ochroleuca, Acacia coriacea* subsp. *Pendens, Acacia curryana* (P1), *Alternanthera denticulata* var. *denticulata, Arivela viscosa, Crotalaria cunninghamii* subsp. *Sturtii, Dodonaea amplisemina* (P4), *Eragrostis tenellula, Erythrina vespertilio, Euphorbia biconvexa, Ipomoea muelleri, Pluchea rubelliflora, Pterocaulon sphacelatum, Sesbania cannabina, Stemodia viscosa, Wurmbea fluviatilis* (P3)	363.3	3.24%	
Drainage – Minor						
AfAccAkSahCcAcDc	*Acacia fuscaneura*, *Acacia cuthbertsonii* subsp. *cuthbertsonii* and *Acacia kempeana* tall open shrubland over *Senna artemisioides* subsp. *helmsii* scatter shrubs over *Cenchrus ciliaris*, *Aristida contorta* and *Digitaria ctenantha* very open tussock grassland.	H2 H3 H4 H5 H6 *Spr02	*Abutilon cryptopetalum, Acacia citrinoviridis, Acacia curryana* (P1), *Acacia tetragonophylla, Arivela viscosa, Chrysopogon fallax, Corchorus crozophorifolius, Eremophila latrobei* subsp. *latrobei, Eremophila phyllopoda* subsp. *phyllopoda, Eriachne aristidea, Evolvulus alsinoides* var. *villosicalyx, Hibiscus* sp. Gardneri (A.L. Payne PRP 1435), *Indigofera decipiens, Psydrax latifolia, Ptilotus obovatus* var. *obovatus, Senna glaucifolia, Solanum lasiophyllum.*	219.4	1.96%	

Vegetation Type Code	Vegetation type description	Sample Sites	Associated species	Extent within the Survey Area		Representative Photograph
				Area (ha)	Proportion (%)	
AiAkAtSahPooDbAc	*Acacia incurvaneura* and *Acacia kempeana* low woodland over *Acacia tetragonophylla*, *Senna artemisioides* subsp. *helmsii* and *Ptilotus obovatus* var. *obovatus* open shrubland over *Digitaria brownii* and *Aristida contorta* open tussock grassland.	I8 J1 J2	*Abutilon cryptopetalum, Acacia citrinoviridis, Evolvulus alsinoides* var. *villosicalyx*, *Glycine canescens, Hibiscus* sp. Gardneri (A.L. Payne PRP 1435), *Paspalidium clementii, Eremophila phyllopoda* subsp. *Phyllopoda, Solanum lasiophyllum.*	42.1	0.38%	
Hillslopes and Hillcrests						
AaAtEppAc	*Acacia aptaneura* and *Acacia tetragonophylla* tall shrubland over *Eremophila phyllopoda* subsp. *phyllopoda* open shrubland over *Aristida contorta* very open tussock grassland.	D1 D2 D3 D4 O4	*Cheilanthes brownii, Dodonaea petiolaris, Eremophila latrobei subsp. latrobei, Ptilotus obovatus* var. *obovatus.*	122.6	1.09%	
Outcropping and Hillcrests						

Vegetation Type Code	Vegetation type description	Sample Sites	Associated species	Extent within the Survey Area		Representative Photograph
				Area (ha)	Proportion (%)	
AfAcuSgAc	*Acacia fuscaneura* tall open woodland over *Acacia curryana* (P1) and *Senna glaucifolia* open shrubland over *Aristida contorta* open tussock grassland.	N2 Yinn16 Yinn17 *Reljm01	*Eriachne pulchella* subsp. *Dominii*, *Gomphrena kanisii*, *Goodenia tenuiloba*, *Senna artemisioides* subsp. *helmsii*, *Solanum lasiophyllum, Tribulus suberosus.*	73.8	0.66%	
AfEllCc	*Acacia fuscaneura* low open woodland over *Eremophila latrobei* subsp. *latrobei* scattered shrubs over *Cenchrus ciliaris* very open tussock grassland.	2-P2 K1 P1	*Abutilon oxycarpum* subsp. *prostrate, Enneapogon caerulescens, Eremophila exilifolia, Gomphrena cunninghamii, Paspalidium clementii.*	3.8	0.03%	
Drainage – Moderate						

Vegetation Type Code	Vegetation type description	Sample Sites	Associated species	Extent within the Survey Area		Representative Photograph
				Area (ha)	Proportion (%)	
AdAssHpSscReCcCs	*Acacia demissa, Acacia sclerosperma* subsp. *Sclerosperma* and *Hakea preissii* woodland over *Santalum spicatum* and *Rhagodia eremaea* open woodland over *Cenchrus ciliaris* and *Cenchrus setiger* tussock grassland.	2-I10 2-I9 I7	*Acacia citrinoviridis, Acacia curryana* (P1), *Acacia synchronicia, Sclerolaena cuneata, Stylobasium spathulatum.*	52.7	0.47%	
Depressions						
HpAtAsEcuReSmEaEf	*Hakea preissii, Acacia tetragonophylla* and *Acacia synchronicia* tall shrubland over *Eremophila cuneifolia*, *Rhagodia eremaea* and *Senna* sp. Meekatharra (E. Bailey 1-26) open shrubland over *Eriachne aristidea* and *Eriachne flaccida* tussock grassland.	2-Q6 2-Q7 2-T2 2-Yinn03 Q2 *Yntr03	**Cenchrus ciliaris, Acacia xiphophylla, Alternanthera denticulata* var. *denticulata*, *Sclerolaena cuneata, Senna artemisioides* subsp. h*elmsii*.	21.3	0.19%	

Vegetation Type Code	Vegetation type description	Sample Sites	Associated species	Extent within the Survey Area		Representative Photograph
				Area (ha)	Proportion (%)	
AtAsyErSaoEaCcEs	*Acacia tetragonophylla* and *Acacia synchronicia* tall open shrubland over *Eremophila reticulata and Senna artemisioides* subsp. *oligophylla* low scattered shrubs over *Eriachne aristidea*, **Cenchrus ciliaris* and *Eragrostis setifolia* tussock grassland.	2-Q4 2-Q5 Q3	**Malvastrum americanum, *Setaria verticillata, Alternanthera denticulata* var. *denticulata, Enchylaena tomentosa* var. *tomentosa, Goodenia berringbinensis* (P4), *Ptilotus obovatus* var. *obovatus, Salsola australis, Solanum lasiophyllum.*	7.6	0.07%	
AkAtApPooSahEtEf	*Acacia kempeana*, *Acacia tetragonophylla*, *Acacia pruinocarpa* tall shrubland over *Ptilotus obovatus* var. *obovatus* and *Senna artemisioides* subsp. *helmsii* scattered low shrubs over *Eriachne aristidea* and *Eriachne flaccida* tussock grassland.	2-J4 J3 Q1	**Cenchrus ciliaris, *Malvastrum americanum, Acacia citrinoviridis, Acacia curryana* (P1), *Alternanthera denticulata* var. *denticulata, Eremophila phyllopoda* subsp. *Phyllopoda, Solanum lasiophyllum*.	6.9	0.06%	
Outcropping and Hillslopes						

Vegetation Type Code	Vegetation type description	Sample Sites	Associated species	Extent within the Survey Area		Representative Photograph
				Area (ha)	Proportion (%)	
AiAtEllEppAc	*Acacia incurvaneura* tall open shrubland over *Eremophila latrobei* subsp. *latrobei* and *Eremophila phyllopoda* subsp. *phyllopoda* open shrubland over *Aristida contorta* very open tussock grassland.	2-Yinn13 E1 E2 E3 E4 K8 KJ9 O1	*Acacia tetragonophylla, Eremophila phyllopoda* subsp. *phyllopoda, Senna artemisioides* subsp. *helmsii, Dodonaea pachyneura, Enneapogon caerulescens, Eriachne pulchella* subsp. *dominii, Gomphrena kanisii, Grevillea berryana, Indigofera monophylla, Ptilotus obovatus* var. *obovatus, Ptilotus schwartzii* var. *schwartzii, Senna glaucifolia, Senna glutinosa* subsp. *×luerssenii*, *Sida* sp. dark green fruits (S. van Leeuwen 2260), *Solanum lasiophyllum, Tribulus suberosus*.	29.0	0.26%	
Sand Plains						
AcuAkSahCcPooAhhAc	*Acacia curryana* (P1) and *Acacia kempeana* tall open shrubland over *Senna artemisioides* subsp. *helmsii*, *Corchorus crozophorifolius* and *Ptilotus obovatus* var. *obovatus* open shrubland over *Aristida holathera* var. *holathera* and *Aristida contorta* open tussock grass	2-Yinn07 B1 B2 B3	**Cenchrus ciliaris, Acacia tetragonophylla, Eragrostis eriopoda, Evolvulus alsinoides* var. *villosicalyx, Hibiscus burtonii, Indigofera decipiens, Solanum lasiophyllum.*	24.5	0.22%	
Various Landforms						

Vegetation Type Code	Vegetation type description	Sample Sites	Associated species	Extent within the Survey Area		Representative Photograph
				Area (ha)	Proportion (%)	
CD	Cleared areas.	N/A		4.5	0.04%	
Total				11,215.3	100.00%	

* Denotes a relevé.

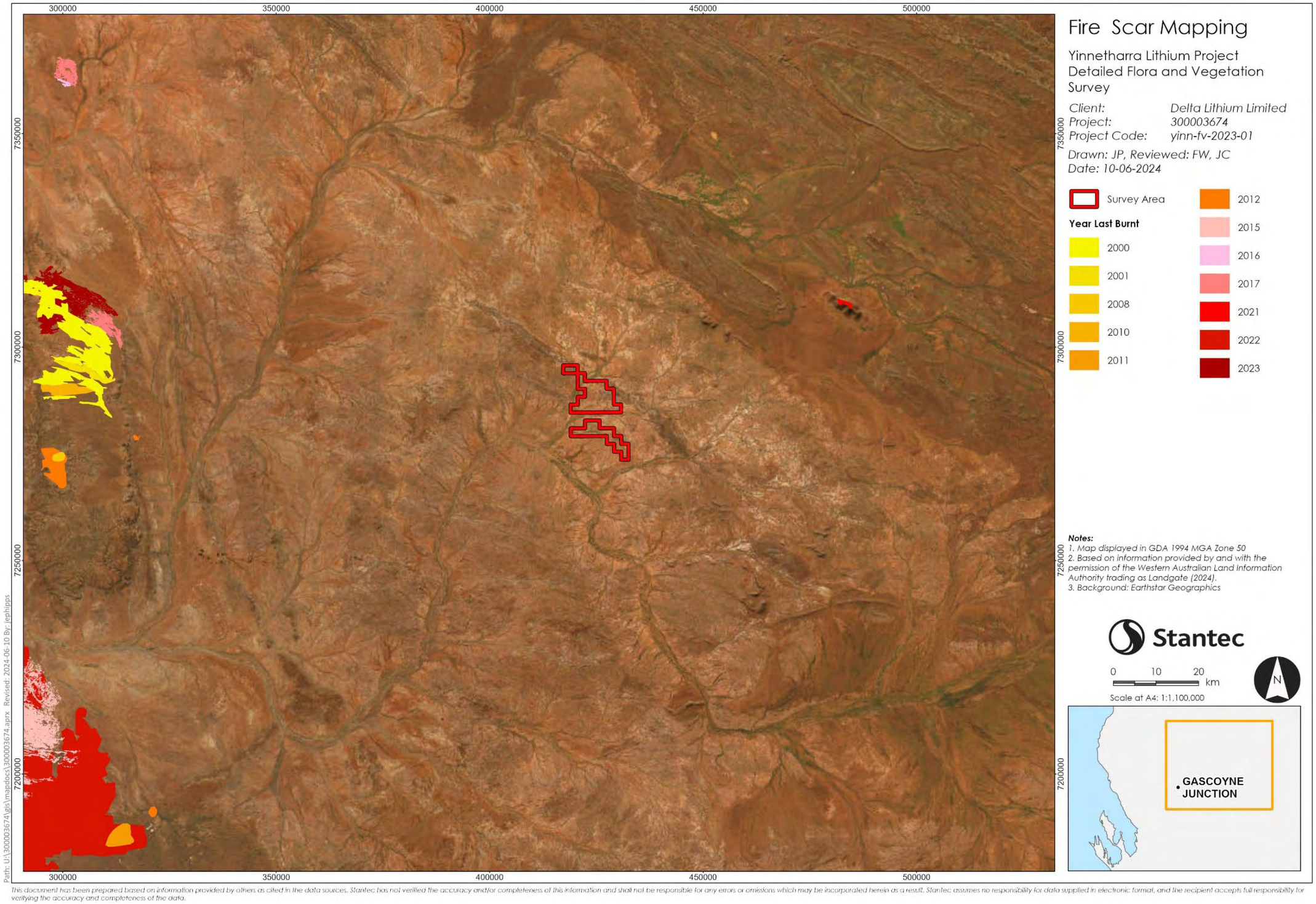


Figure 5-5: Fire scar mapping in the vicinity of the Survey Area.

5.2.2 Floristic Analysis

The statistical analysis conducted in Primer 7 was applied at a local scale to the Yinnetharra dataset and a regional contextual scale on the Yinnetharra data in combination with the Ecoscape (2015) Yangibana dataset.

5.2.2.1 Local Analysis

At a local scale, the floristic classification results have been presented in the dendrograms provided within **Appendix N**. These statistical classification results broadly aligned with the vegetation types that were identified through the mapping component of this project. The dendrogram indicated that most quadrats defining the vegetation types correspond well with the statistical analysis groupings. The dendrogram reflected the vegetation types as identified by the field team, with minimal manual adjustment require. A 42% similarity cut-off was applied to the Group Average classification results, creating 35 vegetation groups. This 42% cut-off was selected as it effectively balanced the number of groupings, avoiding excessive granularity or overgeneralisation and accurately represented the vegetation types observed in the sampled sites. Quadrats within major drainage and potential GDV landforms were represented by *Eucalyptus camaldulensis* subsp. *obtusa* woodland featuring in the overstorey, with *Acacia citrinoviridis* trees and *Cyperus vaginatus* sedges (EcoAciCvCc). This vegetation community also includes introduced buffel grass (**Cenchrus ciliaris*).

5.2.2.2 Regional Contextual Analysis

At a regional scale, the vegetation grouping results of the contextual analysis with the Ecoscape (2015) Yangibana dataset have been presented in **Appendix O**. The classification analysis results showed a fairly clear separation at a regional scale in statistical space between the Stantec Yinnetharra quadrats and the Ecoscape (2015) quadrats. The regional contextual statistical analysis applied a Flexible Beta approach, with a cutoff applied using a cophenetic distance of 78, resulting in 19 broad vegetation community types identified for the region (**Appendix O**). Statistical grouping was observed however for both project areas for major drainage lines including *Eucalyptus camaldulensis, Eucalyptus victrix* or *Acacia citrinoviridis* (Stantec Yinnetharra: EcoAciCvCc; Ecoscape Yangibana: Supergroup 1, including vegetation types EcMgCC, EvCC and AcAsCC). This is consistent with the expected outcome for regions of low sample diversity. Widespread vegetation types such as major drainage lines and river systems can show a more consistent grouping at bioregional level, while smaller more restricted vegetation types are limited to small, isolated locales. The remainder of the regional analysis results generally aligned with Yinnetharra quadrats as being unique relative to the Yangibana data.

5.2.2.3 Non-metric Multi-dimensional Scaling Plots

A Bray-Curtis (B-C) similarity matrix was produced and a range of non-metric Multi-Dimensional Scaling (nMDS) ordinations and Group Average Hierarchical Classifications were produced to observe the broader grouping patterns across all sites. The results of the nMDS procedure are represented by a plot, grouping sites with similar species composition together and separating sites that are dissimilar. The strength of the analysis is indicated by a stress value that is generated by the nMDS, with a value of <0.2 regarded as an adequate explanation of the data (Clarke and Gorley 2015). The 2D representation of the Stantec data shows a moderate level of overlap between the vegetation groups previously mapped and used as a factor in the analysis (**Figure 5-6**). The floristic composition of quadrats showed the strongest groupings correlated to those located within the more distinct landform types such as gorges and riparian vegetation.

The initial nMDS ordination showed that one site was a clear outlier in the analysis, and skewed the results, therefore this was removed from the analysis. Following the removal of this site, a new nMDS was produced that showed normal grouping around the ordination centroid, confirming that the outlier site was the cause of the skewing.

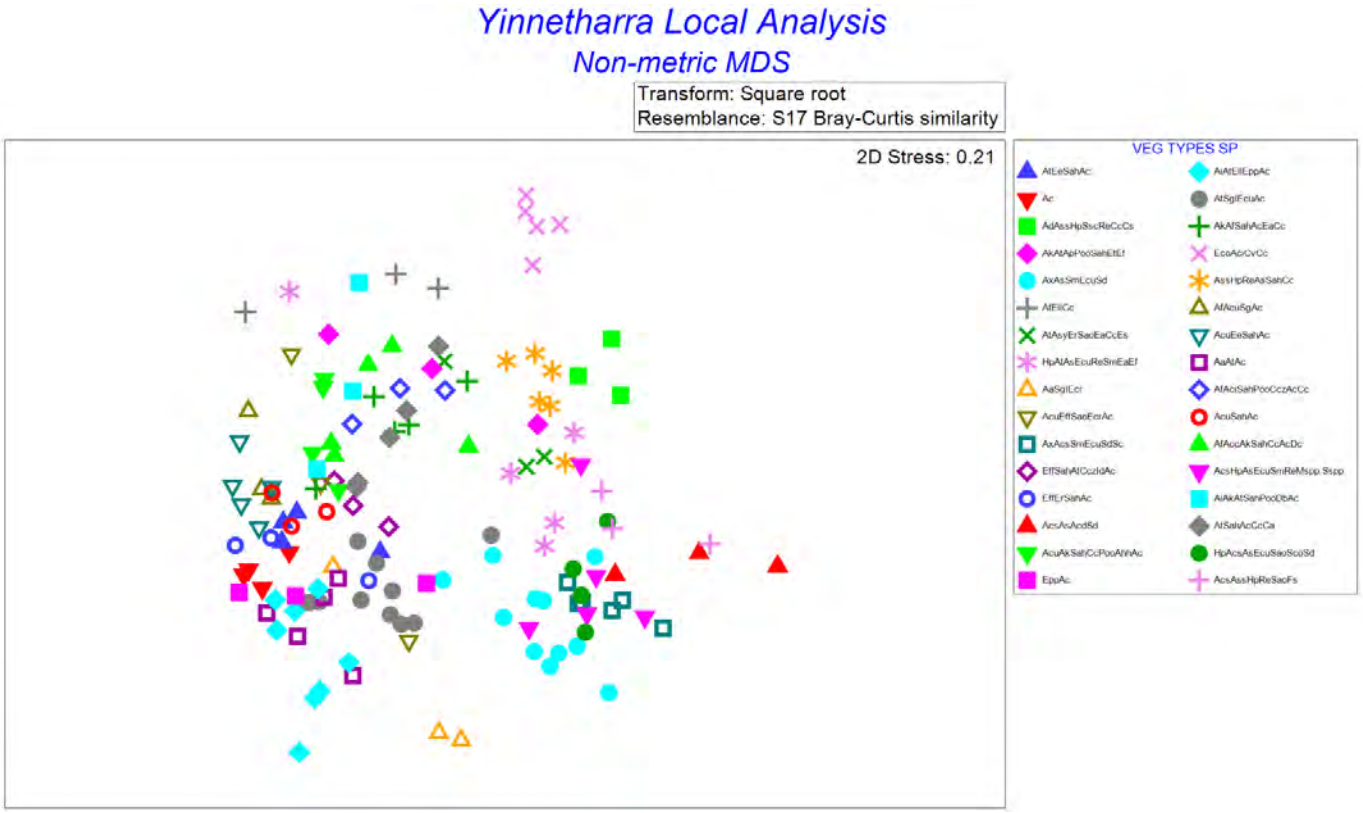


Figure 5-6: Non-metric multi-dimensional scaling (2-dimensional stress: 0.21).

5.2.3 Vegetation of Significance

None of the vegetation types identified and described within the Survey Area were considered analogous to any State or Commonwealth listed TECs or PECs. The vegetation within the Survey Area has been assessed for significance in the subsections below with consideration of the criteria presented in **Section 3.5.4**.

Vegetation of Restricted Distribution

None of the vegetation types are considered restricted and are likely to be typical for the region and present outside of the Survey Area. The smallest vegetation types, occupying the least extents within the Survey Area, include:

- **AfEllCc**: 3.78 ha (0.03%)
- **AkAtApPooSahEtEf**: 6.94 ha (0.06%)
- **AtAsyErSaoEaCcEs**: 7.58 ha (0.07%)
- **AaSglEcr**: 8.34 ha (0.07%)

Historical impact from threatening processes to vegetation

Historical disturbances, primarily due to cattle grazing and weed infestation from agricultural activities, have affected approximately 42.02% of the area (**Table 5-8**). However, only a small percent (7.18%) of the vegetation is classified as 'Degraded' to 'Completely Degraded', which can be attributed to clearing for main roads and tracks. None of the vegetation affected is considered vegetation of significance.

Vegetation Providing Important Ecosystem Function (Potential Groundwater dependent vegetation)

Eucalyptus camaldulensis, considered to be a key facultative phreatophytic tree species and a key potential GDV indicator, was recorded within the Survey Area. *Eucalyptus camaldulensis* subsp. *obtusa* is a dominant feature of the upper strata in one vegetation type (EcoAciCvCc): *Eucalyptus camaldulensis* subsp. *obtusa* and *Acacia citrinoviridis* woodland over *Cyperus vaginatus* very open sedgeland over **Cenchrus ciliaris* open tussock grassland (**Table 5-7**). This vegetation type is analogous with the 'moderate' potential GDE mapped by BAP (BAP 2016; BoM 2024a) (**Table 2-5,Figure 2-6)**associated with House Creek and Thirty-three River within the Survey Area . This vegetation type occupies 363.3 hectares (3.2% of the Survey Area).

Vegetation type EcoAciCvCc was dominated in the lower strata by *Cenchrus ciliaris, with other weed species also present. The vegetation structure has been significantly altered by historical and ongoing pastoral activities, including erosion of substrates by stock, therefore vegetation condition was rated as 'Degraded'.

Vegetation Supporting Priority Flora

Vegetation supporting Priority flora may be considered designated as core habitat if it includes a Priority species as a dominant species. A dominant species within a vegetation type is defined as one of the top three species with the highest percentage of occurrence across one or more strata that constitute the vegetation type.

Five vegetation types exhibited *Acacia curryana* (P1) as a dominant species and are therefore considered to represent core habitat:, providing important refuge:

- AcuEeSahAc: *Acacia curryana* (P1), *Eremophila exilifolia* and *Senna artemisioides* subsp. *helmsii* open shrubland over *Aristida contorta* very open tussock grassland (762.61 ha, 6.80%)
- AcuSahAc: *Acacia curryana* (P1) and *Senna artemisioides* subsp. *helmsii* scattered shrubs over *Aristida contorta* very open tussock grassland (146.72 ha, 1.31%).
- AfAcuSgAc: *Acacia fuscaneura* tall open woodland over *Acacia curryana* (P1) and *Senna glaucifolia* open shrubland over *Aristida contorta* open tussock grassland (73.81, 0.66%)
- AcuEffSaoEcrAc: *Acacia curryana* (P1) tall open shrubland over *Eremophila forrestii* subsp. *forrestii* and *Senna artemisioides* subsp. *oligophylla* low open shrubland over *Enneapogon caerulescens* and *Aristida contorta* open tussock grassland (66.34 ha, 0.59%).
- AcuAkSahCcPooAhhAc: *Acacia curryana* (P1) and *Acacia kempeana* tall open shrubland over *Senna artemisioides* subsp. *helmsii*, *Corchorus crozophorifolius* and *Ptilotus obovatus* var. *obovatus* open shrubland over *Aristida holathera* var. *holathera* and *Aristida contorta* open tussock grass (24.47 ha, 0.22%)

Collectively, these vegetation types represent 9.58% (1,073.95 ha) of the Survey Area and all support *Acacia curryana* (P1) . These vegetation types are not considered restricted and are likely to be present in the landscape outside of the Survey Area. No other significant flora species exhibited dominance within the vegetation types in which they occurred.

5.2.4 Vegetation Condition

Vegetation condition ranges from 'Excellent' to 'Completely Degraded', with the majority of the Survey Area (57.96%) mapped as 'Excellent' condition (**Table 5-8; Appendix P**). Most of the drainage lines in the Survey Area have been heavily impacted by invasive weed species such as **Cenchrus ciliaris* and cattle grazing. Consequently, these areas have been mapped as 'Degraded' and comprise 765.5 ha or 6.83% of the Survey Area. Vegetation near mining exploration activity was typically rated as 'Good' to 'Degraded' given the fragmentation of vegetation and indirect effects of the nearby cleared land. Cleared land associated with roads, tracks and mining activities was mapped as 'Completely Degraded' and comprised 39.4 ha (0.35%) of the Survey Area (**Table 5-8; Appendix P)**.

Detailed figures of the vegetation condition mapping are presented in **Appendix P**. Vegetation condition mapping within areas that were not traversed by the survey teams were, where applicable, extrapolated based on knowledge of likely analogous landforms and vegetation within the Survey Area that were traversed.

Weed proliferation is observed to be a common form of degradation to the vegetation condition and weeds were typically associated with drainage vegetation within the Survey Area. Impacts to vegetation due to cattle activity was most obvious in association most drainage lines within the Survey Area.

Relationships between fire and the ecosystems of arid and semi-arid Australia over millennia has been extensively studied (Gill *et al.* 1999; Nano *et al.* 2012; Parsons and Gosper 2011; Turner *et al.* 2008), and the fire history and patterns observed

in the Survey Area do not suggest a frequency or intensity other than what would be expected to naturally occur. The Survey Area was not adversely affected by any recent burning activities **(Figure 5-5)**.

Table 5-8: Vegetation condition within the Survey Area.

Condition (EPA 2016a; Trudgen 1998)	Extent within the Survey Area	
	Area (ha)	Proportion (%)
Excellent	6,500.62	57.96
Very good	1,756.63	15.67
Good	1,180.75	10.53
Poor	972.4	8.66
Degraded	765.53	6.83
Completely degraded	39.37	0.35
Total	**11,215.3**	**100.00%**

*Totals may differ by a small margin of error due to rounding.

6. Limitations and Constraints

There are a number of potential limitations and constraints that can affect the adequacy of flora and vegetation surveys. Potential limitations and constraints for the Survey and report are discussed in **Table 6-1**.

Table 6-1 Potential limitations and constraints associated with the Survey.

Factor	Constraint	Comments
Competency and experience of consultants	No	The field teams comprised personnel with considerable experience in conducting flora and vegetation surveys in the Eremaean Botanical Province. The Survey Lead, Scott Pansini has over 5 years of experience planning and leading detailed field trips in the Eremaean province. Flora specimen identifications were undertaken by Principal Taxonomist Sharnya Yates and Udani Sirisena both of whom have extensive experience in identifying WA flora. Some specimens were confirmed by Michael Hislop when a second opinion was necessary via formal submission through the WAH. Statistical analyses were undertaken by Conrad Slee who is highly experienced in performing analysis with large datasets.
Scope	No	The scope was well-defined, and flora and vegetation of the Survey Area were surveyed using standardised and well-established techniques. The desktop assessment was undertaken prior to the Survey to inform field personnel of the potential occurrence of factors of environmental significance. The approach included Preliminary, Dual Phase Detailed, and Targeted surveys, which were adequate to comprehensively understand the flora and vegetation values of the Survey Area, thereby informing future environmental approvals. Additionally, the duration of these surveys was sufficient for the survey teams to achieve the project's scope.
Proportion of species identified	Minor	A consolidated total of 325 vascular flora taxa have been recorded within the Survey Area. Most taxonomic groups expected within the Survey Area were represented and the total floristic richness was considered comparable to other surveys in the area conducted during similar seasonal conditions. The relatively high floristic richness is attributable in part to size (11,215.3 ha) and the range of landforms and habitats present in the Survey Area. The proportion of specimens that could not be identified due to poor material and/or lack of diagnostic characteristics is high (37%). This is likely attributed to below-average rainfall in the months preceding one or more of the surveys, resulting in underdeveloped reproductive material or poor health of species. None of these species are considered to represent Threatened flora, based on tentative identifications and the desktop assessment.
Information sources (e.g. historic or recent)	Minor	Prior to the Stantec surveys, no previous flora and vegetation surveys had been undertaken within the Survey Area. Contextual information was limited to broad-scale vegetation mapping and landform mapping (Beard 1975; Tille 2006; Wilcox and McKinnon 1972), Database searches supplied by DBCA (DBCA 2023b, DBCA 2023c, DBCA 2023d) and, only three few publicly available reports from the bioregion produced by Ecoscape (2015; 2019) and Eco Logical (2020).
Completeness and intensity	Minor	A total of 153 sample sites, comprised of 142 quadrats and 11 relevés, were sampled by Stantec across the Survey Area, equivalent to one survey site per 73 ha. The survey intensity is deemed adequate for the size of the Survey Area and the number of vegetation types described. Targeted surveys were focused on likely habitat for priority flora within the areas proposed to be impacted.

Factor	Constraint	Comments
		All vegetation types were subject to adequate survey intensity, with a minimum of three survey site (quadrat) replications. Overall, the survey intensity is considered adequate to define the flora and vegetation values of the Survey Area.
Timing / weather / season / cycle	Moderate	Surveys were timed to coincide with the recommended seasons for flora and vegetation surveys as prescribed by EPA (2016a). However, rainfall in the six months prior to both Phase 1 and Phase 2 surveys was considerably below the long-term mean. Rainfall in the months prior to the Targeted Survey was deemed adequate for the team to locate and sample significant flora species. Given the insufficient rainfall preceding one or more of the surveys, and the limited access within the Survey Area, it is likely that additional populations of several of the recorded Priority flora occur within the Survey Area, compared to the records portrayed within **Figure 5-2** and **Table 4-4**. Additional populations of significant flora species, within vegetation types considered core habitat or that may facilitate significant species, could be identified through subsequent targeted surveys.
Disturbance	No	Yinnetharra and Mount Philip stations are active cattle stations, which has degraded vegetation condition in some areas the Survey Area. Despite this, vegetation structure across three dominant strata was distinguishable.
Resources	No	Resources were adequate to carry out the Survey and the field personnel were competent in the identification of species present. Herbarium specimens, taxonomic guides, DBCA database searches, and Florabase were all used to prepare for the Survey, and during the subsequent data management. Specimen identification was conducted by experienced taxonomists.
Remoteness / access problems	Minor	The limited access to many portions of the Survey Area constrained the intensity and completeness of the surveys. Access to many sections of the Survey Area was constrained by the lack of access and drivable tracks, necessitating extensive distances to be covered on foot. For locations within the Survey Area that were not accessible, vegetation type and condition mapping was inferred and extrapolated from high-quality aerial imagery, undertaken by experienced Senior botanists.

7. Conclusions

Delta commissioned Stantec to undertake a dual phase Detailed Flora and Vegetation Survey of the Yinnetharra Project Area (the Survey Area). The objective of the Detailed Survey was to serve as a baseline assessment to comprehensively understand the key environmental factors that may be impacted by developments, therefore, to inform future environmental approvals for the Project. This was achieved by conducting a comprehensive desktop assessment, Detailed Flora and Vegetation Survey, Targeted Significant Flora Survey, and vegetation and condition mapping for the Survey Area. The key results and conclusions are as follows:

A consolidated total of 325 fully identified vascular flora (including species, subspecies, varieties, forms, hybrids, native and introduced species) have been recorded within the Survey Area to-date, The 325 vascular flora comprise 55 families and 159 genera, and typical of most botanical surveys in the Gascoyne bioregion, the most represented families were Fabaceae (peas), Poaceae (grasses) and Chenopodiaceae (goosefoots), and the most diverse genus was Acacia (wattles) (**Table** 4-2). There were 119 records from the Survey that could not be fully identified to species or sub-species level (where applicable). This is likely attributed to below-average rainfall in the months preceding one or more of the surveys, resulting in underdeveloped reproductive material or poor health of species. None of these species are considered to represent Threatened flora, based on tentative identifications and the desktop assessment.

The desktop assessment identified and Two Threatened species (*Pityrodia augustensis* (T/Vu) and *Thryptomene wittweri* (T/Vu) listed under both the EPBC Act and BC Act, as well as 38 other State-listed (BC Act) significant flora as occurring within 100 km of the Survey Area. Of these,15 are Priority 1 (P1), 8 are Priority 2 (P2), 13 are Priority 3 (P3) and two are Priority 4 (P4) taxa. The post-survey likelihood of occurrence concluded that one Priority species is still considered 'likely' to occur, while it is considered 'possible' that an additional seven species could occur. The known locations of these eight species are within 50 km of the Survey Area, and/or suitable habitat capable of supporting these taxa exists within the Survey Area.

Range extensions were assigned to species records that were outliers of their current distribution or if known records were do not occur within the Gascoyne bioregion. The total number of bioregional range extensions (25) were recorded within the Survey Area and are likely reflective of the absence of Detailed Flora surveys conducted in the surrounding area and Gascoyne subregion.

Several broad landform types occur within the Survey Area, the most common of which are Stony plains, lower tributary drainage plains and low stony rises supporting vegetation that broadly consisted of *Acacia* tall shrublands *Senna* and *Eremophila* shrublands, and *Sclerolaena* and *Maireana* low shrublands with *Aristida* and *Cenchrus* tussock grassland. Thirty-two vegetation types were described and mapped in the Survey Area, and the vegetation is considered typical of comparable landforms in the Gascoyne bioregion.

None of the 32 vegetation types recorded within the Survey Area are analogous with any of the TECs or PECs known to occur within the Gascoyne bioregion and none of the known occurrences of TECs or PECs occur within the Survey Area. However, five vegetation types are considered core habitat for the Priority 1 species, *Acacia curryana*, which is a dominant species within each of these vegetation types. Together, these five vegetation types comprise 9.58% (1,073.95 ha) of the Survey Area.

Vegetation condition ranges from ‘Excellent’ to ‘Completely Degraded’. The majority of the Survey Area is in ‘Excellent’ condition, representing 57.96%. ‘Very Good’ accounted for 15.67%, ‘Good’ for 10.53%, ‘Poor’ for 8.67%, ‘Degraded’ for 6.83% and ‘Completely Degraded’ makes up 0.35%. Historic and current pastoral activities, public roads, current mining activities were attributable to ‘Completely Degraded’ areas of in the Survey Area.

The statistical analysis results broadly validated vegetation mapping conducted by the survey botanists, with correlations between the most distinct vegetation types and floristic groups. A comparison of the floristic groupings identified during the Surveys with those recorded by Ecoscape in 2015 highlight notable regional disparities between the two datasets. This divergence suggests that the ecological and environmental factors influencing floristic distribution may differ significantly due to the spatial variation between these areas..

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Appendices

Appendix A Codes and Terms used to Describe Species of Significance

Flora and certain ecological communities may be accorded legislative protection by being listed under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and/or the Biodiversity Conservation Act 2016 (WA) (BC Act), or by being listed on the Department of Biodiversity, Conservation, and Attractions Priority List. This Appendix presents a summary of the different rankings and listings used to describe conservation status. Some categories, such as 'extinct', 'extinct in the wild' and 'conservation dependent' (EPBC Act) are not presented here, as the table includes only the information needed to fully understand the codes presented in the preceding report. Refer to the relevant legislation for a full description of all codes in use, as well as their associated criteria.

The Environmental Factor Guideline for Flora and Vegetation (EPA 2016b) states that flora and vegetation may be considered significant for a range of reasons, including, but not limited to the following:

- **Flora:** being identified as Threatened or Priority species; locally endemic or associated with a restricted habitat type (e.g. surface water or groundwater dependent ecosystems); new species or anomalous features that indicate a potential new species; representative of the range of a species (particularly, at the extremes of range, recently discovered range extensions, or isolated outliers of the main range); unusual species, including restricted subspecies, varieties or naturally occurring hybrids; relictual status, being representative of taxonomic groups that no longer occur widely in the broader landscape.
- **Vegetation:** being identified as Threatened or Priority ecological communities; restricted distribution; degree of historical impact from threatening processes; a role as a refuge; providing an important function required to maintain ecological integrity of a significant ecosystem.

Definitions of codes and terms used to describe species and communities of significance are provided in the following tables.

Categories used under the EPBC Act

Status	Code	Description
Critically Endangered	CR	Taxa that are facing an extremely high risk of extinction in the wild in the immediate future
Endangered	EN	Taxa that are facing a very high risk of extinction in the wild in the near future
Vulnerable	VU	Taxa that are facing a high risk of extinction in the wild in the medium-term future

Schedules and Codes used under the BC Act

Status	Code	Schedule	Description
Critically Endangered	CR	S1	Taxa that are rare or likely to become extinct, as critically endangered taxa
Endangered	EN	S2	Taxa that are rare or likely to become extinct, as endangered taxa
Vulnerable	VU	S3	Taxa that are rare or likely to become extinct, as vulnerable taxa
Presumed Extinct	EX	S4	Taxa that are presumed to be extinct

Definitions and Criteria for Priority species

Status	Code	Description
Priority 1: Poorly known Species	**P1**	Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.
Priority 2: Poorly known Species	**P2**	Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.
Priority 3: Poorly known Species	**P3**	Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.
Priority 4: Rare, Near Threatened and other species in need of monitoring	**P4**	(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently Threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands. (b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for Vulnerable but are not listed as Conservation Dependent. (c) Species that have been removed from the list of Threatened species during the past five years for reasons other than taxonomy.

General Definitions, Categories and Criteria for Threatened and Priority Ecological Communities

Term	Definition
Ecological Community	A naturally occurring biological assemblage that occurs in a particular type of habitat. Note: The scale at which ecological communities are defined will often depend on the level of detail in the information source, therefore no particular scale is specified.
Threatened Ecological Community (TEC)	A Threatened Ecological Community (TEC) is one which is found to fit into one of the following categories; “presumed totally destroyed”, “critically endangered”, “endangered” or “vulnerable”. Possible Threatened Ecological Communities that do not meet survey criteria are added to DEC’s Priority Ecological Community (PEC) Lists under Priorities 1, 2 and 3. Ecological Communities that are adequately known, are rare but not Threatened, or meet criteria for Near Threatened, or that have been recently removed from the Threatened list, are placed in Priority 4. These ecological communities require regular monitoring. Conservation Dependent ecological communities are placed in Priority 5.
Assemblage	An assemblage is a defined group of biological entities.
Habitat	Habitat is defined as the areas in which an organism and/or assemblage of organisms lives. It includes the abiotic factors (e.g. substrate and topography), and the biotic factors.
Occurrence	A discrete example of an ecological community, separated from other examples of the same community by more than 20 metres of a different ecological community, an artificial surface or a totally destroyed community. By ensuring that every discrete occurrence is recognised and recorded future changes in status can be readily monitored.
Adequately Surveyed	An ecological community that has been searched for thoroughly in most likely habitats, by relevant experts.
Community structure	The spatial organisation, construction and arrangement of the biological elements comprising a biological assemblage (eg. *Eucalyptus salmonophloia* woodland over scattered small shrubs over dense herbs; structure in a faunal assemblage could refer to trophic structure, eg. dominance by feeders on detritus as distinct from feeders on live plants).

Definitions and Criteria for Presumed Totally Destroyed, Critically Endangered, Endangered and Vulnerable Ecological Communities.

Status	Code	Description
Presumed Totally Destroyed	PD	An ecological community that has been adequately searched for but for which no representative occurrences have been located. The community has been found to be totally destroyed or so extensively modified throughout its range that no occurrence of it is likely to recover its species composition and/or structure in the foreseeable future. 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 of known or likely habitats or B) All occurrences recorded within the last 50 years have since been destroyed
Critically Endangered	CR	An ecological community that has been adequately surveyed and found to have been subject to a major contraction in area and/or that was originally of limited distribution and is facing severe modification or destruction throughout its range in the immediate future, or is already severely degraded throughout its range but capable of being substantially restored or rehabilitated. 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 10 years); ii) modification throughout its range is continuing such that in the immediate future (within approximately 10 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, 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 10 years); ii) there are 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 that may be capable of being rehabilitated if such work begins in the immediate future (within approximately 10 years).
Endangered	EN	An ecological community that has been adequately surveyed and found to have been subject to a major contraction in an area and/or was originally of limited distribution and is in danger of significant modification throughout it range or severe modification or destruction over most of its range in the near future 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):

Status	Code	Description
		A) Geographic range, and/or total area occupied, and/or number of discrete occurrences have been reduced by at least 70% since European settlement and either or both of the following apply (i or ii): i) the estimated 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 future (within approximately 20 years); ii) modification throughout its range is continuing such that in the short term future (within approximately 20 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, 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 20 years); ii) There are few occurrences, each of which is small and/or isolated and all or most occurrences are very vulnerable to known threatening processes; iii) There may be many occurrences but total area is small and all or most occurrences are small and/or isolated and very vulnerable to known threatening processes. C) The ecological community exists only as very modified occurrences that may be capable of being substantially restored or rehabilitated if such work begins in the short-term future (within approximately 20 years).
Vulnerable	VU	An ecological community that has been adequately surveyed and is found to be declining and/or has declined in distribution and/or condition and whose ultimate security has not yet been assured and/or a community that is still widespread but is believed likely to move into a category of higher threat in the near future if threatening processes continue or begin operating throughout its range. 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 or significant modification in the medium (within approximately 50 years) 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 that are likely to be capable of being substantially restored or rehabilitated. B) The ecological community may already be modified 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 be still 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.

Definitions and Criteria for Priority Ecological Communities

Status	Code	Description
Priority 1 **Poorly known ecological communities**	**P1**	Ecological communities that are known from very few occurrences with a very restricted distribution (generally ≤5 occurrences or a total area of ≤ 100ha). Occurrences are believed to be under threat either due to limited extent, or being on lands under immediate threat (e.g. within agricultural or pastoral lands, urban areas, active mineral leases) or for which current threats exist. May include communities with occurrences on protected lands. 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 2 **Poorly known ecological communities**	**P2**	Communities that are known from few occurrences with a restricted distribution (generally ≤10 occurrences or a total area of ≤200 ha). At least some occurrences are not believed to be under immediate threat (within approximately 10 years) 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 3 **Poorly known ecological communities**	**P3**	a) Communities that are known from several to many occurrences, a significant number or area of which are not under threat or habitat destruction or degradation b) communities known forma 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; c) communities made up of large, and/or widespread occurrences, that may or not be represented in the reserve system bit are under threat of modification across much of their range from processes such as grazing by domestic and/or feral stick, and inappropriate fire regimes d) 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 4 **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**	**P4**	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 5 **Conservation Dependent ecological communities**	**P5**	Ecological communities that are not Threatened but are subject to a specific conservation program, the cessation of which would result in the community becoming Threatened within five years

Appendix B Database Search Results

Appendix C Likelihood of Occurrence of Significant Flora in the Survey Area

Species name	Conservation code		Broad habitat	flowering period	Nearest known location (km)	Database/s Survey Report	Likelihood of Occurrence within the Survey Area	Post survey likelihood
	EPBC Act	**BC Act**						
Pityrodia augustensis	VU	T	Amongst rocks on slopes or in drainage lines.	Aug - Sep.	57	Florabase PMST Naturemap TPFL	**Unlikely** This species has not been recorded in proximity to the Survey Area and is known from the high slopes of Mt Augustus. The Survey Area is unlikely to contain suitable habitat and as such the species is unlikely to occur.	**Unlikely** This species has not been recorded in proximity to the Survey Area and is known from the high slopes of Mt Augustus. The Survey Area does not contain suitable habitat and as such the species is unlikely to occur.
Thryptomene wittweri	VU	T	High in landscape, steep boulder scree slopes and vertical sheer cliff faces, skeletal red gritty soil over massive sandstone with lots of boulders and rocky material.	Apr - Jul	57	TPFL, FloraBase	**Unlikely** This species has not been recorded in proximity to the Survey Area and is known from high slopes of Mt Augustus. The Survey Area is unlikely to contain suitable habitat and as such the species is unlikely to occur.	**Unlikely** This species has not been recorded in proximity to the Survey Area and is known from high slopes of Mt Augustus. The Survey Area does not contain suitable habitat and as such the species is unlikely to occur.
Acacia curryana		P1	Red brown clay loam on granite and quartz.	no available info	52	TPFL FloraBase Naturemap Ecoscape (2015) Anders (2022a)	**Possible** This species has not been recorded in proximity to the Survey Area, however, the Survey Area may contain suitable habitat and as such the species is possibility to occur.	**Confirmed**
Acacia sp. Yinnetharra (L. Sweedman 8229)		P1	Flat. Red sandy clay.	August	12	WaHerb Florabase Naturemap	**Likely** This species has been recorded in close proximity to the Survey Area and the Survey Area may contain suitable habitat.	**Possible** This species has been recorded in close proximity to the Survey Area and the Survey Area contains suitable habitat. This species is a perennial tree, however if lacking diagnostic material, it may not have been detectable at the time of the surveys.
Acacia wilcoxii		P1	On narrow creek near summit.	May	71	TPFL FloraBase	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area is unlikely to contain suitable habitat and as such the species is unlikely to occur.	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area is does not contain suitable habitat and as such the species is unlikely to occur.
Calandrinia butcherensis		P1	Sand bank in riverbed. Yellow brown sand.	Oct	7	WaHerb Florabase	**Likely** This species has been recorded within close proximity to the Survey Area and the Survey	**Likely** This species has been recorded within close proximity to the Survey Area and the Survey

Species name	Conservation code		Broad habitat	flowering period	Nearest known location (km)	Database/s Survey Report	Likelihood of Occurrence within the Survey Area	Post survey likelihood
	EPBC Act	**BC Act**						
						Naturemap	Area is likely to contain suitable habitat.	Area is contains suitable habitat. This species is an annual herb and despite several other *Calandrinia* spp. recorded within the Survey Area, it is possible that this species was not detectable at the time of the surveys.
Calandrinia mirabilis		P1	Flat plains. Red clayey sand.	July - Sept	78	WaHerb	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area is unlikely to contain suitable habitat and as such the species is unlikely to occur.	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area does not contain suitable habitat and as such the species is unlikely to occur.
Elacholoma sp. Showy flowers (C.P. Campbell 1762)		P1	Seasonally inundated clay swamp.	no available info	60	WaHerb Naturemap Ecoscape (2015)	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area is unlikely to contain suitable habitat.	**Possible** Although this species has not been recorded in proximity to the Survey Area , the Survey Area contains marginal suitable habitat.
Eremophila arguta		P1	Floodplain. Road verge. Brown sand	May - July, Sept	66	WaHerb Florabase	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area is unlikely to contain suitable habitat.	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area does not contain suitable habitat and as such the species is unlikely to occur.
Eremophila rhegos		P1	Skeletal brown stony loams over granite.	July - Aug	25	WaHerb Florabase Naturemap	**Possible** This species has been recorded in proximity to the Survey Area and the Survey Area may contain suitable habitat.	**Possible** This species has been recorded in proximity to the Survey Area and the Survey Area contains suitable habitat.
Eremophila rubicunda		P1	On flat gibber plain, quartzite stones.	no available info	61	WaHerb	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area is unlikely to contain suitable habitat.	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area does not contain suitable habitat and as such the species is unlikely to occur.
Eremophila scrobiculata		P1	Hillside. Brown rocky soil. Collection site: rangeland.	Aug	90	WaHerb	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area does not contain suitable

Species name	Conservation code		Broad habitat	flowering period	Nearest known location (km)	Database/s Survey Report	Likelihood of Occurrence within the Survey Area	Post survey likelihood
	EPBC Act	**BC Act**						
							Area is unlikely to contain suitable habitat.	habitat and as such the species is unlikely to occur.
Eremophila sp. Pingandy dentate (B. Buirchell BB 331)		P1	Plain. Rangeland with red loam.	no available info	58	WaHerb	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area is unlikely to contain suitable habitat.	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area does not contain suitable habitat and as such the species is unlikely to occur.
Eremophila yinnetharrensis		P1	Brown/grey granitic sandy loam. Open stony rise, hill top.	Aug	14	WaHerb	**Possible** This species has been recorded in close proximity to the Survey Area and the Survey Area may contain suitable habitat.	**Unlikely** This species has been recorded in close proximity to the Survey Area ,however, the Survey Area does not contain suitable habitat.
Euphorbia sarcostemmoides		P1	Rocky hillside., sandstone ridges, quartzite hills	Aug	66	WaHerb Florabase	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area is unlikely to contain suitable habitat.	**Possible** This species has not been recorded in proximity to the Survey Area, however, the Survey Area contains suitable habitat...
Indigofera eriophylla		P1	Sandy rises	July - Sept	101	WaHerb Florabase	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area is unlikely to contain suitable habitat.	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area does not contain suitable habitat and as such the species is unlikely to occur.
Isotropis forrestii		P1	Stony clay loam, sandy alluvium. Along drainage lines	Apr - Sept	81	WaHerb Florabase	**Possible** Although this species has not been recorded in proximity to the Survey Area, the Survey Area may contain suitable habitat.	**Confirmed**
Acacia petricola		P2	Valley. Reserve. Red Rocky sand	no available info	56	TPFL FloraBase	**Possible** Although this species has not been recorded in proximity to the Survey Area, the Survey Area may contain suitable habitat.	**Confirmed**
Eremophila compacta subsp. Kennedy Range (B. Buirchell BB 107*)*		P2	Breakaway in reserve with brown loam soil.	no available info	85	WaHerb	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey

Species name	Conservation code		Broad habitat	flowering period	Nearest known location (km)	Database/s Survey Report	Likelihood of Occurrence within the Survey Area	Post survey likelihood
	EPBC Act	**BC Act**						
							Area is unlikely to contain suitable habitat.	Area does not contain suitable habitat and as such the species is unlikely to occur.
Eremophila buirchellii		P2	Side of Mount Augustus. Loam / rocky soil.	July	61	WaHerb	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area is unlikely to contain suitable habitat.	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area does not contain suitable habitat and as such the species is unlikely to occur.
Indigofera fractiflexa subsp. *Augustensis*		P2	Rocky watercourse, coarse alluvial sand between rocks.	June or Dec	53	WaHerb	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area is unlikely to contain suitable habitat.	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area does not contain suitable habitat and as such the species is unlikely to occur.
Rhodanthe frenchii		P2	Stony hills, rocky river banks and outcrops.	Aug - Oct	40	TPFL FloraBase NatureMap Ecoscape (2015)	**Possible** This species has been recorded in proximity to the Survey Area and the Survey Area may contain suitable habitat.	**Possible** This species has been recorded in proximity to the Survey Area, and the Survey Area contains suitable habitat.
Schoenus sp. Kalbarri (K.R. Newbey 9352)		P2	Flat, drainage lines. Moist brown yellow sand.	no available info	58	WaHerb	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area is unlikely to contain suitable habitat.	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area does not contain suitable habitat and as such the species is unlikely to occur.
Solanum octona		P2	Red/brown clay loam, seasonally inundated.	May- Aug	70	WaHerb	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area is unlikely to contain suitable habitat.	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area does not contain suitable habitat and as such the species is unlikely to occur.
Wurmbea fluviatilis		P2	Red – yellow edges of sandy drainage lines	May - June	58.6 km	WaHerb Ecoscape (2015)	**Possible** Although this species has not been recorded in proximity to the Survey Area, the Survey Area may contain suitable habitat.	**Confirmed**

Species name	Conservation code		Broad habitat	flowering period	Nearest known location (km)	Database/s Survey Report	Likelihood of Occurrence within the Survey Area	Post survey likelihood
	EPBC Act	**BC Act**						
Acacia atopa		P3	Red clay and red loam. Sometimes in rocky situations.	no available info	25	TPFL FloraBase	**Possible** This species has been recorded in proximity to the Survey Area, and the Survey Area may contain suitable habitat.	**Possible** This species has been recorded in proximity to the Survey Area, and the Survey Area contains suitable habitat.
Eremophila flaccida subsp. *attenuata*		P3	Mulga shrubland. Stony clay over quartzite. Hillslopes, ridges.	May	79	FloraBase WaHerb	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area is unlikely to contain suitable habitat.	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area does not contain suitable habitat and as such the species is unlikely to occur.
Eremophila obliquisepala		P3	Sand. Open hardpan plains	May	71	WaHerb	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area is unlikely to contain suitable habitat.	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area does not contain suitable habitat and as such the species is unlikely to occur.
Grevillea subterlineata		P3	Drainage line. Brown/red sand.	Aug	83	WaHerb Florabase	**Possible** This species has not been recorded in proximity to the Survey Area, however the Survey Area may contain suitable habitat.	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area does not contain suitable habitat and as such the species is unlikely to occur.
Gymnanthera cunninghamii		P3	Sandy soil, Sandy river bank	Jan - Dec	61	WaHerb Florabase Ecoscape (2015)	**Possible** This species has not been recorded in proximity to the Survey Area, however the Survey Area may contain suitable habitat.	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area does not contain suitable habitat and as such the species is unlikely to occur.
Indigofera rotula		P3	On rivers flats and sandbank in rive beds	May - Sept	78	WaHerb	**Possible** This species has not been recorded in proximity to the Survey Area, however the Survey Area may contain suitable habitat.	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area does not contain suitable habitat and as such the species is unlikely to occur.
Lawrencia sp. Anna Plains (N.T. Burbidge 1433)		P3	On gravel flat	Aug	76	WaHerb Florabase	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area does not contain suitable

Species name	Conservation code		Broad habitat	flowering period	Nearest known location (km)	Database/s Survey Report	Likelihood of Occurrence within the Survey Area	Post survey likelihood
	EPBC Act	**BC Act**						
							Area is unlikely to contain suitable habitat.	habitat and as such the species is unlikely to occur.
Maireana prosthecochaeta		P3	Laterite.Hills, salty places	July-Aug	50	Naturemap FloraBase	**Possible** This species has not been recorded in proximity to the Survey Area, however, the Survey Area may contain suitable habitat and as such the species has a possibility to occur.	This species has not been recorded in proximity to the Survey Area and the Survey Area does not contain suitable habitat and as such the species is unlikely to occur.
Ptilotus crosslandii		P3	Sandy pebbly colluvial plain	Sept - oct	59	WaHerb Florabase	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area is unlikely to contain suitable habitat.	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area does not contain suitable habitat and as such the species is unlikely to occur.
Ptilotus luteolus		P3	Low stony lateritic rise.	July - Feb	11	TPFL FloraBase NatureMap	**Possible** This species has been recorded in close proximity to the Survey Area and the Survey Area may contain suitable habitat and as such the species has a possibility to occur.	**Possible** This species has been recorded in close proximity to the Survey Area and the Survey Area contains suitable habitat and as such the species has a possibility to occur.
Sporobolus blakei		P3	Red sandy clay, loam, seasonally inundated near a creek.	Mar or Jun-July	81	WaHerb Florabase Ecoscape (2015)	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area is unlikely to contain suitable habitat.	**Confirmed**
Stylidium weeliwolli		P3	Gritty sand soil, sandy clay. Edge of watercourses	Aug - Sept	54	TPFL FloraBase	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area is unlikely to contain suitable habitat.	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area does not contain suitable habitat and as such the species is unlikely to occur.
Verticordia jamiesonii		P3	Sandy soils. Lateric breakaways	Sept - Oct	85	WaHerb Florabase	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area is unlikely to contain suitable habitat.	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area does not contain suitable habitat and as such the species is unlikely to occur.

Species name	Conservation code		Broad habitat	flowering period	Nearest known location (km)	Database/s Survey Report	Likelihood of Occurrence within the Survey Area	Post survey likelihood
	EPBC Act	**BC Act**						
Goodenia berringbinensis		P4	Red sandy loam. Along watercourses.	Feb-May or Sept- Oct	59	WaHerb Florabase Ecoscape (2015)	**Possible** This species has not been recorded in proximity to the Survey Area, however, may contain suitable habitat and as such the species has a possibility to occur.	**Confirmed**
Ptilotus trichocephalus		P4	Colluvial. Frequently eroded surfaces.	Sept	82	TPFL FloraBase	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area is unlikely to contain suitable habitat.	**Unlikely** This species has not been recorded in proximity to the Survey Area and the Survey Area does not contain suitable habitat and as such the species is unlikely to occur.

Note:

Less than 20km: Close proximity to the Survey Area.

Greater than 20 km and less than 50km: Proximity to the Survey Area

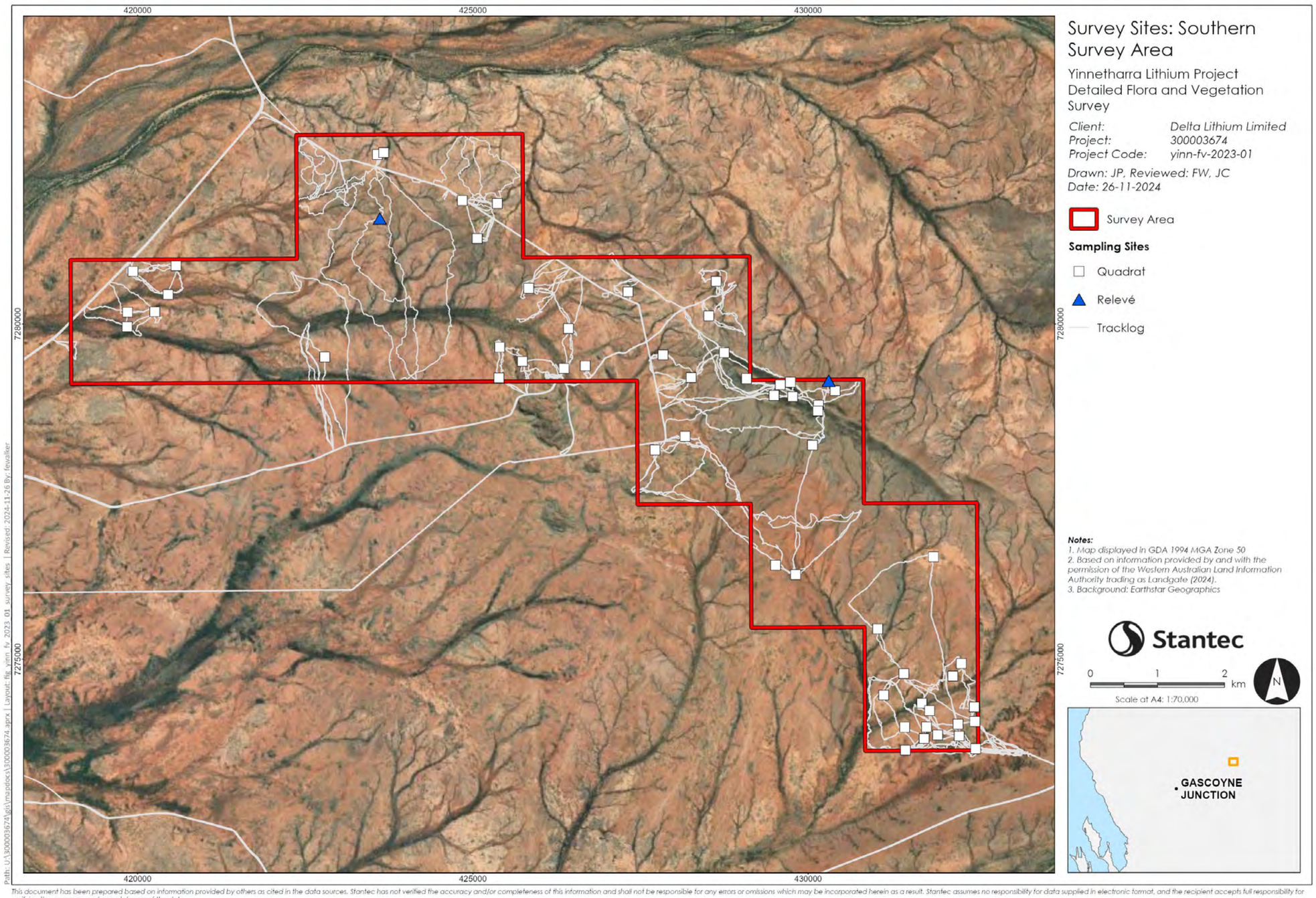
Greater than 50 km: Not in proximity to the Survey Area

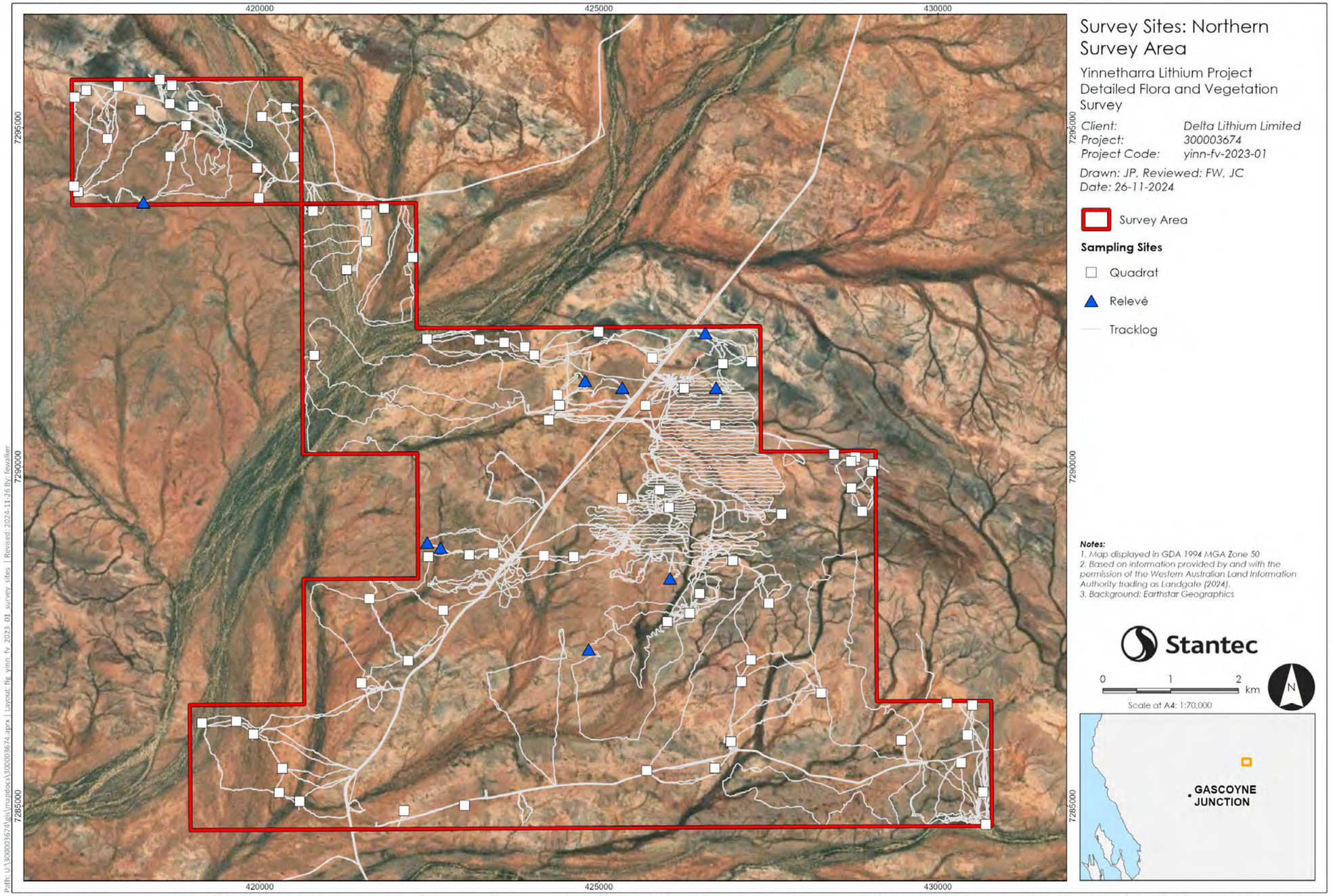
Appendix D NVIS Vegetation Structual Classification

Stratum	Canopy Cover (%)				
	70-100%	30-70%	10-30%	2-10%	<2%
Trees >30 m	Tall Closed Forest	Tall Open Forest	Tall Woodland	Tall Open Woodland	Scattered Tall Trees
Trees 10-30 m	Closed Forest	Open Forest	Woodland	Open Woodland	Scattered Trees
Trees <10 m	Low Closed Forest	Low Open Forest	Low Woodland	Low Open Woodland	Scattered Low Trees
Shrubs >2 m	Tall Closed Scrub	Tall Open Scrub	Tall Shrubland	Tall open Shrubland	Scattered Tall Shrubs
Shrubs 1-2 m	Closed Heath	Open Heath	Shrubland	Open Shrubland	Scattered Shrubs
Shrubs <1 m	Low Closed Heath	Low Open Heath	Low Shrubland	Low Open Shrubland	Scattered Low Shrubs
Hummock Grasses	Closed Hummock Grassland	Hummock Grassland	Open Hummock Grassland	Very Open Hummock Grassland	Scattered Hummock Grasses
Grasses, Sedges, Herbs	Closed Tussock Grassland / Bunch Grassland / Sedgeland / Herbland	Tussock Grassland / Bunch Grassland / Sedgeland / Herbland	Open Tussock Grassland / Bunch Grassland / Sedgeland / Herbland	Very Open Tussock Grassland / Bunch Grassland / Sedgeland / Herbland	Scattered Tussock Grasses / Bunch Grasses / Sedges / Herbs

Note: Based on Muir (1977), and Aplin's (1979) modification of the vegetation classification system of Specht (1970); Aplin T.E.H. (1979). The Flora. Chapter 3 In O'Brien, B.J. (ed.) (1979). Environment and Science. University of Western Australia Press; Muir B.G. (1977). Biological Survey of the Western Australian Wheatbelt. Part II: Vegetation and habitat of Bendering Reserve. Records of the Western Australian Museum, Suppl. No. 3; Specht R.L. (1970). Vegetation. In: The Australian Environment. 4th edn (Ed. G.W. Leeper). Melbourne.

Appendix E Survey Sites and Survey Effort





Appendix F Quadrat and Relevé Data

Site Type	Site Name	Date
Quadrat	2-C12	25-03-24
Dimensions	20m x 20m	
Described by	Jac Clark,Owen Raynor	
Location (GDA) Zone 50K		
Easting	432485	mE
Northing	7274072	mS
Site Characteristics		
Landform	Sandy/Stony Plain	
Slope	Flat (0º)	
Aspect	N/A	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Clay Loam	
Soil Colour	Red/Brown	
Rock Type	Quartz	
Coarse Surface Particles		
Average Size (mm)	Pebbles (5-10cm)	
Abundance	Common	
Exposed Bedrock (%)	Extensive (70%+)	

Site Photograph.

Vegetation Description	*Eremophila phyllopoda* subsp. *phyllopoda* and *Senna artemisioides* subsp. *helmsii* low scattered shrubs over *Aristida contorta* tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Aristida contorta	NC	0.1	40
Eremophila phyllopoda subsp. *phyllopoda*	NC	0.8	1
Senna artemisioides subsp. *helmsii*	NC	0.7	0.5

Site Type	Site Name	Date
Quadrat	2-I10	26-03-24
Dimensions	50m x 50m	
Described by	Scott Pansini,Stuart Eaton	
Location (GDA) Zone 50K		
Easting	418241	mE
Northing	7295259	mS
Site Characteristics		
Landform	Minor Drainage Line	
Slope	Flat (0º)	
Aspect	N/A	
Condition		
Vegetation Condition	Very Good	
Disturbance Type	Weed invasion,Cattle grazing	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Loam	
Soil Colour	Brown	
Rock Type	None_discernible	
Coarse Surface Particles		
Average Size (mm)	Negligible	
Abundance	None	
Exposed Bedrock (%)	Negligible (<5%)	

Site Photograph.

Vegetation Description	*Acacia curryana* , *Eremophila exilifolia* and *Senna artemisioides* subsp. *helmsii* tall open shrubland over *Senna stricta* scattered shrubs over *Aristida contorta* very open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia cuthbertsonii subsp. *cuthbertsonii*	NC	2.9	4
Acacia demissa	2I10-02	7	20
Acacia sclerosperma subsp. *sclerosperma*	2I10-01	2.1	7
Acacia synchronicia	NC	2	2.5
Arivela viscosa	NC	0.2	0.1
Asteraceae sp.	NC	0.5	0.1
**Cenchrus ciliaris*	NC	0.4	28
Enchylaena tomentosa var. *tomentosa*	NC	0.1	0.1
Eremophila reticulata	NC	1.1	2.5
Hakea preissii	NC	2.1	3
Leichhardtia australis	NC	0.4	0.1
Pterocaulon sphacelatum	NC	0.3	0.1
Ptilotus obovatus var. *obovatus*	NC	0.5	0.1
Santalum spicatum	2I10-03	2.1	1
Sclerolaena cuneata	NC	0.1	0.5
Senna artemisioides subsp. *helmsii*	NC	1.1	1
Senna sp. Meekatharra (E. Bailey 1-26)	NC	1.4	0.1
Stylobasium spathulatum	NC	2.5	1.5

Site Type	Site Name	Date
Quadrat	2-I9	26-03-24
Dimensions	50m x 50m	
Described by	Scott Pansini,Stuart Eaton	
Location (GDA) Zone 50K		
Easting	419961	mE
Northing	7294405	mS
Site Characteristics		
Landform	Minor Drainage Line	
Slope	Low (1-20º)	
Aspect	South	
Condition		
Vegetation Condition	Very Good	
Disturbance Type	Cattle grazing,Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Loam	
Soil Colour	Brown	
Rock Type	None_discernible	
Coarse Surface Particles		
Average Size (mm)	Negligible	
Abundance	Rare	
Exposed Bedrock (%)	Negligible (<5%)	

Site Photograph.

Vegetation Description	*Acacia demissa* , *Acacia sclerosperma* subsp. *sclerosperma* and *Acacia cuthbertsonii* subsp. *cuthbertsonii* low woodland over *Acacia sclerosperma* subsp. *sclerosperma* , *Eremophila reticulata* and *Senna artemisioides* subsp. *helmsii* open shrubland over **Cenchrus ciliaris* open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia aptaneura	2I9-02	10	6
Acacia citrinoviridis	NC	4	0.1
Acacia demissa	=2I10-02	9	8
Acacia sclerosperma subsp. *sclerosperma*	2I9-03	3	4
Acacia synchronicia	NC	4	2.5
Amyema fitzgeraldii	2I9-013	3	0.1
Arivela viscosa	NC	0.5	0.1
Asteraceae sp.	NC	0.5	0.1
**Cenchrus ciliaris*	NC	0.5	25
Duperreya commixta	NC	2.5	0.1
Rhagodia eremaea	NC	2.1	0.1
Santalum spicatum	NC	2.1	0.5

Site Type	Site Name	Date
Quadrat	2-J4	25-03-24
Dimensions	20m x 20m	
Described by	Scott Pansini,Stuart Eaton	
Location (GDA) Zone 50K		
Easting	431869	mE
Northing	7276530	mS
Site Characteristics		
Landform	soak	
Slope	Flat (0º)	
Aspect	N/A	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	Cattle grazing	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Clay Loam	
Soil Colour	Brown	
Rock Type	None_discernible	
Coarse Surface Particles		
Average Size (mm)	Negligible	
Abundance	Rare	
Exposed Bedrock (%)	Negligible (<5%)	

Site Photograph.

Vegetation Description	*Acacia ?kempeana* , *Acacia ?fuscaneura* and *Acacia ?citrinoviridis* tall shrubland over *Eremophila cuneifolia* , *Ptilotus obovatus* subsp. *obovatus* and *Senna artemisioides* subsp. *oligophylla* low open shrubland over *Digitaria brownii* , **Cenchrus ciliaris* and *Aristida holathera* var. *holathera* very open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia cuthbertsonii subsp. *cuthbertsonii*	NC	3	0.5
Acacia ?fuscaneura	2J4-03	10	4
Acacia kempeana	NC	4	35
Acacia pruinocarpa	NC	6	1
Acacia tetragonophylla	NC	2.5	10
Digitaria brownii	2J4-01	0.9	3
Eremophila phyllopoda subsp. *phyllopoda*	NC	3	0.1
Eriachne aristidea	NC	0.3	11
Hakea lorea subsp. *lorea*	2J4-02	6	2
Ptilotus obovatus var. *obovatus*	NC	1.1	1
Santalum spicatum	NC	3	0.5
Senna artemisioides subsp. *helmsii*	NC	1.8	3

Site Type	Site Name	Date
Quadrat	2-J5	25-03-24
Dimensions	20m x 20m	
Described by	Jac Clark,Owen Raynor	
Location (GDA) Zone 50K		
Easting	432160	mE
Northing	7274751	mS
Site Characteristics		
Landform	Drainage Area/Floodplain	
Slope	Flat (0º)	
Aspect	N/A	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Clay Loam	
Soil Colour	Red/Orange	
Rock Type	Quartz	
Coarse Surface Particles		
Average Size (mm)	Pebbles (5-10cm)	
Abundance	Moderate	
Exposed Bedrock (%)	Minor (10-30%)	

Site Photograph.

Vegetation Description	*Acacia cuspidifolia* and *Acacia xiphophylla* tall open shrubland over *Senna* sp. Meekatharra open shrubland over *Scaevola spinescens*, *Sclerolaena cuneata* and *Sclerolaena densiflora* low shrubland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia synchronicia	NC	1.7	2
Acacia xiphophylla	NC	3.1	3
Enchylaena tomentosa var. *tomentosa*	NC	0.4	0.1
Eremophila cuneifolia	NC	1.7	1
Maireana sp.	NC	0.3	0.1
Senna artemisioides subsp. *helmsii*	NC	1.2	1
Senna ?glaucifolia	2J5-01	0.3	0.1
Senna sp. Meekatharra (E. Bailey 1-26)	NC	1.6	1
Solanum lasiophyllum	NC	0.4	0.1

Site Type	Site Name	Date
Quadrat	2-P2	26-03-24
Dimensions	20m x 20m	
Described by	Scott Pansini,Stuart Eaton	
Location (GDA) Zone 50K		
Easting	418703	mE
Northing	7295624	mS
Site Characteristics		
Landform	Shale	
Slope	Steep (46-75º)	
Aspect	N/A	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Clay Loam	
Soil Colour	Red/Brown	
Rock Type	Granite	
Coarse Surface Particles		
Average Size (mm)	Boulders (>61cm)	
Abundance	Very common	
Exposed Bedrock (%)	Extensive (70%+)	

Site Photograph.

Vegetation Description	*Acacia fuscaneura* tall open shrubland over *Aristida contorta* very open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia fuscaneura	2P2-01	6	7
**Cenchrus ciliaris*	NC	0.3	29
Cheilanthes brownii	NC	0.2	0.1
Eremophila exilifolia	NC	1.1	1
Eremophila latrobei subsp. *latrobei*	NC	1.5	1.5
Gomphrena cunninghamii	NC	0.1	0.1
Maireana tomentosa subsp. *tomentosa*	NC	0.2	0.1
Paspalidium clementii	2P2-02	0.1	0.1
Sida sp.	NC	0.1	0.1
Tribulus suberosus	NC	0.5	0.1

Site Type	Site Name	Date
Quadrat	2-Q4	25-03-24
Dimensions	20m x 20m	
Described by	Jac Clark,Owen Raynor	
Location (GDA) Zone 50K		
Easting	432480	mE
Northing	7274289	mS
Site Characteristics		
Landform	soak	
Slope	Flat (0º)	
Aspect	N/A	
Condition		
Vegetation Condition	Very Good	
Disturbance Type	Cattle grazing,Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	Fire scar	
Water Presence	No	
Soils		
Soil Type	Clay Loam	
Soil Colour	Red/Brown	
Rock Type	Quartz	
Coarse Surface Particles		
Average Size (mm)	Pebbles (5-10cm)	
Abundance	Rare	
Exposed Bedrock (%)	Minor (10-30%)	

Site Photograph.

Vegetation Description	*Hakea preissii* and *Acacia aptaneura* tall shrubland over *Senna artemisioides* subsp. *helmsii*, *Stylobasium spathulatum* and *Rhagodia eremaea* shrubland over **Cenchrus ciliaris* scattered tussock grasses.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia kempeana	NC	3.2	2.5
Acacia pruinocarpa	NC	3.6	4
Acacia tetragonophylla	NC	1.8	0.5
Alternanthera denticulata var. *denticulata*	NC	0.2	0.5
Aristida contorta	NC	0.1	0.1
Calocephalus sp.	NC	0.1	0.1
**Cenchrus ciliaris*	NC	0.4	4
Cymbopogon ambiguus	NC	0.3	0.1
Eragrostis setifolia	NC	0.3	4
Eragrostis tenellula	2Q4-01	0.2	0.1
Eriachne flaccida	=j3-01	0.2	25
**Malvastrum americanum*	NC	0.3	0.5
Psydrax latifolia	NC	0.2	0.1
Pterocaulon sphacelatum	NC	0.7	0.1
Ptilotus obovatus var. *obovatus*	NC	0.3	0.1
Senna artemisioides subsp. *filifolia*	NC	1.4	0.1
Senna artemisioides subsp. *oligophylla*	NC	1.5	0.5
**Setaria verticillata*	NC	0.2	0.1
Sida sp.	NC	0.1	0.1
Solanum lasiophyllum	NC	0.5	0.1
Streptoglossa sp.	NC	0.1	0.5

Site Type	Site Name	Date
Quadrat	2-Q5	25-03-24
Dimensions	20m x 20m	
Described by	Stuart Eaton	
Location (GDA) Zone 50K		
Easting	431036	mE
Northing	7275453	mS
Site Characteristics		
Landform	Soak	
Slope	Flat (0º)	
Aspect	N/A	
Condition		
Vegetation Condition	Very Good	
Disturbance Type	Cattle grazing	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Clay Loam	
Soil Colour	Brown	
Rock Type	Laterite,Quartz	
Coarse Surface Particles		
Average Size (mm)	Gravel (1-4cm)	
Abundance	Moderate	
Exposed Bedrock (%)	Negligible (<5%)	

Site Photograph.

Vegetation Description	*Acacia pruinocarpa* and *Acacia kempeana* tall open shrubland over *Acacia tetragonophylla* and *Senna artemisioides* subsp. *oligophylla* scttered shrubs over *Eriachne flaccida* , **Cenchrus ciliaris* and *Eragrostis setifolia* tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia cuthbertsonii subsp. *cuthbertsonii*	NC	2.1	1
Acacia synchronicia	NC	2.5	0.5
Acacia tetragonophylla	NC	3	7
Aristida contorta	NC	0.2	0.1
Aristida holathera var. *holathera*	NC	0.3	0.1
**Cenchrus ciliaris*	NC	0.6	0.1
Enchylaena tomentosa var. *tomentosa*	NC	0.7	0.1
Eremophila cuneifolia	NC	1.1	0.1
Eremophila reticulata	NC	0.5	0.1
Eriachne aristidea	NC	0.3	35
Eriachne mucronata	NC	0.2	0.1
Evolvulus alsinoides var. villosicalyx	NC	0.1	0.1
Hakea preissii	NC	4	5
Ptilotus obovatus var. *obovatus*	NC	0.4	0.1
Rhagodia eremaea	NC	3	0.1
Salsola australis	NC	0.2	0.1
Solanum lachnophyllum	NC	0.3	0.1

Site Type	Site Name	Date
Quadrat	2-Q6	26-03-24
Dimensions	20m x 20m	
Described by	Jac Clark,Owen Raynor	
Location (GDA) Zone 50K		
Easting	430132	mE
Northing	7286519	mS
Site Characteristics		
Landform	soak	
Slope	Flat (0º)	
Aspect	N/A	
Condition		
Vegetation Condition	Very Good	
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Clay Loam	
Soil Colour	Brown	
Rock Type	Quartz	
Coarse Surface Particles		
Average Size (mm)	Pebbles (5-10cm)	
Abundance	Rare	
Exposed Bedrock (%)	Minor (10-30%)	

Site Photograph.

Vegetation Description	*Acacia synchronicia* and *Hakea preissii* open shrubland over *Senna* sp. Meekatharra (E. Bailey 1-26), *Eremophila cuneifolia* low open shrubland over *Sclerolaena densiflora* and *Sclerolaena cuneata* very open herbland.

Taxon	Collection Code	Height (m)	Cover (%)
Abutilon sp.	NC	0.8	0.1
Acacia coriacea subsp. *pendens*	2Q6-05	6	2
Acacia cuspidifolia	NC	3.1	2.5
Acacia ?fuscaneura	2Q6-02	1.8	0.1
Acacia synchronicia	NC	3.2	1.5
Acacia tetragonophylla	NC	2.1	0.5
Acacia xiphophylla	NC	2.4	0.1
Alternanthera denticulata var. *denticulata*	NC	0.1	0.1
Asteraceae sp	NC	0.2	0.1
**Cenchrus ciliaris*	NC	0.4	0.1
**Cenchrus setiger*	NC	0.7	0.1
?Enteropogon ramosus	2Q6-04	1.1	2
Eragrostis tenellula	NC	0.2	0.1
Eremophila cuneifolia	NC	0.9	1
Eremophila fraseri subsp. *fraseri*	NC	0.6	0.1
Eriachne flaccida	2Q6-03	0.4	11
Hakea preissii	NC	2.5	0.5
Hibiscus sp.	NC	0.1	0.1
Maireana tomentosa subsp. *tomentosa*	NC	0.5	0.1
Ptilotus obovatus var. *obovatus*	NC	0.8	0.1
Salsola australis	NC	0.2	0.1
Sclerolaena cuneata	2Q6-01	0.2	1.5
Senna artemisioides subsp. *helmsii*	NC	0.3	0.1
Senna sp. Meekatharra (E. Bailey 1-26)	NC	0.6	0.1
Solanum lasiophyllum	NC	0.8	0.1
Vine sp.	NC	1.1	0.1

Site Type	Site Name	Date
Quadrat	2-Q7	10-07-24
Dimensions	20m x 20m	
Described by	Scott Pansini,Jac Clark	
Location (GDA) Zone 50K		
Easting	430340	mE
Northing	7285638	mS
Site Characteristics		
Landform	Soak	
Slope	Flat (0º)	
Aspect	N/A	
Condition		
Vegetation Condition	Very Good	
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Clay Loam	
Soil Colour	Brown	
Rock Type	Quartz	
Coarse Surface Particles		
Average Size (mm)	Small rocks (11-20cm)	
Abundance	Very common	
Exposed Bedrock (%)	Negligible (<5%)	

Site Photograph.

Vegetation Description	*Acacia coriacea* subsp. *pendens*, *Acacia cuspidifolia* and *Acacia synchronicia* tall open shrubland over *Eriachne flaccida*, ?*Enteropogon ramosus* and *Eremophila cuneifolia* open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia synchronicia	NC	2.1	3
Acacia tetragonophylla	NC	2.5	2.5
Acacia xiphophylla	NC	3.5	3
Alternanthera denticulata var. *denticulata*	NC	0.1	0.1
Asteraceae sp.	NC	0.1	0.1
**Cenchrus ciliaris*	NC	0.9	1
Dactyloctenium radulans	NC	0.1	0.1
Dysphania rhadinostachya subsp. *rhadinostachya*	2Q7-02	0.1	0.1
Enchylaena tomentosa var. *tomentosa*	NC	0.2	0.1
Eragrostis setifolia	NC	0.3	0.1
Eremophila cuneifolia	NC	1.1	2.5
Eriachne aristidea	NC	0.2	3
Hakea preissii	NC	2.1	1
Maireana triptera	=	0.2	0.1
**Malvastrum americanum*	NC	0.4	0.1
Portulaca oleracea	NC	0.1	0.1
Ptilotus exaltatus	NC	0.1	0.5
Ptilotus gomphrenoides	=YNTR-03-02	0.1	0.1
Roepera ?eichleri	=2R2-04	0.1	0.1
Salsola australis	NC	0.1	0.1
Scaevola spinescens	NC	0.9	0.1
Sclerolaena cuneata	NC	0.2	2
Senna hamersleyensis	2Q7-01	0.2	0.1
Senna sp. Meekatharra (E. Bailey 1-26)	NC	1.1	2
Solanum lasiophyllum	NC	0.2	0.1
Sporobolus sp.	NC	0.1	0.1

Site Type	Site Name	Date
Quadrat	2-R1	22-03-24
Dimensions	20m x 20m	
Described by	Jac Clark,Owen Raynor	
Location (GDA) Zone 50K		
Easting	421571	mE
Northing	7293325	mS
Site Characteristics		
Landform	Hillcrest/Upper Hillslope	
Slope	Low (1-20º)	
Aspect	North-west	
Condition		
Vegetation Condition	Very Good	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Clay Loam	
Soil Colour	Brown	
Rock Type	Sandstone	
Coarse Surface Particles		
Average Size (mm)	Small rocks (11-20cm)	
Abundance	Common	
Exposed Bedrock (%)	Moderate (30-50%)	

Site Photograph.

Vegetation Description	*Acacia aptaneura* tall open shrubland over *Senna glutinosa* subsp. ×luerssenii scattered shurbs over *Enneapogon caerulescens* very open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia aptaneura	NC	3.6	3
**Cenchrus ciliaris*	NC	0.8	0.1
Enneapogon caerulescens	NC	0.3	5
Eremophila sp.	NC	0.6	0.1
Senna glutinosa subsp. ×luerssenii	NC	1.7	1
Senna sp. Meekatharra (E. Bailey 1-26)	NC	0.8	0.1
Solanum lasiophyllum	NC	0.1	0.1

Site Type	Site Name	Date
Quadrat	2-R2	02-07-24
Dimensions	20m x 20m	
Described by	Scott Pansini,Jac Clark	
Location (GDA) Zone 50K		
Easting	422254	mE
Northing	7293091	mS
Site Characteristics		
Landform	Hillcrest/Upper Hillslope	
Slope	Low (1-20º)	
Aspect	South-west	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Clay Loam	
Soil Colour	Brown	
Rock Type	Calcrete, ?pectite?	
Coarse Surface Particles		
Average Size (mm)	Small rocks (11-20cm)	
Abundance	Very common	
Exposed Bedrock (%)	Major (50-70%)	

Site Photograph.

Vegetation Description	*Acacia aptaneura* tall open shrubland over *Senna glutinosa* subsp. ×luerssenii open shrubland over *Enneapogon caerulescens* scattered tussock grasses.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia aptaneura	2R2-01	3.8	3.5
Acacia tetragonophylla	NC	1.2	0.1
Acacia xiphophylla	NC	0.4	0.1
Enneapogon caerulescens	NC	0.1	1.5
Eremophila cuneifolia	NC	1.2	0.1
Eremophila forrestii subsp. *forrestii*	2R2-02	0.5	0.5
Goodenia sp	NC	0.1	0.1
Hibiscus sp.	NC	0.1	0.1
Indigofera monophyla	2R2-05	0.1	0.1
Roepera ?eichleri	2R2-04	0.1	0.1
Schoenia ayersii	2R2-03	0.1	0.1
Senna artemisioides subsp. *helmsii*	NC	0.2	0.1
Senna glutinosa subsp. ×luerssenii	NC	1.8	3
Senna stricta	NC	0.9	0.1
Stackhousia muricata subsp. annual	NC	0.2	0.1

Site Type	Site Name	Date
Quadrat	2-S1	08-07-24
Dimensions	20m x 20m	
Described by	Scott Pansini,Jac Clark	
Location (GDA) Zone 50K		
Easting	426011	mE
Northing	7287718	mS
Site Characteristics		
Landform	Undulating Low Hills	
Slope	Low (1-20º)	
Aspect	North-west	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Clay Loam	
Soil Colour	Brown	
Rock Type	Calcrete	
Coarse Surface Particles		
Average Size (mm)	Small rocks (11-20cm)	
Abundance	Very common	
Exposed Bedrock (%)	Limited (5-10%)	

Site Photograph.

Vegetation Description	*Acacia curryana* tall open shrubland over *Eremophila exilifolia* , *Senna artemisioides* subsp. *helmsii* and *Acacia kempeana* open shrubland over *Aristida contorta* very open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia curryana	=Spp06-03	2.2	4
Acacia ?fuscaneura	2S1-01	4.8	2.5
Aristida contorta	NC	0.1	0.1
**Cenchrus ciliaris*	NC	0.3	0.1
Enneapogon caerulescens	NC	0.1	0.1
Eremophila forrestii subsp. *forrestii*	=2S2-03	0.3	1
Ptilotus obovatus var. *obovatus*	NC	0.3	0.5
Roepera ?eichleri	=2R2-04	0.1	1
Senna artemisioides subsp. *oligophylla*	NC	0.8	2.5

Site Type	Site Name	Date
Quadrat	2-S2	08-07-24
Dimensions	20m x 20m	
Described by	Scott Pansini,Jac Clark	
Location (GDA) Zone 50K		
Easting	426487	mE
Northing	7288132	mS
Site Characteristics		
Landform	Undulating Low Hills	
Slope	Low (1-20º)	
Aspect	North	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Clay Loam	
Soil Colour	Brown	
Rock Type	other, White lithium calcrete	
Coarse Surface Particles		
Average Size (mm)	Large rocks (21-60cm)	
Abundance	Very common	
Exposed Bedrock (%)	Major (50-70%)	

Site Photograph.

Vegetation Description	*Acacia curryana* and *Acacia ?fuscaneura* tall open shrubland over *Senna artemisioides* subsp. *oligophylla* , *Eremophila forrestii* subsp. *forrestii* and *Ptilotus obovatus* var. *obovatus* low open shrubland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia ?aptaneura	2S2-01	4.2	2.5
Acacia cuthbertsonii subsp. *cuthbertsonii*	2S2-05	1.6	0.5
Acacia tetragonophylla	NC	1.9	0.1
Aristida contorta	NC	0.1	1
**Cenchrus ciliaris*	NC	0.3	0.1
Corchorus crozophorifolius	NC	0.4	0.1
Enneapogon caerulescens	NC	0.2	2.5
Eremophila forrestii subsp. *forrestii*	2S2-03	0.4	2
Eremophila reticulata	NC	0.2	0.1
Leichhardtia australis	NC	0.5	0.1
Maireana triptera	2S2-02	0.3	0.1
Malvaceae sp	NC	0.1	0.1
Ptilotus helipteroides	2S2-04	0.1	0.1
Ptilotus obovatus var. *obovatus*	NC	0.4	1
Ptilotus sp.	NC	0.1	0.1
Roepera ?eichleri	=2R2-04	0.1	0.1
Salsola australis	NC	0.1	0.1
Sclerolaena eriacantha	NC	0.1	0.1
Senna artemisioides subsp. *oligophylla*	NC	0.5	4
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	NC	0.1	0.1
Solanum lasiophyllum	NC	0.3	0.1

Site Type	Site Name	Date
Quadrat	2-T2	10-07-24
Dimensions	20m x 20m	
Described by	Scott Pansini,Jac Clark	
Location (GDA) Zone 50K		
Easting	424390	mE
Northing	7291061	mS
Site Characteristics		
Landform	Soak	
Slope	Flat (0º)	
Aspect	N/A	
Condition		
Vegetation Condition	Very Good	
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Clay Loam	
Soil Colour	Brown	
Rock Type	Quartz	
Coarse Surface Particles		
Average Size (mm)	Gravel (1-4cm)	
Abundance	Rare	
Exposed Bedrock (%)	Negligible (<5%)	

Site Photograph.

Vegetation Description	*Acacia xiphophylla* , *Acacia synchronicia* and *Acacia tetragonophylla* tall open shrubland over *Eremophila cuneifolia* and *Senna* sp. Meekatharra (E. Bailey 1-26) open shrubland over *Eriachne aristidea* and **Cenchrus ciliaris* open tussock grassland with *Sclerolaena cuneata* very open herbland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia tetragonophylla	NC	2.5	2
Atriplex codonocarpa	NC	0.1	0.1
**Cenchrus ciliaris*	NC	0.2	0.1
Dactyloctenium radulans	NC	0.1	0.1
Enchylaena tomentosa var. *tomentosa*	NC	1.1	0.1
Eremophila longifolia	NC	1.9	0.1
Eriachne aristidea	NC	0.1	5
Hakea preissii	NC	4	3
Maireana pyramidata	2T2-05	1.1	0.5
Maireana triptera	=	0.1	0.1
Portulaca oleracea	NC	0.1	0.1
Ptilotus exaltatus	NC	0.1	0.1
Ptilotus ?xerophilus	2T2-04	0.1	0.1
Rhagodia eremaea	NC	1.8	1
Sclerolaena cuneata	NC	0.2	0.1
Senna artemisioides subsp. *helmsii*	NC	1.1	0.1
Senna artemisioides subsp. *helmsii* x *oligophylla*	2T2-02	0.5	0.1
Senna glutinosa subsp. *glutinosa*	NC	1.2	0.1
Sida fibulifera	NC	0.1	0.1
Sporobolus australasicus	NC	0.1	0.1
Streptoglossa liatroides	2T2-03	0.1	0.1
**Vachellia farnesiana* var. *farnesiana*	2T2-01	1.8	0.1

Site Type	Site Name	Date
Quadrat	2-V1	26-03-24
Dimensions	20m x 20m	
Described by	Scott Pansini,Stuart Eaton	
Location (GDA) Zone 50K		
Easting	417914	mE
Northing	7295614	mS
Site Characteristics		
Landform	Stony Plain	
Slope	Flat (0º)	
Aspect	N/A	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Clay Loam	
Soil Colour	Red/Brown	
Rock Type	Ironstone,Quartz	
Coarse Surface Particles		
Average Size (mm)	Pebbles (5-10cm)	
Abundance	Very common	
Exposed Bedrock (%)	Negligible (<5%)	

Site Photograph.

Vegetation Description	*Eremophila cuneifolia* , *Acacia tetragonophylla* and *Eremophila exilifolia* opern shrubland over *Senna glutinosa* subsp. ×luerssenii low open shrubland over *Aristida contorta* very open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia cuspidifolia	NC	3	3
Acacia synchronicia	NC	0.2	0.1
Acacia xiphophylla	NC	2.2	1
Atriplex sp.	NC	0.1	0.1
Enchylaena tomentosa var. *tomentosa*	NC	0.9	0.1
Enteropogon ramosus	NC	0.2	0.1
Eremophila cuneifolia	NC	0.7	1
Maireana ?tomentosa subsp. *tomentosa*	2V1-01	0.1	0.1
Ptilotus obovatus var. *obovatus*	NC	0.2	0.1
Rhagodia eremaea	NC	0.8	0.1
Scaevola spinescens	NC	0.3	0.1
Sclerolaena cuneata	NC	0.2	4
Senna artemisioides subsp. *helmsii*	NC	0.1	0.1
Senna sp. Meekatharra (E. Bailey 1-26)	NC	0.8	1
Solanum lasiophyllum	NC	0.2	0.1

Site Type	Site Name	Date
Quadrat	2-V2	26-03-24
Dimensions	20m x 20m	
Described by	Scott Pansini,Stuart Eaton	
Location (GDA) Zone 50K		
Easting	418673	mE
Northing	7295354	mS
Site Characteristics		
Landform	Stony Plain	
Slope	Low (1-20º)	
Aspect	South-west	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Loam	
Soil Colour	Red/Brown	
Rock Type	Ironstone,Quartz	
Coarse Surface Particles		
Average Size (mm)	Pebbles (5-10cm)	
Abundance	Very common	
Exposed Bedrock (%)	Negligible (<5%)	

Site Photograph.

Vegetation Description	*Acacia cuspidifolia* and *Acacia xiphophylla* tall open shrubland over *Senna* sp. Meekatharra (E. Bailey 1-26) and *Eremophila cuneifolia* low open shrubland over *Sclerolaena cuneata* very open herbland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia cuspidifolia	NC	2.1	3
Acacia synchronicia	NC	1.2	0.5
Acacia xiphophylla	NC	2.2	2
Atriplex sp.	NC	0.1	0.1
Enchylaena tomentosa var. *tomentosa*	NC	0.4	0.1
Enteropogon ramosus	NC	0.2	0.1
Eremophila cuneifolia	NC	0.8	1
Rhagodia eremaea	NC	0.9	0.1
Sclerolaena cuneata	NC	0.2	1.5
Sclerolaena densiflora	NC	0.1	0.5
Senna artemisioides subsp. *helmsii*	NC	0.3	0.1
Senna sp. Meekatharra (E. Bailey 1-26)	NC	0.8	0.5

Site Type	Site Name	Date
Quadrat	2-W1	26-03-24
Dimensions	20m x 20m	
Described by	Jac Clark,Owen Raynor	
Location (GDA) Zone 50K		
Easting	426676	mE
Northing	7279376	mS
Site Characteristics		
Landform	Sandy/Stony Plain	
Slope	Flat (0º)	
Aspect	N/A	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Clay Loam	
Soil Colour	Red/Brown	
Rock Type	Granite	
Coarse Surface Particles		
Average Size (mm)	Gravel (1-4cm)	
Abundance	Rare	
Exposed Bedrock (%)	Negligible (<5%)	

Site Photograph.

Vegetation Description	*Eremophila cuneifolia* and *Eremophila fraseri* subsp. *fraseri* scattered shrubs over *Aristida contorta* very open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia curryana	2W1-03	2.2	1
Acacia cuthbertsonii subsp. *cuthbertsonii*	2W1-02	0.8	0.1
Acacia tetragonophylla	NC	1.8	1
Aristida contorta	NC	0.2	3
Arivela viscosa	NC	0.3	0.1
Boerhavia sp.	NC	0.2	0.1
**Cenchrus ciliaris*	NC	0.5	0.5
**Cenchrus setiger*	NC	0.5	0.1
Corchorus crozophorifolius	NC	0.2	0.5
Eremophila fraseri subsp. *fraseri*	NC	1.9	1.5
Evolvulus alsinoides var. villosicalyx	NC	0.1	0.1
Fimbristylis dichotoma	2W1-01	0.2	0.1
Herb sp.	NC	0.1	0.1
Indigofera ?decipiens	NC	0.2	0.1
Maireana planifolia	NC	1.5	0.1
Maireana ?tomentosa subsp. *tomentosa*	NC	0.1	0.1
Senna artemisioides subsp. *helmsii*	NC	1.7	2

Site Type	Site Name	Date
Quadrat	2-W2	26-03-24
Dimensions	20m x 20m	
Described by	Jac Clark,Owen Raynor	
Location (GDA) Zone 50K		
Easting	422793	mE
Northing	7279508	mS
Site Characteristics		
Landform	Sandy/Stony Plain	
Slope	Flat (0º)	
Aspect	N/A	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Clay Loam	
Soil Colour	Red/Brown	
Rock Type	Quartz	
Coarse Surface Particles		
Average Size (mm)	Pebbles (5-10cm)	
Abundance	Rare	
Exposed Bedrock (%)	Negligible (<5%)	

Site Photograph.

Vegetation Description	*Acacia curryana* scattered tall shrubs over *Eremophila fraseri* subsp. *fraseri*, *Acacia tetragonophylla* and *Senna artemisioides* subsp. *helmsii* open shrubland over *Aristida contorta* and **Cenchrus ciliaris* very open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia tetragonophylla	NC	2.1	2.5
Aristida contorta	NC	0.3	5
**Cenchrus ciliaris*	NC	0.5	0.1
Corchorus crozophorifolius	NC	0.2	0.5
Eremophila cuneifolia	NC	1.1	1.5
Hakea preissii	NC	2.1	0.1
Indigofera ?decipiens	NC	0.5	1
Ptilotus obovatus var. *obovatus*	NC	0.8	1
Senna artemisioides subsp. *helmsii*	NC	1.9	2.5
Solanum lasiophyllum	NC	0.3	0.1
Vine sp.	NC	0.3	0.1

Site Type	Site Name	Date
Quadrat	2-X1	24-03-24
Dimensions	20m x 20m	
Described by	Scott Pansini,Stuart Eaton	
Location (GDA) Zone 50K		
Easting	429513	mE
Northing	7276403	mS
Site Characteristics		
Landform	Granite Outcrops/Domes	
Slope	Flat (0º)	
Aspect	N/A	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Loam	
Soil Colour	Brown	
Rock Type	Quartz,Granite	
Coarse Surface Particles		
Average Size (mm)	Pebbles (5-10cm)	
Abundance	Very common	
Exposed Bedrock (%)	Limited (5-10%)	

Site Photograph.

Vegetation Description	*Eucalyptus camaldulensis* subsp. *obtusa* open woodland over *Acacia citrinoviridis* tall open shrubland over *Cyperus cunninghamii* subsp. *cunninghamii* very open sedgeland with **Cenchrus ciliaris* and **Cenchrus setiger* very open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Aristida contorta	NC	0.2	11
Boerhavia sp.	NC	0.1	0.1
Corchorus crozophorifolius	NC	0.4	0.1
Eremophila exilifolia	NC	1.2	1
Eremophila fraseri subsp. *fraseri*	NC	1.8	2
Eriachne aristidea	NC	0.3	0.1
Evolvulus alsinoides var. villosicalyx	NC	0.1	0.1
Ptilotus obovatus var. *obovatus*	NC	0.4	0.1
Senna artemisioides subsp. *helmsii*	NC	0.9	0.1
Solanum lasiophyllum	NC	0.4	0.1

Site Type	Site Name	Date
Quadrat	2-Yinn01	21-03-24
Dimensions	20m x 20m	
Described by	Scott Pansini,Stuart Eaton	
Location (GDA) Zone 50K		
Easting	422487	mE
Northing	7288676	mS
Site Characteristics		
Landform	Granite Outcrops/Domes	
Slope	Low (1-20º)	
Aspect	East	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Loamy Sand	
Soil Colour	Red	
Rock Type	Granite	
Coarse Surface Particles		
Average Size (mm)	Pebbles (5-10cm)	
Abundance	Moderate	
Exposed Bedrock (%)	Limited (5-10%)	

Site Photograph.

Vegetation Description	*Acacia tetragonophylla* scattered shrubs over *Senna artemisioides* subsp. *helmsii* and *Eremophila cuneifolia* scattered low shrubs over *Aristida contorta* very open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia tetragonophylla	NC	2.1	1
Aristida contorta	NC	0.2	3
Eremophila exilifolia	NC	1.6	4
Senna artemisioides subsp. *helmsii*	NC	1.3	3

Site Type	Site Name	Date
Quadrat	2-Yinn03	20-03-24
Dimensions	20m x 20m	
Described by	Scott Pansini,Stuart Eaton	
Location (GDA) Zone 50K		
Easting	424048	mE
Northing	7291650	mS
Site Characteristics		
Landform	soak	
Slope	Flat (0º)	
Aspect	N/A	
Condition		
Vegetation Condition	Good	
Disturbance Type	Cattle grazing	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Clay Loam	
Soil Colour	Brown	
Rock Type	Quartz	
Coarse Surface Particles		
Average Size (mm)	Gravel (1-4cm)	
Abundance	Very common	
Exposed Bedrock (%)	Negligible (<5%)	

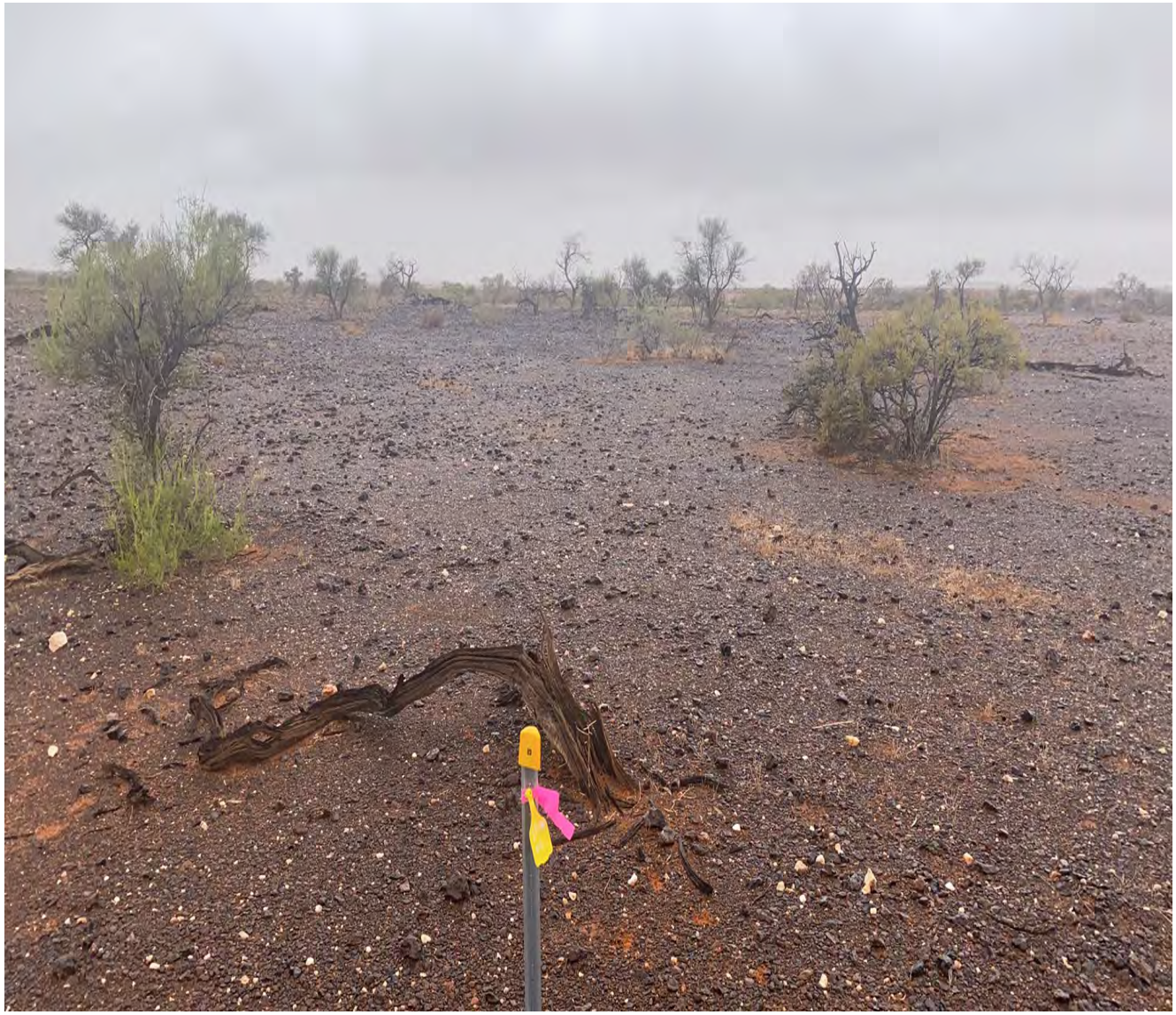
Site Photograph.

Vegetation Description	*Hakea preissii* and *Acacia tetragonophylla* tall open shrubland over *Rhagodia eremaea* and *Maireana pyramidata* scattered chenopods over *Eriachne aristidea* very open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia ?fuscaneura	2Yinn03-03	5	4
Acacia tetragonophylla	NC	2.5	1
Eriachne aristidea	NC	0.3	3
Hakea lorea subsp. *lorea*	2Yinn03-02	3.5	1
Lysiana ?casuarinae	2Yinn03-01	2	0.1
Pluchea dunlopii	2Yinn03-05	0.3	0.1
Santalum spicatum	NC	3	2
Scaevola spinescens	2Yinn03-04	2.2	0.1

Site Type	Site Name	Date
Quadrat	2-Yinn04	20-03-24
Dimensions	20m x 20m	
Described by	Scott Pansini,Stuart Eaton	
Location (GDA) Zone 50K		
Easting	424994	mE
Northing	7291993	mS
Site Characteristics		
Landform	Stony Plain	
Slope	Low (1-20º)	
Aspect	West	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Clay Loam	
Soil Colour	Red	
Rock Type	Mudstone	
Coarse Surface Particles		
Average Size (mm)	Pebbles (5-10cm)	
Abundance	Very common	
Exposed Bedrock (%)	Negligible (<5%)	

Site Photograph.



Vegetation Description	*Acacia cuspidifolia* scattered tall shrubs over *Acacia xiphophylla* scattered shrubs over *Acacia synchronicia* scattered low shrubs.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia cuspidifolia	NC	2.3	1
Acacia synchronicia	NC	0.8	0.5
Acacia xiphophylla	NC	1.6	0.5
Aristida contorta	NC	0.1	0.1
**Cenchrus ciliaris*	NC	0.2	0.1
Sclerolaena cuneata	NC	0.1	0.1

Site Type	Site Name	Date
Quadrat	2-Yinn07	24-03-24
Dimensions	20m x 20m	
Described by	Scott Pansini,Stuart Eaton	
Location (GDA) Zone 50K		
Easting	429811	mE
Northing	7276264	mS
Site Characteristics		
Landform	Sand Plain	
Slope	Low (1-20º)	
Aspect	East	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Loam	
Soil Colour	Red/Brown	
Rock Type	None_discernible	
Coarse Surface Particles		
Average Size (mm)	Negligible	
Abundance	None	
Exposed Bedrock (%)	Negligible (<5%)	

Site Photograph.

Vegetation Description	*Acacia curryana* , *Senna artemisioides* subsp. *helmsii* and *Acacia kempiana* tall open shrubland over *Corchorus crozophorifolius* scattered low shrubs over *Aristida contorta* and *Eriachne aristidea* very open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia curryana	2Yinn 07-01	1.8	3
Acacia kempeana	NC	1.6	1
Acacia tetragonophylla	NC	1.5	0.5
Aristida contorta	NC	0.2	3
Corchorus crozophorifolius	NC	0.5	0.5
Eriachne aristidea	NC	0.2	0.5
Indigofera decipiens	NC	0.2	0.1
Ptilotus obovatus var. *obovatus*	NC	0.3	0.1
Rhagodia eremaea	NC	1.1	0.1
Senna artemisioides subsp. *helmsii*	NC	1.1	2
Solanum lasiophyllum	NC	0.9	0.1

Site Type	Site Name	Date
Quadrat	2-Yinn11	26-03-24
Dimensions	20m x 20m	
Described by	Scott Pansini,Stuart Eaton	
Location (GDA) Zone 50K		
Easting	417322	mE
Northing	7294058	mS
Site Characteristics		
Landform	Undulating Low Hills	
Slope	Low (1-20º)	
Aspect	South	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Loam	
Soil Colour	Red/Brown	
Rock Type	Quartz,Granite	
Coarse Surface Particles		
Average Size (mm)	Small rocks (11-20cm)	
Abundance	Very common	
Exposed Bedrock (%)	Negligible (<5%)	

Site Photograph.

Vegetation Description	*Senna artemisioides* subsp. *helmsii* , *Eremophila fraseri* subsp. *fraseri* and *Acacia tetragonophylla* open shrubland *Corchorus crozophorifolius* and *Indigofera decipiens* over *Aristida contorta* , *Cenchrus ciliaris* and *Eriachne aristidea* tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Aristida contorta	NC	0.2	21
Eremophila phyllopoda subsp. *phyllopoda*	NC	1.5	1.5
Solanum lasiophyllum	NC	0.2	0.1

Site Type	Site Name	Date
Quadrat	2-Yinn13	26-03-24
Dimensions	20m x 20m	
Described by	Scott Pansini,Stuart Eaton	
Location (GDA) Zone 50K		
Easting	417261	mE
Northing	7294138	mS
Site Characteristics		
Landform	Hillcrest/Upper Hillslope	
Slope	Low (1-20º)	
Aspect	North	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Clay Loam	
Soil Colour	Red/Brown	
Rock Type	Granite,Quartz	
Coarse Surface Particles		
Average Size (mm)	Large rocks (21-60cm)	
Abundance	Very common	
Exposed Bedrock (%)	Minor (10-30%)	

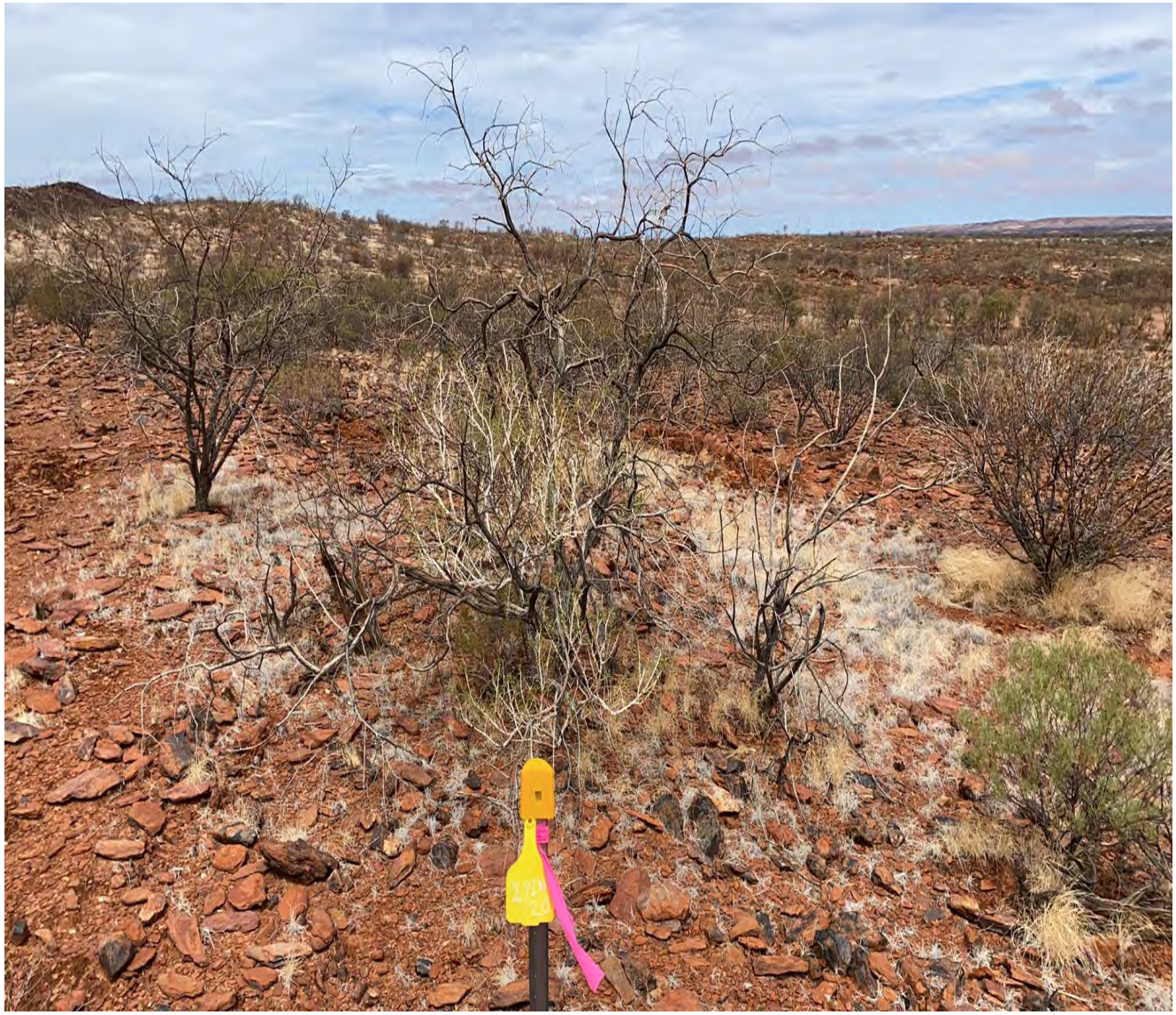
Site Photograph.

Vegetation Description	*Acacia ?incurvaneura* low open woodland over *Acacia kempeana* and *Eremophila phyllopoda* subsp. *phyllopoda* tall open scrub over *Eragrostis cumingii*, *Digitaria ctenantha* and *Digitaria brownii* very open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia ?incurvaneura	2YINN13-01	4	6
Acacia tetragonophylla	NC	0.9	0.1
Aristida contorta	NC	0.2	0.1
Eremophila fraseri subsp. *fraseri*	NC	1.7	0.1
Eremophila latrobei subsp. *latrobei*	NC	0.9	3
Gomphrena canescens subsp. *canescens*	NC	0.1	0.1
Gomphrena kanisii	NC	0.1	0.1
Tribulus suberosus	NC	0.3	0.1

Site Type	Site Name	Date
Quadrat	2-Yinn20	20-03-24
Dimensions	20m x 20m	
Described by	Jac Clark,Owen Raynor	
Location (GDA) Zone 50K		
Easting	428882	mE
Northing	7289348	mS
Site Characteristics		
Landform	Hillslope	
Slope	Low (1-20º)	
Aspect	South-west	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Clay Loam	
Soil Colour	Brown	
Rock Type	Shale	
Coarse Surface Particles		
Average Size (mm)	Small rocks (11-20cm)	
Abundance	Moderate	
Exposed Bedrock (%)	Moderate (30-50%)	

Site Photograph.



Vegetation Description	*Acacia tetragonophylla* and *Acacia kempeana* tall open shrubland over *Eremophila latrobei* subsp. *latrobei* and *Senna artemisioides* subsp. *helmsii* open shrubland over *Aristida contorta* and *Cenchrus ciliaris* very open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia kempeana	NC	1.4	0.5
Acacia tetragonophylla	NC	1.8	1
Aristida contorta	NC	0.1	1.5
Eremophila cuneifolia	NC	1.1	2.5
Eremophila forrestii subsp. *forrestii*	2YINN-20-01	0.4	0.1
Evolvulus alsinoides var. villosicalyx	NC	0.1	0.1
Maireana sp	NC	0.2	0.1
Ptilotus schwartzii var. *schwartzii*	NC	0.2	0.1
?Scaevola spinescens	NC	0.3	0.1
Senna stricta	NC	1.6	5
Tribulus suberosus	NC	0.7	0.1

Site Type	Site Name	Dimensions
Quadrat	A1	20m x 20m
	Phase 1	Phase 2
Date	25-08-23	22-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	419017	mE	Soil Texture	Sandy Clay Loam
Northing	7295322	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Stony Plain	Rock Type	Ironstone,Quartz
Slope	Low (1-20º)	Rock Size	Pebbles (5-10cm)
Aspect	South	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia cuspidifolia* and *Acacia xiphophylla* tall open shrubland over *Acacia synchronicia* very open shrubland over *Sclerolaena cuneata* and *Sclerolaena densiflora* very open herbland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon fraseri subsp. *fraseri*	=J3-05	0.3	0.1			
Acacia cuspidifolia	NC	3.5	1.5	NC	3.5	2
Acacia cuthbertsonii subsp. *cuthbertsonii*	=02-01	5	2.5			
Acacia synchronicia	NC	0.9	1	NC	1.1	1
Acacia xiphophylla				2A1-01	3	2
Duperreya commixta	NC	2.1	0.1	NC	2.1	0.1
Enchylaena tomentosa var. *tomentosa*	NC	0.9	0.1	NC	0.9	0.1
Enneapogon caerulescens	NC	0.1	0.1			
Eremophila cuneifolia	NC	0.9	2	NC	0.4	1
Ptilotus exaltatus	NC	0.3	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.9	1	NC	0.3	0.1
Rhagodia eremaea	=L2-05	1.2	0.1	NC	1.2	0.1
Salsola australis	NC	0.2	0.1			
Scaevola spinescens	A1-01	0.6	0.1			
Sclerolaena cuneata	NC	0.2	0.1	NC	0.1	0.1
Sclerolaena densiflora	=JMmn01-01	0.1	0.1			
Sclerolaena eriacantha	=A2-01	0.2	1			
Senna artemisioides subsp. *helmsii*	NC	0.3	0.1	NC	0.3	0.1
Senna sp. Meekatharra (E. Bailey 1-26)	NC	0.9	1.5	NC	0.4	1.5
Solanum lasiophyllum	=YINN-04-05	0.1	0.1	NC	0.2	0.1
Tribulus suberosus	NC	0.2	0.1			

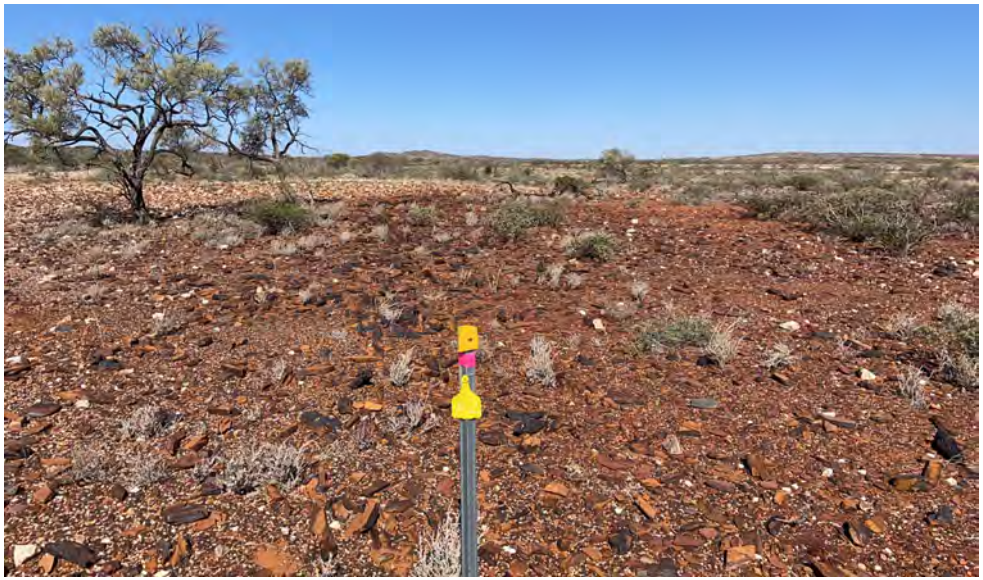
Site Type	Site Name	Dimensions
Quadrat	A2	20m x 20m
	Phase 1	Phase 2
Date	23-08-23	20-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	426830	mE	Soil Texture	Sandy Loam
Northing	7291522	mS	Soil Colour	Red/Orange

Site Characteristics		Coarse Surface Particles	
Landform	Stony Plain	Rock Type	Quartz,Ironstone
Slope	Low (1-20º)	Rock Size	Small rocks (11-20cm)
Aspect	South	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Limited (5-10%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia xiphophylla* tall open shrubland over *Acacia synchronicia* , *Eremophila cuneifolia* and *Senna* sp. Meekatharra (E. Bailey 1-26) open shrubland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1



Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia synchronicia	NC	0.3	0.1	NC	0.3	0.5
Acacia tetragonophylla	NC	0.7	0.1			
Acacia xiphophylla	NC	3	1.5	2A2-01	3	1
Eremophila cuneifolia	NC	0.9	2.5	NC	0.9	1
Ptilotus obovatus var. *obovatus*	NC	0.2	0.1			
Sclerolaena eriacantha	A2-01	0.2	1	NC	0.2	0.5
Senna sp. Meekatharra (E. Bailey 1-26)	NC	0.7	3	NC	0.7	0.1
Solanum lasiophyllum	NC	0.2	0.1			

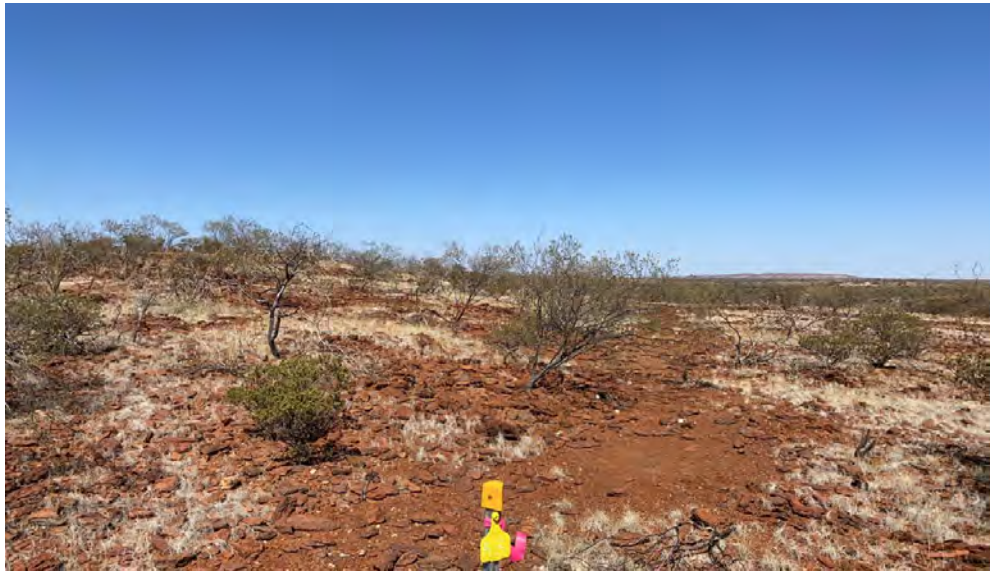
Site Type	Site Name	Dimensions
Quadrat	A3	20m x 20m
	Phase 1	Phase 2
Date	23-08-23	19-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	426035	mE	Soil Texture	Sandy Clay Loam
Northing	7289402	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Hillcrest/Upper Hillslope	Rock Type	Granite
Slope	Low (1-20º)	Rock Size	Large rocks (21-60cm)
Aspect	West	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Major (50-70%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Senna stricta* , *Eremophila cuneifolia* and *Acacia tetragonophylla* open shrubland over *Aristida contorta* scattered tussock grasses.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1



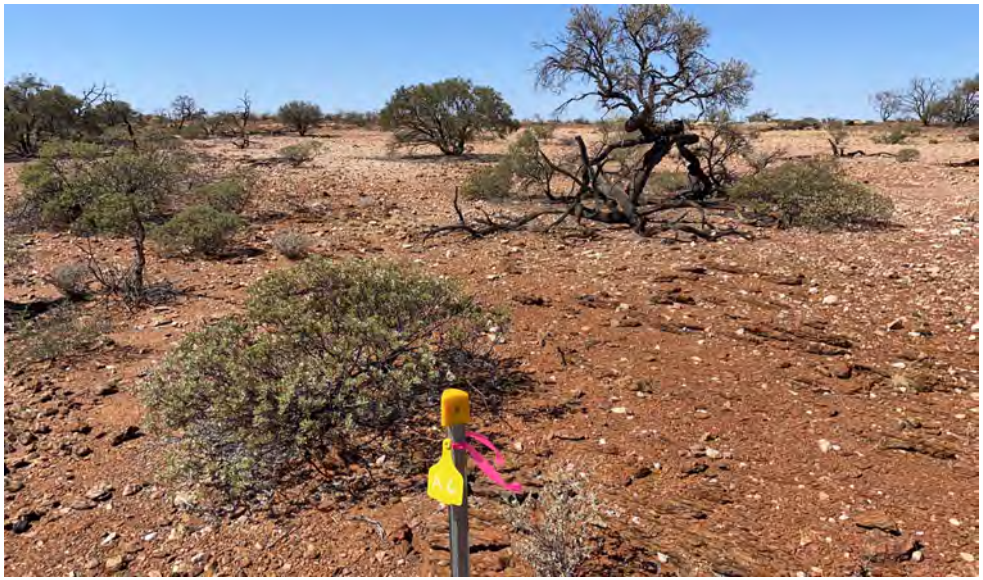
Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia tetragonophylla	NC	1.3	1	NC	1.3	0.1
Aristida contorta	NC	0.1	15	NC	0.1	5
**Cenchrus ciliaris*				A3-01	0.2	0.1
Eremophila cuneifolia	NC	1.2	2	NC	1.2	1
Ptilotus obovatus var. *obovatus*	NC	0.4	0.1	NC	0.4	0.1
Senna artemisioides subsp. *helmsii*	NC	0.3	0.5	NC	0.3	0.1
Senna glutinosa subsp. ×luerssenii	NC	2.5	5	NC	2.5	3
Tribulus suberosus	NC	0.8	0.5	NC	0.8	0.1

Site Type	Site Name	Dimensions
Quadrat	A4	20m x 20m
	Phase 1	Phase 2
Date	22-08-23	21-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	422186	mE	Soil Texture	Sandy Clay Loam
Northing	7287145	mS	Soil Colour	Brown
Site Characteristics			**Coarse Surface Particles**	
Landform	Stony Plain		Rock Type	Quartz,other, micah
Slope	Low (1-20º)		Rock Size	Pebbles (5-10cm)
Aspect	North-west		Abundance	Very common
Surface Water Present	No		Exposed Bedrock (%)	Limited (5-10%)
Condition			**Vegetation Description**	
Vegetation Condition	Very Good			
Disturbance Type	Rubbish/Litter,Weed invasion		*Acacia xiphophylla* scattered tall shrubs over *Senna* sp. Meekatharra (E. Bailey 1-26) and *Eremophila cuneifolia* low open shrubland over sclerolaena ?*cornishiana* scattered herbs.	
Fire Age (years)	Old (6+yrs)			
Fire Notes	Fire_scar,Dead_branches			

Site Photograph Phase 1



Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon fraseri subsp. *fraseri*	=J3-05	0.1	0.1			
Acacia synchronicia	NC	1.7	0.1	NC	1.7	0.5
Acacia xiphophylla	NC	2.4	1.5	NC	2.4	3
Aristida contorta	NC	0.1	0.1			
**Cenchrus ciliaris*	NC	0.1	0.1			
Corchorus crozophorifolius	NC	0.2	0.1			
Eremophila cuneifolia	NC	1.5	1	NC	1.5	0.1
Maireana melanocoma	=oppj02	0.3	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.4	0.1	NC	0.4	0.1
Sclerolaena densiflora	=JMmn01-01	0.1	0.1			
Senna glutinosa subsp. ×luerssenii	NC	0.4	0.1			
Senna sp. Meekatharra (E. Bailey 1-26)	NC	0.9	1.5	NC	0.9	1

Site Type	Site Name	Dimensions
Quadrat	B1	20m x 20m
	Phase 1	Phase 2
Date	17-08-23	25-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	431451	mE	Soil Texture	Sandy Clay Loam
Northing	7273644	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Sand Plain	Rock Type	None_discernible
Slope	Flat (0º)	Rock Size	Gravel (1-4cm)
Aspect	N/A	Abundance	Rare
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia kempeana* and *Acacia curryana* (P1) tall open shrubland over *Senna artemisioides* subsp. *helmsii* open shrubland over *Aristida contorta* very open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia citrinoviridis				NC	1.8	0.1
Acacia ?curryana	B1-03	2.2	4			
Acacia curryana				2B1-01	1.8	7
Acacia kempeana	NC	2.4	6	NC	2.4	6
Acacia tetragonophylla	NC	0.5	0.1			
Aristida contorta	NC	0.2	6	NC	0.2	3
Aristida holathera var. *holathera*	B1-01	0.3	0.5	NC	0.3	0.1
**Cenchrus ciliaris*	B1-02	0.4	0.1			
Corchorus crozophorifolius	NC	0.5	0.5	NC	0.5	0.1
Eragrostis eriopoda	NC	0.5	0.1	NC	0.5	3
Eremophila reticulata	NC	0.3	0.1	NC	0.3	0.1
Hibiscus burtonii	NC	0.6	0.1			
Leichhardtia australis	NC	2.4	0.1			
Maireana planifolia	NC	0.4	0.1			
Portulaca oleracea	NC	0.1	0.1			
Psydrax latifolia	NC	2.3	0.1	NC	2.3	0.1
Ptilotus obovatus var. *obovatus*	NC	0.2	0.1	NC	0.3	0.1
Senna artemisioides subsp. *helmsii*	NC	1.3	3	NC	1.3	1
Solanum lasiophyllum				NC	0.4	0.1

Site Type	Site Name	Dimensions
Quadrat	B2	20m x 20m
	Phase 1	Phase 2
Date	17-08-23	25-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	431729	mE	Soil Texture	Sandy Clay Loam
Northing	7273819	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Sand Plain	Rock Type	None_discernible
Slope	Flat (0º)	Rock Size	Negligible
Aspect	N/A	Abundance	Rare
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia kempeana* and *Acacia curryana* (P1) tall open shrubland over *Senna artemisioides* subsp. *helmsii* open shrubland over *Indigofera decipiens*, *Ptilotus obovatus* var. *obovatus* and *Solanum lasiophyllum* low open shrubland over *Eragrostis eriopoda*, *Aristida holathera* var. *holathera* and *Cenchrus ciliaris* very open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia curryana				2B2-01	2.4	6
Acacia kempeana	=SPP02	2.4	5	NC	2.2	6
Aristida contorta	NC	0.1	0.5	NC	0.1	0.1
Aristida holathera var. *holathera*	=B1-01	0.4	3	NC	0.5	4
Arivela viscosa				NC	0.3	0.1
**Cenchrus ciliaris*	NC	0.6	1	NC	0.4	0.5
Corchorus crozophorifolius	NC	0.5	0.1			
Eragrostis eriopoda	NC	0.5	4	NC	0.5	3
Eriachne aristidea	B2-02	0.3	0.1			
Evolvulus alsinoides var. villosicalyx	NC	0.3	0.1	NC	0.2	0.1
Hibiscus burtonii	NC	0.6	0.1	NC	0.5	0.1
Indigofera decipiens	=SPP03	0.3	4	NC	0.3	0.5
Leichhardtia australis	NC	3	0.1			
Maireana planifolia	NC	1.1	0.1			
Panicum australiense	B2-01	0.1	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.4	3	NC	0.4	3
Senna artemisioides subsp. *helmsii*	NC	1.7	3	NC	1.6	4
Solanum lasiophyllum	NC	0.4	1			

Site Type	Site Name	Dimensions
Quadrat	B3	20m x 20m
	Phase 1	Phase 2
Date	17-08-23	25-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	431766	mE	Soil Texture	Sandy Loam
Northing	7273990	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Sand Plain	Rock Type	None_discernible
Slope	Flat (0°)	Rock Size	Negligible
Aspect	N/A	Abundance	Rare
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia kempeana* and *Acacia ?curryana* (P1) tall open shrubland over *Senna artemisioides* subsp. *helmsii* open shrubland over *Corchorus crozophorifolius*, *Solanum lasiophyllum* and *Indigofera decipiens* low open shrubland over
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia ?curryana				NC	2.3	3
Acacia kempeana	=SPP02	2.4	3	NC	2.5	3
Acacia ?xiphophylla	NC	0.9	0.1	NC	0.9	0.1
Aristida contorta	NC	0.2	0.5	NC	0.2	0.5
Aristida holathera var. *holathera*	=B3-	0.4	11	NC	0.4	11
Arivela viscosa	NC	0.3	0.1			
**Cenchrus ciliaris*	NC	0.6	1	NC	0.6	1
Corchorus crozophorifolius	NC	0.9	1	NC	0.9	0.5
Eragrostis eriopoda	NC	0.4	10	NC	0.4	10
Evolvulus alsinoides var. villosicalyx	NC	0.2	0.1			
Hibiscus burtonii	NC	0.4	0.1			
Hibiscus sp. Gardneri (A.L. Payne PRP 1435)	=YINN-06	0.4	0.1			
Indigofera ?decipiens				NC	0.1	0.1
Indigofera decipiens	=SPP03	0.3	0.5			
Ptilotus obovatus var. *obovatus*	NC	0.6	0.5	NC	0.6	0.5
Senna artemisioides subsp. *helmsii*	NC	1.6	4	NC	1.6	4
Solanum lasiophyllum	NC	0.5	1	NC	0.5	0.5

Site Type	Site Name	Dimensions
Quadrat	C1	20m x 20m
	Phase 1	Phase 2
Date	17-08-23	25-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	432236	mE	Soil Texture	Sandy Clay Loam
Northing	7274033	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Sandy/Stony Plain	Rock Type	Quartz
Slope	Flat (0º)	Rock Size	Small rocks (11-20cm)
Aspect	N/A	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia tetragonophylla* and *Eremophila phyllopoda* subsp. *phyllopoda* scattered shrubs *Aristida contorta* tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia tetragonophylla	NC	1.5	0.5	NC	1.5	0.5
Aristida contorta	NC	0.1	32	NC	0.1	7
Eremophila phyllopoda subsp. *phyllopoda*	NC	1.5	0.5	NC	1.5	1
Goodenia tenuiloba	C1-02	0.1	0.1			
Hibiscus sturtii	C1-02	0.1	0.1			
Portulaca oleracea	NC	0.1	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.4	0.1	NC	0.4	0.1
Senna glaucifolia	C1-01	0.4	0.1	NC	0.4	0.1

Site Type	Site Name	Dimensions
Quadrat	C2	20m x 20m
	Phase 1	Phase 2
Date	19-08-23	23-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	427837	mE	Soil Texture	Sandy Clay Loam
Northing	7279539	mS	Soil Colour	Red/Orange
Site Characteristics			**Coarse Surface Particles**	
Landform	Stony Plain		Rock Type	Quartz,Granite
Slope	Low (1-20º)		Rock Size	Pebbles (5-10cm)
Aspect	North-west		Abundance	Very common
Surface Water Present	No		Exposed Bedrock (%)	Negligible (<5%)
Condition			**Vegetation Description**	
Vegetation Condition	Excellent		*Aristida contorta* open tussock grassland.	
Disturbance Type	None discernible			
Fire Age (years)	Unknown (no evidence)			
Fire Notes	N/A			

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Aristida contorta	NC	0.2	18	NC	0.2	6
Eremophila phyllopoda subsp. *phyllopoda*	NC	0.8	0.1	NC	0.6	0.1
Senna artemisioides subsp. *helmsii*	NC	0.6	0.1	NC	0.6	0.1

Site Type	Site Name	Dimensions
Quadrat	C3	20m x 20m
	Phase 1	Phase 2
Date	19-08-23	23-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	427313	mE	Soil Texture	Sandy Clay Loam
Northing	7280481	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Stony Plain	Rock Type	Quartz
Slope	Low (1-20º)	Rock Size	Pebbles (5-10cm)
Aspect	South-west	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Eremophila fraseri* subsp. *fraseri* and *Eremophila exilifolia* open shrubland over *Aristida contorta* open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Aristida contorta	NC	0.1	32	NC	0.1	6
Eremophila exilifolia	NC	0.9	1	NC	0.9	1
Eremophila fraseri subsp. *fraseri*	NC	1.8	3	NC	1.8	3
Senna artemisioides subsp. *helmsii*	NC	0.7	0.5	NC	0.7	0.5
Sida ?brownii	C3-01	0.3	0.1			

Site Type	Site Name	Dimensions
Quadrat	C4	20m x 20m
	Phase 1	Phase 2
Date	20-08-23	23-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	424843	mE	Soil Texture	Sandy Clay Loam
Northing	7281840	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Stony Plain	Rock Type	Quartz,Granite
Slope	Low (1-20º)	Rock Size	Small rocks (11-20cm)
Aspect	North-east	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia tetragonophylla* tall open shrubland over *Eremophila phyllopoda* subsp. *phyllopoda* and *Senna glutinosa* subsp. xluerssenii open shrubland over *Aristida contorta* tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia curryana	=K5-01	1.9	0.5			
Acacia kempeana	NC	0.3	0.1	NC	0.3	0.1
Acacia sp.	NC	0.8	0.1			
Acacia synchronicia	NC	1.1	0.5	NC	1.1	0.5
Acacia tetragonophylla	NC	1.8	1	NC	1.8	1
Aristida contorta	NC	0.2	15	NC	0.2	3
Boerhavia coccinea	NC	0.1	0.1			
Corchorus crozophorifolius	NC	0.3	0.1	NC	0.3	0.1
Eremophila latrobei subsp. *latrobei*	=E2-02	2.1	0.1	NC	2.1	0.1
Evolvulus alsinoides var. villosicalyx	NC	0.2	0.1	NC	0.2	0.1
Goodenia tenuiloba	=Spmn06-03	0.2	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.3	0.1			
Senna artemisioides subsp. *helmsii*	NC	1.2	0.5	NC	1.2	0.5
Senna glutinosa subsp. ×luerssenii	NC	1.8	1	NC	1.8	1
Solanum lasiophyllum	NC	0.6	0.1	NC	0.6	0.1

Site Type	Site Name	Dimensions
Quadrat	C5	20m x 20m
	Phase 1	Phase 2
Date	20-08-23	24-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	419930	mE	Soil Texture	Clay Loam
Northing	7280787	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Sandy/Stony Plain	Rock Type	Calcrete,other, calcite?
Slope	Low (1-20º)	Rock Size	Gravel (1-4cm)
Aspect	South-east	Abundance	Common
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia xiphophylla* scattered tall shrubs over *Eremophila cuneifolia* scattered shrubs over *Senna* sp. Meekatharra (E. Bailey 1-26) low scattered shrubs.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia synchronicia	NC	1.5	1.5	NC	1.5	1
Acacia xiphophylla	C5-04	2.1	9	NC	1.5	2.5
Dissocarpus paradoxus	C5-02	0.1	0.1			
Lawrencia densiflora	C5-05	0.05	0.1			
Maireana georgei	=oppj01	0.5	0.1			
Ptilotus exaltatus	NC	0.05	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.5	0.5			
Rhagodia eremaea	=L2-05	0.6	0.1	NC	0.4	0.1
Sclerolaena diacantha	C5-03	0.1	3.5	NC	0.1	0.5
Sclerolaena limbata	C5-01	0.1	0.1			
Senna artemisioides subsp. *helmsii*	NC	0.8	0.5			
Senna sp. Meekatharra (E. Bailey 1-26)	NC	0.6	5	NC	0.6	2

Site Type	Site Name	Dimensions
Quadrat	C6	20m x 20m
	Phase 1	Phase 2
Date	21-08-23	23-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	430663	mE	Soil Texture	Sandy Clay Loam
Northing	7285206	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Stony Plain	Rock Type	Quartz
Slope	Low (1-20º)	Rock Size	Small rocks (11-20cm)
Aspect	North	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition	
Vegetation Condition	Excellent
Disturbance Type	None discernible
Fire Age (years)	Unknown (no evidence)
Fire Notes	N/A

Vegetation Description

Acacia xiphophylla tall open shrubland over *Acacia synchronicia* open shrubland over *Senna* sp. Meekatharra (E. Bailey 1-26), *Senna artemisioides* subsp. *helmsii* and Ptolotus *obovatus* var. *obovatus* low open shrubland over *Sclerolaena diacantha* very open herbland.

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia synchronicia	NC	1.1	1	NC	1.1	1
Acacia tetragonophylla	NC	2.1	0.5	NC	2.1	0.5
Acacia xiphophylla	NC	3	1	NC	3	1
Aristida contorta	NC	0.1	3	NC	0.1	3
Eremophila cuneifolia	NC	0.8	0.5	NC	0.8	0.5
Maireana sp				NC	0.3	0.1
Maireana thesioides	=jc30	0.4	0.1			
Maireana triptera	=L4-01	0.2	0.1	NC	0.2	0.1
Ptilotus obovatus var. *obovatus*	NC	0.3	0.1	NC	0.3	0.1
Sclerolaena densiflora	=Q3-16	0.1	0.1			
Senna sp. Meekatharra (E. Bailey 1-26)	NC	0.3	0.1	NC	0.3	0.1
Solanum lasiophyllum	NC	0.2	0.1	NC	0.4	0.1

Site Type	Site Name	Dimensions
Quadrat	C7	20m x 20m
	Phase 1	Phase 2
Date	22-08-23	21-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	422703	mE	Soil Texture	Sandy Loam
Northing	7287884	mS	Soil Colour	Red/Brown

Site Characteristics		Coarse Surface Particles	
Landform	Undulating Low Hills	Rock Type	Granite
Slope	Low (1-20º)	Rock Size	Gravel (1-4cm)
Aspect	North-west	Abundance	Moderate
Surface Water Present	No	Exposed Bedrock (%)	Limited (5-10%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Aristida contorta* and *Cenchrus ciliaris* scattered tussock grasses.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia ?curryana	=oppj127	1.3	3			
Acacia curryana				2C7-01	1.4	3
Acacia kempeana	NC	1.9	0.1	NC	1.9	0.1
Aristida contorta	NC	0.2	5	NC	0.2	0.1
Corchorus crozophorifolius	NC	0.5	0.1	NC	0.5	0.1
Eremophila exilifolia	NC	1.1	1	NC	1.1	2
Goodenia tenuiloba	NC	0.2	0.1			
Senna artemisioides subsp. *helmsii*	NC	0.7	0.1	NC	0.7	0.5
Sida echinocarpa	NC	0.1	0.1			

Site Type	Site Name	Dimensions
Quadrat	C8	20m x 20m
	Phase 1	Phase 2
Date	24-08-23	22-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	421574	mE	Soil Texture	Sandy Clay Loam
Northing	7293733	mS	Soil Colour	Orange

Site Characteristics		Coarse Surface Particles	
Landform	Hillcrest/Upper Hillslope	Rock Type	other, ?mudstone
Slope	Low (1-20º)	Rock Size	Small rocks (11-20cm)
Aspect	N/A	Abundance	Common
Surface Water Present	No	Exposed Bedrock (%)	Minor (10-30%)

Condition		Vegetation Description
Vegetation Condition	Very Good	*Acacia aptaneura* tall open shrubland over *Senna glutinosa* subsp. ?luerssenii scattered shrubs over *Enneapogon caerulescens* very open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon lepidum	C8-02	0.2	0.1			
Acacia aptaneura	C8-01	3.2	5	NC	3.2	5
Aristida contorta				NC	0.2	9
**Cenchrus ciliaris*	NC	0.4	0.1	NC	0.4	0.1
Corchorus crozophorifolius	NC	0.2	0.1	NC	0.2	0.1
Enneapogon caerulescens	NC	0.2	9			
Eremophila cuneifolia	NC	0.6	0.1	NC	0.6	0.1
Eremophila sp.	=Jc70	0.3	0.1	NC	0.3	0.1
Gomphrena kanisii	=O4-01	0.1	0.1			
Indigofera monophylla	NC	0.2	0.1			
Senna artemisioides subsp. *helmsii*	NC	0.5	0.1	NC	0.5	0.1
Senna glutinosa subsp. ×luerssenii	NC	1.3	1	NC	1.3	1
Solanum lasiophyllum	NC	0.1	0.1	NC	0.1	0.1
Streptoglossa odora	C8-03	0.4	0.1			

Site Type	Site Name	Dimensions
Quadrat	C9	20m x 20m
	Phase 1	Phase 2
Date	24-08-23	22-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	417272	mE	Soil Texture	Silty Clay Loam
Northing	7295451	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Stony Plain	Rock Type	Quartz
Slope	Flat (0º)	Rock Size	Gravel (1-4cm)
Aspect	N/A	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia xiphophylla* and *Acacia tetragonophylla* scattered tall shrubs over *Acacia synchronicia* scattered shrubs over *Aristida contorta* very open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia synchronicia				NC	0.3	0.1
Acacia xiphophylla	NC	3	4	NC	2.3	2
Atriplex codonocarpa	=oppj35	0.1	0.1			
Eremophila cuneifolia	NC	1.1	2.5	NC	0.9	3
Maireana tomentosa subsp. *tomentosa*	=L2-03	0.4	0.1	NC	0.2	0.1
Sclerolaena cuneata	NC	0.1	0.1			
Sclerolaena densiflora	=OPPJ121	0.1	0.1			
Sclerolaena eriacantha	=A2-01	0.3	1			
Senna sp. Meekatharra (E. Bailey 1-26)	NC	1.1	2.5	NC	0.8	4

Site Type	Site Name	Dimensions
Quadrat	C10	20m x 20m
	Phase 1	Phase 2
Date	24-08-23	20-03-24
Described by	Jonas Mitchell,Jacquie Mason	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	428780	mE	Soil Texture	Sandy Clay Loam
Northing	7290144	mS	Soil Colour	Red/Orange
Site Characteristics			**Coarse Surface Particles**	
Landform	Hillslope		Rock Type	Quartz,Granite
Slope	Low (1-20º)		Rock Size	Pebbles (5-10cm)
Aspect	North-east		Abundance	Very common
Surface Water Present	No		Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Senna glutinosa* subsp. ?luerssenii tall open shrubland over *Acacia tetragonophylla* and *Eremophila cuneifolia* open shrubland over *Aristida contorta* open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia tetragonophylla	NC	2.1	2.5	NC	2.1	2.5
Aristida contorta	NC	0.2	50	NC	0.2	50
Eremophila cuneifolia	NC	1.2	0.1	NC	1.2	0.1
Eremophila phyllopoda subsp. *phyllopoda*	NC	1.3	1.5	NC	1.3	1.5
Gomphrena kanisii				NC	0.1	0.1
Paspalidium clementii	NC	0.4	0.1			
Senna glutinosa subsp. ×luerssenii	NC	1.8	1	NC	1.8	1
Solanum lasiophyllum	NC	0.2	0.1	NC	0.2	0.1

Site Type	Site Name	Dimensions
Quadrat	D1	20m x 20m
	Phase 1	Phase 2
Date	18-08-23	24-03-24
Described by	Jonas Mitchell,Jacquie Mason	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	428747	mE	Soil Texture	Clay Loam
Northing	7279571	mS	Soil Colour	Red/Orange
Site Characteristics			**Coarse Surface Particles**	
Landform	Hillslope		Rock Type	Granite,Quartz
Slope	Moderately inclined (21-45º)		Rock Size	Pebbles (5-10cm)
Aspect	South-west		Abundance	Very common
Surface Water Present	No		Exposed Bedrock (%)	Negligible (<5%)
Condition			**Vegetation Description**	
Vegetation Condition	Excellent			
Disturbance Type	None discernible		*Acacia aptaneura* and *Eremophila phyllopoda* subsp. *phyllopoda* tall open shrubland over *Acacia tetragonophylla* , *Senna glutinosa* subsp. xluerssenii and *Senna* Stricta open shrubland over *Eriachne pulchella* subsp. Dominii and *Aristida contorta* very open tussock grassland.	
Fire Age (years)	Unknown (no evidence)			
Fire Notes	N/A			

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia aptaneura	=D4	3	0.1	NC	3	1
Acacia kempeana	NC	1.5	0.1	NC	1.5	0.1
Acacia tetragonophylla	NC	1.8	1	NC	1.8	1
Aristida contorta	NC	0.2	5	NC	0.2	5
Eremophila phyllopoda subsp. *phyllopoda*	NC	2.4	8	NC	2.4	8
Eriachne pulchella subsp. *dominii*	NC	0.2	1.5	NC	0.2	0.5
Gomphrena kanisii	=H1-06	0.1	0.1			
Herb sp.				NC	0.2	0.1
Maireana melanocoma	NC	1.2	0.1			
Maireana sp.	NC	0.2	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.1	0.1			
Senna glutinosa subsp. ×luerssenii	NC	1.9	1	NC	1.9	1
Senna glutinosa subsp. *glutinosa*	NC	1.2	0.1			
Senna stricta	NC	1.4	0.5	NC	1.4	0.5
Solanum lasiophyllum	=YINN04	0.3	0.1			
Tribulus suberosus	NC	0.4	0.1	NC	0.4	0.1

Site Type	Site Name	Dimensions
Quadrat	D2	20m x 20m
	Phase 1	Phase 2
Date	18-08-23	24-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	429582	mE	Soil Texture	Sandy Loam
Northing	7279096	mS	Soil Colour	Red/Brown

Site Characteristics		Coarse Surface Particles	
Landform	Hillslope	Rock Type	Granite,Quartz
Slope	Moderately inclined (21-45º)	Rock Size	Large rocks (21-60cm)
Aspect	South-east	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Moderate (30-50%)

Condition	
Vegetation Condition	Excellent
Disturbance Type	None discernible
Fire Age (years)	Unknown (no evidence)
Fire Notes	N/A

Vegetation Description

Acacia macraneura low woodland over *Acacia tetragonophylla* and *Senna glaucifolia* tall open shrubland over *Eremophila phyllopoda* subsp. *phyllopoda* open shrubland over *Eremophila latrobei* subsp. *latrobei* low open shrubland over *Aristida contorta* and *Digitaria ctenantha* tussock grassland.

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon lepidum	D2-02	0.1	0.1			
Acacia macraneura	=D4-01	4	11	NC	4	11
Acacia tetragonophylla	NC	2.1	2	NC	2.1	2
Aristida contorta	NC	0.2	35	NC	0.2	35
Arivela viscosa	NC	0.6	0.1	NC	0.6	0.1
Bulbostylis barbata	D2-01	0.1	0.1	NC	0.1	0.1
Cheilanthes brownii	=D4-02	0.1	0.1	NC	0.1	0.1
Digitaria ctenantha	NC	0.3	1	NC	0.3	1
Eremophila latrobei subsp. *latrobei*	=E2-02	0.8	2	NC	0.8	2
Eremophila phyllopoda subsp. *phyllopoda*	NC	1.7	3	NC	1.7	3
Eriachne pulchella subsp. *dominii*	NC	0.2	0.1	NC	0.2	0.1
Gomphrena kanisii	NC	0.1	0.1	NC	0.1	0.1
Goodenia tenuiloba	=E1-06	0.1	0.1			
Malvaceae sp.				NC	0.1	0.1
Paspalidium clementii	NC	0.4	0.5			
Portulaca oleracea	NC	0.1	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.4	0.1	NC	0.4	0.1
Senna glaucifolia	NC	2.1	0.5	NC	2.1	0.5
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	=D4	0.3	0.1			
Solanum ?cleistogamum	D2-03	0.1	0.1	NC	0.1	0.1

Site Type	Site Name	Dimensions
Quadrat	D3	20m x 20m
	Phase 1	Phase 2
Date	18-08-23	24-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	430146	mE	Soil Texture	Sandy Clay Loam
Northing	7278703	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Hillslope	Rock Type	Quartz,Granite
Slope	Moderately inclined (21-45º)	Rock Size	Large rocks (21-60cm)
Aspect	South	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Major (50-70%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia aptaneura* and *Acacia tetragonophylla* tall open shrubland over *Eremophila phyllopoda* subsp. *phyllopoda* , *Eremophila latrobei* subsp. *latrobei* and *Senna glaucifolia* open shrubland over *Ptilotus obovatus* var. *obovatus* scttered low shrubs.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia aptaneura	D4-01	3.5	4	NC	5	6
Acacia tetragonophylla	NC	2.1	2	NC	2.1	1
Aristida contorta	NC	0.2	0.1	NC	0.2	0.1
**Cenchrus ciliaris*	NC	0.4	0.1			
Cheilanthes brownii	D4-02	0.1	0.1	NC	0.1	0.1
Dodonaea pachyneura	NC	0.8	0.1			
Dodonaea petiolaris				NC	1.6	0.5
Eremophila latrobei subsp. *latrobei*	=E202	1.8	1	NC	1.8	0.5
Eremophila phyllopoda subsp. *phyllopoda*	NC	1.5	5	NC	1.9	11
Eriachne pulchella subsp. *dominii*	NC	0.1	0.1			
Evolvulus alsinoides var. villosicalyx	NC	0.2	0.1			
Gomphrena kanisii	01-Apr	0.2	0.1	NC	0.2	0.1
Grevillea berryana	=E2-03	2	0.1	NC	8	2
Hibiscus leptocladus	D4-03	0.4	0.1			
Paspalidium clementii	NC	0.3	0.1			
Portulaca oleracea	NC	0.1	0.1			
Psydrax suaveolens	NC	1.9	0.1	NC	1.9	0.1
Ptilotus exaltatus	NC	0.1	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.3	0.5	NC	0.4	0.5
Ptilotus schwartzii var. *schwartzii*	NC	0.3	0.1			
Senna glaucifolia	NC	1.5	0.5	NC	1.5	0.1
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	D4-04	0.3	0.1			
Tribulus suberosus	NC	0.2	0.1	NC	0.2	0.1

Site Type	Site Name	Dimensions
Quadrat	D4	20m x 20m
	Phase 1	Phase 2
Date	18-08-23	24-03-24
Described by	Jonas Mitchell,Jacquie Mason	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	429492	mE	Soil Texture	Sandy Loam
Northing	7278932	mS	Soil Colour	Red/Brown

Site Characteristics		Coarse Surface Particles	
Landform	Hillslope	Rock Type	Granite,Quartz
Slope	Moderately inclined (21-45º)	Rock Size	Small rocks (11-20cm)
Aspect	South-west	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Minor (10-30%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia aptaneura* low woodland over *Eremophila phyllopoda* subsp. *phyllopoda* and *Senna glutinosa* subsp. ?luerssenii shrubland over *Aristida contorta* and *Eriachne pulchella* subsp. *dominii* very open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia aptaneura	D4-01	3.5	11	NC	3.5	11
Acacia tetragonophylla	NC	1.6	0.1	NC	1.6	0.1
Aristida contorta	NC	0.3	5	NC	0.3	5
Dodonaea petiolaris	NC	0.5	0.1	NC	0.5	0.1
Eremophila exilifolia	NC	0.5	0.1	NC	0.5	0.1
Eremophila phyllopoda subsp. *phyllopoda*	NC	1.9	14	NC	1.9	14
Eriachne pulchella subsp. *pulchella*	NC	0.1	0.5	NC	0.1	0.5
Gomphrena kanisii	=H1-06	0.1	0.1			
Goodenia tenuiloba	NC	0.1	0.1			
Iseilema dolichotrichum	=	0.1	0.1			
Maireana georgei	D4-02	0.3	0.5	NC	1.1	0.1
Maireana melanocoma	=OPPJ02	0.3	0.1	NC	0.3	0.1
Paspalidium clementii	NC	0.3	0.1			
Portulaca oleracea	NC	0.1	0.1			
Psydrax latifolia	NC	1.4	0.1	NC	1.4	0.1
Ptilotus obovatus var. *obovatus*	NC	0.3	0.1	NC	0.3	0.1
Senna glutinosa subsp. ×luerssenii	NC	1.9	2	NC	1.9	2
Sida sp.				NC	0.1	0.1
Tribulus suberosus	NC	0.4	0.1			

Site Type	Site Name	Dimensions
Quadrat	E1	20m x 20m
	Phase 1	Phase 2
Date	18-08-23	24-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	429736	mE	Soil Texture	Sandy Clay Loam
Northing	7279130	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Hillcrest/Upper Hillslope	Rock Type	Quartz
Slope	Low (1-20º)	Rock Size	Small rocks (11-20cm)
Aspect	South	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Limited (5-10%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia ?incurvaneura* tall open shrubland over *Eremophila latrobei* subsp. *latrobei* low open shrubland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia ?incurvaneura	E1-01	2.1	1	NC	2.1	1
Acacia tetragonophylla	NC	1.5	0.5			
Afrohybanthus aurantiacus	E1-03	0.2	0.1			
Aristida contorta	NC	0.1	5	NC	0.1	1
Boerhavia coccinea	NC	0.1	0.1			
Calandrinia monosperma	E1-07	0.1	0.1			
Dodonaea pachyneura	NC	0.4	0.1	NC	0.4	0.1
Enneapogon caerulescens	NC	0.3	0.1			
Eremophila latrobei subsp. *latrobei*	=E2-02	1.6	4	NC	1.6	4
Eremophila phyllopoda subsp. *phyllopoda*	NC	1.1	1	NC	1.1	1
Eriachne mucronata	NC	0.2	0.1	NC	0.1	0.1
Eriachne pulchella subsp. *dominii*	NC	0.1	0.1			
Evolvulus alsinoides var. villosicalyx	NC	0.1	0.1			
Gomphrena ?cunninghamii				NC	0.1	0.1
Gomphrena cunninghamii	NC	0.1	0.1			
Gomphrena kanisii	=O4-01	0.2	0.1			
Goodenia tenuiloba	E1-06	0.1	0.1			
Grevillea berryana	E1-02	4	0.5	NC	4	0.5
Hibiscus sp.	NC	0.1	0.1			
Indigofera monophylla	E1-05	0.4	0.1			
Paspalidium clementii	NC	0.2	0.1			
Portulaca oleracea	NC	0.1	0.5			
Psydrax ?latifolia				NC	0.1	0.1
Psydrax latifolia	NC	0.1	0.1			
Ptilotus helipteroides	E1-08	0.1	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.4	0.1	NC	0.4	0.1
Ptilotus schwartzii var. *schwartzii*	NC	0.3	0.1	NC	0.3	0.1
Senna glaucifolia	NC	1.3	0.1	NC	1.3	0.1
Sida sp. dark green fruits (S. van Leeuwen 2260)	E1-4	0.4	0.1			
Solanum lasiophyllum	NC	0.3	0.1	NC	0.3	0.1
Tribulus suberosus	NC	0.5	0.1	NC	0.5	0.1

Site Type	Site Name	Dimensions
Quadrat	E2	20m x 20m
	Phase 1	Phase 2
Date	18-08-23	24-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	430153	mE	Soil Texture	Sandy Clay Loam
Northing	7278789	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Hillcrest/Upper Hillslope	Rock Type	Quartz,Granite
Slope	Low (1-20º)	Rock Size	Pebbles (5-10cm)
Aspect	South	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Minor (10-30%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Grevillea berryana* and *Acacia ?incurvaneura* scattered low trees over *Eremophila latrobei* subsp. *latrobei*, *Eremophila phyllopoda* subsp. *phyllopoda* and *Acacia tetragonophylla* open shrubland over *Aristida contorta* very open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia incurvaneura	E2-01	3	1	NC	3	2.5
Acacia rhodophloia	NC	1.6	1	NC	1.9	2.5
Acacia tetragonophylla	NC	1.1	0.5			
Aristida contorta	NC	0.2	0.1	NC	0.2	0.1
Dodonaea pachyneura	NC	0.3	0.1	NC	0.5	0.1
Enneapogon caerulescens	NC	0.4	0.1			
Eremophila latrobei subsp. *latrobei*	E2-02	1.1	2	NC	1.6	3
Eremophila phyllopoda subsp. *phyllopoda*	NC	1.2	1			
Eriachne pulchella subsp. *dominii*	NC	0.1	0.1			
Evolvulus alsinoides var. villosicalyx	NC	0.1	0.1			
Gomphrena kanisii	=O4-01	0.1	0.1			
Goodenia sp.	NC	0.1	0.1			
Grevillea berryana	E2-03	2.5	0.5	NC	2.5	2.5
Psydrax latifolia	NC	0.4	0.1	NC	0.4	0.1
Ptilotus schwartzii var. *schwartzii*	NC	0.5	0.1	NC	0.4	0.5
Senna glaucifolia	NC	1.2	0.1	NC	1.6	0.1
Sida sp. dark green fruits (S. van Leeuwen 2260)	E2-04	0.2	0.1			
Solanum lasiophyllum	NC	0.2	0.1	NC	0.2	0.1

Site Type	Site Name	Dimensions
Quadrat	E3	20m x 20m
	Phase 1	Phase 2
Date	18-08-23	24-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	429080	mE	Soil Texture	Sandy Clay Loam
Northing	7279187	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Hillcrest/Upper Hillslope	Rock Type	Quartz,Granite
Slope	Low (1-20º)	Rock Size	Large rocks (21-60cm)
Aspect	East	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Moderate (30-50%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia incurvaneura* and *Grevillea berryana* scattered low trees over *Acacia rhodophloia*, *Eremophila phyllopoda* subsp. *phyllopoda* and *Eremophila latrobei* subsp. latrobeii open shrubland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia aptaneura	E3-01	2.5	1	NC	2.5	1
Acacia tetragonophylla	NC	2.1	2	NC	2.1	2
Aristida contorta	NC	0.1	0.1	NC	0.1	0.1
Dodonaea pachyneura	NC	0.5	0.5	NC	1.4	0.1
Enneapogon caerulescens	NC	0.3	0.1			
Eremophila latrobei subsp. *latrobei*	=E2-02	1.4	4	NC	1.4	4
Eremophila phyllopoda subsp. *phyllopoda*	NC	1.3	2	NC	1.3	2
Eriachne pulchella subsp. *dominii*	NC	0.1	3			
Maireana sp. 1	E3-02	0.3	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.3	1	NC	0.3	1
Senna artemisioides subsp. *helmsii*				NC	0.9	0.1
Sida ?sp. dark green fruits (S. van Leeuwen 2260)				NC	0.1	0.1
Sida sp. dark green fruits (S. van Leeuwen 2260)	NC	0.4	0.1			
Solanum cleistogamum				NC	0.3	0.1

Site Type	Site Name	Dimensions
Quadrat	E4	20m x 20m
	Phase 1	Phase 2
Date	18-08-23	24-03-24
Described by	Jonas Mitchell,Jacquie Mason	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	429770	mE	Soil Texture	Sandy Clay Loam
Northing	7278919	mS	Soil Colour	Red/Orange
Site Characteristics			**Coarse Surface Particles**	
Landform	Hillcrest/Upper Hillslope		Rock Type	Granite,Quartz
Slope	Low (1-20º)		Rock Size	Small rocks (11-20cm)
Aspect	West		Abundance	Very common
Surface Water Present	No		Exposed Bedrock (%)	Negligible (<5%)

Condition	
Vegetation Condition	Excellent
Disturbance Type	None discernible
Fire Age (years)	Unknown (no evidence)
Fire Notes	N/A

Vegetation Description

Acacia aptaneura and *Acacia tetragonophylla* tall open shrubland over *Eremophila phyllopoda* subsp. *phyllopoda* and *Eremophila latrobei* subsp. *latrobei* open shrubland *Ptilotus obovatus* var. *obovatus* low scattered shrubs over *Eriachne pulchella* subsp. *dominii* very open tussock grassland.

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia ?incurvaneura	E4-01	3	5	NC	3	5
Acacia tetragonophylla	NC	1.6	0.5			
Aristida contorta	NC	0.2	0.1	NC	0.2	0.1
Boerhavia sp.				NC	0.1	0.1
Dodonaea petiolaris	NC	1.1	0.1	NC	1.1	0.1
Eremophila latrobei subsp. *latrobei*	E4-02	1.5	2.5	NC	1.5	2.5
Eremophila phyllopoda subsp. *phyllopoda*	NC	1.2	1	NC	1.2	1
Eriachne pulchella subsp. *dominii*	NC	0.1	1			
Evolvulus alsinoides var. villosicalyx	NC	0.1	0.1			
Goodenia tenuiloba	NC	0.3	0.1			
Grevillea berryana	=oppj20	4.5	1			
Paspalidium clementii	NC	0.2	0.1			
Portulaca oleracea	NC	0.1	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.3	0.1	NC	0.3	0.1
Ptilotus schwartzii var. *schwartzii*	NC	0.4	0.5	NC	0.4	0.5
Senna glaucifolia	NC	1.2	1	NC	1.2	1
Solanum lasiophyllum	=yinn04	0.1	0.1	NC	0.1	0.1
Tribulus suberosus				NC	0.1	0.1

Site Type	Site Name	Dimensions
Quadrat	F1	20m x 20m
	Phase 1	Phase 2
Date	25-08-23	22-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	420031	mE	Soil Texture	Sandy Clay Loam
Northing	7295166	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Drainage Area/Floodplain	Rock Type	None_discernible
Slope	Low (1-20º)	Rock Size	Negligible
Aspect	N/A	Abundance	None
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Very Good	*Acacia tetragonophylla* , *Acacia kempeana* , *Acacia xiphophylla* , *Acacia fuscaneura* tall shrubland over *Senna artemisioides* subsp. *helmsii* scattered shrubs over *Aristida contorta* very open tussock grassland.
Disturbance Type	Cattle grazing,Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia citrinoviridis	NC	3.5	1	NC	4	3
Acacia fuscaneura	F1-01	4.5	3	NC	4.5	3
Aristida contorta	NC	0.1	0.5	NC	0.1	0.1
Aristida holathera var. *holathera*	NC	0.2	2	NC	0.1	0.1
Boerhavia coccinea	NC	0.1	0.1			
**Cenchrus ciliaris*	NC	0.4	2	NC	0.1	2
Corchorus crozophorifolius	NC	0.7	0.5	NC	0.3	0.5
Dissocarpus paradoxus	=Q3-15	0.4	0.1			
Eriachne aristidea	NC	0.3	2	NC	0.3	0.1
Goodenia sp.	NC	0.1	0.1			
?*Maireana* sp.				NC	0.3	0.1
Ptilotus obovatus var. *obovatus*	NC	0.3	0.5	NC	0.3	0.5
Salsola australis	NC	0.1	0.1			
Senna artemisioides subsp. *helmsii*	NC	1.8	0.5	NC	1.8	0.5
Solanum lasiophyllum	NC	0.1	0.1	NC	0.1	0.1

Site Type	Site Name	Dimensions
Quadrat	F2	20m x 20m
	Phase 1	Phase 2
Date	25-08-23	22-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	420503	mE	Soil Texture	Sandy Clay Loam
Northing	7294571	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Drainage Area/Floodplain	Rock Type	None_discernible
Slope	Low (1-20º)	Rock Size	Gravel (1-4cm)
Aspect	North	Abundance	None
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition	
Vegetation Condition	Very Good
Disturbance Type	Weed invasion,Cattle grazing
Fire Age (years)	Unknown (no evidence)
Fire Notes	N/A

Vegetation Description

Acacia fuscaneura low open woodland over *Acacia citrinoviridis* scattered tall shrubs over *Cenchrus ciliaris*, *Eriachne aristidea* and *Aristida holathera* var. *holathera* very open tussock grassland.

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia citrinoviridis	NC	3	2	NC	3	0.5
Acacia fuscaneura	=F1-01	5	3	NC	5	3
Aristida contorta	NC	0.2	2			
Arivela viscosa	NC	0.3	0.1			
Boerhavia coccinea	NC	0.1	0.1			
**Cenchrus ciliaris*	NC	0.4	0.1	NC	0.4	1
Corchorus crozophorifolius	NC	1.1	0.5	NC	0.4	0.5
Enneapogon caerulescens	NC	0.1	0.1			
Eriachne aristidea	NC	0.4	0.1			
Goodenia berardiana	I1-06	0.1	0.1			
Indigofera linnaei	=G3-03	0.1	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.4	0.5	NC	0.4	0.5
Salsola australis	NC	0.1	0.1			
Senna artemisioides subsp. *helmsii*	NC	1.8	1	NC	1.8	1
Solanum lasiophyllum	NC	0.4	0.1	NC	0.4	0.1

Site Type	Site Name	Dimensions
Quadrat	F3	20m x 20m
	Phase 1	Phase 2
Date	25-08-23	22-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	420786	mE	Soil Texture	Sandy Clay Loam
Northing	7293772	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Drainage Area/Floodplain	Rock Type	other, ?granite ?mudstone
Slope	Low (1-20º)	Rock Size	Negligible
Aspect	North	Abundance	Rare
Surface Water Present	No	Exposed Bedrock (%)	Limited (5-10%)

Condition	
Vegetation Condition	Very Good
Disturbance Type	Cattle grazing,Weed invasion
Fire Age (years)	Unknown (no evidence)
Fire Notes	N/A

Vegetation Description

Acacia fuscaneura low open woodland over *Acacia citrinoviridis* scattered tall shrubs over *Senna artemisioides* subsp. *helmsii* and *Ptilotus obovatus* var. *obovatus* scattered shrubs over *Aristida contorta* very open tussock grassland.

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia citrinoviridis	NC	3.8	2	NC	3.8	2
Acacia fuscaneura	=F1-01	6	3	NC	6	3
Acacia sclerosperma subsp. *sclerosperma*	NC	2.2	1	NC	2.2	1
Acacia tetragonophylla	NC	2.5	0.1	NC	2.5	0.1
Aristida contorta	NC	0.1	0.1			
Arivela viscosa	NC	0.3	0.1	NC	0.3	0.1
Boerhavia coccinea	NC	0.1	0.1			
**Cenchrus ciliaris*	NC	0.4	4	NC	4	3
**Cenchrus setiger*	NC	0.5	0.1	NC	0.5	0.1
Corchorus crozophorifolius	NC	0.2	0.1			
Enneapogon caerulescens	NC	0.2	0.1			
Eremophila cuneifolia	NC	0.2	0.1	NC	0.2	0.1
Eremophila ?forrestii subsp. *forrestii*				NC	0.4	0.1
Indigofera linnaei	=G3-03	0.1	0.1			
Maireana planifolia	=O9B-01	0.1	0.1			
?Maireana plantifolia				NC	0.2	0.1
Poaceae sp.				NC	0.1	2
Ptilotus obovatus var. *obovatus*	NC	0.6	1			
?Salsola australis				NC	0.2	0.1
Salsola australis	NC	0.1	0.1			
Senna artemisioides subsp. *helmsii*	NC	0.6	0.5	NC	0.6	0.1
Senna artemisioides subsp. *oligophylla*	NC	0.7	0.1	NC	0.7	0.1
?streptoglossa *bubakii*				NC	0.3	0.1
Streptoglossa bubakii	NC	0.3	0.1			

Site Type	Site Name	Dimensions
Quadrat	F4	20m x 20m
	Phase 1	Phase 2
Date	25-08-23	24-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	419983	mE	Soil Texture	Sandy Clay Loam
Northing	7293968	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Sandy/Stony Plain	Rock Type	Granite,Quartz
Slope	Flat (0º)	Rock Size	Gravel (1-4cm)
Aspect	N/A	Abundance	Rare
Surface Water Present	No	Exposed Bedrock (%)	Limited (5-10%)

Condition	
Vegetation Condition	Excellent
Disturbance Type	None discernible
Fire Age (years)	Unknown (no evidence)
Fire Notes	N/A

Vegetation Description

Acacia curryana and *Acacia ?macraneura* tall open shrubland over *Senna artemisioides* subsp. *oligophylla* and *Ptilotus obovatus* var. *obovatus* scattered low shrubs over *Aristida contorta* and *Enneapogon caerulescens* scattered tussock grasses.

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia curryana	=K5-01	1.9	11	F4-01-A	1.9	6
Acacia cuthbertsonii subsp. *cuthbertsonii*	=H2-05	1.8	1			
Aristida contorta	NC	0.1	12	NC	0.1	1.5
Dissocarpus paradoxus	=Q3-15	0.2	0.1			
Senna artemisioides subsp. *helmsii*	NC	0.8	2	NC	1.9	3
Solanum lasiophyllum	NC	0.4	0.5	NC	0.9	0.5
Acacia kempeana				NC	0.4	0.5
Acacia xiphophylla				NC	1.9	1
Leichhardtia australis				NC	1.5	0.1

Site Type	Site Name	Dimensions
Quadrat	G2	20m x 20m
	Phase 1	Phase 2
Date	25-08-23	22-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	420394	mE	Soil Texture	Sandy Loam
Northing	7295296	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Major Drainage Line	Rock Type	Granite
Slope	Low (1-20º)	Rock Size	Gravel (1-4cm)
Aspect	North	Abundance	Rare
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Very Good	*Acacia xiphophylla* tall scattered shrubs over *Acacia cuspidifolia* and *Acacia synchronicia* scattered shrubs over *Eremophila cuneifolia* and *Senna* sp. Meekatharra (E. Bailey 1-26) cattered low shrubs.
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia citrinoviridis	NC	4	6	NC	5	6
Alternanthera denticulata var. *denticulata*	NC	0.3	0.1			
**Argemone ochroleuca* subsp. *ochroleuca*	NC	0.1	0.1	NC	0.3	0.1
Arivela viscosa	NC	0.3	0.1			
Bulbostylis barbata	=D2-01	0.1	0.1			
**Cenchrus ciliaris*	NC	0.5	2	NC	0.5	2
Centipeda minima subsp. *macrocephala*	NC	0.1	0.1			
Chloris pumilio	=G3-02	0.2	0.1			
Crotalaria cunninghamii subsp. *sturtii*	NC	0.5	0.5	NC	0.5	0.1
Cucumis variabilis	=H4-01	0.3	0.1			
Cyperus vaginatus	NC	1.4	0.1	NC	1.4	0.1
Eragrostis cumingii	NC	0.1	0.1			
Eragrostis tenellula	=Yinn09-05	0.2	0.1	NC	0.2	0.1
Erythrina vespertilio	NC	5	0.5	NC	5	0.5
Eucalyptus camaldulensis subsp. *obtusa*	NC	12	15	NC	12	15
Euphorbia biconvexa	NC	0.1	0.1			
Nicotiana hesperis	=H2-04	0.1	0.1			
Petalostylis labicheoides	NC	2.5	0.1	NC	2.5	0.1
Pluchea rubelliflora	G2-01	0.5	0.1	NC	0.5	0.1
Pterocaulon sphacelatum	NC	0.6	0.5			
Sesbania cannabina	=G4-01	0.3	0.1			
Stemodia viscosa	NC	0.9	0.5	NC	0.9	0.1
Trichodesma zeylanicum var. *zeylanicum*	NC	0.3	0.1			

Site Type	Site Name	Dimensions
Quadrat	G3	20m x 20m
	Phase 1	Phase 2
Date	25-08-23	22-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	421281	mE	Soil Texture	Sandy Clay Loam
Northing	7292907	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Major Drainage Line	Rock Type	None_discernible
Slope	Low (1-20º)	Rock Size	Negligible
Aspect	South	Abundance	None
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Very Good	*Eucalyptus camaldulensis* subsp. *obtusa* woodland over *Acacia citrinoviridis* tall open shrubland over *Cenchrus ciliaris* very open tussock grassland.
Disturbance Type	Cattle grazing,Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia citrinoviridis	NC	6	8			
**Argemone ochroleuca* subsp. *ochroleuca*	NC	0.1	1	NC	0.2	5
Arivela viscosa	NC	0.1	0.1			
**Cenchrus ciliaris*	NC	0.4	6	NC	0.2	4
Chloris pumilio	G3-02	0.2	0.1			
Crotalaria cunninghamii subsp. *sturtii*	NC	0.5	0.1	NC	1.1	0.1
Cucumis variabilis	=H4-01	0.5	0.1			
Cyperus vaginatus	NC	0.9	1	NC	0.9	1
**Echinochloa colona*	G3-01	0.1	0.1			
Eragrostis tenellula	=Yinn09-05	0.2	0.1			
Erythrina vespertilio				NC	8	0.5
Eucalyptus camaldulensis subsp. *obtusa*	NC	15	6	NC	12	7
Indigofera linnaei	G3-03	0.1	0.1			
Ipomoea muelleri	=Yinn09-06	0.1	0.1			
Pluchea dentex	=Yinn09-03	0.1	0.1	NC	0.1	0.1
Pterocaulon sphacelatum	NC	0.5	0.5			
Salsola australis	NC	0.2	0.1	NC	0.3	0.1
Stemodia viscosa	NC	0.5	0.1	NC	0.5	0.1

Site Type	Site Name	Dimensions
Quadrat	G4	20m x 20m
	Phase 1	Phase 2
Date	21-08-23	23-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	430706	mE	Soil Texture	Sandy Clay Loam
Northing	7284732	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Major Drainage Line	Rock Type	None_discernible
Slope	Low (1-20º)	Rock Size	Negligible
Aspect	South	Abundance	None
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Good	*Eucalyptus camaldulensis* subsp. *obtusa* open woodland over *Acacia citrinoviridis* tall open shrubland over *Cenchrus ciliaris* very open tussock grassland.
Disturbance Type	Weed invasion,Cattle grazing	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon sp.				NC	0.1	0.1
Acacia citrinoviridis	NC	7	3	NC	7	3
Acacia coriacea subsp. *pendens*	NC	6	6	NC	6	6
Acacia sclerosperma subsp. *sclerosperma*	NC	1.9	0.1	NC	1.9	0.1
Alternanthera denticulata var. *denticulata*	NC	0.3	0.1			
Angianthus tomentosus	G4-03	0.1	0.1			
**Argemone ochroleuca* subsp. *ochroleuca*	NC	0.1	1	NC	0.6	0.5
Arivela viscosa	NC	0.1	0.1			
Boerhavia sp.				NC	0.1	0.1
Calandrinia sp.	=SP-08	0.1	0.1			
**Cenchrus ciliaris*	NC	0.3	25	NC	0.3	25
Convolvulus clementii	G4-06	0.1	0.1			
Crotalaria cunninghamii subsp. *sturtii*	NC	0.7	0.1			
Crotalaria medicaginea var. *neglecta*	NC	0.2	0.1			
Cyperus vaginatus	NC	0.9	1	NC	0.9	1
Dysphania rhadinostachya subsp. *inflata*	G4-05	0.5	0.1			
**Echinochloa colona*	G4-08	0.1	0.1			
Enteropogon ramosus				NC	0.3	0.1
Eucalyptus camaldulensis subsp. *obtusa*	NC	12	9	NC	12	9
Euphorbia biconvexa	G4-04	0.1	0.1			
Hibiscus sp.	NC	0.3	0.1			
Hibiscus sp. Gardneri (A.L. Payne PRP 1435)	=Yinn-06-05	1.8	0.1	NC	1.8	0.1
Lawrencia densiflora	=SP-07	0.1	0.1			
Lysimachia arvensis	G4-10	0.1	0.1			
Marsilea hirsuta	NC	0.2	0.1			
Nicotiana hesperis	=H2-04	0.2	0.1			
Pluchea rubelliflora	NC	0.4	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.6	0.1	NC	0.6	0.1
Samolus sp. Millstream (M.I.H. Brooker 2076)	G4-07	0.3	0.1			
Sesbania cannabina	G4-01	1.3	0.5	NC	1.3	0.5
**Sonchus oleraceus*	NC	0.4	0.5			
Stemodia viscosa	NC	0.2	0.1			
Stylobasium spathulatum	NC	2.1	2	NC	2.1	2
Wahlenbergia tumidifructa	G4-02	0.2	0.1			

Site Type	Site Name	Dimensions
Quadrat	G5	20m x 20m
	Phase 1	Phase 2
Date	24-08-23	20-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	422465	mE	Soil Texture	Sandy Clay Loam
Northing	7291885	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Major Drainage Line	Rock Type	Quartz,Granite
Slope	Low (1-20º)	Rock Size	Gravel (1-4cm)
Aspect	West	Abundance	Rare
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Good	*Eucalyptus camaldulensis* subsp. *obtusa* open woodland over *Acacia coriacea* subsp. *pendens*, *Stylobasium spathulatum* and *Acacia citrinoviridis* tall shrubland over *Cenchrus ciliaris* open tussock grassland.
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Abutilon amplum	G5-02	0.5	0.1			
Acacia citrinoviridis	NC	6	5	NC	6	3
Alternanthera denticulata var. *denticulata*	NC	0.4	0.1			
Ammannia multiflora	NC	0.4	0.1			
**Argemone ochroleuca* subsp. *ochroleuca*	NC	0.3	0.5	NC	0.3	0.1
**Cenchrus ciliaris*	NC	0.6	15	NC	0.6	9
**Cenchrus setiger*	NC	0.6	15	NC	0.6	1
Centipeda minima subsp. *macrocephala*	NC	0.2	0.1			
Crotalaria cunninghamii subsp. *sturtii*	NC	0.3	0.1			
Cyperus vaginatus	NC	1.6	4	NC	1.6	0.5
Eragrostis tenellula	=Yinn09-05	0.3	0.5			
Erythrina vespertilio	NC	6	1	NC	6	0.5
Eucalyptus camaldulensis subsp. *obtusa*	G5-01	15	16	NC	15	12
Euphorbia biconvexa	NC	0.2	0.1			
Ipomoea muelleri	=Yinn09-06	0.1	0.1			
Lysimachia arvensis	=G4-10	0.2	0.5			
**Malvastrum americanum*	NC	0.6	0.1			
Marsilea hirsuta	NC	0.3	0.1			
Pluchea rubelliflora	=I5-02	0.3	0.1			
Pterocaulon sphacelatum	=I5-03	0.4	0.1			
Sesbania cannabina	=G4-01	3	5	NC	3	0.1
**Sonchus oleraceus*	NC	0.4	0.5			
Stemodia viscosa	NC	0.3	0.5			
Trachymene oleracea subsp. *oleracea*	NC	0.4	0.1			
Wahlenbergia tumidifructa	=G4-02	0.3	0.1			

Site Type	Site Name	Dimensions
Quadrat	H1	20m x 20m
	Phase 1	Phase 2
Date	18-08-23	24-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	430066	mE	Soil Texture	Clay Loam
Northing	7278194	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Minor Drainage Line	Rock Type	Quartz,Ironstone
Slope	Flat (0º)	Rock Size	Pebbles (5-10cm)
Aspect	N/A	Abundance	Common
Surface Water Present	No	Exposed Bedrock (%)	Limited (5-10%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Eremophila phyllopoda* subsp. *phyllopoda* and *Eremophila latrobei* subsp. *latrobei* tall open shrubland over *Indigofera monophylla* low scattered shrubs over *Aristida contorta* open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia fuscaneura	H1-02	4	12	NC	4	8
Acacia kempeana	NC	3	1	NC	4	4
Acacia tetragonophylla	NC	3	2.5	NC	2.5	3
Aristida contorta	NC	0.3	9	NC	0.2	5
Arivela viscosa	NC	0.3	0.1	NC	0.3	0.1
Cheilanthes sp.	NC	0.1	0.1			
Corchorus crozophorifolius	NC	0.3	0.1	NC	0.3	0.1
Digitaria brownii	H1-04	0.4	0.1			
Digitaria ctenantha	H1-04	0.4	0.1			
Dodonaea petiolaris	NC	1.1	0.1	NC	0.8	0.1
Enchylaena tomentosa var. *tomentosa*	NC	0.7	0.1			
Enneapogon caerulescens	NC	0.2	0.1			
Eremophila phyllopoda subsp. *phyllopoda*	NC	2.1	3	NC	2.1	3
Eriachne aristidea				NC	0.4	0.1
Eriachne mucronata	NC	0.3	1			
Eriachne pulchella subsp. *dominii*	NC	0.2	0.5			
Evolvulus alsinoides var. villosicalyx	NC	0.1	0.1	NC	0.1	0.1
Gomphrena cunninghamii	NC	0.2	0.1			
Gomphrena kanisii	H1-06	0.3	0.1			
Goodenia tenuiloba	H1-01	0.4	0.1			
Hibiscus sp. Gardneri (A.L. Payne PRP 1435)	NC	0.2	0.1	NC	0.2	0.1
Indigofera decipiens	=OPPJM	0.3	0.1	NC	0.3	0.1
Paspalidium clementii	NC	0.2	0.1			
Portulaca oleracea	NC	0.1	0.1			
Ptilotus exaltatus	NC	0.3	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.4	3	NC	0.4	1
Senna artemisioides subsp. *helmsii*	NC	1.1	0.1	NC	0.8	0.1
Senna glaucifolia	NC	0.6	0.1	NC	0.8	0.1
Senna glutinosa subsp. ×luerssenii	NC	1.5	0.5	NC	1.5	0.1
Sida ?brownii	=	0.2	0.1			
Sida sp. dark green fruits (S. van Leeuwen 2260)	H1-03	0.9	0.1	NC	1.1	0.1
Solanum lasiophyllum				NC	0.4	0.1
Solanum sp.	=OPPJ	0.4	0.1			
Stemodia viscosa	NC	0.4	0.1			
Trachymene pilbarensis	=OPPJ	0.1	0.1			
Tribulus suberosus	NC	0.5	0.1			

Site Type	Site Name	Dimensions
Quadrat	H2	20m x 20m
	Phase 1	Phase 2
Date	19-08-23	23-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	428628	mE	Soil Texture	Sandy Loam
Northing	7280635	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Medium Drainage Line	Rock Type	Quartz
Slope	Low (1-20º)	Rock Size	Pebbles (5-10cm)
Aspect	North	Abundance	Common
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition	
Vegetation Condition	Excellent
Disturbance Type	None discernible
Fire Age (years)	Unknown (no evidence)
Fire Notes	N/A

Vegetation Description

Acacia demissa low open woodland over *Acacia sclerosperma* subsp. *sclerosperma* , *Acacia xiphophylla* and *Acacia citrinoviridis* tall open shrubland over *Cenchrus ciliaris* , *Cenchrus setiger* open tussock grassland.

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon cryptopetalum	H2-03	0.3	0.1	NC	0.3	0.1
Acacia citrinoviridis	NC	5	2	NC	6	2
Acacia cuthbertsonii subsp. *cuthbertsonii*	H2-05	3	1	NC	3	1
Acacia fuscaneura				2H2-01	5	13
Acacia kempeana				NC	3	10
Acacia sp.	NC	4	5			
Acacia tetragonophylla	NC	3	2	NC	3	2
Aristida contorta	NC	0.2	20	NC	0.2	9
Arivela viscosa	NC	0.2	0.1	NC	0.2	0.1
**Bidens bipinnata*	NC	0.3	0.1			
Brachyscome iberidifolia	H2-06	0.1	0.1			
**Cenchrus ciliaris*	NC	0.7	0.1	NC	0.3	0.1
Cheilanthes sieberi subsp. *sieberi*				NC	0.1	0.1
Cheilanthes sp.	NC	0.1	0.1			
Chrysopogon fallax	NC	1.1	0.1	NC	1.1	0.5
Corchorus crozophorifolius	NC	0.1	0.1			
Digitaria ctenantha	NC	0.6	1	NC	0.3	0.1
Eragrostis leptocarpa	NC	0.3	0.1			
Eremophila exilifolia	NC	0.4	0.1			
Eremophila fraseri subsp. *fraseri*				NC	2.3	0.1
Eremophila phyllopoda subsp. *phyllopoda*				NC	2.4	0.5
Eriachne aristidea	NC	0.6	3	NC	0.3	1
Eriachne pulchella subsp. *dominii*	NC	0.1	0.1			
Evolvulus alsinoides var. villosicalyx	NC	0.1	0.1	NC	0.1	0.1
Glycine canescens	NC	0.1	0.1			
Gomphrena kanisii	=O4-01	0.1	0.1			
Goodenia tenuiloba	SPmn-06-03	0.1	0.1			
Hibiscus sp. Gardneri (A.L. Payne PRP 1435)	NC	0.4	1	NC	0.4	0.1
Indigofera decipiens	=SPP-03	0.2	0.5	NC	0.3	0.1
Nicotiana hesperis	H2-04	0.1	0.1			
Portulaca oleracea	NC	0.1	0.1			
Senna artemisioides subsp. *helmsii*	NC	0.4	0.1	NC	1.9	0.1
Senna glaucifolia	NC	1.3	0.1	NC	1.3	0.1
Solanum lasiophyllum	NC	0.4	0.1			
Trachymene pilbarensis	H2-02	0.3	0.1			

Site Type	Site Name	Dimensions
Quadrat	H3	20m x 20m
	Phase 1	Phase 2
Date	20-08-23	23-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Jac Clark

Location (GDA) Zone 50K			Soils	
Easting	425363	mE	Soil Texture	Sandy Loam
Northing	7281797	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Medium Drainage Line	Rock Type	Quartz,Granite
Slope	Low (1-20º)	Rock Size	Negligible
Aspect	North-east	Abundance	Rare
Surface Water Present	No	Exposed Bedrock (%)	Limited (5-10%)

Condition		Vegetation Description
Vegetation Condition	Very Good	*Acacia* sp. Low open woodland over *Acacia tetragonophylla* , *Acacia citrinoviridis* and *Acacia cuthbertsonii* subsp. *cuthbertsonii* tall open shrubland over *Aristida contorta* , *Eriachne aristidea* and *Digitaria ctenantha* open tussock grassland.
Disturbance Type	Cattle grazing,Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon ?cryptopetalum				NC	0.3	0.1
Abutilon cryptopetalum	=H2-03	0.2	0.1			
Acacia citrinoviridis	NC	4.5	6	NC	4.5	6
Acacia cuthbertsonii subsp. *cuthbertsonii*	=H2-05	3	3			
Acacia fuscaneura	H3-01	4	5	NC	4	5
Acacia kempeana	NC	3.5	10	NC	3.5	10
Alternanthera denticulata var. *denticulata*	NC	0.3	0.1			
Aristida contorta	NC	0.2	1	NC	0.2	1
Arivela viscosa	NC	0.2	0.1			
Boerhavia coccinea	NC	0.1	0.1			
**Cenchrus ciliaris*	NC	0.4	1	NC	0.4	1
Chrysopogon fallax	NC	1.2	0.1			
Corchorus crozophorifolius	NC	0.9	0.1	NC	0.9	0.1
Digitaria ctenantha	NC	0.8	1	NC	0.8	1
Dodonaea pachyneura	NC	0.3	0.1			
Enneapogon caerulescens	NC	0.3	0.1			
Eremophila latrobei subsp. *latrobei*				NC	0.1	0.1
Eriachne aristidea	NC	0.2	0.1	H3-01	0.1	0.1
Evolvulus alsinoides var. villosicalyx	NC	0.2	0.1			
Glycine canescens	NC	1.5	1			
Hibiscus sp. Gardneri (A.L. Payne PRP 1435)	=Yinn-06-05	0.3	0.1			
Indigofera decipiens	=H4-03	0.4	0.1			
Leichhardtia australis	NC	0.1	0.1			
Poaceae sp.				NC	0.1	0.1
Psydrax latifolia	NC	5	1	NC	5	1
Pterocaulon sphacelatum	NC	0.5	0.1	NC	0.5	0.1
Senna artemisioides subsp. *helmsii*	NC	2.1	1	NC	2.1	1
Senna glaucifolia	NC	1.6	1	NC	1.6	1
Sida rohlenae subsp. *Rohlenae*	=H4-04	0.6	0.1			
Solanum ?cleistogamum				NC	0.1	0.1
Solanum lasiophyllum	NC	0.2	0.1	NC	0.2	0.1
Trachymene oleracea subsp. *oleracea*	NC	0.2	0.1			
Trichodesma zeylanicum var. *zeylanicum*	NC	0.3	0.1			

Site Type	Site Name	Dimensions
Quadrat	H4	20m x 20m
	Phase 1	Phase 2
Date	20-08-23	23-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	423671	mE	Soil Texture	Sandy Clay Loam
Northing	7282554	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Medium Drainage Line	Rock Type	Quartz
Slope	Low (1-20º)	Rock Size	Gravel (1-4cm)
Aspect	North	Abundance	Rare
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Very Good	*Acacia fuscaneura* low open woodland over *Acacia kempeana* , *Acacia* citrinoviridi and *Acacia cuthbertsonii* subsp. *cuthbertsonii* tall shrubland over *Aristida contorta* , *Cenchrus ciliaris* , *Digitaria ctenantha* very open tussock grassland.
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon cryptopetalum	=H2-03	0.4	0.1	NC	1.2	0.1
Acacia citrinoviridis	NC	4	8	NC	4	8
Acacia cuthbertsonii subsp. *cuthbertsonii*	=H2-05	4	1	NC	3	0.5
Acacia fuscaneura	H4-02	5	8	NC	8	10
Acacia kempeana	NC	2.5	4	NC	3	4
Alternanthera denticulata var. *denticulata*	NC	0.3	0.1			
Aristida contorta	NC	0.3	0.1	NC	0.2	0.1
Arivela viscosa	NC	0.3	0.1			
**Cenchrus ciliaris*	NC	0.5	2	NC	0.6	2
Cucumis variabilis	H4-01	1.6	0.1			
Digitaria brownii				2H4-01	0.5	0.1
Digitaria ctenantha	NC	0.6	1			
Enneapogon caerulescens	NC	0.2	0.1			
Eriachne aristidea	NC	0.1	0.1			
Euphorbia australis var. subtomentosa	=Q3-03	0.1	0.1			
Evolvulus alsinoides var. villosicalyx	NC	0.2	0.1			
Glycine canescens	NC	1.2	0.1			
Hibiscus sp. Gardneri (A.L. Payne PRP 1435)	=Yinn-06-05	0.5	0.1	NC	1	0.1
Indigofera decipiens	H4-03	0.3	1	NC	0.3	0.1
Psydrax latifolia	NC	4	0.5	NC	4	0.5
Ptilotus obovatus var. *obovatus*	NC	0.5	0.1	NC	1	0.1
Rhynchosia minima	NC	0.9	0.5			
Santalum spicatum	NC	2.2	1	NC	2.2	0.5
Senna artemisioides subsp. *helmsii*	NC	1.6	2	NC	1.9	0.5
Sida rohlenae subsp. *rohlenae*	H4-04	0.9	0.5			
Solanum cleistogamum	=Jc02	0.2	0.1	NC	0.1	0.1
Solanum lasiophyllum	NC	0.3	0.1	NC	0.3	0.1
Tribulus suberosus	NC	0.1	0.1			

Site Type	Site Name	Dimensions
Quadrat	H5	20m x 20m
	Phase 1	Phase 2
Date	21-08-23	23-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	430436	mE	Soil Texture	Sandy Clay Loam
Northing	7286049	mS	Soil Colour	Red
Site Characteristics			**Coarse Surface Particles**	
Landform	Minor Drainage Line		Rock Type	Quartz
Slope	Flat (0º)		Rock Size	Pebbles (5-10cm)
Aspect	N/A		Abundance	Moderate
Surface Water Present	No		Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia fuscaneura* low open shrubland over *Acacia citrinoviridis*, *Acacia cuthbertsonii* subsp. *cuthbertsonii* and *Acacia kempeana* tall shrubland over *Digitaria ctenantha* and *Cenchrus ciliaris* very open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon cryptopetalum	NC	0.9	0.1			
Abutilon fraseri subsp. *fraseri*	=J3-05	0.3	0.1			
Acacia citrinoviridis	NC	3	0.1			
Acacia fuscaneura	H5-01	7	5	NC	7	5
Acacia kempeana	NC	3.5	12	NC	3.5	12
Acacia tetragonophylla	NC	3	1	NC	1.9	0.5
Acacia xiphophylla	=C5-04	0.2	0.1			
Aristida contorta	NC	0.3	5	NC	0.2	0.5
Arivela viscosa	NC	0.2	0.1	NC	0.3	0.1
Calandrinia sp.	=OPPJ06	0.03	0.1			
Digitaria ctenantha	=H1-04	0.5	0.1			
Enteropogon ramosus				NC	0.3	0.1
Eremophila forrestii subsp. *forrestii*	=OPPJ91	0.4	0.1			
Eremophila phyllopoda subsp. *phyllopoda*	NC	1.8	1.5	NC	1.8	2
Eremophila ?platycalyx subsp. pardalota				2H5-01	0.9	0.1
Eriachne aristidea	NC	0.3	0.1			
Eriachne pulchella subsp. *dominii*	NC	0.2	0.1			
Evolvulus alsinoides var. villosicalyx	NC	0.1	0.1	NC	0.1	0.1
Goodenia tenuiloba	NC	0.2	3			
Grevillea berryana	H5-03	6	0.1	NC	6	0.5
Hibiscus sp. Gardneri (A.L. Payne PRP 1435)	NC	0.3	0.1			
Hibiscus ?sturtii	=YINN-04-04	0.1	0.1			
Indigofera monophylla	NC	1.1	0.1			
Paspalidium clementii	NC	0.3	0.1	NC	0.2	0.1
Portulaca oleracea	NC	0.1	0.1			
Psydrax suaveolens	NC	2.2	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.2	0.1	NC	0.3	0.1
Senna artemisioides subsp. *helmsii*	NC	1.5	1	NC	1.5	1
Streptoglossa decurrens	NC	0.3	0.1			
Walshia kendallii	H5-02	0.3	0.1			

Site Type	Site Name	Dimensions
Quadrat	H6	20m x 20m
	Phase 1	Phase 2
Date	23-08-23	20-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	426717	mE	Soil Texture	Sandy Clay Loam
Northing	7290624	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Minor Drainage Line	Rock Type	None_discernible
Slope	Low (1-20º)	Rock Size	Negligible
Aspect	West	Abundance	Rare
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia fuscaneura* low open woodland over *Acacia tetragonophylla* and *Acacia kempeana* tall shrubland over *Aristida contorta* very open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon cryptopetalum	=H2-03	0.2	0.1	H6-05	0.5	0.1
Acacia cuthbertsonii subsp. *cuthbertsonii*	=H2-05	2.8	5	NC	2.8	5
Acacia fuscaneura	H6-01	3.2	8	NC	3.2	4
Acacia kempeana	NC	2.8	5	NC	2.8	5
Acacia synchronicia	NC	1.5	2	NC	1.5	2
Acacia tetragonophylla	NC	1.8	0.5	NC	1.8	0.5
Anthobolus leptomerioides				H6-04	0.6	0.1
**Cenchrus ciliaris*	NC	0.3	2	NC	0.3	2
**Cenchrus setiger*	NC	0.5	3			
Enteropogon ramosus	NC	0.4	1	H6-02	0.3	0.1
Eragrostis eriopoda	NC	0.2	0.1			
Eragrostis setifolia				H6-03	0.2	0.1
Eremophila cuneifolia	NC	1.6	1	NC	1.6	1
Eremophila latrobei subsp. *latrobei*	=E2-02	0.3	0.1			
Eremophila phyllopoda subsp. *phyllopoda*	NC	0.1	0.1			
Evolvulus alsinoides var. villosicalyx	NC	0.1	0.1			
Gomphrena kanisii	=O4-01	0.1	0.1			
Ptilotus exaltatus	NC	0.1	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.4	0.1			
Rhagodia eremaea	NC	1.4	0.5	NC	1.4	0.5
Scaevola spinescens	NC	0.5	0.1			
Senna artemisioides subsp. *helmsii*	NC	1.3	0.5	NC	1.3	0.5
Senna artemisioides subsp. ?*helmsii* x *oligophylla*				NC	1.3	0.5
Senna artemisioides subsp. *helmsii* x *oligophylla*	H6-03	1.6	0.5			
Senna glutinosa subsp. ×luerssenii	NC	0.3	0.1			
Senna sp. Meekatharra (E. Bailey 1-26)	NC	1.2	0.1			
Solanum lasiophyllum	NC	0.2	0.1	NC	0.2	0.1
?*Streptoglossa odora*				NC	0.3	0.1
Streptoglossa odora	=Q3-01	0.3	0.1			

Site Type	Site Name	Dimensions
Quadrat	H7	50m x 50m
	Phase 1	Phase 2
Date	26-08-23	20-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	425787	mE	Soil Texture	Sandy Clay Loam
Northing	7291607	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Minor Drainage Line	Rock Type	None_discernible
Slope	Low (1-20º)	Rock Size	Negligible
Aspect	West	Abundance	None
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Very Good	*Acacia citrinoviridis*, *Acacia coriacea* subsp. *pendens* and *Acacia synchronicia* tall shrubland over *Eremophila longifolia* and *Acacia tetragonophylla* open shrubland over *Eriachne flaccida* tussock grassland.
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia citrinoviridis	NC	3.8	1	NC	3.8	1
Acacia cuspidifolia	NC	2.5	4	NC	2.5	0.1
Acacia sclerosperma subsp. *sclerosperma*	NC	2.1	5	NC	2.1	2
Acacia synchronicia	NC	2.5	1	NC	2.5	1
Acacia tetragonophylla	NC	2.1	2	NC	2.1	0.5
Atriplex codonocarpa	H7-02	0.2	0.1			
Atriplex semilunaris	H7-01	0.2	0.1			
**Cenchrus ciliaris*	NC	0.5	12	NC	0.3	8
Dissocarpus paradoxus	=Q3-15	0.8	0.5	NC	0.8	0.1
Eragrostis eriopoda	NC	0.3	0.1	NC	0.3	0.1
Eremophila cuneifolia	NC	1.1	2	NC	1.1	2
Goodenia forrestii	=N1-01	0.1	0.1			
Hakea preissii	NC	3	0.5	NC	3	0.1
Maireana triptera				NC	0.1	0.1
Ptilotus exaltatus	NC	0.1	0.1			
Rhagodia eremaea	NC	1.5	4	NC	1.5	0.1
Scaevola spinescens	NC	0.5	0.1			
Sclerolaena cuneata	NC	0.2	0.5	NC	0.2	0.1
Senna glaucifolia	NC	1.6	0.5	NC	1.6	0.1
Solanum lasiophyllum	NC	0.9	0.1	NC	0.9	0.1
Streptoglossa bubakii	NC	0.1	0.1			

Site Type	Site Name	Dimensions
Quadrat	I1	20m x 20m
	Phase 1	Phase 2
Date	17-08-23	25-03-24
Described by	Jonas Mitchell,Jacquie Mason	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	431694	mE	Soil Texture	Sandy Clay Loam
Northing	7274345	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Medium Drainage Line	Rock Type	Quartz
Slope	Flat (0º)	Rock Size	Gravel (1-4cm)
Aspect	N/A	Abundance	Rare
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Good	*Acacia fuscaneura* low woodland over *Acacia kempeana* , *Acacia tetragonophylla* and *Eremophila phyllopoda* subsp. *phyllopoda* tall open shrubland over *Ptilotus obovatus* var. *obovatus* low open shrubland over *Aristida contorta* and *Eriachne mucronata* open tussock grassland.
Disturbance Type	Cattle grazing,Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon cryptopetalum	NC	0.6	0.1	NC	0.6	0.1
Acacia citrinoviridis	NC	8	9	NC	8	9
Acacia fuscaneura	I1-01	6	12	NC	5	2
Acacia kempeana	I1-03	4	5	NC	4	5
Acacia tetragonophylla	NC	0.5	0.1	NC	2.1	0.1
Aristida contorta	NC	0.4	5	NC	0.4	5
**Bidens bipinnata*	NC	0.2	0.1			
Calandrinia sp.	=OPPJ05	0.1	0.1			
**Cenchrus ciliaris*	NC	0.4	5	NC	0.4	5
Centipeda minima subsp. *macrocephala*	=JMMN02	0.1	0.1			
Cheilanthes sieberi subsp. *sieberi*	I1-11	0.2	0.1			
Chloris pumilio	I1-07	0.3	0.1			
Chrysopogon fallax	NC	1.3	2			
Dendrophyllanthus erwinii	I1-08	0.1	0.1			
Eragrostis cumingii	NC	0.2	0.1			
Eragrostis leptocarpa	NC	0.2	0.1	NC	0.4	0.1
Eremophila fraseri subsp. *fraseri*	NC	0.4	0.1	NC	0.4	0.1
Eriachne aristidea	NC	0.5	3	NC	0.5	3
Eriachne pulchella subsp. *dominii*	NC	0.2	0.1			
Euploca cunninghamii	NC	0.2	0.1			
Evolvulus alsinoides var. villosicalyx	NC	0.1	0.1			
Glycine canescens	NC	0.5	0.1	NC	0.5	0.1
Goodenia berardiana	I1-06	0.1	0.1			
Goodenia tenuiloba	=YINN3/4	0.2	0.1			
Hibiscus sp. Gardneri (A.L. Payne PRP 1435)	NC	0.4	0.1	NC	0.4	0.1
Leichhardtia australis	NC	0.1	0.1			
Santalum lanceolatum	I1-09	1.7	0.1			
Senna artemisioides subsp. *helmsii*	NC	0.3	0.1	NC	2.1	0.5
Senna artemisioides subsp. *oligophylla*	NC	0.4	0.1	NC	0.4	0.1
Setaria surgens	I1-04	0.4	0.1			
Sida fibulifera	NC	0.2	0.1			
Solanum lasiophyllum	=YINN-04	0.2	0.1	NC	0.2	0.1
Stackhousia muricata subsp. annual	I1-05	0.4	0.1			
Themeda triandra	NC	0.4	0.5	NC	0.4	0.5
Trachymene pilbarensis	=OPPJ03	0.3	0.1			
Wahlenbergia tumidifructa	I1-10	0.2	0.1			

Site Type	Site Name	Dimensions
Quadrat	I2	20m x 20m
	Phase 1	Phase 2
Date	19-08-23	23-03-24
Described by	Jonas Mitchell,Jacquie Mason	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	426358	mE	Soil Texture	Sandy Loam
Northing	7279335	mS	Soil Colour	Red/Orange

Site Characteristics		Coarse Surface Particles	
Landform	Medium Drainage Line	Rock Type	None_discernible
Slope	Flat (0º)	Rock Size	Negligible
Aspect	N/A	Abundance	None
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Very Good	*Acacia fuscaneura* low woodland over *Acacia citrinoviridis* and *Acacia kempeana* tall open shrubland over *Eriachne aristidea* , *Aristida contorta* and *Cenchrus ciliaris* open tussock grassland.
Disturbance Type	Weed invasion	
Fire Age (years)	Old (6+yrs)	
Fire Notes	Fire_scar,Dead_branches	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon oxycarpum subsp. Prostrate	I2-05	0.01	0.1			
Acacia cuthbertsonii subsp. *cuthbertsonii*	=	2.2	7	NC	2.2	7
Acacia kempeana	NC	1.5	1.5	NC	1.5	1.5
Acacia synchronicia	NC	0.4	0.1	NC	0.4	0.1
Aeschynomene indica	NC	0.1	0.5			
Aristida contorta	NC	0.3	5	NC	0.3	5
Boerhavia sp.	NC	0.2	0.1	NC	0.2	0.1
Brachyscome iberidifolia	I2-02	0.1	0.5			
Calandrinia sp.	=oppj	0.1	0.1			
**Cenchrus ciliaris*	NC	0.2	10	NC	0.2	10
Corchorus crozophorifolius	NC	0.3	0.1	NC	0.3	0.1
Eragrostis cumingii	NC	0.2	0.1			
Eragrostis leptocarpa	NC	0.2	0.1	NC	0.2	0.1
Eragrostis pergracilis	I2-06	0.1	0.1			
Eriachne ?aristidea				NC	0.1	0.1
Eriachne aristidea	NC	0.6	7			
Euphorbia drummondii	I2-03	0.05	0.1			
Fimbristylis dichotoma	I2-07	0.3	0.1			
Gomphrena kanisii	=	0.2	0.1			
Goodenia muelleriana	=L2	0.1	0.1			
Goodenia tenuiloba	NC	0.3	0.1			
Helipterum craspedioides	I2-01	0.3	0.1			
Maireana tomentosa subsp. *tomentosa*	=L2	0.2	0.1			
Poaceae sp.				NC	0.1	0.1
Portulaca oleracea	NC	0.1	0.1			
Pterocaulon sphacelatum	NC	0.6	0.1	NC	0.4	0.1
Ptilotus clementii	NC	0.3	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.5	0.1	NC	0.5	0.1
Rhodanthe polakii	=oppj	0.05	0.1			
Salsola australis	NC	0.4	0.1	NC	0.4	0.1
Senna artemisioides subsp. *helmsii*	NC	1.8	3	NC	1.8	3
Senna glaucifolia	NC	0.4	0.1			
Sida fibulifera	NC	0.3	0.1			
Stackhousia muricata subsp. annual	I2-04	0.4	0.1			
Streptoglossa ?decurrens				NC	0.4	2.5
Streptoglossa decurrens	NC	1.2	0.5			
Trachymene pilbarensis	=oppj	0.1	0.1			

Site Type	Site Name	Dimensions
Quadrat	I3	20m x 20m
	Phase 1	Phase 2
Date	20-08-23	24-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	420455	mE	Soil Texture	Sandy Clay Loam
Northing	7280441	mS	Soil Colour	Red/Orange

Site Characteristics		Coarse Surface Particles	
Landform	Medium Drainage Line	Rock Type	Quartz
Slope	Flat (0º)	Rock Size	Negligible
Aspect	N/A	Abundance	Rare
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Good	*Acacia sclerosperma* subsp. *sclerosperma* , *Acacia cuspidifolia* and *Acacia tetragonophylla* tall shrubland over *Eremophila cuneifolia* and *Rhagodia eremaea* open shrubland over *Cenchrus ciliaris* open tussock grassland.
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia ?ramulosa var. *ramulosa*	I3-01	7	3.5	NC	7	4
Acacia sclerosperma subsp. *sclerosperma*	I3-02	2.8	4	NC	2.8	0.1
Acacia synchronicia	NC	1.2	0.1			
Acacia tetragonophylla	NC	3.5	0.5	NC	4	1
Acacia xiphophylla	NC	7	8	NC	7	8
Aeschynomene indica	NC	0.05	0.1			
Amyema xiphophylla	=oppj76	4	0.1	NC	4	0.1
Arivela viscosa	NC	0.2	0.1			
**?Asphodelus fistulosus*	I3-06	0.4	0.1			
Boerhavia sp.	NC	0.1	0.1			
Brachyscome iberidifolia	=OPPJ52	0.03	0.1			
Calandrinia ptychosperma	I3-07	0.01	0.1			
Calotis multicaulis	I3-03	0.04	0.1			
**Cenchrus ciliaris*	NC	0.9	28	NC	0.5	12
Dactyloctenium radulans	NC	0.03	0.1			
Dissocarpus paradoxus	=J3-04	0.5	0.1			
Enteropogon ramosus	NC	0.4	0.1			
Eragrostis dielsii	I3-09	0.1	0.1			
Eragrostis xerophila	=oppj77	0.5	0.1			
Eremophila pterocarpa subsp. *pterocarpa*	=spopp	2.8	0.1			
Goodenia forrestii	I3-05	0.3	0.1			
Hakea preissii	NC	4.5	1	NC	4.5	1
Leichhardtia australis	NC	0.5	0.1			
Muelleranthus obovatus	NC	0.1	0.1			
Nicotiana hesperis	=Oppj07	0.03	0.1			
Portulaca oleracea	NC	0.01	0.1			
Ptilotus exaltatus	NC	0.2	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.2	0.1			
Rhagodia eremaea	=L2-05	1.2	0.1			
Salsola australis	NC	0.3	0.1			
Senna artemisioides subsp. *helmsii*	NC	1.7	0.1	NC	1.7	0.1
Senna artemisioides subsp. *oligophylla*	NC	0.3	0.1	NC	1.5	0.1
Sida fibulifera	NC	0.1	0.1			
Streptoglossa decurrens	NC	0.1	0.1			
Streptoglossa liatroides	I3-04	0.2	0.1			
Synaptantha tillaeacea	I3-08	0.01	0.1			
Wahlenbergia tumidifructa	=I1-10	0.2	0.1			

Site Type	Site Name	Dimensions
Quadrat	I4	20m x 20m
	Phase 1	Phase 2
Date	20-08-23	23-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	419845	mE	Soil Texture	Sand
Northing	7279958	mS	Soil Colour	Red/Orange

Site Characteristics		Coarse Surface Particles	
Landform	Medium Drainage Line	Rock Type	Quartz
Slope	Flat (0º)	Rock Size	Negligible
Aspect	N/A	Abundance	Rare
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition	
Vegetation Condition	Very Good
Disturbance Type	Weed invasion
Fire Age (years)	Unknown (no evidence)
Fire Notes	N/A

Vegetation Description

Acacia cuthbertsonii subsp. *cuthbertsonii* tall open shrubland over *Senna artemisioides* subsp. *helmsii* and *Acacia kempeana* open shrubland over *Eriachne aristidea* , *Aristida contorta* , *Cenchrus ciliaris* open tussock grassland.

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia cuthbertsonii subsp. *cuthbertsonii*				2I4-01	3	5
Acacia fuscaneura	I4-01	8	4	NC	8	5
Acacia kempeana	NC	4	12	NC	4	12
Acacia ?ramulosa var. *ramulosa*	=I3	4.5	1			
Acacia synchronicia	NC	1.9	0.1	NC	1.9	0.5
Acacia xiphophylla	=C5-04	3	9			
Aristida contorta	NC	0.2	0.1	NC	0.2	0.1
Arivela viscosa	NC	0.2	0.1			
Brachyscome iberidifolia	=OPPJ52	0.05	0.1			
Calandrinia ptychosperma	=I3	0.01	0.1			
**Cenchrus ciliaris*	NC	0.9	20	NC	0.9	5
Chloris pumilio	I4-03	0.5	0.1			
Chloris sp.	NC	0.5	0.1			
Chrysopogon fallax	NC	1.3	1	NC	1.3	2
Cucumis sp.	NC	1.6	0.1			
Digitaria ctenantha	=H1-04	0.4	0.1			
Dysphania glomulifera subsp. *eremaea*	I4-02	0.04	0.1			
Dysphania rhadinostachya subsp. *rhadinostachya*	=OPPJ30	0.1	0.1			
Enneapogon caerulescens	NC	0.2	0.1			
Enteropogon ramosus	NC	0.4	0.1			
Eragrostis cumingii	NC	0.1	0.1			
Eriachne aristidea	NC	0.3	0.1	NC	0.3	0.5
Evolvulus alsinoides var. villosicalyx	NC	0.2	0.1	NC	0.2	0.1
Fimbristylis dichotoma	=I2-07	0.2	0.1			
Leichhardtia australis	NC	2.2	0.1	NC	1.4	0.1
Nicotiana hesperis	=Oppj07	0.3	0.1			
Portulaca oleracea	NC	0.01	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.6	0.1			
**Rumex vesicarius*	I4-04	0.2	0.1			
Santalum spicatum				NC	2.1	0.1
Senna artemisioides subsp. *helmsii*	NC	2.2	0.5	NC	2.2	0.5
Senna artemisioides subsp. *oligophylla*	NC	0.5	0.1	NC	0.3	0.1
Sida fibulifera	NC	0.3	0.1			
Solanum lasiophyllum	=YINN-04-05	0.3	0.1	NC	0.2	0.1
Sporobolus blakei	=oppj85	0.5	0.1			
Streptoglossa sp.	NC	0.4	0.1			
Trichodesma zeylanicum var. *zeylanicum*	NC	0.3	0.1			
Wahlenbergia tumidifructa	=I1-10	0.1	0.1			

Site Type	Site Name	Dimensions
Quadrat	I5	20m x 20m
	Phase 1	Phase 2
Date	22-08-23	26-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	420590	mE	Soil Texture	Sandy Clay Loam
Northing	7285071	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Drainage Area/Floodplain	Rock Type	None_discernible
Slope	Low (1-20º)	Rock Size	Negligible
Aspect	South	Abundance	None
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Poor	*Acacia ?ramulosa* var. *ramulosa* low open woodland over *Acacia xiphophylla* , *Acacia sclerosperma* subsp. *sclerosperma* and *Hakea preissii* tall open shrubland over *Cenchrus ciliaris* open tussock grassland.
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia sclerosperma subsp. *sclerosperma*	NC	2.5	2	NC	2.5	2
Acacia tetragonophylla	NC	2.1	3	NC	2.1	3
Alternanthera denticulata var. *denticulata*	NC	0.1	0.1			
Boerhavia coccinea	NC	0.2	0.1			
**Cenchrus ciliaris*	NC	0.4	60	NC	0.4	60
**Cenchrus setiger*	NC	0.5	0.5	NC	0.5	1
Centipeda minima subsp. *macrocephala*	NC	0.1	0.1			
Chrysopogon fallax	NC	0.9	0.1			
Dicladanthera forrestii	NC	0.1	0.1			
Eragrostis leptocarpa	I5-01	0.2	0.1	NC	0.2	0.1
Hakea preissii	NC	4	5	NC	4	5
Pluchea rubelliflora	I5-02	0.2	0.1			
Pterocaulon sphacelatum	I5-03	0.3	0.1	NC	0.3	0.1
Rhagodia eremaea	NC	2.3	0.5	NC	2.3	0.5
Senna artemisioides subsp. *helmsii*				NC	0.2	0.1
Senna glaucifolia	NC	0.2	0.1			
Sida fibulifera	NC	0.1	0.1			
Streptoglossa liatroides	I5-04	0.1	0.1			

Site Type	Site Name	Dimensions
Quadrat	I6	20m x 20m
	Phase 1	Phase 2
Date	23-08-23	20-03-24
Described by	Jonas Mitchell,Jacquie Mason	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	424259	mE	Soil Texture	Clay Loam
Northing	7290691	mS	Soil Colour	Red/Orange
Site Characteristics			**Coarse Surface Particles**	
Landform	Minor Drainage Line		Rock Type	None_discernible
Slope	Flat (0º)		Rock Size	Negligible
Aspect	N/A		Abundance	None
Surface Water Present	No		Exposed Bedrock (%)	Negligible (<5%)
Condition			**Vegetation Description**	
Vegetation Condition	Very Good			
Disturbance Type	Weed invasion		*Acacia cuspidifolia* and *Acacia synchronicia* tall shrubland over *Acacia sclerosperma* subsp. *sclerosperma* , *Rhagodia eremaea* and *Eremophila cuneifolia* open shrubland over *Cenchrus ciliaris* open tussock grassland.	
Fire Age (years)	Unknown (no evidence)			
Fire Notes	N/A			

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia cuspidifolia	NC	2.8	9	NC	2.8	9
Acacia sclerosperma subsp. *sclerosperma*	NC	1.9	1	NC	2.5	1
Acacia synchronicia	NC	2.8	2	NC	2.8	2
Acacia tetragonophylla	NC	1.8	0.1	NC	2.1	0.1
Atriplex ?bunburyana	=OPPJM126	1.4	1			
Atriplex bunburyana				=L10	0.2	0.1
Atriplex codonocarpa	=oppj35	0.2	0.1			
**Cenchrus ciliaris*	NC	0.7	11	NC	0.7	11
Dissocarpus paradoxus	=J3-04	1.6	0.1			
Eremophila cuneifolia	NC	1.3	1	NC	1.1	1
Eremophila longifolia	NC	0.4	0.1			
Maireana pyramidata	=L10-02	0.9	1	NC	0.9	1
**Malvastrum americanum*	NC	0.5	0.1			
Ptilotus exaltatus	NC	0.1	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.9	0.1			
Rhagodia eremaea	NC	1.2	3	NC	1.2	3
Salsola australis	NC	0.3	0.1			
Scaevola spinescens	NC	1.6	0.1			
Sclerolaena beaugleholei	=oppj155	0.2	0.1			
Sclerolaena cuneata	NC	0.2	0.1	l6-01	0.1	0.5
Sclerolaena limbata	=C5-01	0.1	0.1			
Sclerolaena sp.				NC	0.1	0.1
Senna artemisioides subsp. *helmsii*	NC	0.3	0.1	NC	0.3	0.1
Senna artemisioides subsp. *oligophylla*	NC	0.4	0.1	NC	0.4	0.1
Senna glutinosa subsp. *glutinosa*	NC	0.2	0.1			
Sida fibulifera	NC	0.2	0.1			
Solanum lasiophyllum				NC	0.1	0.1
Streptoglossa liatroides	=oppj156	0.1	0.1			
?Streptoglossa sp.				NC	0.6	0.1

Site Type	Site Name	Dimensions
Quadrat	I7	20m x 20m
	Phase 1	Phase 2
Date	25-08-23	22-03-24
Described by	Jonas Mitchell,Jacquie Mason	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	418913	mE	Soil Texture	Sandy Clay Loam
Northing	7295033	mS	Soil Colour	Red/Orange
Site Characteristics			**Coarse Surface Particles**	
Landform	Minor Drainage Line		Rock Type	None_discernible
Slope	Flat (0º)		Rock Size	Negligible
Aspect	N/A		Abundance	None
Surface Water Present	No		Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Good	*Acacia aptaneura*, *Acacia demissa* and *Acacia sclerosperma* subsp. Sclerosperma open shrubland over **Cenchrus ciliaris* open tussock grassland.
Disturbance Type	Weed invasion,Cattle grazing	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon cryptopetalum	NC	0.7	0.1	NC	0.7	0.1
Acacia citrinoviridis	NC	5	1	NC	5	1
Acacia demissa	=OPPJ169	6	8	=I7-	6	8
Acacia sclerosperma subsp. *sclerosperma*	NC	2.2	6	NC	2.2	6
Acacia synchronicia	NC	2.5	0.5			
Acacia xiphophylla	=C5-04	2.5	3	NC	2.5	3
Atriplex codonocarpa	=oppj35	0.1	0.1			
Atriplex semilunaris	=Q2-01	0.1	0.1			
Boerhavia coccinea	NC	0.1	0.1			
**Cenchrus ciliaris*	NC	1.1	12	NC	1.1	12
**Cenchrus setiger*	NC	1.1	6	NC	1.1	6
Dactyloctenium radulans	NC	0.1	0.1			
Dissocarpus paradoxus	=J3-04	0.4	0.1			
Enteropogon ramosus	NC	0.5	0.1			
Evolvulus alsinoides var. villosicalyx	NC	0.1	0.1			
Hakea preissii	NC	2.7	1.5	NC	2.7	1.5
Leichhardtia australis				NC	1.8	0.1
Pluchea rubelliflora	NC	0.3	0.1			
Portulaca oleracea	NC	0.1	0.1			
Ptilotus ? exaltatus				NC	0.1	0.1
Ptilotus exaltatus	NC	0.1	0.1			
Rhagodia eremaea	NC	1.9	0.5	NC	1.6	0.5
Salsola australis	NC	0.3	0.1			
Santalum spicatum	NC	1.9	1	I7-01	2.1	1
Sclerolaena costata	=L2-02	0.1	0.1			
Sclerolaena cuneata	NC	0.2	0.5	NC	0.2	0.5
Sclerolaena densiflora	=JMmn01-01	0.1	0.1	NC	1.1	0.1
Senna glutinosa subsp. ×luerssenii	NC	1.2	0.1			
Senna sp. Meekatharra (E. Bailey 1-26)	NC	1.6	0.1			
Streptoglossa ?decurrens				NC	0.3	0.1
Streptoglossa decurrens	NC	0.3	0.1			
Stylobasium spathulatum	NC	1.8	0.5	NC	1.8	0.5
Trianthema ?turgidifolium				NC	0.3	0.1
Trianthema turgidifolium	=OPPJ37	0.1	0.1			

Site Type	Site Name	Dimensions
Quadrat	I8	20m x 20m
	Phase 1	Phase 2
Date	24-08-23	20-03-24
Described by	Jonas Mitchell,Jacquie Mason	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	428724	mE	Soil Texture	Sandy Loam
Northing	7289688	mS	Soil Colour	Red/Orange
Site Characteristics			**Coarse Surface Particles**	
Landform	Minor Drainage Line		Rock Type	Quartz
Slope	Low (1-20º)		Rock Size	Pebbles (5-10cm)
Aspect	West		Abundance	Moderate
Surface Water Present	No		Exposed Bedrock (%)	Negligible (<5%)
Condition			**Vegetation Description**	
Vegetation Condition	Excellent		*Acacia fuscaneura* low open woodland over *Eremophila latrobei* subsp. *glabra* and *Eremophila exilifolia* open shrubland over *Gomphrena cunninghamii* and *Indigofera decipiens* scattered herbs.	
Disturbance Type	None discernible			
Fire Age (years)	Unknown (no evidence)			
Fire Notes	N/A			

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon ?cryptopetalum				I8-04	0.1	0.1
Abutilon cryptopetalum	NC	1.4	1			
Abutilon fraseri subsp. *fraseri*	=J3-05	0.4	0.1			
Acacia citrinoviridis	NC	8	3.5	NC	8	3
Acacia kempeana	NC	3.5	1	NC	3.5	1
Acacia sp.	I8-01	8	75	NC	8	70
Aristida contorta	NC	0.1	0.1	NC	0.1	0.1
Digitaria brownii	=oppj168	0.9	5	=I8-01	0.1	0.1
Digitaria ctenantha	=H1-04	0.3	0.1			
Dodonaea petiolaris	NC	1.2	0.1	NC	1.2	0.1
Eremophila phyllopoda subsp. *phyllopoda*				NC	0.1	0.1
Evolvulus alsinoides var. villosicalyx	NC	0.1	0.1	NC	0.1	0.1
Glycine canescens	NC	1.5	0.1	NC	1.5	0.1
Hibiscus sp. Gardneri (A.L. Payne PRP 1435)	NC	0.3	0.1			
Hibiscus sturtii	=OPPJ15	0.1	0.1			
Indigofera monophylla	=K8-03	0.5	0.1			
Paspalidium clementii	NC	0.3	0.1			
Psydrax latifolia	NC	4.2	0.1	NC	4.2	0.1
Senna glutinosa subsp. ×luerssenii	NC	0.4	0.1			
Sida fibulifera	NC	0.1	0.1			
Sida ?sp. L				I8-03	0.1	0.1
Solanum ?cleistogamum	I8-02	0.05	0.1	NC	0.05	0.1

Site Type	Site Name	Dimensions
Quadrat	J1	20m x 20m
	Phase 1	Phase 2
Date	26-08-23	25-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	432498	mE	Soil Texture	Clay Loam
Northing	7273667	mS	Soil Colour	Red/Orange

Site Characteristics		Coarse Surface Particles	
Landform	Drainage Area/Floodplain	Rock Type	Quartz
Slope	Flat (0º)	Rock Size	Gravel (1-4cm)
Aspect	N/A	Abundance	Rare
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Very Good	*Acacia* sp. Low closed forest over *Acacia citrinoviridis* and *Acacia kempeana* tall open shrubland over *Digitaria brownii* very open tussock grassland.
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon cryptopetalum	NC	1.2	0.1	NC	0.7	0.1
Acacia ?aptaneura				2J1-02	7	20
Acacia citrinoviridis	NC	2.1	0.5	2J1-01	2.5	0.5
Acacia cuthbertsonii subsp. *cuthbertsonii*	=02-01	1.4	1	NC	1.1	0.5
Acacia ?incurvaneura	J1-03	9	15			
Acacia kempeana	NC	2.8	12	NC	2.3	12
Acacia tetragonophylla	NC	1.9	3	NC	2.2	3
Alternanthera denticulata var. *denticulata*	=MNJM02-02	0.1	0.1			
Aristida contorta	NC	0.3	7	NC	0.3	12
**Bidens bipinnata*	NC	0.2	0.1			
Boerhavia coccinea	NC	0.1	0.1			
Calandrinia ptychosperma	=oppj133	0.02	0.1			
Calandrinia schistorhiza	=oppj180	0.01	0.1			
Cheilanthes sieberi subsp. *sieberi*	J1-05	0.3	0.1			
Corchorus crozophorifolius	NC	0.1	0.1	NC	0.3	0.1
Cyperus iria	=MNJM02-07	0.1	0.1			
Digitaria brownii	=oppj168	0.6	6	NC	0.3	3
Dysphania rhadinostachya subsp. *rhadinostachya*	=OPPJ30	0.1	0.1			
Enneapogon caerulescens	NC	0.1	0.1			
Eragrostis leptocarpa	NC	0.5	0.1			
Eragrostis pergracilis	J1-01	0.1	0.1			
Eremophila phyllopoda subsp. *phyllopoda*	NC	0.6	0.5	NC	1.3	0.1
Eriachne pulchella subsp. *dominii*	NC	0.1	0.1			
Evolvulus alsinoides var. villosicalyx	NC	0.2	0.1			
Gomphrena kanisii	=H1-06	0.2	0.1			
Goodenia tenuiloba	NC	0.2	0.1			
Hibiscus burtonii	NC	0.6	0.1			
Hibiscus sp. Gardneri (A.L. Payne PRP 1435)	NC	0.1	0.1			
Maireana planifolia	J1-04	0.9	1			
Maireana tomentosa subsp. *tomentosa*				NC	0.5	0.1
Paspalidium clementii	NC	0.3	0.1			
Portulaca oleracea	NC	0.1	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.8	2.5	NC	0.4	1
Ptilotus ?xerophilus	J1-02	0.4	0.1			
Senna artemisioides subsp. *helmsii*	NC	0.1	0.1	NC	1.3	0.1
Sida fibulifera	NC	0.1	0.1			

Solanum lasiophyllum	NC	0.2	0.1	NC	0.3	0.1
Walshia kendallii	=H5-02	0.3	0.1			

Site Type	Site Name	Dimensions
Quadrat	J2	20m x 20m
	Phase 1	Phase 2
Date	26-08-23	25-03-24
Described by	Jonas Mitchell,Jacquie Mason	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	432253	mE	Soil Texture	Silty Clay Loam
Northing	7273857	mS	Soil Colour	Red
Site Characteristics			**Coarse Surface Particles**	
Landform	Drainage Area/Floodplain		Rock Type	None_discernible
Slope	Flat (0º)		Rock Size	Negligible
Aspect	N/A		Abundance	Rare
Surface Water Present	No		Exposed Bedrock (%)	Negligible (<5%)
Condition			**Vegetation Description**	
Vegetation Condition	Very Good		*Acacia ?incurvaneura* low woodland over *Acacia kempeana Acacia citrinoviridis* tall shrubland over *Aristida contorta* , digitaria tall open tussock grassland.	
Disturbance Type	Weed invasion			
Fire Age (years)	Unknown (no evidence)			
Fire Notes	N/A			

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon ?cryptopetalum				NC	0.3	0.1
Abutilon cryptopetalum	NC	0.4	1			
Abutilon fraseri subsp. *fraseri*	=J3-05	0.3	0.1			
Abutilon oxycarpum subsp. Prostrate	=oppj24	0.1	0.1	NC	0.2	0.1
Acacia ?incurvaneura	=J1-03	6	4	NC	6	4
Acacia kempeana	NC	2.5	35	NC	3.5	35
Acacia pruinocarpa	NC	2.1	0.1	NC	2.1	0.1
Acacia tetragonophylla	NC	1.9	1.5	NC	1.9	1.5
Androcalva luteiflora	NC	2.8	0.5			
Aristida contorta	NC	0.1	0.1	NC	0.1	0.1
**Bidens bipinnata*	NC	0.2	0.1			
Boerhavia coccinea	NC	0.1	0.1			
**Cenchrus ciliaris*	NC	0.7	0.1	NC	0.7	0.1
Chrysopogon fallax	NC	0.6	0.1			
Digitaria brownii	=oppj168	0.6	1	NC	0.6	1
Digitaria ctenantha	=H1-04	0.5	1			
Eragrostis cumingii	NC	0.2	2.5	J2-01	0.1	1
Eragrostis leptocarpa	NC	0.3	0.1			
Eremophila phyllopoda subsp. *phyllopoda*	NC	2.1	1	NC	2.1	1
Eriachne mucronata	NC	0.5	0.1			
Eriachne pulchella subsp. *dominii*	NC	0.1	0.1			
Evolvulus alsinoides var. villosicalyx	NC	0.3	0.1	NC	0.3	0.1
Glycine canescens	NC	1.7	0.1	NC	1.7	0.1
Gomphrena kanisii	NC	0.1	0.1			
Goodenia tenuiloba	NC	0.3	0.1			
Herb sp.				NC	0.1	0.1
Hibiscus burtonii	NC	0.8	0.1			
Hibiscus sp. Gardneri (A.L. Payne PRP 1435)	NC	0.6	0.1	NC	0.6	0.1
Leichhardtia australis	NC	1.6	0.1			
Maireana planifolia	=J1-04	0.4	0.1			
Paspalidium clementii	NC	0.2	0.1			
Polycarpaea corymbosa	=K6-03	0.1	0.1			
Portulaca oleracea	NC	0.1	0.1			
Ptilotus obovatus var. *obovatus*	NC	1.2	1.5	NC	1.2	1
Senna artemisioides subsp. *helmsii*	NC	1.2	0.1	NC	1.2	0.1
Sida ?brownii	=K2-01	0.2	0.1			
Sida fibulifera	NC	0.4	0.5			
Sida sp.				NC	0.4	0.1

Solanum ?cleistogamum	=I8-02	0.3	0.1	NC	0.3	0.1
Solanum lasiophyllum	=YINN-04-05	0.3	0.1	NC	0.3	0.1

Site Type	Site Name	Dimensions
Quadrat	J3	20m x 20m
	Phase 1	Phase 2
Date	17-08-23	25-03-24
Described by	Jonas Mitchell,Jacquie Mason	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	431929	mE	Soil Texture	Silt Loam
Northing	7273873	mS	Soil Colour	Brown
Site Characteristics			**Coarse Surface Particles**	
Landform	Soak		Rock Type	Quartz
Slope	Flat (0º)		Rock Size	Pebbles (5-10cm)
Aspect	N/A		Abundance	Common
Surface Water Present	No		Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Good	*Acacia kempeana* , *Acacia tetragonophylla* , *Hakea* lorea subsp. lorea tall open scrub over *Senna artemisioides* subsp. Helmsii and *Ptilotus obovatus* var. *obovatus* open shrubland over *Eriachne aristidea* and *Digitaria brownii* open tussock grassland.
Disturbance Type	Cattle grazing,Weed invasion	
Fire Age (years)	Old (6+yrs)	
Fire Notes	Fire_scar	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon cryptopetalum	NC	0.5	0.1			
Abutilon fraseri subsp. *fraseri*	J3-05	0.5	0.1			
Acacia citrinoviridis	NC	1	0.1			
Acacia kempeana	NC	3	9	NC	3	9
Acacia pruinocarpa	NC	6	3	NC	6	3
Acacia tetragonophylla	NC	2.2	1.5	NC	2.2	1.5
Alternanthera denticulata var. *denticulata*	=JMMN-02	0.2	0.1			
Arivela viscosa	NC	0.3	0.1			
Boerhavia sp.	NC	0.3	0.1			
**Cenchrus ciliaris*	NC	0.4	4	NC	0.4	4
Centipeda minima subsp. *macrocephala*	=JMMN-02	0.1	0.1			
Cullen cinereum	J3-07	0.2	0.1			
Cullen lachnostachys	J3-01	2.2	0.5			
Cymbopogon ambiguus	J3-10	2.1	0.1	NC	2.1	0.1
Cyperus iria	=JM-MN-02	0.1	0.1			
Dichanthium sericeum subsp. humilius	J3-12	0.4	0.1			
Dissocarpus paradoxus	J3-04	1	0.1			
Eragrostis cumingii	NC	0.1	0.1			
Eragrostis eriopoda	NC	0.5	0.1			
Eragrostis leptocarpa	NC	0.3	0.1			
Eragrostis setifolia				J3-02	0.3	0.5
Eragrostis tenellula	NC	0.4	3	NC	0.4	3
Eremophila phyllopoda subsp. *phyllopoda*	NC	0.5	0.1	NC	0.5	0.1
Eriachne flaccida	=JMMN02	0.4	25	J3-01	0.1	25
Evolvulus alsinoides var. villosicalyx	NC	0.1	0.1			
Glycine canescens	NC	2.5	0.1	NC	2.5	0.1
Hibiscus sturtii	J3-03	0.3	0.1			
Iseilema dolichotrichum	J3-09	0.2	0.1			
Lotus cruentus	J3-08	0.2	0.1			
**Malvastrum americanum*	NC	0.4	0.1	NC	0.4	0.1
Marsilea hirsuta	NC	0.1	0.1			
Myriocephalus gascoynensis	J3-11	0.1	0.1			
Portulaca oleracea	NC	0.1	0.1			
Pterocaulon sphacelatum	NC	0.9	0.5	NC	0.9	0.5
Ptilotus obovatus var. *obovatus*	NC	0.8	0.5	NC	0.8	0.5
Ptilotus xerophilus	J3-06	0.2	0.1			
Salsola australis	NC	0.4	0.1			
Senna artemisioides subsp. *helmsii*	NC	0.4	0.1	NC	0.4	0.1

Senna glaucifolia	NC	0.6	0.1			
**Setaria verticillata*	NC	0.5	0.1	NC	0.5	0.1
Sida fibulifera	NC	0.1	0.1			
Solanum ashbyae	J3-02	0.6	0.1	NC	0.6	0.1
Solanum lasiophyllum	=YINN04	0.4	0.1	NC	0.4	0.1

Site Type	Site Name	Dimensions
Quadrat	K1	20m x 20m
	Phase 1	Phase 2
Date	19-08-23	23-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	425834	mE	Soil Texture	Sandy Clay Loam
Northing	7280531	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Hillslope	Rock Type	Granite
Slope	Moderately inclined (21-45º)	Rock Size	Boulders (>61cm)
Aspect	South	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Major (50-70%)

Condition		Vegetation Description
Vegetation Condition	Very Good	*Acacia fuscaneura* tall open shrubland over *Eremophila latrobei* subsp. Latrobei and *Eremophila exilifolia* open shrubland over **Cenchrus* ciliarisopen tussock grassland.
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon oxycarpum subsp. Prostrate	K1-05	0.1	0.1	NC	0.3	0.1
Acacia ?fuscaneura	K1-01	3.5	4	NC	3.5	4
Acacia kempeana	NC	1.5	1	NC	1.5	1
Ammannia multiflora	NC	0.1	0.1			
Arivela viscosa	NC	0.4	1	NC	0.4	1
Boerhavia coccinea	NC	0.2	0.1			
**Cenchrus ciliaris*	NC	0.7	5	NC	0.7	5
Cheilanthes sp.	NC	0.1	0.1	K1-01	0.1	0.1
Cymbopogon ambiguus	NC	0.9	0.1	NC	0.9	0.1
Digitaria brownii				NC	0.1	0.1
Dodonaea pachyneura	NC	0.5	1	NC	0.5	0.1
Enneapogon caerulescens	NC	0.2	0.1			
Eremophila exilifolia				NC	0.2	0.1
Eremophila lachnocalyx	NC	0.2	0.1			
Eremophila latrobei subsp. *latrobei*	=	1.7	0.1	NC	1.7	0.1
Eriachne aristidea				NC	0.1	0.1
Euphorbia australis var. subtomentosa	K1-06	0.1	0.1			
Evolvulus alsinoides var. villosicalyx	NC	0.2	0.1	NC	0.2	0.1
Gomphrena cunninghamii	NC	0.1	0.1			
Gomphrena kanisii	=O4-01	0.1	0.1	NC	0.1	0.1
Goodenia tenuiloba	K1-03	0.2	0.1			
Herb sp.				NC	0.1	0.1
Indigofera colutea	K1-04	0.1	0.1			
Paspalidium clementii	NC	0.1	0.1			
Portulaca oleracea	NC	0.1	0.1			
Rhodanthe polakii	K1-02	0.1	0.1			
Solanum cleistogamum	=JC02	0.1	0.1			
Trachymene oleracea subsp. *oleracea*	NC	0.1	0.1			
Trichodesma zeylanicum var. *zeylanicum*	NC	0.9	0.1			

Site Type	Site Name	Dimensions
Quadrat	K2	20m x 20m
	Phase 1	Phase 2
Date	19-08-23	24-03-24
Described by	Jonas Mitchell,Jacquie Mason	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	428256	mE	Soil Texture	Sandy Loam
Northing	7279203	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Granite Outcrops/Domes	Rock Type	Granite,Quartz
Slope	Low (1-20º)	Rock Size	Pebbles (5-10cm)
Aspect	West	Abundance	Common
Surface Water Present	No	Exposed Bedrock (%)	Minor (10-30%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia tetragonophylla* scattered tall shrubs over *Eremophila exilifolia* and *Senna artemisioides* subsp. *helmsii* open shrubland over *Aristida contorta* very open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Old (6+yrs)	
Fire Notes	Fire_scar,Dead_branches	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia ?curryana	=oppj	0.5	0.1			
Acacia tetragonophylla	NC	1.9	1.5	NC	1.9	1.5
Aristida contorta	NC	0.2	12	NC	0.2	12
Corchorus crozophorifolius	NC	0.6	0.1	NC	0.6	0.1
Cymbopogon ambiguus	NC	1.1	0.1	NC	0.7	0.1
Eremophila exilifolia	NC	1.5	5	NC	1.5	5
Indigofera ?decipiens				NC	0.1	1.5
Indigofera decipiens	=oppj	0.2	1.5			
Pluchea sp.				NC	0.1	0.1
Ptilotus obovatus var. *obovatus*				NC	0.3	0.1
Senna artemisioides subsp. *helmsii*	NC	1.3	3	NC	1.3	3
Sida ?brownii	K2-01	0.2	0.1	NC	0.2	0.1
Tripogonella loliiformis	=oppj	0.1	0.1			

Site Type	Site Name	Dimensions
Quadrat	K3	20m x 20m
	Phase 1	Phase 2
Date	20-08-23	23-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	425402	mE	Soil Texture	Sandy Loam
Northing	7279654	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Granite Outcrops/Domes	Rock Type	Granite,Quartz
Slope	Low (1-20º)	Rock Size	Boulders (>61cm)
Aspect	South-east	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Extensive (70%+)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Eremophila latrobei* subsp. *latrobei* scattered tall shrubs over *Senna artemisioides* subsp. *helmsii*, *Acacia tetragonophylla* and *Eremophila exilifolia* open shrubland over *Aristida contorta* very open tussock grassland.
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia ?aneura	K3-01	5	1	NC	5	1
Acacia citrinoviridis	NC	3	2	NC	3	2
Acacia coriacea subsp. *pendens*	NC	0.4	0.1	NC	0.4	0.1
Acacia tetragonophylla	NC	2.5	0.5	NC	2.5	0.5
Aristida contorta	NC	0.3	0.1			
Arivela viscosa	NC	0.3	0.1	NC	0.3	0.1
Boerhavia coccinea	NC	0.2	0.1	NC	0.2	0.1
Brachyscome iberidifolia	=H2-06	0.01	0.1			
Bulbostylis barbata	K3-02	0.1	0.1			
**Cenchrus ciliaris*	NC	0.4	3	NC	0.4	3
Cheilanthes sp.	NC	0.1	0.1	K3-01	0.1	0.1
Corchorus crozophorifolius	NC	0.5	0.1	NC	0.5	0.1
Cymbopogon ambiguus	NC	1.1	0.1	NC	0.7	0.1
Digitaria ctenantha	NC	0.4	0.1	NC	0.4	0.1
Enneapogon caerulescens	NC	0.3	0.1			
Eragrostis dielsii	=SP30	0.1	0.1			
Eriachne ?aristidea				NC	0.1	1.5
Eriachne aristidea	NC	0.4	1			
Eriachne pulchella subsp. *dominii*	NC	0.1	0.1			
Evolvulus alsinoides var. villosicalyx	NC	0.1	0.1	NC	0.1	0.1
Gomphrena kanisii	=O4-01	0.1	0.1	NC	0.1	0.1
Indigofera ?decipiens				NC	0.3	1
Indigofera decipiens	K3-03	0.3	2			
Muelleranthus obovatus	K3-04	0.01	0.1			
Poaceae sp.				NC	0.1	0.1
Portulaca oleracea	NC	0.1	0.1			
Psydrax latifolia	NC	0.6	0.1	NC	0.6	0.1
Sida rohlenae subsp. *rohlenae*	=JC07	0.3	0.1			
Solanum cleistogamum	=Jc02	0.1	0.1			
Solanum lasiophyllum	NC	0.5	0.1	NC	0.5	0.1
Trachymene oleracea subsp. *oleracea*	NC	0.1	0.1			

Site Type	Site Name	Dimensions
Quadrat	K4	20m x 20m
	Phase 1	Phase 2
Date	20-08-23	23-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	425738	mE	Soil Texture	Loamy Sand
Northing	7279442	mS	Soil Colour	Red/Brown

Site Characteristics		Coarse Surface Particles	
Landform	Granite Outcrops/Domes	Rock Type	Granite
Slope	Low (1-20º)	Rock Size	Small rocks (11-20cm)
Aspect	South	Abundance	Moderate
Surface Water Present	No	Exposed Bedrock (%)	Extensive (70%+)

Condition		Vegetation Description
Vegetation Condition	Very Good	*Acacia citrinoviridis* and *Acacia tetragonophylla* tall open shrubland over *Indigofera decipiens* scattered low shrubs over *Eriachne aristidea* , *Cenchrus ciliaris* very open tussock grassland.
Disturbance Type	Weed invasion,Cattle grazing	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia citrinoviridis	NC	2.1	1	NC	2.1	1
Acacia ?petricola	K4-02	1.9	0.1	NC	1.9	0.1
Aristida contorta	NC	0.3	0.5			
Arivela viscosa	NC	0.4	0.1	NC	0.4	0.1
Boerhavia coccinea	NC	0.2	0.1			
Brachyscome iberidifolia	=JC08	0.1	0.1			
Calandrinia ptychosperma	=JC11	0.1	0.1			
Calytrix desolata	K4-01	1.1	0.5	NC	1.1	0.5
**Cenchrus ciliaris*	NC	0.4	1	NC	0.4	1
Cheilanthes sp.				NC	0.1	0.1
Corchorus crozophorifolius	NC	0.2	0.1	NC	0.2	0.1
Cymbopogon ambiguus	NC	0.5	0.1			
Digitaria ctenantha	NC	0.9	0.5			
Eriachne aristidea	NC	0.3	0.1			
Eriachne mucronata	NC	0.3	0.5	NC	0.1	1
Eriachne pulchella subsp. *dominii*	NC	0.1	0.1			
Evolvulus alsinoides var. villosicalyx	NC	0.1	0.1	NC	0.2	0.1
Gomphrena cunninghamii	NC	0.1	0.1	NC	0.1	0.1
Goodenia tenuiloba	=K1-03	0.3	0.1			
Herb sp.				NC	0.1	0.1
Indigofera colutea	=K1-04	0.1	0.1			
Portulaca oleracea	NC	0.1	0.1			
Psydrax latifolia	NC	1.3	0.1	NC	1.3	0.1
Ptilotus obovatus var. *obovatus*	NC	0.2	0.1	NC	0.2	0.1
Salsola australis	NC	0.2	0.1			
Senna artemisioides subsp. *helmsii*	NC	0.3	0.1			
Solanum lasiophyllum	NC	1.1	0.5	NC	1.1	0.5
Trachymene oleracea subsp. *oleracea*	NC	0.1	0.1			

Site Type	Site Name	Dimensions
Quadrat	K5	20m x 20m
	Phase 1	Phase 2
Date	19-08-23	23-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	426427	mE	Soil Texture	Sandy Clay Loam
Northing	7279932	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Granite Outcrops/Domes	Rock Type	Granite
Slope	Low (1-20º)	Rock Size	Large rocks (21-60cm)
Aspect	South	Abundance	Moderate
Surface Water Present	No	Exposed Bedrock (%)	Minor (10-30%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia citrinoviridis* scattered tall shrubs over *Cenchrus ciliaris* scattered tussock grasses.
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon sp				NC	0.1	0.1
Acacia curryana	K5-01	1.9	0.5	NC	1.9	0.5
Acacia tetragonophylla	NC	1.9	2	NC	1.9	2
Aristida contorta	NC	0.2	11	NC	0.2	11
Arivela viscosa	NC	0.2	0.1	NC	0.2	0.1
**Cenchrus ciliaris*	NC	0.4	3	NC	0.4	3
Cheilanthes sp.	NC	0.2	0.1			
Corchorus crozophorifolius	NC	0.3	0.1			
Indigofera colutea	=K1-04	0.1	0.1			
Portulaca oleracea	NC	0.1	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.3	0.5	NC	0.3	0.1
Senna artemisioides subsp. *helmsii*	NC	1.5	3	NC	1.5	3
Sida ?brownii	=C3-01	0.3	0.1			
Solanum ?cleistogamum				NC	0.1	0.1

Site Type	Site Name	Dimensions
Quadrat	K6	20m x 20m
	Phase 1	Phase 2
Date	23-08-23	21-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	423449	mE	Soil Texture	Sandy Loam
Northing	7288726	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Granite Outcrops/Domes	Rock Type	Granite,Quartz
Slope	Low (1-20º)	Rock Size	Boulders (>61cm)
Aspect	South-east	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Major (50-70%)

Condition		Vegetation Description
Vegetation Condition	Very Good	*Senna artemisioides* subsp. *helmsii*, *Acacia tetragonophylla* and *Acacia curryana* open shrubland over *Aristida contorta* and *Cenchrus ciliaris* open tussock grassland.
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon oxycarpum subsp. Prostrate	K6-01	0.1	0.1			
Acacia kempeana	NC	2.6	3.5	NC	2.6	3
Acacia tetragonophylla	NC	2.4	3	NC	2.4	8
Aristida contorta	NC	0.2	1.5	NC	0.2	0.5
Arivela viscosa	NC	0.3	0.1	NC	0.3	0.1
Boerhavia coccinea	NC	0.2	0.1			
Bulbostylis barbata	NC	0.1	0.1			
**Cenchrus ciliaris*	NC	0.7	7	NC	0.7	5
Cheilanthes sieberi subsp. *sieberi*				2K6-02	0.1	0.1
Cheilanthes sp.	NC	0.05	0.1			
Cymbopogon ambiguus	=Oppjm03	0.9	0.1			
Eremophila latrobei subsp. *latrobei*	=oppj139	1.6	1	NC	1.6	1
Eremophila reticulata	NC	0.2	0.1			
Eriachne aristidea	NC	0.3	0.1			
Eriachne pulchella subsp. *dominii*	NC	0.1	0.1			
Eriachne pulchella subsp. *pulchella*	K6-02	0.02	0.1			
Evolvulus alsinoides var. villosicalyx	NC	0.2	0.1			
Ficus brachypoda	NC	4	1	NC	4	1
Gomphrena kanisii	=H1-06	0.1	0.1			
Indigofera decipiens	=OPPJM02	0.2	0.1	NC	0.2	0.1
Paspalidium clementii	NC	0.3	0.1			
Polycarpaea corymbosa	K6-03	0.05	0.1			
Portulaca oleracea	NC	0.1	0.1	NC	0.1	0.1
Senna artemisioides subsp. *helmsii*	NC	1.5	1.5	2K6-01	1.9	0.1
Sida brownii	NC	0.4	0.1			
Sida sp.				NC	0.1	0.1
Solanum lasiophyllum	=YINN-04-05	0.5	0.1	NC	0.5	0.1
Trachymene pilbarensis	=OPPJ03	0.1	0.1			
Trianthema turgidifolium	=OPPJ37	0.05	0.1			

Site Type	Site Name	Dimensions
Quadrat	K7	20m x 20m
	Phase 1	Phase 2
Date	23-08-23	21-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	423086	mE	Soil Texture	Sandy Loam
Northing	7288704	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Granite Outcrops/Domes	Rock Type	Granite
Slope	Low (1-20º)	Rock Size	Boulders (>61cm)
Aspect	West	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Major (50-70%)

Condition		Vegetation Description
Vegetation Condition	Very Good	*Acacia kempeana* , *Acacia tetragonophylla* , *Ficus brachypoda* tall open shrubland over *Senna artemisioides* subsp. *helmsii* and *Eremophila latrobei* subsp. *latrobei* open shrubland over *Cenchrus ciliaris* and *Aristida contorta* very open tussock grassland.
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon oxycarpum subsp. Prostrate	=K6-01	0.1	0.1			
Acacia kempeana	NC	2.1	1	NC	2.1	2
Acacia tetragonophylla	NC	2.2	4.5	NC	2.2	3
Aristida contorta	NC	0.3	7	NC	0.3	3
**Cenchrus ciliaris*	NC	0.5	0.5	NC	0.5	1
Cheilanthes sp.	NC	0.1	0.1			
Cymbopogon obtectus	NC	1.1	0.1	NC	1.1	0.1
Cynodon prostratus	K7-01	0.01	0.1			
Dactyloctenium radulans	NC	0.05	0.1			
Eremophila exilifolia	NC	1.2	0.1	NC	1.2	0.1
Eremophila latrobei subsp. *latrobei*	=E4-02	1.9	1	NC	1.9	0.1
Eriachne aristidea	NC	0.3	0.1			
Eriachne pulchella subsp. *dominii*	NC	0.1	0.1			
Eriachne pulchella subsp. *pulchella*	=K6-02	0.03	0.1			
Evolvulus alsinoides var. villosicalyx	NC	0.1	0.1			
Gomphrena kanisii	=H1-06	0.2	0.1			
Paspalidium clementii	NC	0.2	0.1			
Portulaca oleracea	NC	0.01	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.4	0.1			
Senna artemisioides subsp. *helmsii*	NC	1.7	6	=2k6-01	1.9	6
Sida brownii	NC	0.2	0.1	NC	0.2	0.1
Solanum lasiophyllum	=YINN-04-05	0.4	0.1			
Trachymene pilbarensis	=OPPJ03	0.1	0.1			
Trianthema triquetrum	K7-02	0.01	0.1			

Site Type	Site Name	Dimensions
Quadrat	K8	20m x 20m
	Phase 1	Phase 2
Date	24-08-23	20-03-24
Described by	Jonas Mitchell,Jacquie Mason	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	428718	mE	Soil Texture	Sandy Clay Loam
Northing	7290081	mS	Soil Colour	Red/Orange

Site Characteristics		Coarse Surface Particles	
Landform	granite shale outcrop	Rock Type	Granite,Quartz
Slope	Low (1-20º)	Rock Size	Large rocks (21-60cm)
Aspect	South	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Extensive (70%+)

Condition	
Vegetation Condition	Excellent
Disturbance Type	None discernible
Fire Age (years)	Unknown (no evidence)
Fire Notes	N/A

Vegetation Description

Acacia ?incurvaneura and *Grevillea berryana* low open woodland over *Eremophila latrobei* subsp. *latrobei* , *Eremophila phyllopoda* subsp. *phyllopoda* , *Senna glaucifolia* open shrubland over *Eriachne pulchella* subsp. *dominii* scattered tussock grasses.

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia ?incurvaneura	K8-02	3	3	NC	3	3
Acacia tetragonophylla	NC	2.1	0.1	NC	2.1	0.1
Aristida contorta	NC	0.2	4	NC	0.1	0.1
Aristida sp.				K8-02	0.1	1
Cheilanthes sp.	NC	0.1	0.1			
Eremophila latrobei subsp. *latrobei*	=E4-02	1.7	0.5	NC	1.7	0.5
Eremophila phyllopoda subsp. *phyllopoda*	K8-01	2.3	4	K8-01	1.4	6
Gomphrena cunninghamii	NC	0.1	0.1			
Hibiscus sp. Gardneri (A.L. Payne PRP 1435)	NC	0.3	0.1			
Hibiscus sp.3				NC	0.3	0.1
Indigofera monophylla	K8-03	0.5	0.1			
Paspalidium clementii	NC	0.3	0.1			
?Paspalidium sp.				NC	0.3	0.1
Ptilotus obovatus var. *obovatus*	NC	0.2	0.1	NC	0.2	0.1
Ptilotus schwartzii var. *schwartzii*	NC	0.5	0.1	NC	0.5	0.1
Sida sp.				NC	0.1	0.1
sida sp.	NC	0.05	0.1			

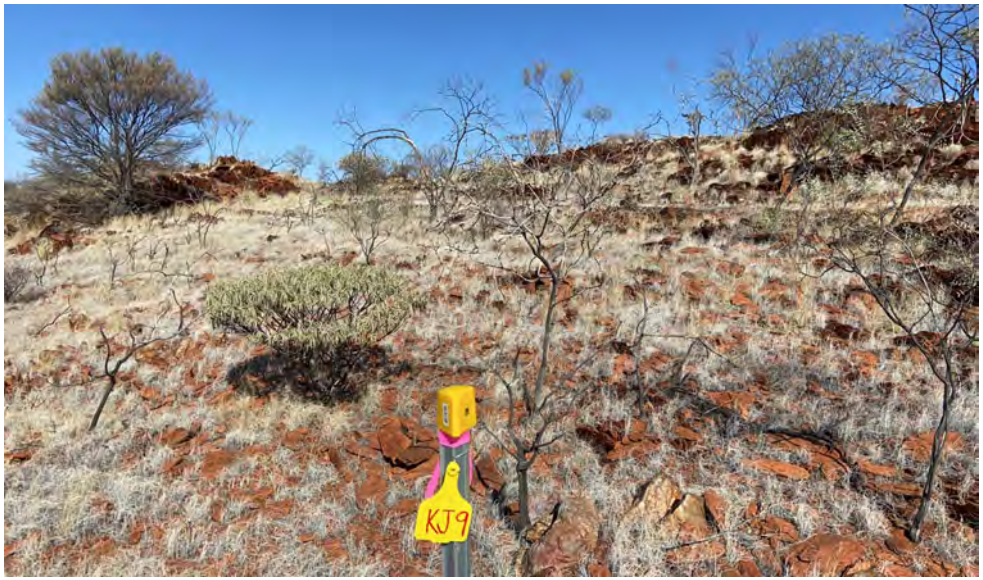
Site Type	Site Name	Dimensions
Quadrat	KJ9	20m x 20m
	Phase 1	Phase 2
Date	25-08-23	20-03-24
Described by	Jonas Mitchell,Jacquie Mason	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	428467	mE	Soil Texture	Sandy Loam
Northing	7290187	mS	Soil Colour	Red/Orange

Site Characteristics		Coarse Surface Particles	
Landform	outcrop granite shale	Rock Type	Granite
Slope	Low (1-20º)	Rock Size	Small rocks (11-20cm)
Aspect	N/A	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Moderate (30-50%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia ?incurvaneura* low open woodland over *Eremophila phyllopoda* subsp. *phyllopoda* tall open shrubland over *Aristida contorta* very open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1



Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon lepidum	=O1-01	0.1	0.1			
Abutilon sp.				NC	0.1	0.1
Acacia ?incurvaneura	=K8-02	3	1	NC	3	1
Aristida contorta	NC	0.2	31	NC	0.2	31
Arivela viscosa	NC	0.3	0.1			
Enneapogon caerulescens	NC	0.3	0.1			
Eremophila latrobei subsp. *latrobei*	=oppj139	1.9	1.5	NC	1.9	0.5
Eremophila phyllopoda subsp. *phyllopoda*	=K8-01	1.8	1	NC	0.9	0.1
Gomphrena kanisii	=H1-06	0.1	0.1	NC	0.1	0.1
Indigofera monophylla	=K8-03	0.4	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.4	0.5	NC	0.4	0.5
Senna artemisioides subsp. *helmsii*	NC	1.2	0.1	NC	1.2	0.1
Senna glutinosa subsp. ×luerssenii	NC	1.9	2	NC	1.9	2
Tribulus suberosus	NC	0.5	0.1	NC	0.5	0.1

Site Type	Site Name	Dimensions
Quadrat	L1	20m x 20m
	Phase 1	Phase 2
Date	17-08-23	25-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	431425	mE	Soil Texture	Sandy Clay Loam
Northing	7274788	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Sandy/Stony Plain	Rock Type	Quartz
Slope	Flat (0º)	Rock Size	Pebbles (5-10cm)
Aspect	N/A	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia xiphophylla* tall open shrubland over *Eremophila cuneifolia* and *Senna* sp. Meekatharra (E. Bailey 1-26) open shrubland over *Sclerolaena eriacantha* scattered herbs.
Disturbance Type	None discernible	
Fire Age (years)	Old (6+yrs)	
Fire Notes	Fire_scar,Dead_branches	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon sp.	NC	0.1	0.1			
Acacia synchronicia	NC	0.3	1	NC	0.4	1
Acacia xiphophylla	NC	2.1	1	NC	2.1	1
Aristida contorta	NC	0.1	0.1			
Eremophila cuneifolia	L1-02	1	5	NC	1.2	4
Maireana melanocoma	NC	0.2	0.1			
Senna artemisioides subsp. *oligophylla*	NC	0.3	0.1	NC	0.9	0.1
Senna stricta	L1-01	0.6	0.1	NC	0.6	0.1

Site Type	Site Name	Dimensions
Quadrat	L2	20m x 20m
	Phase 1	Phase 2
Date	19-08-23	23-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	427718	mE	Soil Texture	Loamy Sand
Northing	7278120	mS	Soil Colour	Red/Brown
Site Characteristics			**Coarse Surface Particles**	
Landform	Drainage Area/Floodplain		Rock Type	Quartz
Slope	Flat (0º)		Rock Size	Gravel (1-4cm)
Aspect	N/A		Abundance	Rare
Surface Water Present	No		Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Very Good	*Acacia cuthbertsonii* subsp. *cuthbertsonii* scattered low trees over *Eremophila cuneifolia*, *Eremophila phyllopoda* subsp. *phyllopoda* and *Senna* artemisiodes subsp *helmsii* scattered low shrubs over *Aristida contorta* scattered tussock grasses.
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia synchronicia	NC	1.3	1.5	NC	1.5	2
Acacia tetragonophylla				NC	0.2	0.1
Aristida contorta	NC	0.1	0.1	NC	0.2	0.1
Atriplex codonocarpa	=oppj	0.1	0.1			
**Cenchrus ciliaris*	NC	0.4	0.1			
Dissocarpus paradoxus	=	0.8	0.1			
Eremophila cuneifolia	NC	0.3	0.1	NC	0.3	0.1
Goodenia forrestii	L2-07	0.1	0.1			
Goodenia muelleriana	L2-06	0.02	0.1			
Hakea preissii	NC	1.9	3	NC	1.8	2
Maireana carnosa	L2-04	0.1	0.1			
Maireana georgei	=oppj01	0.3	0.1	NC	0.1	0.1
Maireana tomentosa subsp. *tomentosa*	L2-03	0.3	0.1	NC	0.7	0.1
Ptilotus exaltatus	NC	0.1	0.1			
Rhagodia eremaea	L2-05	1.3	0.1	NC	1.3	0.1
Sclerolaena costata	L2-02	0.1	0.1			
Sclerolaena densiflora	L2-01	0.1	1	NC	0.1	0.1
Senna artemisioides subsp. *oligophylla*	NC	0.9	5	NC	0.9	0.5
Senna sp. Meekatharra (E. Bailey 1-26)	NC	0.9	18	NC	0.9	10
Sida fibulifera	NC	0.1	0.1			
Streptoglossa decurrens	NC	0.1	0.1			
Trianthema turgidifolium	=Oppj36	0.1	0.1			

Site Type	Site Name	Dimensions
Quadrat	L3	20m x 20m
	Phase 1	Phase 2
Date	20-08-23	23-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	420256	mE	Soil Texture	Sandy Loam
Northing	7280181	mS	Soil Colour	Red/Brown

Site Characteristics		Coarse Surface Particles	
Landform	Sandy/Stony Plain	Rock Type	Quartz,other, Calcite
Slope	Low (1-20º)	Rock Size	Gravel (1-4cm)
Aspect	North	Abundance	Moderate
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia cuspidifolia* scattered tall shrubs over *Acacia synchronicia* and *Eremophila cuneifolia* open shrubland over *Sclerolaena cuneata* very open herbland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia cuspidifolia	NC	2.4	3	NC	2.4	0.1
Acacia synchronicia	NC	1.9	1	NC	1.9	1
Acacia xiphophylla	=C5-04	0.4	0.1	NC	0.4	0.1
Aristida contorta	NC	0.1	0.1			
Dissocarpus paradoxus	=N5-01	1.1	0.1			
Enteropogon ramosus	NC	0.4	0.1	NC	0.2	0.1
Eremophila cuneifolia	NC	1.5	2.5	NC	1.5	2
Frankenia setosa	=oppj75	0.2	0.1	NC	0.2	0.1
Hakea preissii	NC	1.5	0.1	NC	1.5	0.1
Maireana melanocoma	=oppj02	0.3	0.5	NC	0.3	0.1
Sclerolaena costata	=L2-02	0.1	0.1			
Sclerolaena cuneata	NC	0.2	1	NC	0.2	0.1
Sclerolaena densiflora	=JMmn01-01	0.1	0.1	NC	0.1	0.1
Senna artemisioides subsp. *helmsii*	NC	0.7	0.1	NC	0.6	0.1
Senna artemisioides subsp. *oligophylla*	NC	0.9	0.5	NC	0.8	0.5
Senna sp. Meekatharra (E. Bailey 1-26)	NC	0.8	2.5	NC	0.8	1.5

Site Type	Site Name	Dimensions
Quadrat	L4	20m x 20m
	Phase 1	Phase 2
Date	19-08-23	23-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	428518	mE	Soil Texture	Sandy Clay Loam
Northing	7280122	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Sandy/Stony Plain	Rock Type	Quartz
Slope	Low (1-20º)	Rock Size	Small rocks (11-20cm)
Aspect	North	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia xiphophylla* scattered tall shrubs over *Eremophila cuneifolia* open shrubland over *Acacia synchronicia* low scattered shrubs.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia synchronicia	NC	2.1	1	NC	2.4	2
Acacia tetragonophylla	NC	2.1	1	NC	1.4	0.5
Acacia xiphophylla	NC	3.5	1	NC	5	1.5
Aristida contorta	NC	0.2	1	NC	0.2	0.1
Eremophila cuneifolia	NC	1.2	3	NC	1.2	4
Eriachne pulchella subsp. *dominii*	NC	0.1	0.1			
Maireana melanocoma	L4-02	0.3	0.1	NC	0.3	0.1
Maireana triptera	L4-01	0.2	0.5	NC	0.2	0.5
Sclerolaena cuneata	NC	0.1	0.1	NC	0.2	0.1
Sclerolaena densiflora	NC	0.1	0.1	NC	0.2	0.1
Senna glutinosa subsp. ×luerssenii	NC	1.3	0.5	NC	1.3	0.5
Senna sp. Meekatharra (E. Bailey 1-26)	NC	1.1	0.5	NC	1.1	1

Site Type	Site Name	Dimensions
Quadrat	L5	20m x 20m
	Phase 1	Phase 2
Date	20-08-23	23-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	423575	mE	Soil Texture	Sandy Loam
Northing	7282528	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Stony Plain	Rock Type	Quartz
Slope	Low (1-20º)	Rock Size	Small rocks (11-20cm)
Aspect	North	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia xiphophylla* , *Acacia synchronicia* and *Acacia tetragonophylla* tall open shrubland over *Eremophila cuneifolia* , *Senna glutinosa* subsp. ?luerssenii and *Senna* sp. Meekatharra (E. Bailey 1-26) open shrubland over *Aristida contorta* scattered tussock grasses.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia synchronicia	NC	1.8	1	NC	2.1	1
Acacia xiphophylla	NC	2.3	1	NC	3	1.5
Aristida contorta	NC	0.1	0.1			
Atriplex sp.	NC	0.1	0.1			
Eremophila cuneifolia	NC	1.4	1	NC	1.1	1
Maireana melanocoma	=L4-02	0.1	0.1			
Maireana tomentosa subsp. *tomentosa*	L5-01	0.4	0.1	NC	0.2	0.1
Poaceae sp.				NC	0.1	0.1
Ptilotus exaltatus	NC	0.1	0.1			
Salsola australis	NC	0.1	0.1			
Sclerolaena densiflora	=Q3-16	0.1	0.1			
Senna sp. Meekatharra (E. Bailey 1-26)	NC	0.4	0.1	NC	0.4	0.1
Streptoglossa odora	=Q3-01	0.1	0.1			

Site Type	Site Name	Dimensions
Quadrat	L6	20m x 20m
	Phase 1	Phase 2
Date	22-08-23	23-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	422126	mE	Soil Texture	Loamy Sand
Northing	7284932	mS	Soil Colour	Red/Brown
Site Characteristics			**Coarse Surface Particles**	
Landform	Sandy/Stony Plain		Rock Type	Quartz
Slope	Low (1-20º)		Rock Size	Gravel (1-4cm)
Aspect	North		Abundance	Moderate
Surface Water Present	No		Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia cuspidifolia* tall open shrubland over *Sclerolaena medicaginoides*, *Frankenia setosa* and *Sclerolaena densiflora* low open shrubland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia cuspidifolia	NC	2.5	3	NC	2.5	3
Acacia synchronicia				NC	0.1	0.1
Atriplex codonocarpa	=oppj35	0.1	0.1			
**Cenchrus ciliaris*				NC	0.1	0.1
Dactyloctenium radulans	NC	0.1	0.1			
Eremophila cuneifolia	NC	0.5	0.1	NC	0.5	0.1
Eremophila fraseri subsp. *fraseri*				NC	0.1	0.1
Eriachne aristidea				NC	0.2	0.1
Frankenia setosa	=oppj75	0.3	1	NC	0.3	3
Ptilotus exaltatus	NC	0.1	0.1			
Sclerolaena densiflora	=JMmn01-01	0.1	1	NC	0.1	0.1
Sclerolaena medicaginoides	=oppj124	0.4	3.5			
Sclerolaena tridens	=oppj74	0.1	0.1	NC	0.2	0.1
Sporobolus actinocladus	NC	0.3	0.1			
Sporobolus caroli	=M3-01	0.2	0.1			

Site Type	Site Name	Dimensions
Quadrat	L7	20m x 20m
	Phase 1	Phase 2
Date	21-08-23	21-03-24
Described by	Jonas Mitchell,Jacquie Mason	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	426708	mE	Soil Texture	Sandy Loam
Northing	7285559	mS	Soil Colour	Red/Orange

Site Characteristics		Coarse Surface Particles	
Landform	Sandy/Stony Plain	Rock Type	Quartz
Slope	Low (1-20º)	Rock Size	Gravel (1-4cm)
Aspect	South-east	Abundance	Common
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Very Good	*Acacia xiphophylla* scattered tall shrubs over *Eremophila cuneifolia* and *Acacia synchronicia* open shrubland.
Disturbance Type	Mining exploration,Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon fraseri subsp. *fraseri*	=J3-05	0.2	0.1			
Acacia sp.	NC	0.6	0.1	NC	0.6	0.1
Acacia synchronicia	NC	0.5	0.1	NC	0.5	0.1
Acacia tetragonophylla	NC	1.5	0.5	NC	1.8	0.5
Acacia xiphophylla	NC	5	1	NC	5	1
Aristida contorta	NC	0.1	0.1			
**Cenchrus ciliaris*	NC	0.4	0.1			
Enneapogon caerulescens	NC	0.2	0.1			
Enteropogon ramosus	NC	0.4	0.1			
Eremophila cuneifolia	L7-02	1.1	5	NC	0.5	11
Evolvulus alsinoides var. villosicalyx	NC	0.1	0.1			
Hakea preissii	NC	1.9	0.5	NC	1.9	0.5
Maireana melanocoma	=oppj02	0.4	1			
Maireana sp.				NC	0.1	1
Maireana tomentosa subsp. *tomentosa*	=L2-03	0.2	0.1			
Poaceae sp.				L7-02	0.1	0.1
Ptilotus obovatus var. *obovatus*	NC	0.4	0.1	NC	0.4	0.1
Rhagodia eremaea	=L2-05	0.8	0.1			
Scaevola spinescens	NC	0.8	0.5	NC	0.8	0.5
Sclerolaena diacantha	L7-01	0.2	0.1			
Senna artemisioides subsp. *helmsii*	NC	0.7	1	NC	0.7	0.1
Senna glutinosa subsp. ×luerssenii	NC	1.5	0.1	NC	1.5	0.1
Senna sp. Meekatharra (E. Bailey 1-26)	NC	0.2	0.1	NC	0.2	0.1
Solanum lasiophyllum	=YINN-04-05	0.3	0.1	NC	0.3	0.1

Site Type	Site Name	Dimensions
Quadrat	L8	20m x 20m
	Phase 1	Phase 2
Date	21-08-23	23-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	429460	mE	Soil Texture	Sandy Clay Loam
Northing	7285969	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Stony Plain	Rock Type	Quartz
Slope	Flat (0º)	Rock Size	Pebbles (5-10cm)
Aspect	N/A	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia xiphophylla* , *Acacia cuspidifolia* and *Hakea preissii* tall open shrubland over *Senna* sp. Meekatharra and *Acacia tetragonophylla* scattered shrubs over *Eremophila cuneifolia* scattered low shrubs.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia cuspidifolia	NC	3	1	NC	3.5	2
Acacia synchronicia				NC	0.4	0.1
Acacia tetragonophylla	NC	1.5	0.5	NC	1.5	0.5
Acacia xiphophylla	NC	2.5	1	NC	2.5	0.1
Eremophila cuneifolia	NC	0.4	0.5	NC	0.4	0.5
Hakea preissii	L8-02	2.5	0.5	NC	2.5	0.5
Maireana sp.	L8-01	0.3	0.1			
Maireana triptera	=L4-01	0.3	0.1	NC	0.3	0.1
Rhagodia eremaea	NC	0.4	0.1	NC	0.3	0.1
Scaevola spinescens	=JC09	0.2	0.1			
Senna artemisioides subsp. *oligophylla*	NC	0.5	0.1	NC	0.5	0.1
Senna sp. Meekatharra (E. Bailey 1-26)	NC	1.2	1	NC	1.2	1

Site Type	Site Name	Dimensions
Quadrat	L9	20m x 20m
	Phase 1	Phase 2
Date	23-08-23	19-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	425346	mE	Soil Texture	Sandy Clay Loam
Northing	7289539	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Stony Plain	Rock Type	Quartz
Slope	Low (1-20º)	Rock Size	Small rocks (11-20cm)
Aspect	North	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia xiphophylla* and *Acacia cuspidifolia* tall open shrubland over *Acacia synchronicia* and *Eremophila cuneifolia* open shrubland over *Senna* sp. Meekatharra and *Senna* art *oligophylla* low open shrubland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Acacia cuspidifolia	NC	3.1	3	NC	3.1	5
Acacia synchronicia				NC	0.7	0.1
Acacia xiphophylla	NC	3.2	2	NC	3.2	1.5
Eremophila cuneifolia	NC	0.4	0.5	NC	0.4	0.5
Rhagodia eremaea	NC	0.6	0.1	NC	0.4	0.1
Scaevola spinescens	NC	0.4	1			
Sclerolaena cuneata	NC	0.1	5	NC	0.1	0.5
Sclerolaena densiflora	=Q3-16	0.1	5	NC	0.1	2
Senna artemisioides subsp. *oligophylla*	NC	0.6	0.1	NC	0.4	0.1
Senna sp. Meekatharra (E. Bailey 1-26)	NC	1.5	3	NC	0.5	1

Site Type	Site Name	Dimensions
Quadrat	L10	20m x 20m
	Phase 1	Phase 2
Date	23-08-23	20-03-24
Described by	Jonas Mitchell,Jacquie Mason	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	424420	mE	Soil Texture	Clay Loam
Northing	7290909	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Drainage Area/Floodplain	Rock Type	Quartz
Slope	Flat (0º)	Rock Size	Negligible
Aspect	N/A	Abundance	Rare
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia cuspidifolia* tall open shrubland over *Maireana pyramidata* , *Atriplex ?bunburyana* and *Sclerolaena cuneata* very open herbland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia cuspidifolia	NC	2.3	4	NC	2.3	4
Acacia synchronicia	NC	1.1	0.1	NC	1.1	0.1
Atriplex ?bunburyana	=OPPJM126	0.7	1			
Atriplex bunburyana				L10-01	0.7	1
Atriplex codonocarpa	=oppj35	0.1	1			
Dissocarpus paradoxus	=J3-04	0.8	0.1			
Enteropogon ramosus	NC	0.5	0.1	=curlygrass	0.1	0.1
Erymophyllum compactum	L10-01	0.03	0.1			
Maireana carnosa	=L2-04	0.1	0.1	NC	0.1	0.1
Maireana pyramidata	L10-02	0.5	1	NC	0.1	0.1
Maireana tomentosa subsp. *tomentosa*	=L2-03	0.1	0.1			
Ptilotus exaltatus	NC	0.1	0.1			
Rhagodia eremaea	NC	1.1	0.1	NC	1.1	0.1
Sclerolaena cuneata	NC	0.1	1	NC	0.1	1
Sclerolaena diacantha	=C5-03	0.1	0.1			
Sclerolaena lanicuspis	=oppj153	0.1	0.1			
Sporobolus actinocladus	NC	0.1	0.1			
Sporobolus caroli	=M3-01	0.3	0.1			
Trianthema turgidifolium	=OPPJ37	0.02	0.1			

Site Type	Site Name	Dimensions
Quadrat	L11	20m x 20m
	Phase 1	Phase 2
Date	24-08-23	22-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	417441	mE	Soil Texture	Silty Clay Loam
Northing	7295554	mS	Soil Colour	Red
Site Characteristics			**Coarse Surface Particles**	
Landform	Sandy/Stony Plain		Rock Type	Quartz
Slope	Flat (0º)		Rock Size	Pebbles (5-10cm)
Aspect	N/A		Abundance	Very common
Surface Water Present	No		Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Very Good	*Acacia xiphophylla* and *Acacia cuspidifolia* tall open shrubland over *Senna* sp. Meekatharra (E. Bailey 1-26), *Eremophila cuneifolia* , *Acacia synchronicia* and *Ptilotus obovatus* var. *obovatus* low open shrubland over *Sclerolaena eriacantha* scattered herbs.
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia cuspidifolia	NC	3	1	NC	3	1
Acacia synchronicia	NC	1.9	1	NC	2.1	1
Acacia xiphophylla	NC	0.5	0.1			
**Cenchrus ciliaris*	NC	0.1	0.1	NC	0.1	0.1
Dissocarpus paradoxus	=J3-04	0.5	0.1			
Eremophila cuneifolia	NC	1.2	4	NC	1.2	4
Maireana tomentosa subsp. *tomentosa*	=L2-03	0.3	0.1	NC	0.5	0.1
Sclerolaena cuneata	NC	0.2	6	NC	0.2	6
Sclerolaena densiflora	=JMmn01-01	0.1	0.1			
Senna glutinosa subsp. ×luerssenii	NC	1.7	0.1			
Senna sp. Meekatharra (E. Bailey 1-26)	NC	0.6	0.5	NC	0.6	0.5

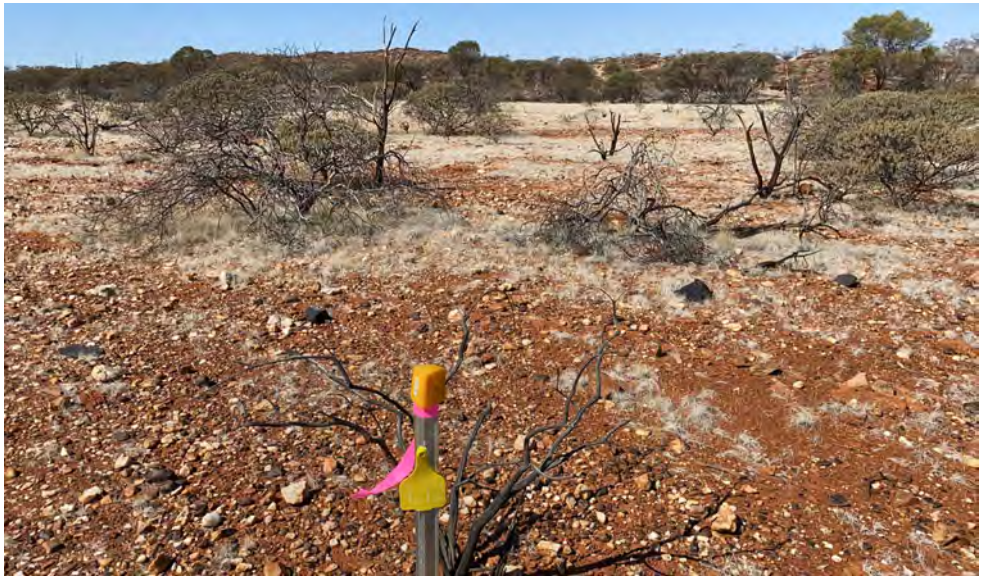
Site Type	Site Name	Dimensions
Quadrat	L12	20m x 20m
	Phase 1	Phase 2
Date	24-08-23	20-03-24
Described by	Jonas Mitchell,Jacquie Mason	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	429053	mE	Soil Texture	Silty Clay Loam
Northing	7290039	mS	Soil Colour	Red

Site Characteristics		Coarse Surface Particles	
Landform	Stony Plain	Rock Type	Quartz,Ironstone
Slope	Low (1-20º)	Rock Size	Pebbles (5-10cm)
Aspect	South-east	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Limited (5-10%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Eremophila phyllopoda* subsp. *phyllopoda* scattered shrubs over *Aristida contorta* open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1



Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon oxycarpum subsp. Prostrate	=I2-05	0.1	0.1			
Abutilon sp				NC	0.1	0.1
Acacia tetragonophylla	NC	1.7	1	NC	1.7	1
Aristida contorta	NC	0.1	8	NC	0.1	8
Eremophila phyllopoda subsp. *phyllopoda*	NC	1.8	5	NC	1.8	5
Fimbristylis dichotoma	L12-01	0.1	0.1			
Senna glutinosa subsp. ×luerssenii	NC	1.6	1.5	NC	1.6	1.5
Sida sp. dark green fruits (S. van Leeuwen 2260)	=O1-02	0.1	0.1	NC	0.1	0.1
Solanum lasiophyllum	=YINN-04-05	0.4	0.1	NC	0.6	0.1
Tribulus suberosus	NC	0.1	0.1	NC	0.1	0.1

Site Type	Site Name	Dimensions
Quadrat	M1	20m x 20m
	Phase 1	Phase 2
Date	22-08-23	26-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	420332	mE	Soil Texture	Sandy Clay Loam
Northing	7285551	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Drainage Area/Floodplain	Rock Type	None_discernible
Slope	Flat (0º)	Rock Size	Negligible
Aspect	N/A	Abundance	None
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition	
Vegetation Condition	Excellent
Disturbance Type	None discernible
Fire Age (years)	Unknown (no evidence)
Fire Notes	N/A

Vegetation Description

Acacia cuspidifolia and *Hakea preissii* tall open shrubland over *Rhagodia eremaea* , *Senna artemisioides* subsp. *helmsii* and *Eremophila pterocarpa* subsp. *pterocarpa* open shrubland over *Frankenia setosa* and *Sclerolaena tridens* low open shrubland.

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia cuspidifolia	NC	2.2	4	NC	2.8	5
Acacia sclerosperma subsp. *sclerosperma*				NC	1.1	0.1
Acacia synchronicia	NC	1.1	0.1			
Acacia tetragonophylla	NC	0.6	0.1	NC	2.1	0.5
Anthobolus leptomerioides				=H6-04	1.7	0.1
Atriplex sp.	M12-01	0.1	0.1			
Boerhavia coccinea	NC	0.1	0.1			
**Cenchrus ciliaris*	NC	0.3	0.1			
Dactyloctenium radulans	NC	0.1	0.1			
Enteropogon ramosus	NC	0.4	0.5			
Eremophila ?pterocarpa subsp. *pterocarpa*				NC	1.7	0.1
Eremophila pterocarpa subsp. *pterocarpa*	=JC51	1.5	2			
Frankenia setosa	=N3-02	0.2	4	NC	0.4	4
Hakea preissii	NC	2.1	4	NC	2.4	3
Maireana sp.				NC	1.1	0.1
Poaceae sp.				NC	0.2	0.1
Rhagodia eremaea	NC	1.4	1	NC	1.8	1
Salsola ?australis				NC	0.1	0.1
Salsola australis	NC	0.1	0.1			
Sclerolaena densiflora	=Q3-16	0.1	0.1			
Sclerolaena tridens	=N3-01	0.2	1			
Senna artemisioides subsp. *helmsii*	NC	1.1	1	NC	0.9	0.5
Senna artemisioides subsp. *oligophylla*	NC	1.1	0.1	NC	1.1	0.5
Senna glaucifolia	NC	1.1	0.1			
Senna glutinosa subsp. ×luerssenii	NC	0.4	0.1			
Senna sp. Meekatharra (E. Bailey 1-26)	NC	0.4	0.1	NC	0.5	0.1

Site Type	Site Name	Dimensions
Quadrat	M2	20m x 20m
	Phase 1	Phase 2
Date	23-08-23	21-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	421499	mE	Soil Texture	Sandy Clay Loam
Northing	7286817	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Sand Plain	Rock Type	Quartz,Granite,other, sand
Slope	Flat (0º)	Rock Size	Gravel (1-4cm)
Aspect	N/A	Abundance	None
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia cuspidifolia* and *Hakea preissii* tall open shrubland over *Eremophila maitlandii*, *Frankenia setosa* low open shrubland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia cuspidifolia	NC	3.2	3	NC	3.2	2
Aristida contorta	NC	0.1	0.5			
Boerhavia coccinea	NC	0.2	0.1			
**Cenchrus ciliaris*	NC	0.4	0.1	NC	0.4	0.1
Eremophila cuneifolia	NC	0.7	0.5	NC	0.7	0.1
Eremophila maitlandii	=JC52	0.6	1	NC	0.6	1
Eriachne pulchella subsp. *dominii*	NC	0.1	0.1			
Frankenia setosa	=N3-02	0.2	4	NC	0.2	3
Hakea preissii	NC	2.1	2	NC	2.1	2
Rhagodia eremaea	NC	1.8	0.5	NC	1.8	0.1
Salsola australis	NC	0.1	0.1	NC	0.1	0.1
Sclerolaena costata	M2-01	0.2	0.1			
Sclerolaena cuneata	NC	0.1	0.1			
Sclerolaena densiflora	=Q3-16	0.1	0.1			
Sclerolaena tridens	=N3-01	0.2	0.1	NC	0.2	0.1

Site Type	Site Name	Dimensions
Quadrat	M3	20m x 20m
	Phase 1	Phase 2
Date	22-08-23	23-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	423016	mE	Soil Texture	Sandy Clay Loam
Northing	7285012	mS	Soil Colour	Red/Orange
Site Characteristics			**Coarse Surface Particles**	
Landform	Sandy/Stony Plain		Rock Type	Quartz
Slope	Flat (0º)		Rock Size	Gravel (1-4cm)
Aspect	N/A		Abundance	Very common
Surface Water Present	No		Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia cuspidifolia* tall open shrubland over *Eremophila cuneifolia*, *Scaevola spinescens* and *Maireana melanocoma* low open shrubland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia cuspidifolia	NC	2.4	4	NC	2	3
Aristida contorta	NC	0.2	0.5	NC	0.1	0.1
Boerhavia coccinea	NC	0.2	0.1			
Dactyloctenium radulans	NC	0.1	0.1			
Dissocarpus paradoxus	=J3-04	0.5	0.1			
Enneapogon caerulescens	NC	0.2	0.1			
Eremophila cuneifolia	NC	0.5	3	NC	0.5	3
Eriachne pulchella subsp. *dominii*	NC	0.05	0.1			
Hibiscus sp.	NC	0.02	0.1			
Maireana melanocoma	=oppj02	0.3	1.5	NC	0.3	0.1
Ptilotus exaltatus	NC	0.1	0.1			
Rhagodia eremaea	=L2-05	0.6	0.1	NC	0.9	0.1
Scaevola spinescens	NC	0.5	1			
Sclerolaena cuneata	NC	0.2	0.5	NC	0.1	0.5
Sclerolaena densiflora	=JMmn01-01	0.1	0.5			
Senna artemisioides subsp. *helmsii*	NC	0.2	0.1	NC	0.2	0.1
Senna glutinosa subsp. *glutinosa*	NC	0.4	0.1			
Solanum lasiophyllum	=YINN-04-05	0.3	0.1	NC	0.3	0.1
Sporobolus caroli	M3-01	0.3	0.1			

Site Type	Site Name	Dimensions
Quadrat	M4	20m x 20m
	Phase 1	Phase 2
Date	20-08-23	24-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	420573	mE	Soil Texture	Loamy Sand
Northing	7280867	mS	Soil Colour	Red/Orange
Site Characteristics			**Coarse Surface Particles**	
Landform	Sand Plain		Rock Type	Quartz
Slope	Flat (0º)		Rock Size	Negligible
Aspect	N/A		Abundance	Rare
Surface Water Present	No		Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia cuspidifolia* and *Hakea preissii* tall open shrubland over *Eremophila cuneifolia* open shrubland over *Senna* sp. Meekatharra and *Sclerolaena densiflora* low open shrubland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia cuspidifolia	NC	2.3	6	NC	2.3	6
Acacia synchronicia	NC	1.2	0.1	NC	1.2	1
Acacia xiphophylla	=C5-04	0.3	0.1	NC	0.3	0.1
Atriplex codonocarpa	=oppj35	0.1	0.1			
Enteropogon ramosus	NC	0.4	0.1	NC	0.1	0.1
Eragrostis falcata	=oppj73	0.1	0.1			
Eremophila cuneifolia	NC	1.4	2.5	NC	0.1	2
Eremophila pterocarpa subsp. *pterocarpa*	=spOpp	0.6	0.1	NC	0.6	0.5
Frankenia setosa	=oppj75	0.3	0.1	NC	0.3	0.1
Goodenia muelleriana	=L2-06	0.02	0.1			
Hakea preissii	NC	2.1	0.5	NC	2.1	0.5
Maireana carnosa	=L2-04	0.1	0.1			
Maireana tomentosa subsp. *tomentosa*	=L2-03	0.4	0.1	NC	0.7	0.1
Ptilotus exaltatus	NC	0.1	0.1			
Sclerolaena cuneata	NC	0.1	0.1	NC	0.1	0.1
Sclerolaena densiflora	=L2-01	0.1	1.5			
Sclerolaena tridens	=oppj74	0.1	0.1			
Senna artemisioides subsp. *oligophylla*	NC	0.3	0.1	NC	0.5	0.1
Senna sp. Meekatharra (E. Bailey 1-26)	NC	0.8	6	NC	0.8	7
Sporobolus caroli	M4-02	0.4	0.1			
Streptoglossa liatroides	M4-01	0.1	0.1			

Site Type	Site Name	Dimensions
Quadrat	N1	20m x 20m
	Phase 1	Phase 2
Date	25-08-23	22-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	421833	mE	Soil Texture	Sandy Clay Loam
Northing	7293814	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Drainage Island	Rock Type	None_discernible
Slope	Low (1-20º)	Rock Size	Boulders (>61cm)
Aspect	N/A	Abundance	None
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Good	*Hakea preissii*, *Acacia tetragonophylla*, *Acacia sclerosperma* subsp. *sclerosperma* tall open shrubland over *Cenchrus ciliaris* tussock grassland.
Disturbance Type	Weed invasion,Cattle grazing	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia sclerosperma subsp. *sclerosperma*	NC	2.6	6	NC	2.6	8
Acacia synchronicia	NC	2.1	6	NC	2.1	6
**Cenchrus ciliaris*	NC	0.6	20	NC	0.2	7
**Cenchrus setiger*	NC	0.5	5			
Euphorbia biconvexa	NC	0.1	0.1			
Goodenia forrestii	N1-01	0.1	0.1			
Maireana sp.	NC	0.1	0.1			
**Malvastrum americanum*	NC	0.5	0.1			
Pterocaulon sphacelatum	NC	0.4	0.5			
Ptilotus obovatus var. *obovatus*	NC	0.5	2	NC	0.8	0.5
Rhagodia eremaea	NC	1.5	3	NC	1.5	3
Sclerolaena costata	=M2-01	0.1	0.1			
Senna artemisioides subsp. *helmsii*	NC	0.3	1	NC	0.3	1
Senna artemisioides subsp. *oligophylla*	NC	0.6	1	NC	0.6	1
Senna glutinosa subsp. ×luerssenii	NC	0.6	0.1			
Sida sp.	NC	0.1	1			
Streptoglossa bubakii	NC	0.3	0.1	NC	0.3	0.1
Stylobasium spathulatum				2N1-01	1.9	0.1

Site Type	Site Name	Dimensions
Quadrat	N2	20m x 20m
	Phase 1	Phase 2
Date	24-08-23	20-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	423604	mE	Soil Texture	Sandy Clay Loam
Northing	7291833	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Hillcrest/Upper Hillslope	Rock Type	Granite,Quartz
Slope	Low (1-20º)	Rock Size	Large rocks (21-60cm)
Aspect	North-west	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Moderate (30-50%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia fuscaneura* low open woodland over *Acacia citrinoviridis* and *Acacia sclerosperma* subsp. *sclerosperma* scattered tall shrubs over *Ptilotus obovatus* var. *obovatus* and *Senna artemisioides* subsp. *helmsii* scattered low shrubs over *Cenchrus ciliaris* very open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia curryana	=K5-01	1.6	3	NC	1.6	2
Acacia fuscaneura	=Yinn16-01	3.5	5	NC	3.5	2
Aristida contorta	NC	0.1	11	NC	0.1	3
Eriachne pulchella subsp. *dominii*	NC	0.1	0.1	NC	0.1	0.1
Gomphrena cunninghamii	NC	0.1	0.1			
Goodenia tenuiloba	=E1-06	0.2	0.1			
Senna artemisioides subsp. *helmsii*	NC	0.9	0.1	NC	0.9	0.5
Senna glaucifolia	NC	0.9	2	NC	0.9	0.1
Solanum lasiophyllum	NC	0.2	0.1	NC	0.2	0.1
Trachymene oleracea subsp. *oleracea*	NC	0.1	0.1			
Tribulus suberosus	NC	0.3	0.1	NC	0.3	0.1

Site Type	Site Name	Dimensions
Quadrat	N3	20m x 20m
	Phase 1	Phase 2
Date	22-08-23	26-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	420286	mE	Soil Texture	Sandy Loam
Northing	7285201	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Sand Plain	Rock Type	Quartz
Slope	Flat (0º)	Rock Size	Gravel (1-4cm)
Aspect	N/A	Abundance	Rare
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia cuspidifolia* tall open shrubland over *Frankenia setosa* low shrubland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia cuspidifolia	NC	2.4	8	NC	2.4	8
Acacia sclerosperma subsp. *sclerosperma*	NC	1.1	0.1	NC	1.1	0.1
Dactyloctenium radulans	NC	0.1	0.1			
Enteropogon ramosus	NC	0.4	0.5	NC	0.4	0.5
Eremophila pterocarpa subsp. *pterocarpa*	=JC51	0.5	0.5	NC	0.5	0.5
Frankenia setosa	N3-02	0.3	15	NC	0.3	15
Maireana ?tomentosa subsp. *tomentosa*	N3-03	1.1	0.1	NC	1.1	0.1
Rhagodia eremaea	NC	1.2	0.5	NC	1.2	0.5
Sclerolaena densiflora	=Q3-16	0.1	0.1			
Sclerolaena tridens	N3-01	0.1	0.5			
Senna artemisioides subsp. *oligophylla*	NC	0.3	0.1	NC	0.3	0.1
Senna glaucifolia	NC	0.4	0.1			
Senna glutinosa subsp. ×luerssenii	NC	1.5	0.1			
Senna sp. Meekatharra (E. Bailey 1-26)	NC	0.9	0.1	NC	0.9	0.1
Stylobasium spathulatum	NC	1.3	0.1	NC	1.3	0.1

Site Type	Site Name	Dimensions
Quadrat	N4	20m x 20m
	Phase 1	Phase 2
Date	17-08-23	25-03-24
Described by	Jonas Mitchell,Jacquie Mason	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	431811	mE	Soil Texture	Sandy Loam
Northing	7274235	mS	Soil Colour	Red/Orange
Site Characteristics			**Coarse Surface Particles**	
Landform	Sandy/Stony Plain		Rock Type	Quartz
Slope	Flat (0º)		Rock Size	Gravel (1-4cm)
Aspect	N/A		Abundance	Moderate
Surface Water Present	No		Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia ?aptaneura* scattered tall shrubs over *Senna artemisioides* subsp. *helmsii* scattered shrubs over *Aristida contorta* open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia ?aptaneura	N4-01	5	0.5	NC	5	0.5
Acacia cuthbertsonii subsp. *cuthbertsonii*	=O2	0.5	0.5	NC	0.5	0.1
Acacia kempeana	NC	1.7	0.1	NC	1.7	0.1
Acacia tetragonophylla	NC	0.4	0.1	NC	0.4	0.1
Aristida contorta	NC	0.2	20	NC	0.2	20
Eriachne pulchella subsp. *dominii*	NC	0.1	0.1			
Maireana georgei	=O2	0.4	0.5			
Portulaca oleracea	NC	0.1	0.1			
Senna artemisioides subsp. *helmsii*	NC	1.8	1	NC	1.8	1
Solanum lasiophyllum	=YINN04	0.4	0.1	NC	0.4	0.1

Site Type	Site Name	Dimensions
Quadrat	N5	20m x 20m
	Phase 1	Phase 2
Date	20-08-23	23-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	419851	mE	Soil Texture	Loamy Sand
Northing	7280176	mS	Soil Colour	Red/Orange

Site Characteristics		Coarse Surface Particles	
Landform	Drainage Area/Floodplain	Rock Type	Quartz
Slope	Flat (0º)	Rock Size	Negligible
Aspect	N/A	Abundance	Rare
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Hakea preissii* and *Acacia synchronicia* open shrubland over *Senna* sp. Meekatharra (E. Bailey 1-26) and *Senna artemisioides* subsp. *oligophylla* low shrubland over *Sclerolaena densiflora* scattered herbs.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia cuspidifolia	NC	2.1	4	NC	2.1	0.1
Acacia synchronicia	NC	1.3	1	NC	1.3	1
Acacia tetragonophylla	NC	0.3	0.1	NC	0.3	0.1
Acacia xiphophylla	NC	1.1	0.1	NC	1.1	0.5
Enteropogon ramosus	NC	0.5	0.1	NC	0.2	0.1
Eremophila cuneifolia	NC	1.2	2.5	NC	1.2	2
Hakea preissii	NC	2.1	3.5	NC	2.1	5
Maireana carnosa	=L2-04	0.1	0.1			
Maireana tomentosa subsp. *tomentosa*	N5-01	0.9	0.1	NC	0.9	0.1
Ptilotus exaltatus	NC	0.1	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.3	0.1			
Sclerolaena cuneata	NC	0.1	0.5	NC	0.1	0.1
Sclerolaena densiflora	=L2-01	0.1	0.5	NC	0.1	0.1
Senna artemisioides subsp. *helmsii*	NC	0.5	0.1	NC	0.5	0.1
Senna artemisioides subsp. *oligophylla*	NC	0.9	4	NC	0.9	3
Senna sp. Meekatharra (E. Bailey 1-26)	NC	0.9	4	NC	0.9	5
Solanum lasiophyllum	=YINN-04-05	0.3	0.1			

Site Type	Site Name	Dimensions
Quadrat	N6	20m x 20m
	Phase 1	Phase 2
Date	23-08-23	21-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	424629	mE	Soil Texture	Sandy Clay Loam
Northing	7288678	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Granite Outcrops/Domes	Rock Type	Granite,Quartz
Slope	Low (1-20º)	Rock Size	Large rocks (21-60cm)
Aspect	N/A	Abundance	Common
Surface Water Present	No	Exposed Bedrock (%)	Major (50-70%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia curryana* and *Eremophila exilifolia* open shrubland over *Aristida contorta* very open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon sp.				NC	0.2	4
Acacia curryana	=K5-01	1.8	2			
Acacia ?cuthbertsonii				NC	1.1	2
Acacia ?fuscaneura				NC	1.8	3
Acacia kempeana	NC	1.2	0.5	NC	1.2	0.1
Acacia tetragonophylla	NC	0.5	0.1			
Aristida contorta	NC	0.2	17			
Eremophila exilifolia	NC	1.1	2			
Evolvulus alsinoides var. villosicalyx	NC	0.1	0.1			
Senna artemisioides subsp. *helmsii*	NC	1.1	0.5			
Senna artemisioides subsp. *?helmsii* x *oligophylla*				NC	1.1	1
Solanum lasiophyllum	NC	0.2	0.1	NC	0.2	0.1

Site Type	Site Name	Dimensions
Quadrat	N7	20m x 20m
	Phase 1	Phase 2
Date	22-08-23	20-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	425688	mE	Soil Texture	Sandy Clay Loam
Northing	7290905	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Sandy/Stony Plain	Rock Type	Quartz
Slope	Low (1-20º)	Rock Size	Pebbles (5-10cm)
Aspect	N/A	Abundance	Rare
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia cuspidifolia* and *Hakea preissii* tall open shrubland over *Acacia synchronicia* and *Eremophila cuneifolia* open shrubland over *Senna* sp. Meekatharra (E. Bailey 1-26) and *Senna artemisioides* subsp. *oligophylla* low open shrubland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia cuspidifolia	NC	3	0.5	NC	2.5	0.5
Acacia synchronicia	NC	2.1	0.5	NC	2.1	0.5
Aristida contorta	NC	0.1	0.1	NC	0.1	0.1
Boerhavia coccinea	NC	0.1	0.1			
Eremophila cuneifolia	NC	1.4	0.5	NC	1.4	0.5
Hakea preissii	=	0.3	0.1	NC	1.3	0.1
Hakea sp.	NC	0.5	0.1			
Maireana ?tomentosa subsp. *tomentosa*	N3-03	0.3	0.1			
Maireana triptera	=L4-01	0.2	0.1	NC	0.2	0.1
Portulaca oleracea	NC	0.1	0.1			
Ptilotus exaltatus	NC	0.1	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.4	0.1	NC	0.4	0.1
Rhagodia eremaea				NC	0.1	0.1
Salsola australis	NC	0.1	0.1	NC	0.1	0.1
Sclerolaena cuneata	NC	0.2	0.5	NC	0.1	0.1
Sclerolaena densiflora	=Q3-16	0.1	0.5	NC	0.1	0.1
Senna artemisioides subsp. *oligophylla*	NC	1.6	0.5	NC	0.6	0.5

Site Type	Site Name	Dimensions
Quadrat	O1	20m x 20m
	Phase 1	Phase 2
Date	24-08-23	20-03-24
Described by	Jonas Mitchell,Jacquie Mason	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	429023	mE	Soil Texture	Sandy Loam
Northing	7289933	mS	Soil Colour	Red/Orange

Site Characteristics		Coarse Surface Particles	
Landform	outcrop granite slate	Rock Type	Granite,Quartz
Slope	Low (1-20º)	Rock Size	Large rocks (21-60cm)
Aspect	North	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Major (50-70%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia ?incurvaneura* scattered low trees over *Eremophila latrobei* subsp. *latrobei*, *Senna glutinosa* subsp. ?luerssenii and *Eremophila phyllopoda* subsp. *phyllopoda* open shrubland over *Aristida contorta* tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon lepidum	O1-01	0.1	0.1			
Acacia tetragonophylla	NC	1.7	1	NC	1.7	1
Aristida contorta	NC	0.2	11	NC	0.2	11
Eremophila cuneifolia	NC	1.1	0.1			
Eremophila latrobei subsp. *latrobei*	=E4-02	2.1	1	NC	2.1	1
Eremophila phyllopoda subsp. *phyllopoda*	=K8-01	1.8	3	NC	2.1	4
Eriachne mucronata				O1-02	0.2	0.1
Eriachne pulchella subsp. *dominii*	NC	0.1	0.1	NC	0.1	0.1
Gomphrena kanisii	NC	0.2	0.1	NC	0.2	0.1
Indigofera monophylla	=K8-03	0.9	1.5	NC	0.9	0.5
Ptilotus obovatus var. *obovatus*	NC	0.8	0.1			
Senna glutinosa subsp. ×luerssenii	NC	0.7	0.1	NC	0.7	0.1
Sida sp.				O1-01	0.1	0.1
Sida sp. dark green fruits (S. van Leeuwen 2260)	O1-02	0.4	0.1			
Solanum lasiophyllum	=YINN-04-05	0.3	0.1	NC	0.4	0.1
Tribulus suberosus	NC	0.5	0.1	NC	0.5	0.1

Site Type	Site Name	Dimensions
Quadrat	O2	20m x 20m
	Phase 1	Phase 2
Date	17-08-23	25-03-24
Described by	Jonas Mitchell,Jacquie Mason	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	432283	mE	Soil Texture	Sandy Clay Loam
Northing	7274936	mS	Soil Colour	Red/Orange

Site Characteristics		Coarse Surface Particles	
Landform	Sandy/Stony Plain	Rock Type	Quartz
Slope	Flat (0º)	Rock Size	Pebbles (5-10cm)
Aspect	N/A	Abundance	Common
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Very Good	*Eremophila phyllopoda* subsp. *phyllopoda* , *Senna glutinosa* subsp. ?luerssenii and *Acacia tetragonophylla* open shrubland over *Aristida contorta* very open tussock grassland.
Disturbance Type	Other,Rubbish/Litter	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia cuthbertsonii subsp. *cuthbertsonii*	01-Feb	2.2	1			
Acacia xiphophylla				NC	2.1	1
Aristida contorta	NC	0.2	1.5	NC	0.1	0.1
Eremophila cuneifolia	NC	0.4	0.5	NC	0.3	0.5
Eremophila phyllopoda subsp. *phyllopoda*	NC	0.7	0.5	NC	0.6	0.1
Maireana georgei	=OPPJ01	0.4	0.1			
Maireana melanocoma	=OPPJ02	0.3	0.1			
Maireana planifolia	02-Feb	0.6	0.1			
Maireana sp.				NC	0.1	0.1
Malvaceae sp.	NC	0.1	0.1			
Portulaca oleracea	NC	0.1	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.6	0.1			
Senna artemisioides subsp. *helmsii*	NC	0.6	0.5	NC	0.8	0.1
Solanum lasiophyllum	=YINN-04	0.3	0.1	NC	0.4	0.1

Site Type	Site Name	Dimensions
Quadrat	O3	20m x 20m
	Phase 1	Phase 2
Date	19-08-23	23-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	428165	mE	Soil Texture	Sandy Clay Loam
Northing	7278322	mS	Soil Colour	Red/Orange
Site Characteristics			**Coarse Surface Particles**	
Landform	Drainage Area/Floodplain		Rock Type	Quartz
Slope	Flat (0º)		Rock Size	Gravel (1-4cm)
Aspect	N/A		Abundance	Rare
Surface Water Present	No		Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia cuspidifolia* and *Acacia synchronicia* scattered tall shrubs over *Senna artemisioides* subsp. *oligophylla* and *Eremophila cuneifolia* scattered shrubs over *Sclerolaena cuneata* and *Sclerolaena densiflora* scattered low shrubs.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia synchronicia	NC	1.7	3	NC	1.7	2
Aristida contorta	NC	0.2	0.1	NC	0.2	0.1
Atriplex codonocarpa	=oppj	0.1	0.1			
Cynodon prostratus	O3-03	0.1	0.1			
Enteropogon ramosus	NC	0.5	0.1	NC	0.3	0.1
Eragrostis sp.	O3-01	0.3	1			
Eremophila cuneifolia	NC	0.9	3	NC	0.9	2
Eremophila phyllopoda subsp. *phyllopoda*	NC	0.3	0.1	NC	1.3	0.1
Eriachne mucronata				NC	0.2	0.5
Goodenia muelleriana	=L2	0.02	0.1			
Hakea preissii	NC	1.4	1.5	NC	1.1	0.1
Lepidium phlebopetalum	O3-02	0.05	0.1			
Maireana tomentosa subsp. *tomentosa*	=L2	0.6	0.1	NC	0.8	0.1
Portulaca oleracea	NC	0.1	0.1			
Ptilotus exaltatus	NC	0.1	0.1	NC	0.1	0.1
Sclerolaena cuneata	NC	0.1	0.5	NC	0.1	0.1
Sclerolaena densiflora	=L2	0.1	2.5	NC	0.1	0.1
Senna sp. Meekatharra (E. Bailey 1-26)	NC	0.9	6	NC	0.9	5
Streptoglossa decurrens	NC	0.1	0.1			
Trianthema turgidifolium	=oppj	0.1	0.1			

Site Type	Site Name	Dimensions
Quadrat	O4	20m x 20m
	Phase 1	Phase 2
Date	18-08-23	24-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	430401	mE	Soil Texture	Sandy Clay Loam
Northing	7279002	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Stony Plain	Rock Type	Quartz
Slope	Low (1-20º)	Rock Size	Small rocks (11-20cm)
Aspect	North-east	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Eremophila phyllopoda* subsp. *phyllopoda* , *Acacia tetragonophylla* and *Acacia synchronicia* low scattered shrubs over *Aristida contorta* tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia synchronicia	NC	1.9	0.5	NC	2.5	0.5
Acacia tetragonophylla	NC	1.8	0.5	NC	2.1	0.5
Aristida contorta	NC	0.1	50	NC	0.1	35
Eremophila phyllopoda subsp. *phyllopoda*	NC	1.1	1	NC	1.3	2.5
Gomphrena kanisii	O4-01	0.2	0.1			
Portulaca oleracea	NC	0.1	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.3	0.1	NC	0.3	0.1
Senna artemisioides subsp. *helmsii*	NC	0.3	0.1			
Senna glaucifolia	NC	0.6	0.1			
Senna stricta	NC	0.6	0.1	NC	0.5	0.1
Solanum lasiophyllum	NC	0.3	0.1	NC	0.3	0.1

Site Type	Site Name	Dimensions
Quadrat	O5	20m x 20m
	Phase 1	Phase 2
Date	20-08-23	23-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	425387	mE	Soil Texture	Sandy Clay Loam
Northing	7279196	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Sandy/Stony Plain	Rock Type	Quartz,Granite
Slope	Flat (0º)	Rock Size	Negligible
Aspect	N/A	Abundance	Rare
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia tetragonophylla* tall open shrubland over *Senna artemisioides* subsp. *helmsii* and *Eremophila cuneifolia* open shrubland over *Aristida contorta* very open tussock grassland.
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon oxycarpum subsp. Prostrate	O5-02	0.1	0.1			
Acacia cuthbertsonii subsp. *cuthbertsonii*	O5-04	1.8	0.5	NC	1.8	0.1
Acacia tetragonophylla	NC	1.9	0.5	NC	1.9	0.5
Aristida contorta	NC	0.2	35	NC	0.2	35
Arivela viscosa	NC	0.3	0.1	NC	0.3	0.1
Boerhavia sp				NC	0.1	0.1
**Cenchrus ciliaris*	NC	0.4	1	NC	0.4	1
Corchorus crozophorifolius	NC	0.9	0.5	NC	0.9	0.5
Cymbopogon ambiguus	NC	1.1	0.1	NC	1.1	0.1
Eragrostis cumingii	NC	0.1	0.1	NC	0.1	0.1
Eremophila ?cuneifolia				NC	0.1	0.1
Eremophila cuneifolia	NC	0.3	0.1			
Eremophila fraseri subsp. *fraseri*	NC	1.7	2	NC	1.7	2
Eremophila reticulata	NC	0.3	0.1			
Eriachne ?aristidea				NC	0.1	0.1
Eriachne aristidea	NC	0.3	0.5			
Euphorbia drummondii	O5-01	0.1	0.1			
Evolvulus alsinoides var. villosicalyx	NC	0.2	0.1	NC	0.2	0.1
Goodenia forrestii	O5-03	0.2	0.1			
Goodenia tenuiloba	=Spmn06-03	0.2	0.1			
Herb sp.				NC	0.1	0.1
Indigofera ?decipiens				NC	0.2	1
Indigofera decipiens	=K403	0.3	0.5			
?Maireana sp.	NC	0.1	0.1			
Poaceae sp.				NC	0.1	0.1
Portulaca oleracea	NC	0.1	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.5	0.1	NC	0.5	0.1
Salsola australis	NC	0.2	0.1	NC	0.2	0.1
Senna artemisioides subsp. *helmsii*	NC	1.4	4	NC	1.4	4
Solanum lasiophyllum	NC	0.4	0.1	NC	0.4	0.1
Streptoglossa ?odora				NC	0.1	0.1
Streptoglossa odora	=Q3-01	0.3	0.1			
Trichodesma ?zeylanicum var. *zeylanicum*				NC	0.6	0.1
Trichodesma zeylanicum var. *zeylanicum*	NC	0.3	0.1			

Site Type	Site Name	Dimensions
Quadrat	O6	20m x 20m
	Phase 1	Phase 2
Date	22-08-23	21-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	421617	mE	Soil Texture	Sandy Loam
Northing	7288058	mS	Soil Colour	Brown
Site Characteristics			**Coarse Surface Particles**	
Landform	Undulating Low Hills		Rock Type	Granite,Quartz
Slope	Low (1-20º)		Rock Size	Pebbles (5-10cm)
Aspect	South		Abundance	Common
Surface Water Present	No		Exposed Bedrock (%)	Minor (10-30%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia ?curryana* and *Senna artemisioides* subsp. *helmsii* open shrubland over *Aristida contorta* very open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia ?curryana	=oppj127	1.4	4	2O6-01	1.4	1
Aristida contorta	NC	0.3	4	NC	0.3	2
Eremophila exilifolia	NC	1.1	3	NC	1.1	3
Ptilotus obovatus var. *obovatus*	O6-01	0.7	0.1	NC	0.5	0.1
Ptilotus schwartzii var. *schwartzii*	NC	0.5	0.5	NC	0.5	0.1
Senna artemisioides subsp. *helmsii*	NC	1.5	0.1	NC	1.5	2
Solanum lasiophyllum	=YINN-04-05	0.3	0.1	NC	0.3	0.1

Site Type	Site Name	Dimensions
Quadrat	O7	20m x 20m
	Phase 1	Phase 2
Date	21-08-23	21-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	425705	mE	Soil Texture	Sandy Clay Loam
Northing	7285524	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Stony Plain	Rock Type	Quartz
Slope	Low (1-20º)	Rock Size	Small rocks (11-20cm)
Aspect	N/A	Abundance	Common
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia cuspidifolia* tall open shrubland over *Acacia synchronicia* and *Rhagodia eremaea* open shrubland over *Sclerolaena cuneata* open herbland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia cuspidifolia	NC	3.5	7	NC	3.5	7
Acacia synchronicia	NC	1.5	3	NC	1.5	3
Aristida contorta	NC	0.1	0.1			
Dissocarpus paradoxus	=Q3-15	0.6	0.1			
Enchylaena tomentosa var. *tomentosa*	=Yinn-06-11	0.1	0.1			
Eremophila cuneifolia	NC	0.8	1	NC	0.8	1
Frankenia hispidula	O7-01	0.1	0.1	O7-02	0.1	0.1
Hakea preissii	=L8-02	0.4	0.1	NC	0.4	0.1
Lawrencia sp. Mulein Station (Setter 317)	O7-03	0.1	0.1			
Maireana carnosa	O7-02	0.1	0.1	NC	0.6	0.5
Maireana melanocoma	NC	0.2	0.5	NC	0.2	0.5
Maireana ?tomentosa subsp. *tomentosa*				O7-01	0.2	0.5
Maireana triptera	=L4-01	0.2	0.1			
Rhagodia eremaea	NC	1.3	0.5	NC	1.3	0.5
Sclerolaena cuneata	NC	0.1	11			
Sclerolaena eriacantha				O7-03	0.1	0.1
Senna artemisioides subsp. *helmsii*	NC	0.9	0.1	NC	0.9	0.1
Senna sp. Meekatharra (E. Bailey 1-26)	NC	0.8	0.1	NC	0.8	0.1
Solanum lasiophyllum	NC	0.4	0.1	NC	0.4	0.1
Streptoglossa bubakii	NC	0.1	0.1			

Site Type	Site Name	Dimensions
Quadrat	O8	20m x 20m
	Phase 1	Phase 2
Date	21-08-23	21-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	427245	mE	Soil Texture	Sandy Clay Loam
Northing	7287156	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Granite Outcrops/Domes	Rock Type	Granite,Quartz
Slope	Low (1-20º)	Rock Size	Large rocks (21-60cm)
Aspect	North-west	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Extensive (70%+)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Eremophila exilifolia* , *Senna artemisioides* subsp. *helmsii* , *Acacia tetragonophylla* open shrubland over *Indigofera decipiens* low scattered shrubs over *Aristida contorta* open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia tetragonophylla	NC	1.5	1	NC	1.5	1
Aristida contorta	NC	0.1	9	NC	0.1	9
Eremophila exilifolia	NC	1.3	3	NC	1.3	3
Ptilotus roei	O8-01	0.1	0.1			
Ptilotus sp.				NC	0.1	0.1
Senna artemisioides subsp. *helmsii*	NC	1.4	0.5	NC	1.4	0.5

Site Type	Site Name	Dimensions
Quadrat	O9	20m x 20m
	Phase 1	Phase 2
Date	21-08-23	21-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	428278	mE	Soil Texture	Loamy Sand
Northing	7286669	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Hillcrest/Upper Hillslope	Rock Type	Quartz,Granite
Slope	Low (1-20º)	Rock Size	Small rocks (11-20cm)
Aspect	N/A	Abundance	Moderate
Surface Water Present	No	Exposed Bedrock (%)	Minor (10-30%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia tetragonophylla* , *Senna glutinosa* subsp. xluerssenii and *Acacia curryana* open shrubland over *Aristida contorta* open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia tetragonophylla	NC	1.9	0.5	NC	1.9	0.5
Aristida contorta	NC	0.1	20	NC	0.1	5
Eremophila cuneifolia	NC	0.9	1	NC	0.9	1
Eremophila phyllopoda subsp. *phyllopoda*	NC	1.4	1	NC	1.4	1
Eremophila platycalyx subsp. pardalota				O9-01	1.1	0.1
Eremophila sp.	O9-01	1.2	0.1			
Maireana melanocoma	NC	0.2	0.1	NC	0.2	0.1
?*Pluchea* sp.				NC	0.01	0.1
Sclerolaena densiflora	=Q3-16	0.2	0.1			
Senna glutinosa subsp. ×luerssenii	NC	1.1	0.5			
?*Senna glutinosa* subsp. ?luerssenii				NC	0.1	0.1
Solanum lasiophyllum	NC	0.4	0.1	NC	0.4	0.1

Site Type	Site Name	Dimensions
Quadrat	O9B	20m x 20m
	Phase 1	Phase 2
Date	21-08-23	21-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	427103	mE	Soil Texture	Sandy Clay Loam
Northing	7286835	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Hillcrest/Upper Hillslope	Rock Type	Quartz,Granite
Slope	Low (1-20º)	Rock Size	Pebbles (5-10cm)
Aspect	North-west	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Minor (10-30%)

Condition	
Vegetation Condition	Excellent
Disturbance Type	None discernible
Fire Age (years)	Unknown (no evidence)
Fire Notes	N/A

Vegetation Description

Eremophila phyllopoda subsp. *phyllopoda* , *Acacia tetragonophylla* and *Senna glutinosa* subsp. ?luerssenii scattered shrubs over *Eremophila cuneifolia* low scattered shrubs over *Aristida contorta* open tussock grassland.

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia tetragonophylla	NC	0.8	0.5	NC	0.8	0.5
Aristida contorta	NC	0.1	5	NC	0.1	4
Eremophila cuneifolia	NC	1.2	2	NC	1.2	2
Herb sp.				NC	0.1	0.5
Maireana planifolia	O9B-01	0.3	0.1			
Maireana sp.				NC	0.1	0.1
Maireana triptera	=L4-01	0.2	0.1			
Ptilotus aervoides	NC	0.1	0.1	NC	0.1	0.1
Sclerolaena densiflora	=Q3-16	0.1	0.1			
Senna glutinosa subsp. ×luerssenii	NC	1.5	3	NC	1.5	3

Site Type	Site Name	Dimensions
Quadrat	O10	20m x 20m
	Phase 1	Phase 2
Date	24-08-23	22-03-24
Described by	Jonas Mitchell,Jacquie Mason	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	417755	mE	Soil Texture	Sandy Loam
Northing	7294842	mS	Soil Colour	Red/Orange

Site Characteristics		Coarse Surface Particles	
Landform	Sandy/Stony Plain	Rock Type	Quartz,Granite
Slope	Flat (0º)	Rock Size	Pebbles (5-10cm)
Aspect	N/A	Abundance	Common
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia* curry, *Senna artemisioides* subsp. *helmsii*, open shrubland over *Aristida contorta* scattered tussock grasses.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia ?curryana	=oppj127	1.4	1	O10-01	1.4	1
Aristida contorta	NC	0.3	7	NC	0.1	3
Ptilotus obovatus var. *obovatus*	NC	0.2	0.1			
Ptilotus roei	=OPPJ130	0.02	0.1			
Senna artemisioides subsp. *helmsii*	NC	1.2	1.5	NC	1.2	1
Sida brownii	NC	0.1	0.1			
Solanum lasiophyllum	NC	0.9	0.1	NC	1.1	0.5

Site Type	Site Name	Dimensions
Quadrat	O11	20m x 20m
	Phase 1	Phase 2
Date	25-08-23	22-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	418680	mE	Soil Texture	Sandy Clay Loam
Northing	7294576	mS	Soil Colour	Red/Orange

Site Characteristics		Coarse Surface Particles	
Landform	Sandy/Stony Plain	Rock Type	Granite
Slope	Low (1-20º)	Rock Size	Small rocks (11-20cm)
Aspect	North-east	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Limited (5-10%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia curryana* and *Eremophila exilifolia* open shrubland over *Aristida contorta* open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia ?curryana	=oppj127	1.5	1	NC	1.5	1
Acacia tetragonophylla	NC	0.3	0.1	NC	0.3	0.1
Aristida contorta	NC	0.2	6	NC	0.2	6
Eremophila exilifolia	NC	0.9	1.5	NC	0.9	1.5
Gomphrena kanisii	=H1-06	0.1	0.1			
Senna artemisioides subsp. *helmsii*	NC	1.4	0.5	NC	1.4	0.5
Solanum ?lasiophyllum				NC	0.1	0.1

Site Type	Site Name	Dimensions
Quadrat	O12	20m x 20m
	Phase 1	Phase 2
Date	23-08-23	21-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	424190	mE	Soil Texture	Sandy Clay Loam
Northing	7288690	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Granite Outcrops/Domes	Rock Type	Granite,Quartz
Slope	Low (1-20º)	Rock Size	Large rocks (21-60cm)
Aspect	South-east	Abundance	Common
Surface Water Present	No	Exposed Bedrock (%)	Major (50-70%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia ?curryana* and *Senna artemisioides* subsp. *helmsii* scattered shrubs over *Eremophila exilifolia* low scattered shrubs over *Aristida contorta* very open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

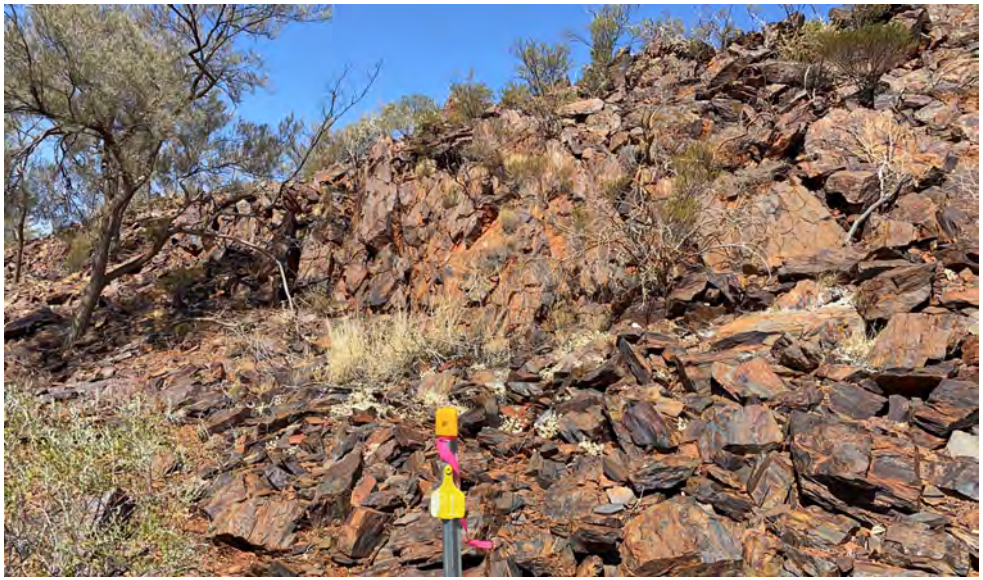
Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia ?curryana	=B1-03	1.1	1			
Acacia curryana				2O12-01	1.1	3
Aristida contorta	NC	0.2	7	NC	0.2	0.1
Eremophila exilifolia	NC	1.1	4	NC	1.1	4
Evolvulus alsinoides var. villosicalyx	NC	0.2	0.1			
Goodenia tenuiloba	=Q3-17	0.1	0.1			
Portulaca cyclophylla	O1-01	0.1	0.1			
Senna artemisioides subsp. *helmsii*	NC	1.1	1	NC	1.1	0.5
Senna glutinosa subsp. ×luerssenii	NC	0.9	0.1			

Site Type	Site Name	Dimensions
Quadrat	P1	20m x 20m
	Phase 1	Phase 2
Date	25-08-23	22-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	418523	mE	Soil Texture	Silty Clay Loam
Northing	7295707	mS	Soil Colour	Brown
Site Characteristics			**Coarse Surface Particles**	
Landform	Shale outcrop		Rock Type	Shale
Slope	Very steep (76-89º)		Rock Size	Large rocks (21-60cm)
Aspect	N/A		Abundance	Very common
Surface Water Present	No		Exposed Bedrock (%)	Extensive (70%+)

Condition		Vegetation Description
Vegetation Condition	Very Good	*Acacia ?fuscaneura* low open woodland over *Acacia kempeana* scattered shrubs over *Cenchrus ciliaris* very open tussock grassland.
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1



Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon oxycarpum subsp. Prostrate	=oppj24	0.2	0.1			
Acacia fuscaneura	P1-01	6	2.5	NC	6	2.5
Amaranthus cuspidifolius	P1-02	0.2	0.1			
Boerhavia coccinea	NC	0.2	0.1			
**Cenchrus ciliaris*	NC	0.6	0.1	NC	0.2	0.1
Enneapogon caerulescens	NC	0.1	0.1	NC	0.2	0.1
Eremophila exilifolia	NC	1.7	1	NC	1.7	1
Eremophila latrobei subsp. *glabra*	NC	1.6	2.5	NC	1.6	2.5
Eremophila latrobei subsp. *latrobei*	=E4-02	1.1	0.1	NC	1.1	0.1
Eriachne mucronata	NC	0.2	0.1	NC	0.2	0.1
Gomphrena cunninghamii	NC	0.1	1	NC	0.1	0.1
Indigofera decipiens	=OPPJM02	0.2	0.5			
Lepidium oxytrichum	P1-03	0.1	0.1			
Paspalidium clementii	NC	0.2	0.1			
Portulaca oleracea	NC	0.1	0.1			
Ptilotus exaltatus	NC	0.1	0.1			
Senna glutinosa subsp. ×luerssenii	NC	1.4	0.1	NC	1.4	0.1

Site Type	Site Name	Dimensions
Quadrat	P3	20m x 20m
	Phase 1	Phase 2
Date	23-08-23	20-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	427252	mE	Soil Texture	Sandy Loam
Northing	7291552	mS	Soil Colour	Red/Brown

Site Characteristics		Coarse Surface Particles	
Landform	outcrop unknown dark rock	Rock Type	other, ?magnetite
Slope	Moderately inclined (21-45º)	Rock Size	Boulders (>61cm)
Aspect	N/A	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Major (50-70%)

Condition		Vegetation Description
Vegetation Condition	Very Good	*Senna glutinosa* subsp. ?luerssenii and *Eremophila cuneifolia* open shrubland over *Acacia tetragonophylla* scattered shrubs over *Aristida contorta* very open tussock grassland.
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon ?fraseri subsp. *fraseri*	P3-01	0.1	0.1			
Acacia synchronicia				NC	2.5	1
Acacia tetragonophylla	NC	2.1	0.1	NC	2.1	0.5
Acacia xiphophylla	=C5-04	1.1	0.1			
**Cenchrus ciliaris*	NC	0.4	3.5	NC	0.4	0.1
Eremophila cuneifolia	NC	1.1	1	NC	1.1	0.5
Eremophila exilifolia	NC	1.5	1.5	NC	1.4	0.1
Eremophila latrobei subsp. *latrobei*	=E4-02	2.1	1.5	NC	2.1	1
Eriachne mucronata	NC	0.4	0.1			
Gomphrena kanisii	=H1-06	0.2	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.4	1	NC	0.3	0.5
Sclerolaena cuneata	NC	0.1	0.1			
Senna glutinosa subsp. ×luerssenii	NC	1.7	3	NC	1.3	1
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	=YINN-04-03	0.8	0.1	NC	0.8	0.1

Site Type	Site Name	Dimensions
Quadrat	Q1	20m x 20m
	Phase 1	Phase 2
Date	21-08-23	21-03-24
Described by	Jonas Mitchell,Jacquie Mason	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	426949	mE	Soil Texture	Clay Loam
Northing	7285952	mS	Soil Colour	Brown
Site Characteristics			**Coarse Surface Particles**	
Landform	soak		Rock Type	None_discernible
Slope	Flat (0º)		Rock Size	Negligible
Aspect	N/A		Abundance	None
Surface Water Present	No		Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Good	*Acacia kempeana* , *Acacia tetragonophylla* , *Acacia pruinocarpa* tall shrubland over *Ptilotus obovatus* var. *obovatus* and *Pterocaulon sphacelatum* scattered low shrubs over *Cenchrus ciliaris* , *Eragrostis tenellula* and *Eriachne flaccida* tussock grassland.
Disturbance Type	Weed invasion,Cattle grazing	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon fraseri subsp. *fraseri*	=J3-05	0.4	0.1			
Acacia citrinoviridis	NC	8	3.5	NC	8	3.5
Acacia coriacea subsp. *pendens*	NC	9	3	NC	9	0.1
Acacia sclerosperma subsp. *sclerosperma*	NC	1.4	0.1	NC	1.4	0.1
Acacia synchronicia	NC	3	3.5			
Acacia tetragonophylla	NC	1.9	1	NC	1.9	1
Alternanthera denticulata var. *denticulata*	=MNJM02-02	0.1	0.1	NC	0.1	0.1
**Bidens bipinnata*	NC	0.2	0.1			
**Cenchrus ciliaris*				NC	0.6	0.1
Dissocarpus paradoxus	=J3-04	1.5	0.1			
Duperreya commixta	NC	1.1	0.1	NC	1.1	0.1
Eremophila longifolia	NC	1.9	1.5	NC	1.9	1.5
Eriachne flaccida	NC	0.4	65	NC	0.4	65
Goodenia lamprosperma	=oppj	0.3	0.1			
**Malvastrum americanum*	NC	0.7	0.1	NC	0.1	0.1
Marsilea hirsuta	NC	0.02	0.1			
?*Rhagodia eremaea*				NC	0.1	0.1
Rhagodia eremaea	=L2-05	1.5	0.1			
Senna artemisioides subsp. *helmsii*				NC	0.1	0.1
Sesbania cannabina	NC	0.5	0.1			
Solanum lasiophyllum				NC	0.1	0.1
*?*Vachellia farnesiana*				NC	0.1	0.1
**Vachellia farnesiana* var. *farnesiana*	NC	2.5	1			

Site Type	Site Name	Dimensions
Quadrat	Q2	20m x 20m
	Phase 1	Phase 2
Date	21-08-23	23-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	430507	mE	Soil Texture	Clay Loam
Northing	7286488	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Soak	Rock Type	None_discernible
Slope	Flat (0º)	Rock Size	Negligible
Aspect	N/A	Abundance	None
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Very Good	*Acacia ?fuscaneura* , *Hakea lorea* subsp. *lorea* and *Santalum spicatum* tall open shrubland over *Eriachne aristidea* very open tussock grassland.
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon fraseri subsp. *fraseri*	=J3-05	0.5	0.1			
Acacia citrinoviridis	NC	5	2.5	NC	5	0.1
Acacia synchronicia	NC	4	3	NC	3	3
Acacia tetragonophylla	NC	3	8	NC	1.8	8
Acacia xiphophylla	=C5-04	2.2	0.1	NC	2.2	0.1
Alternanthera denticulata var. *denticulata*	=MNJM02-02	0.2	0.1			
Atriplex semilunaris	Q2-01	0.4	0.1			
**Cenchrus ciliaris*	NC	1.1	8	NC	0.6	0.1
Chrysopogon fallax	NC	1.3	3	NC	0.9	1
Dissocarpus paradoxus	=J3-04	1.5	0.1			
Enteropogon ramosus	NC	0.4	0.1	NC	0.4	0.1
Eragrostis leptocarpa	NC	0.4	0.1			
Eremophila cuneifolia	NC	1.5	3	NC	1.1	1
Eremophila fraseri subsp. *fraseri*	Q2-02	1.7	0.1	NC	1.5	0.1
Eriachne flaccida	NC	0.3	50	NC	0.3	50
Evolvulus alsinoides var. villosicalyx	NC	0.1	0.1			
Hakea preissii	NC	4.5	4	NC	3	4
**Malvastrum americanum*	NC	0.4	0.1			
Pterocaulon sphacelatum	NC	0.4	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.5	0.1			
Rhagodia eremaea	=L2-05	1.9	0.1	NC	1.2	0.1
Salsola australis	NC	0.4	0.1			
Senna artemisioides subsp. *helmsii*	NC	0.5	3	NC	1.8	2
Senna glaucifolia	NC	1.6	0.1			
Senna glutinosa subsp. ×luerssenii	NC	1.6	0.1	NC	1.6	0.1
Senna sp. Meekatharra (E. Bailey 1-26)	NC	0.9	1	NC	1.8	1
Solanum lasiophyllum	NC	0.6	0.1			

Site Type	Site Name	Dimensions
Quadrat	Q3	20m x 20m
	Phase 1	Phase 2
Date	17-08-23	25-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	431127	mE	Soil Texture	Sandy Clay Loam
Northing	7274468	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	soak	Rock Type	Quartz
Slope	Flat (0º)	Rock Size	Pebbles (5-10cm)
Aspect	N/A	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Very Good	*Acacia tetragonophylla, Hakea preissii and Acacia cuthbertsonii subsp. cuthbertsoniit tall shrubland over Eriachne aristidea tussock grassland.*
Disturbance Type	None discernible,Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon fraseri subsp. *fraseri*	Q3-09	0.3	0.1	NC	0.3	0.1
Acacia citrinoviridis	NC	2.5	0.5	NC	2.5	1
Acacia sclerosperma subsp. *sclerosperma*	Q3-04	1.8	1	NC	1.8	1
Acacia synchronicia	NC	1.4	0.1	NC	1.4	0.1
Acacia tetragonophylla	NC	2.1	2	NC	2.1	2
Acacia xiphophylla	NC	5	4	NC	5	7
Alternanthera denticulata var. *denticulata*	NC	0.2	0.1	NC	0.3	0.1
Amyema sp.	NC	3	0.1	NC	4.5	0.1
**Cenchrus ciliaris*	NC	0.6	0.1	NC	0.6	2
Centipeda minima subsp. *macrocephala*	Q3-13	0.1	0.1			
Chrysopogon fallax	NC	0.4	0.1			
Dissocarpus paradoxus	Q3-15	1.1	0.5			
Duperreya commixta	NC	0.6	0.1	NC	0.6	0.1
Enchylaena tomentosa var. *tomentosa*				NC	0.9	0.1
Enteropogon ramosus	NC	0.5	0.1	NC	0.5	0.1
Eragrostis leptocarpa	Q3-02	0.3	1			
Eragrostis setifolia	Q3-07	0.4	0.5	2Q3-01	0.4	0.1
Eragrostis xerophila	Q3-08	0.3	0.1			
Eremophila longifolia	Q3-11	3	4	NC	3	4
Eremophila reticulata	NC	1.4	0.5	NC	0.3	0.1
Eriachne aristidea	Q3-05	0.4	25	NC	0.3	40
Euphorbia australis var. subtomentosa	Q3-03	0.1	0.1			
Goodenia tenuiloba	Q3-17	0.1	0.1			
Maireana tomentosa subsp. *tomentosa*				NC	0.9	0.1
**Malvastrum americanum*	Q3-14	0.9	0.1			
Oxalis perennans	Q3-12	0.1	0.1			
Portulaca oleracea	NC	0.1	0.1			
Ptilotus exaltatus	NC	0.1	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.3	0.1			
Rhagodia eremaea	NC	0.3	0.1	NC	0.4	0.1
Salsola australis	NC	0.2	0.1	NC	0.2	0.1
Sclerolaena cuneata	NC	0.2	0.1			
Sclerolaena densiflora	Q3-16	0.1	0.1			
Senna artemisioides subsp. *helmsii*	NC	1.2	0.1	NC	0.3	0.1
Senna artemisioides subsp. *oligophylla*				NC	1.1	0.5
Senna sp. Meekatharra (E. Bailey 1-26)	Q3-10	1.5	0.1	NC	0.9	0.1
**Setaria verticillata*	Q3-06	0.3	0.1			

Solanum lasiophyllum	NC	0.3	0.1	NC	0.3	0.1
Sporobolus actinocladus	NC	0.3	0.1			
Sporobolus australasicus	NC	0.1	0.1			
Streptoglossa odora	Q3-01	0.3	0.1			

Site Type	Site Name	Date
Relevé	Reljm32	25-08-23
Dimensions	-	
Described by	Jonas Mitchell,Jacquie Mason	
Location (GDA) Zone 50K		
Easting	418284	mE
Northing	7293915	mS
Site Characteristics		
Landform	Sand Plain	
Slope	Flat (0º)	
Aspect	N/A	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Loam	
Soil Colour	Brown	
Rock Type	Granite	
Coarse Surface Particles		
Average Size (mm)	Gravel (1-4cm)	
Abundance	Moderate	
Exposed Bedrock (%)	Minor (10-30%)	

Site Photograph.

Vegetation Description	*Acacia tetragonophylla* open shrubland over *Sclerolaena costata* and *Streptoglossa decurrens* very open herbland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia cuspidifolia	NC	1.8	0.1
Acacia tetragonophylla	NC	1.8	4
Aristida contorta	NC	0.3	0.1
Atriplex codonocarpa	=oppj35	0.2	0.1
Dactyloctenium radulans	NC	0.1	0.1
Maireana carnosa	=L2-04	0.1	0.1
Portulaca oleracea	NC	0.1	0.1
Sclerolaena costata	=L2-02	0.2	3
Sclerolaena densiflora	=OPPJ121	0.1	0.1
Senna artemisioides subsp. *helmsii*	NC	0.5	0.1
Solanum lasiophyllum	=YINN-04-05	0.5	0.1
Streptoglossa decurrens	NC	0.3	1
Trianthema turgidifolium	=OPPJ37	0.1	0.1

Site Type	Site Name	Dimensions
Quadrat	Yinn04	20m x 20m
	Phase 1	Phase 2
Date	16-08-23	19-03-24
Described by	Jonas Mitchell,Jacquie Mason	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	426340	mE	Soil Texture	Clay Loam
Northing	7287843	mS	Soil Colour	Orange

Site Characteristics		Coarse Surface Particles	
Landform	Hillslope	Rock Type	Mudstone,Conglomerate
Slope	Moderately inclined (21-45º)	Rock Size	Pebbles (5-10cm)
Aspect	North-west	Abundance	Common
Surface Water Present	No	Exposed Bedrock (%)	Limited (5-10%)

Condition		Vegetation Description
Vegetation Condition	Very Good	*Acacia ?curryana* and *Eremophila exilifolia* open shrubland over *Ptilotus schwartzii* var. *schwartzii* scattered herbs over *Aristida contorta* very open tussock grassland.
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia curryana	=YINN-03-01	2.1	3	NC	2.1	2
Acacia ?macraneura	YINN-04-02	2.5	0.5	NC	2.5	0.5
Acacia sp.	NC	0.4	0.1	NC	0.4	0.1
Aristida contorta	NC	0.2	1	NC	0.1	1
**Cenchrus ciliaris*	NC	0.6	0.1	NC	0.2	0.1
Corchorus ?crozophorifolius	NC	0.1	0.1			
Enneapogon caerulescens	NC	0.2	5	NC	0.2	0.5
Eremophila conferta	YINN-04-01	0.5	1	NC	0.5	0.1
Hibiscus ?sturtii	YINN-04-04	0.1	0.1			
Ptilotus obovatus var. *obovatus*	NC	0.5	0.1	NC	0.5	0.5
Senna artemisioides subsp. *helmsii*	NC	0.3	0.1	NC	0.3	0.1
Senna artemisioides subsp. *oligophylla*	NC	0.6	1	NC	0.6	0.5
Sida ?brownii	YINN-04-06	0.2	0.1			
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	YINN-04-03	0.4	0.1	NC	0.6	0.1
Solanum lasiophyllum	YINN-04-05	0.4	0.1	NC	0.4	0.1

Site Type	Site Name	Dimensions
Quadrat	Yinn05	20m x 20m
	Phase 1	Phase 2
Date	16-08-23	19-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	426974	mE	Soil Texture	Sandy Clay Loam
Northing	7288618	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Stony Plain	Rock Type	Quartz
Slope	Low (1-20º)	Rock Size	Small rocks (11-20cm)
Aspect	North-west	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition	
Vegetation Condition	Excellent
Disturbance Type	None discernible
Fire Age (years)	Unknown (no evidence)
Fire Notes	N/A

Vegetation Description

Acacia ?aptaneura tall open shrubland over *Senna artemisioides* subsp. *oligophylla*, *Eremophila forrestii* subsp. *forrestii* and *Ptilotus obovatus* var. *obovatus* low open shrubland over *Enneapogon caerulescens* and *Aristida contorta* very open tussock grassland.

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia cuspidifolia	NC	1	0.5	NC	1.7	0.5
Acacia synchronicia	NC	1.1	0.5	NC	1.6	0.5
Acacia xiphophylla	NC	1.9	1	NC	2.1	1
Eremophila cuneifolia	NC	0.3	0.5	Yinn-05-02	0.7	0.5
Eremophila reticulata	NC	0.6	0.5			
Lawrencia sp.	Yinn-05-02	0.1	0.1			
Maireana melanocoma	=Yinn-08	0.1	0.5	NC	0.1	0.1
Portulaca oleracea	NC	0.1	0.1			
Sclerolaena cuneata	NC	0.1	0.5	NC	0.1	0.5
Senna artemisioides subsp. *helmsii*	NC	0.2	0.1			
Senna artemisioides subsp. *oligophylla*	NC	0.4	0.1			
Senna glutinosa subsp. ×luerssenii	NC	0.6	0.1			
Senna sp. Meekatharra (E. Bailey 1-26)	Yinn-05-01	0.6	2	NC	0.6	0.5

Site Type	Site Name	Dimensions
Quadrat	Yinn06	200m x 12.5m
	Phase 1	Phase 2
Date	16-08-23	19-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	427504	mE	Soil Texture	Sandy Clay Loam
Northing	7287993	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Minor Drainage Line	Rock Type	Quartz,other
Slope	Low (1-20º)	Rock Size	Small rocks (11-20cm)
Aspect	South-east	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Minor (10-30%)

Condition		Vegetation Description
Vegetation Condition	Very Good	*Acacia xiphophylla* scattered tall shrubs over *Eremophila cuneifolia*, *Acacia tetragonophylla* and *Hakea* priesii open shrubland over *Senna artemisioides* subsp. *helmsii*, *Scaevola spinescens* and *Maireana melanocoma* low scattered shrubs.
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon fraseri subsp. *fraseri*	Yinn-06-01	0.5	0.1			
Abutilon oxycarpum subsp. Prostrate	Yinn-06-13	0.1	0.1			
Abutilon sp.				NC	0.1	0.1
Acacia ?citrinoviridis				NC	3.8	1.5
Acacia citrinoviridis	Yinn-06-10	4	2			
Acacia ?cuthbertsonii				NC	3.2	1
Acacia cuthbertsonii subsp. *cuthbertsonii*	Yinn-06-07	2.5	20			
Acacia ?fuscaneura				NC	3.9	5
Acacia fuscaneura	Yinn-06-08	5	5			
Acacia ?kempeana				NC	3.3	7
Acacia kempeana	=SPmn-01-02	3	7			
Acacia tetragonophylla	NC	1.8	0.1			
Aristida contorta	NC	0.3	2			
Aristida holathera var. *holathera*				Yinn-06-02	0.3	0.5
Arivela viscosa	NC	0.6	0.1			
Boerhavia coccinea	NC	0.1	0.1			
**Cenchrus ciliaris*	NC	0.6	15	NC	0.3	0.5
Corchorus crozophorifolius	NC	0.4	0.1	NC	0.5	0.1
Digitaria brownii	=SPmn-01-03	0.3	6	Yinn-06-01	0.4	3
Dodonaea petiolaris	NC	1.2	1	NC	1.1	0.5
Enchylaena tomentosa var. *tomentosa*	Yinn-06-11	0.6	0.1			
Enneapogon caerulescens	NC	0.2	0.1			
Eremophila cuneifolia	=Yinn-08-04	1.8	2	=Yinn-05-01	1.8	1
Eremophila exilifolia	Yinn-06-06	0.3	0.1	NC	0.4	0.1
Eremophila forrestii subsp. *forrestii*	Yinn-06-04	1.5	1	NC	2.1	0.1
Eremophila phyllopoda subsp. *phyllopoda*	NC	2.1	1	NC	2.1	1
Evolvulus alsinoides var. villosicalyx	NC	0.2	0.1	NC	0.1	0.1
Herb sp.				NC	0.1	0.1
Hibiscus sp. Gardneri (A.L. Payne PRP 1435)	Yinn-06-05	0.9	0.1	NC	1.2	0.5
Indigofera monophylla	Yinn-06-02	0.5	2			
Leichhardtia australis	NC	3	0.1			
Ptilotus obovatus var. *obovatus*	NC	1.1	6	NC	1.8	1.5
Senna artemisioides subsp. *helmsii*	NC	1.6	1	NC	1.5	0.1
Senna artemisioides subsp. *oligophylla*	NC	1.3	2	NC	1.3	0.5
Senna glaucifolia	Yinn-06-09	1.4	0.1			
Senna glutinosa subsp. ×luerssenii	NC	1.9	1	NC	1.5	0.1
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	Yinn-06-03	1.3	3			

Solanum lasiophyllum	NC	0.4	0.1	NC	0.5	0.1
Tribulus suberosus	NC	0.3	0.1			

Site Type	Site Name	Dimensions
Quadrat	Yinn08	20m x 20m
	Phase 1	Phase 2
Date	16-08-23	19-03-24
Described by	Jac Clark,Scott Pansini	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	427696	mE	Soil Texture	Sandy Clay Loam
Northing	7289303	mS	Soil Colour	Orange

Site Characteristics		Coarse Surface Particles	
Landform	Hillcrest/Upper Hillslope	Rock Type	Quartz,Granite
Slope	Low (1-20º)	Rock Size	Small rocks (11-20cm)
Aspect	West	Abundance	Common
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia aptaneura* , *Acacia tetragonophylla* and *Acacia kempeana* tall shrubland over *Eremophila phyllopoda* subsp. *phyllopoda* scattered shrubs over *Aristida contorta* , *Eriachne mucronata* and *Paspalidium clementii* very open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia tetragonophylla	NC	2.2	3	NC	2.2	2
Aristida contorta	NC	0.1	5	NC	0.1	0.1
Eremophila cuneifolia	Yinn-08-03	1.1	4	NC	1.4	1.5
Maireana melanocoma	Yinn-08-05	0.2	1	NC	0.2	0.1
Senna glutinosa subsp. ×luerssenii	Yinn-08-02	1.1	1	NC	1.1	0.1
Senna sp. Meekatharra (E. Bailey 1-26)	Yinn-08-06	0.3	0.1	NC	0.3	0.1
Senna stricta	Yinn-08-01	1.2	3	NC	1.2	0.5

Site Type	Site Name	Dimensions
Quadrat	Yinn09	20m x 20m
	Phase 1	Phase 2
Date	22-08-23	24-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	419149	mE	Soil Texture	Sand
Northing	7286225	mS	Soil Colour	Orange

Site Characteristics		Coarse Surface Particles	
Landform	Major Drainage Line	Rock Type	Quartz
Slope	Low (1-20º)	Rock Size	Gravel (1-4cm)
Aspect	North	Abundance	None
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition	
Vegetation Condition	Excellent
Disturbance Type	None discernible
Fire Age (years)	Unknown (no evidence)
Fire Notes	N/A

Vegetation Description

Acacia xiphophylla tall shrubland over *Acacia tetragonophylla* scattered shrubs over *Eremophila cuneifolia* low scattered shrubs.

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia citrinoviridis	NC	4	3	NC	4	3
Acacia coriacea subsp. *pendens*	NC	2.1	0.1	NC	2.1	0.1
Acacia pyrifolia var. *pyrifolia*	NC	0.4	0.1	NC	0.4	0.1
**Argemone ochroleuca* subsp. *ochroleuca*	NC	0.1	0.1	NC	0.1	0.1
Arivela viscosa	NC	0.3	0.1			
**Cenchrus ciliaris*	NC	0.6	5	NC	0.6	5
**Cenchrus setiger*	NC	0.6	1	NC	0.6	1
Chloris pumilio	Yinn09-04	0.4	0.1			
Crotalaria cunninghamii subsp. *sturtii*	NC	0.6	0.1			
Cyperus cunninghamii subsp. *cunninghamii*	Yinn09-07	1.1	2	NC	1.1	2
Eragrostis tenellula	Yinn09-05	0.1	0.1	NC	0.1	0.1
Eriachne aristidea	NC	0.1	0.1			
Erythrina vespertilio	NC	4	0.1			
Eucalyptus camaldulensis subsp. *obtusa*	Yinn09-01	10	5	NC	10	5
Eulalia aurea	NC	0.7	0.1			
Euphorbia biconvexa	NC	0.2	0.1	NC	0.2	0.1
Goodenia tenuiloba	=Spmn06-03	0.4	0.1			
Herb sp.				NC	0.6	0.1
Ipomoea muelleri	Yinn09-02	0.1	0.1	NC	0.1	0.1
Pluchea dentex	Yinn09-03	0.3	0.1	NC	0.1	0.1
Pluchea rubelliflora	NC	0.2	0.1			
Pterocaulon sphacelatum	NC	0.2	0.1			
Rhynchosia minima	NC	0.1	0.1			
Stemodia viscosa	NC	0.3	0.1			
Trichodesma zeylanicum var. *zeylanicum*	NC	0.4	0.1			

Site Type	Site Name	Dimensions
Quadrat	Yinn10	20m x 20m
	Phase 1	Phase 2
Date	22-08-23	24-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	419657	mE	Soil Texture	Sandy Clay Loam
Northing	7286249	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Drainage Area/Floodplain	Rock Type	None_discernible
Slope	Flat (0º)	Rock Size	Negligible
Aspect	N/A	Abundance	None
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition	
Vegetation Condition	Very Good
Disturbance Type	Weed invasion
Fire Age (years)	Unknown (no evidence)
Fire Notes	N/A

Vegetation Description

Eucalyptus camaldulensis subsp. *obtusa* and *Erythrina vespertilio* woodland over *Sesbania cannabina* and *Acacia citrinoviridis* tall open shrubland over *Cenchrus ciliaris*, *Cenchrus setiger* tussock grassland over *Cyperus vaginatus* very open sedgeland.

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia sclerosperma subsp. *sclerosperma*	NC	2.1	1	Yinn10-01	1.9	0.1
Aristida contorta	NC	0.1	0.1			
Boerhavia coccinea	NC	0.1	0.1			
**Cenchrus ciliaris*	NC	0.3	5	NC	0.3	5
Eragrostis eriopoda	NC	0.4	0.1			
Eremophila maitlandii	=JC52	0.4	0.5	NC	0.4	0.1
Goodenia sp.	NC	0.1	0.1			
Hakea preissii	NC	2.5	4	NC	2.5	4
Rhagodia eremaea	NC	1.2	1	NC	1.2	0.1
Salsola australis	NC	0.1	0.1			
Senna artemisioides subsp. *helmsii*	NC	1.9	4	NC	1.9	4
Stylobasium spathulatum	NC	2.1	1	NC	2.1	1

Site Type	Site Name	Dimensions
Quadrat	Yinn13	20m x 20m
	Phase 1	Phase 2
Date	20-08-23	23-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	425065	mE	Soil Texture	Sandy Clay Loam
Northing	7281275	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Hillcrest/Upper Hillslope	Rock Type	Quartz,Granite
Slope	Low (1-20º)	Rock Size	Small rocks (11-20cm)
Aspect	East	Abundance	Common
Surface Water Present	No	Exposed Bedrock (%)	Limited (5-10%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia sclerosperma* subsp. *sclerosperma* and *Acacia synchronicia* tall shrubland over *Senna artemisioides* subsp. *oligophylla*, *Ptilotus obovatus* var. *obovatus* and *Senna artemisioides* subsp. *helmsii* low open shrubland over *Cenchrus ciliaris*, *Cenchrus setiger* open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Abutilon ? *oxycarpum* subsp. Prostrate				NC	0.1	0.1
Abutilon oxycarpum subsp. Prostrate	=K1-05	0.3	0.1			
Aristida contorta	NC	0.1	35	NC	0.1	35
Eremophila cuneifolia	NC	0.9	1	NC	0.9	0.1
Eremophila exilifolia	NC	0.4	0.1	NC	0.4	0.1
Senna artemisioides subsp. *helmsii*	NC	0.3	0.1	NC	0.3	0.1
Senna glaucifolia	NC	1.6	0.5			
Senna glutinosa subsp. ×luerssenii	NC	1.8	5	NC	1.8	5
Solanum lasiophyllum	NC	0.2	0.1	NC	0.2	0.1
Tribulus suberosus	NC	0.7	0.1	NC	0.7	0.1

Site Type	Site Name	Dimensions
Quadrat	Yinn14	20m x 20m
	Phase 1	Phase 2
Date	22-08-23	20-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

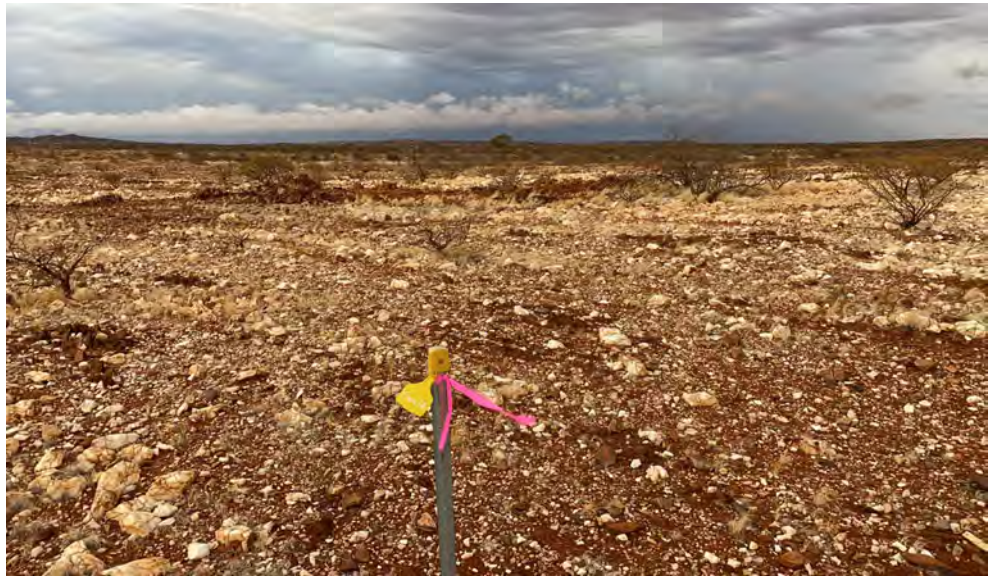
Location (GDA) Zone 50K			Soils	
Easting	426257	mE	Soil Texture	Sandy Clay Loam
Northing	7291161	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Hillcrest/Upper Hillslope	Rock Type	Quartz,Granite
Slope	Low (1-20º)	Rock Size	Large rocks (21-60cm)
Aspect	South	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Extensive (70%+)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia tetragonophylla* tall open shrubland over *Eremophila cuneifolia* and *Senna stricta* low open shrubland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2



Aristida contorta				NC	0.1	5
Eremophila cuneifolia				NC	1.1	1
Eremophila fraseri subsp. *fraseri*	NC	1.6	0.5	NC	1.1	0.5
Eremophila reticulata	NC	1.6	1			
Ptilotus obovatus var. *obovatus*				NC	0.3	0.1
Senna artemisioides subsp. *helmsii*	NC	0.5	0.1	NC	0.8	0.1
Solanum lasiophyllum	NC	0.2	0.1	NC	0.3	0.1

Site Type	Site Name	Dimensions
Quadrat	Yinn15	20m x 20m
	Phase 1	Phase 2
Date	23-08-23	19-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	425894	mE	Soil Texture	Sandy Clay Loam
Northing	7289665	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Hillcrest/Upper Hillslope	Rock Type	Granite
Slope	Low (1-20º)	Rock Size	Large rocks (21-60cm)
Aspect	South	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Limited (5-10%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Eremophila fraseri* subsp. *fraseri* low scattered shrubs over *Eremophila reticulata* scattered shrubs over *Aristida contorta* very open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia synchronicia	NC	1.1	0.1	NC	1.1	0.1
Acacia tetragonophylla	NC	0.9	0.1	NC	1.5	0.5
Aristida contorta	NC	0.1	12	NC	0.1	6
Eremophila cuneifolia	NC	1.1	3	NC	1.1	2
Eremophila exilifolia	NC	1.1	0.5	NC	1.1	0.5
Senna artemisioides subsp. *helmsii*	NC	0.8	0.1	NC	0.8	0.1
Senna glutinosa subsp. ×luerssenii	NC	1.5	5	2Yinn15-01	0.1	3
Senna sp. Meekatharra (E. Bailey 1-26)	NC	0.8	0.1			

Site Type	Site Name	Dimensions
Quadrat	Yinn16	20m x 20m
	Phase 1	Phase 2
Date	24-08-23	20-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	423240	mE	Soil Texture	Sandy Clay Loam
Northing	7291872	mS	Soil Colour	Dark brown

Site Characteristics		Coarse Surface Particles	
Landform	Hillcrest/Upper Hillslope	Rock Type	Granite
Slope	Low (1-20º)	Rock Size	Large rocks (21-60cm)
Aspect	N/A	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Major (50-70%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Senna glutinosa* subsp. ×luerssenii open shrubland over *Aristida contorta* tussock grassland.
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia curryana	=K5-01	1.2	3	NC	1.2	2
Acacia fuscaneura	Yinn16-00	3.2	3	NC	3.2	0.1
Acacia ?kempeana				2Yinn16-01	1.9	1
Aristida contorta	NC	0.1	0.1	NC	0.1	0.1
Corchorus crozophorifolius	NC	0.2	0.1			
Dodonaea petiolaris	NC	0.5	0.1			
Eremophila exilifolia	NC	0.6	1	NC	0.6	0.5
Eriachne mucronata	NC	0.1	0.1	NC	0.1	0.1
Eriachne pulchella subsp. *dominii*	NC	0.1	0.5			
Gomphrena kanisii	=O4-01	0.1	0.1			
Goodenia ?tenuiloba	=JC82	0.1	0.1			
Goodenia tenuiloba	=E1-06	0.1	0.1			
Ptilotus schwartzii var. *schwartzii*	NC	0.5	0.5	NC	0.5	0.1
Senna artemisioides subsp. *helmsii*	NC	0.8	0.1	NC	0.8	0.5
Senna glaucifolia	NC	1.5	1	NC	1.5	0.1
Solanum lasiophyllum	NC	0.6	0.1	NC	0.6	0.1
Tribulus suberosus	NC	0.5	0.5	NC	0.5	0.1

Site Type	Site Name	Dimensions
Quadrat	Yinn17	20m x 20m
	Phase 1	Phase 2
Date	24-08-23	20-03-24
Described by	Scott Pansini,Jac Clark	Scott Pansini,Stuart Eaton

Location (GDA) Zone 50K			Soils	
Easting	423910	mE	Soil Texture	Sandy Clay Loam
Northing	7291766	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Hillcrest/Upper Hillslope	Rock Type	Granite,Quartz
Slope	Low (1-20º)	Rock Size	Large rocks (21-60cm)
Aspect	North-west	Abundance	Very common
Surface Water Present	No	Exposed Bedrock (%)	Minor (10-30%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia ?curryana* and *Acacia xiphophylla* tall shrubland over *Acacia sclerosperma* subsp. *sclerosperma* scattered shrubs over *Aristida contorta* , *Cenchrus ciliaris* and *Cenchrus setiger* very open tussock grassland.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia ?curryana	=B1-03	1.5	1			
Acacia fuscaneura	=Yinn16-01	3.5	2	NC	3.5	3
Aristida contorta	NC	0.2	13	NC	0.2	5
Gomphrena kanisii	=O4-01	0.2	0.1	NC	0.2	0.1
Goodenia tenuiloba	=E1-06	0.1	0.1			
Hibiscus sp. Gardneri (A.L. Payne PRP 1435)	=Yinn-06-05	0.1	0.1	NC	0.1	0.1
Senna artemisioides subsp. *helmsii*	NC	0.6	1	NC	0.6	0.1
Senna glaucifolia	NC	1.1	1	NC	1.1	0.1
Solanum lasiophyllum	NC	0.1	0.1	NC	0.1	0.1

Site Type	Site Name	Dimensions
Quadrat	Yinn18	20m x 20m
	Phase 1	Phase 2
Date	26-08-23	24-03-24
Described by	Scott Pansini,Jac Clark	Jac Clark,Owen Raynor

Location (GDA) Zone 50K			Soils	
Easting	419908	mE	Soil Texture	Sandy Loam
Northing	7286060	mS	Soil Colour	Brown

Site Characteristics		Coarse Surface Particles	
Landform	Drainage Area/Floodplain	Rock Type	None_discernible
Slope	Low (1-20º)	Rock Size	Negligible
Aspect	N/A	Abundance	None
Surface Water Present	No	Exposed Bedrock (%)	Negligible (<5%)

Condition		Vegetation Description
Vegetation Condition	Excellent	*Acacia curryana* and *Acacia* ?kempiana open shrubland over *Senna artemisioides* subsp. *helmsii* and *Eremophila exilifolia* scattered shrubs.
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	

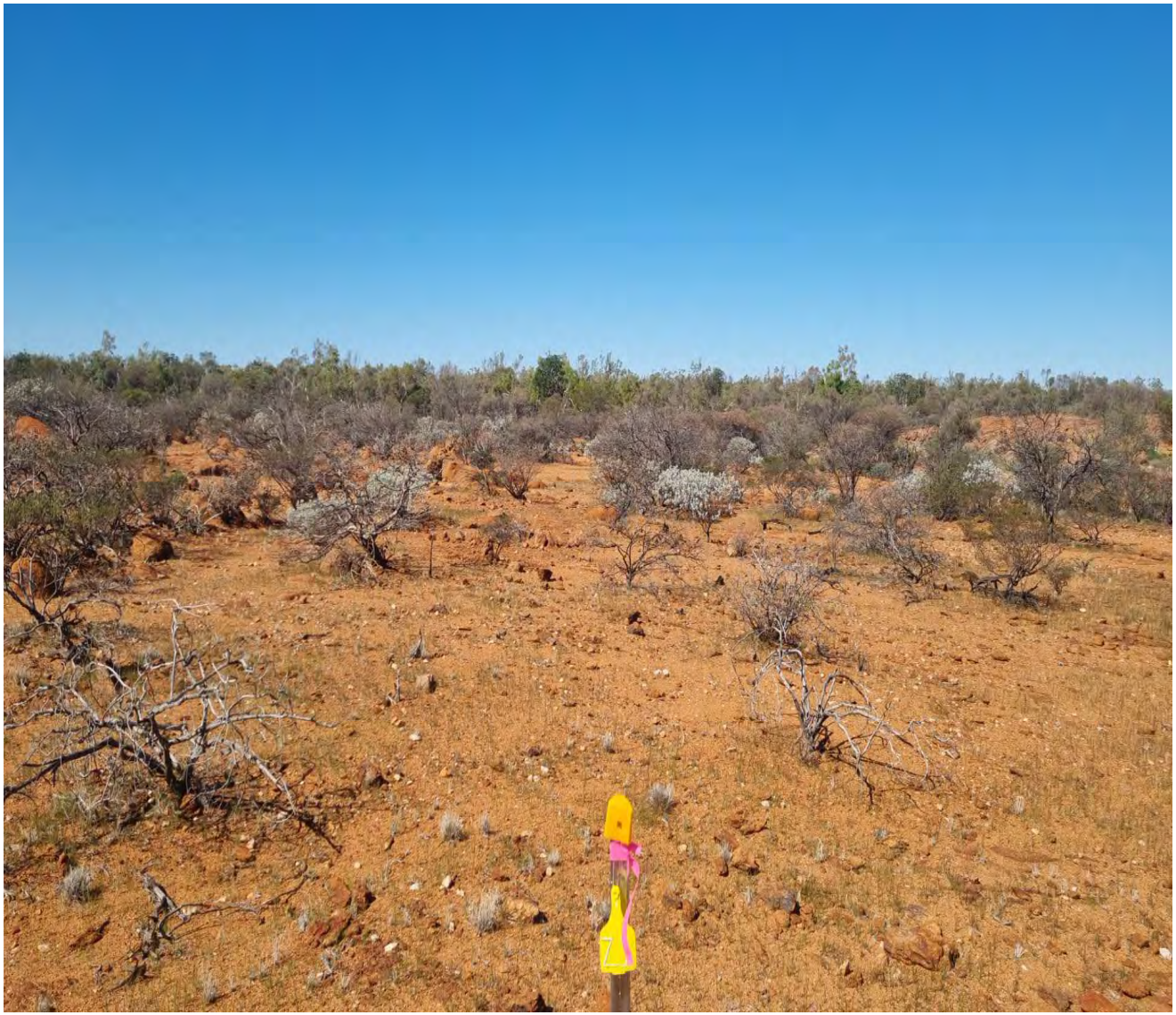
Site Photograph Phase 1

Site Photograph Phase 2

Taxon	Phase 1			Phase 2		
	Collection code	Height (m)	Cover (%)	Collection code	Height (m)	Cover (%)
Acacia aptaneura	Yinn18-01	3.6	2	NC	3.6	2
Acacia sclerosperma subsp. *sclerosperma*	NC	2.1	0.5			
Acacia synchronicia	NC	1.9	1	NC	1.9	1
Aristida contorta	NC	0.1	0.1			
**Cenchrus ciliaris*	NC	0.4	4	NC	0.4	1
Corchorus crozophorifolius	NC	0.2	0.1			
Eremophila maitlandii	=JC52	0.4	0.5	NC	0.4	0.5
Frankenia hispidula	=O7-01	0.3	0.1	NC	0.3	0.1
Goodenia forrestii	=N1-01	0.1	0.1			
Hakea preissii	NC	3.6	12	NC	3.6	12
Maireana planifolia	=O9B-01	0.4	0.1			
Rhagodia eremaea	NC	1.8	2	NC	1.8	2
Salsola australis	NC	0.1	0.1			
Sclerolaena tridens	=N3-01	0.2	0.1	NC	0.2	0.1
Senna artemisioides subsp. *helmsii*	NC	1.9	5	NC	1.9	5
Senna artemisioides subsp. *oligophylla*	NC	0.5	0.5	NC	0.5	0.5
Stylobasium spathulatum	NC	1.8	3	NC	1.8	3

Site Type	Site Name	Date
Quadrat	Z1	03-07-24
Dimensions	20m x 20m	
Described by	Scott Pansini,Jac Clark	
Location (GDA) Zone 50K		
Easting	420803	mE
Northing	7291647	mS
Site Characteristics		
Landform	Granite Outcrops/Domes	
Slope	Low (1-20º)	
Aspect	South-west	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Clay Loam	
Soil Colour	Brown	
Rock Type	Granite	
Coarse Surface Particles		
Average Size (mm)	Large rocks (21-60cm)	
Abundance	Very common	
Exposed Bedrock (%)	Minor (10-30%)	

Site Photograph.



Vegetation Description	*Acacia curryana* scattered shrubs over *Eremophila exilifolia* , *Senna artemisioides* subsp. *helmsii* and *Eremophila cuneifolia* low open shrubland over *Senna stricta* scattered shrubs over *Aristida contorta* scattered tussock grasses.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia curryana	Z1-01	2.3	2.5
Acacia kempeana	NC	1.1	0.5
Aristida contorta	NC	0.1	2.5
**Citrullus* sp.	=spw01	0.1	0.1
Eremophila exilifolia	NC	1.1	3
Senna artemisioides subsp. *helmsii*	NC	1.1	2.5
Sida sp.	Z1-02	0.1	0.1
Stackhousia muricata subsp. annual	NC	0.2	0.1
Trachymene oleracea subsp. *oleracea*	NC	0.1	0.1

Site Type	Site Name	Date
Relevé	Reljm01	23-08-23
Dimensions	-	
Described by	Jonas Mitchell,Jacquie Mason	
Location (GDA) Zone 50K		
Easting	422666	mE
Northing	7288820	mS
Site Characteristics		
Landform	Drainage Area/Floodplain	
Slope	Flat (0º)	
Aspect	N/A	
Condition		
Vegetation Condition	Good	
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Clay Loam	
Soil Colour	Red	
Rock Type	Quartz,Granite	
Coarse Surface Particles		
Average Size (mm)	Gravel (1-4cm)	
Abundance	Very common	
Exposed Bedrock (%)	Negligible (<5%)	

Site Photograph.

Vegetation Description	*Acacia fuscaneura* low open woodland over *Acacia curryana* open shrubland over *Aristida contorta* open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia ?curryana	=oppj127	2.7	3
Acacia fuscaneura	RELJM-01-02	5	0.1
Acacia macraneura	RELJM-01-01	5	0.1
Acacia sclerosperma subsp. *sclerosperma*	NC	1.9	1
Acacia tetragonophylla	NC	1.9	0.1
Acacia xiphophylla	=C5-04	2.7	9
Aristida contorta	NC	0.3	1
Boerhavia coccinea	NC	0.1	0.1
Calandrinia ptychosperma	=I3-07	0.1	0.1
**Cenchrus ciliaris*	NC	0.6	2
**Cenchrus setiger*	NC	0.7	4
Dactyloctenium radulans	NC	0.1	0.1
Dodonaea petiolaris	NC	1.6	0.1
Eremophila forrestii subsp. *forrestii*	NC	1.4	0.1
Eremophila latrobei subsp. *latrobei*	NC	1.9	0.1
Evolvulus alsinoides var. villosicalyx	NC	0.1	0.1
Goodenia tenuiloba	NC	0.1	0.1
Indigofera decipiens	=OPPJM02	0.3	0.1
Paspalidium clementii	NC	0.1	0.1
Senna artemisioides subsp. *helmsii*	NC	1.5	0.1
Solanum lasiophyllum	=YINN-04-05	0.5	0.1

Site Type	Site Name	Date
Relevé	Reljm02	23-08-23
Dimensions	-	
Described by	Jonas Mitchell,Jacquie Mason	
Location (GDA) Zone 50K		
Easting	422466	mE
Northing	7288899	mS
Site Characteristics		
Landform	Granite Outcrops/Domes	
Slope	Low (1-20º)	
Aspect	East	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Clay Loam	
Soil Colour	Red	
Rock Type	Granite	
Coarse Surface Particles		
Average Size (mm)	Large rocks (21-60cm)	
Abundance	Very common	
Exposed Bedrock (%)	Moderate (30-50%)	

Site Photograph.

Vegetation Description	*Eremophila exilifolia* , *Acacia tetragonophylla* and *Senna artemisioides* subsp. *helmsii* open shrubland over *Aristida contorta* very open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia tetragonophylla	NC	1.8	1
Aristida contorta	NC	0.2	3
Eremophila exilifolia	NC	1.1	1.5
Eremophila latrobei subsp. *glabra*	NC	0.5	0.1
Eremophila latrobei subsp. *latrobei*	=E4-02	2.1	1
Eriachne aristidea	NC	0.4	0.1
Gomphrena kanisii	=H1-06	0.1	0.1
Ptilotus obovatus var. *obovatus*	NC	0.4	1
Ptilotus schwartzii var. *schwartzii*	NC	0.5	0.1
Rhagodia eremaea	NC	1.3	0.1
Senna artemisioides subsp. *helmsii*	NC	1.8	4
Trachymene oleracea subsp. *oleracea*	NC	0.1	0.1

Site Type	Site Name	Date
Relevé	Reljm03	23-08-23
Dimensions	-	
Described by	Jonas Mitchell,Jacquie Mason	
Location (GDA) Zone 50K		
Easting	425344	mE
Northing	7291181	mS
Site Characteristics		
Landform	Stony Plain	
Slope	Flat (0º)	
Aspect	N/A	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Loam	
Soil Colour	Red	
Rock Type	Granite	
Coarse Surface Particles		
Average Size (mm)	Small rocks (11-20cm)	
Abundance	Common	
Exposed Bedrock (%)	Major (50-70%)	

Site Photograph.

Vegetation Description	*Eremophila fraseri* subsp. *fraseri* open shrubland over *Eremophila exilifolia* and *Senna artemisioides* subsp. *helmsii* low scattered shrubs over *Aristida contorta* tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Aristida contorta	NC	0.1	8
Eremophila fraseri subsp. *fraseri*	NC	1.3	0.5
Eremophila reticulata	NC	0.9	1
Eriachne aristidea	NC	0.1	0.1
Ptilotus roei	=OPPJ130	0.1	0.1
Senna artemisioides subsp. *helmsii*	NC	0.9	0.1
Solanum lasiophyllum	=YINN-04-05	0.6	0.1

Site Type	Site Name	Date
Relevé	Reljm05	23-08-23
Dimensions	-	
Described by	Jonas Mitchell,Jacquie Mason	
Location (GDA) Zone 50K		
Easting	426567	mE
Northing	7291985	mS
Site Characteristics		
Landform	Minor Drainage Line	
Slope	Low (1-20º)	
Aspect	West	
Condition		
Vegetation Condition	Very Good	
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Clay Loam	
Soil Colour	Red/Brown	
Rock Type	Quartz	
Coarse Surface Particles		
Average Size (mm)	Pebbles (5-10cm)	
Abundance	Very common	
Exposed Bedrock (%)	Negligible (<5%)	

Site Photograph.

Vegetation Description	*Eremophila latrobei* subsp. *latrobei* scattered tall shrubs over *Senna glutinosa* subsp. ?luerssenii, *Eremophila cuneifolia* and *Eremophila exilifolia* open shrubland over *Cenchrus ciliaris* very open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia synchronicia	NC	0.8	0.1
Acacia tetragonophylla	NC	1.9	1.5
Acacia xiphophylla	NC	2.2	20
**Cenchrus ciliaris*	NC	0.4	0.1
Dipteracanthus australasicus subsp. *australasicus*	RELJM-05-01	0.2	0.1
Dissocarpus paradoxus	=J3-04	0.4	0.1
Eremophila cuneifolia	NC	0.6	1
Exocarpos aphyllus	=oppj13	2.1	0.1
Maireana melanocoma	NC	0.4	0.1
Maireana tomentosa subsp. *tomentosa*	=L2-03	0.2	0.1
Ptilotus exaltatus	NC	0.1	0.1
Ptilotus obovatus var. *obovatus*	NC	0.5	0.1
Scaevola spinescens	NC	0.6	0.1
Sclerolaena cuneata	NC	0.1	0.1
Sclerolaena eriacantha	=A2	0.2	0.1
Senna artemisioides subsp. *helmsii*	NC	1.1	0.1
Senna sp. Meekatharra (E. Bailey 1-26)	NC	0.9	0.1
Sida fibulifera	NC	0.1	0.1
Solanum lasiophyllum	=YINN-04-05	0.4	0.1

Site Type	Site Name	Date
Relevé	Reljm08	24-08-23
Dimensions	-	
Described by	Jonas Mitchell,Jacquie Mason	
Location (GDA) Zone 50K		
Easting	428883	mE
Northing	7289366	mS
Site Characteristics		
Landform	Outcrop	
Slope	Flat (0º)	
Aspect	N/A	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Clay Loam	
Soil Colour	Brown	
Rock Type	other, Unknown rock	
Coarse Surface Particles		
Average Size (mm)	Small rocks (11-20cm)	
Abundance	Very common	
Exposed Bedrock (%)	Moderate (30-50%)	

Site Photograph.

Vegetation Description	*Acacia tetragonophylla* scattered tall shrubs over *Senna stricta* shrubland over *Eremophila cuneifolia* low open shrubland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia tetragonophylla	NC	2.1	1
Aristida contorta	NC	0.3	1
Eremophila cuneifolia	NC	0.8	4
Eremophila exilifolia	NC	1.2	0.1
Eremophila latrobei subsp. *latrobei*	=E4-02	1.9	0.1
Frankenia hispidula	RELJM-08-01	0.2	0.1
Lepidium pedicellosum	=oppj36	0.5	0.1
Maireana planifolia	NC	0.3	0.1
Ptilotus schwartzii var. *schwartzii*	NC	0.5	0.1
Rhagodia eremaea	NC	1.5	0.1
Senna stricta	NC	1.6	12
Tribulus suberosus	NC	0.4	0.1

Site Type	Site Name	Date
Relevé	Reljm20	25-08-23
Dimensions	-	
Described by	Jonas Mitchell,Jacquie Mason	
Location (GDA) Zone 50K		
Easting	417288	mE
Northing	7294118	mS
Site Characteristics		
Landform	Quartz like outcrop	
Slope	Flat (0º)	
Aspect	N/A	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Silty Clay	
Soil Colour	Red	
Rock Type	Quartz	
Coarse Surface Particles		
Average Size (mm)	Large rocks (21-60cm)	
Abundance	Very common	
Exposed Bedrock (%)	Extensive (70%+)	

Site Photograph.

Vegetation Description	*Acacia* sp., *Acacia demissa* and *Fabaceae* sp. tall shrubland over *Eremophila latrobei* subsp. *latrobei* very open shrubland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia demissa	=OPPJ169	3.5	1
Acacia sp.	RELJM20-01	6	15
Afrohybanthus aurantiacus	NC	0.4	0.1
Eremophila fraseri subsp. *fraseri*	NC	1.8	0.1
Eremophila latrobei subsp. *latrobei*	=E4-02	1.9	3
Evolvulus alsinoides var. villosicalyx	NC	0.1	0.1
Fabaceae sp.	NC	2.1	1
Gomphrena kanisii	NC	0.1	0.1
Paspalidium clementii	NC	0.2	0.1
Tribulus suberosus	NC	0.5	0.1

Site Type	Site Name	Date
Relevé	Reljm21	25-08-23
Dimensions	-	
Described by	Jonas Mitchell,Jacquie Mason	
Location (GDA) Zone 50K		
Easting	417319	mE
Northing	7294026	mS
Site Characteristics		
Landform	Hillslope	
Slope	Low (1-20º)	
Aspect	South-east	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Silty Clay	
Soil Colour	Red	
Rock Type	Quartz	
Coarse Surface Particles		
Average Size (mm)	Pebbles (5-10cm)	
Abundance	Very common	
Exposed Bedrock (%)	Limited (5-10%)	

Site Photograph.

Vegetation Description	*Eremophila phyllopoda* subsp. *phyllopoda* open shrubland over *Senna artemisioides* subsp. *helmsii* low scattered shrubs over *Aristida contorta* open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Aristida contorta	NC	0.2	11
Eremophila phyllopoda subsp. *phyllopoda*	NC	1.1	3
Senna artemisioides subsp. *helmsii*	NC	0.8	1
Solanum lasiophyllum	=YINN-04-05	0.4	0.1

Site Type	Site Name	Date
Relevé	Reljm25	26-08-23
Dimensions	-	
Described by	Jonas Mitchell,Jacquie Mason	
Location (GDA) Zone 50K		
Easting	422552	mE
Northing	7280015	mS
Site Characteristics		
Landform	Medium Drainage Line	
Slope	Flat (0º)	
Aspect	N/A	
Condition		
Vegetation Condition	Very Good	
Disturbance Type	Weed invasion	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Clay Loam	
Soil Colour	Brown	
Rock Type	None_discernible	
Coarse Surface Particles		
Average Size (mm)	Negligible	
Abundance	None	
Exposed Bedrock (%)	Negligible (<5%)	

Site Photograph.

Vegetation Description	*Acacia kempeana* and *Acacia fuscaneura* tall shrubland over *Acacia xiphophylla* and *Senna artemisioides* subsp. *helmsii* open shrubland over *Aristida contorta*, *Chrysopogon fallax* and **Cenchrus ciliaris* open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia fuscaneura	=I4-01	5	2
Acacia kempeana	NC	2.5	25
Acacia xiphophylla	=C5-04	1.9	5
Aristida contorta	NC	0.3	15
**Cenchrus ciliaris*	NC	0.8	1
Chrysopogon fallax	NC	1.5	1
Dactyloctenium radulans	NC	0.1	0.1
Eremophila cuneifolia	NC	1.8	0.1
Eremophila fraseri subsp. *fraseri*	NC	1.8	0.1
Eriachne aristidea	NC	0.4	0.1
Portulaca oleracea	NC	0.1	0.1
Senna artemisioides subsp. *helmsii*	NC	1.6	0.5

Site Type	Site Name	Date
Relevé	Spr01	18-08-23
Dimensions	-	
Described by	Scott Pansini,Jac Clark	
Location (GDA) Zone 50K		
Easting	430307	mE
Northing	7279166	mS
Site Characteristics		
Landform	Minor Drainage Line	
Slope	Low (1-20º)	
Aspect	North	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Loam	
Soil Colour	Red/Brown	
Rock Type	Granite,Quartz	
Coarse Surface Particles		
Average Size (mm)	Small rocks (11-20cm)	
Abundance	Common	
Exposed Bedrock (%)	Minor (10-30%)	

Site Photograph.

Vegetation Description	*Acacia fuscaneura* and *Acacia ?ramulosa* var. *ramulosa* low open woodland over *Acacia kempeana* and *Acacia xiphophylla* tall shrubland over *Cenchrus ciliaris* and *Chrysopogon fallax* open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia aptaneura	Spr01-01	4	20
Acacia kempeana	NC	2.2	2
Acacia tetragonophylla	NC	2.1	1
Aristida contorta	NC	0.2	3
Arivela viscosa	NC	0.3	0.1
Boerhavia coccinea	NC	0.2	0.1
Eremophila phyllopoda subsp. *phyllopoda*	NC	1.5	1
Eriachne mucronata	NC	0.2	1
Goodenia sp.	NC	0.2	0.1
Paspalidium clementii	NC	0.2	0.5
Portulaca oleracea	NC	0.1	0.1
Senna artemisioides subsp. *helmsii*	NC	0.9	0.5

Site Type	Site Name	Date
Relevé	Spr02	22-08-23
Dimensions	-	
Described by	Scott Pansini,Jac Clark	
Location (GDA) Zone 50K		
Easting	426728	mE
Northing	7291179	mS
Site Characteristics		
Landform	Minor Drainage Line	
Slope	Low (1-20º)	
Aspect	West	
Condition		
Vegetation Condition	Very Good	
Disturbance Type	Cattle grazing	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Loam	
Soil Colour	Red/Brown	
Rock Type	Quartz	
Coarse Surface Particles		
Average Size (mm)	Pebbles (5-10cm)	
Abundance	Common	
Exposed Bedrock (%)	Negligible (<5%)	

Site Photograph.

Vegetation Description	*Acacia fuscaneura* low open woodland over *Acacia cuthbertsonii* subsp. *cuthbertsonii* and *Acacia kempeana* tall open shrubland over *Acacia synchronicia*, *Eremophila cuneifolia* open shrubland over *Cenchrus setiger*, *Cenchrus ciliaris* and *Enteropogon ramosus* very open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Abutilon cryptopetalum	=H2-03	0.6	0.1
Acacia fuscaneura	Spr02-01	3	3
Acacia kempeana	NC	2.5	5
Acacia tetragonophylla	NC	2.1	6
Acacia xiphophylla	NC	2.5	1
Aristida contorta	NC	0.2	5
Arivela viscosa	NC	0.2	0.1
**Cenchrus ciliaris*	NC	0.4	0.1
Dactyloctenium radulans	NC	0.1	0.1
Digitaria ctenantha	NC	0.8	0.5
Eragrostis eriopoda	NC	0.4	0.5
Eremophea spinosa	NC	0.1	0.1
Eremophila cuneifolia	NC	0.9	0.5
Eremophila exilifolia	NC	1.6	0.1
Eremophila fraseri subsp. *fraseri*	NC	2.2	0.1
Eremophila latrobei subsp. *latrobei*	=E2-02	1.9	0.1
Eremophila reticulata	NC	1.2	0.1
Eriachne pulchella subsp. *dominii*	NC	0.2	0.1
Evolvulus alsinoides var. villosicalyx	NC	0.1	0.1
Gomphrena kanisii	=O4-01	0.3	0.1
Goodenia tenuiloba	=Q3-17	0.1	0.1
Hibiscus sp. Gardneri (A.L. Payne PRP 1435)	=Yinn-06-05	0.5	0.1
Lepidium phlebopetalum	Spr02-02	0.1	0.1
Maireana triptera	=L4-01	0.2	0.1
Ptilotus exaltatus	NC	0.1	0.1
Ptilotus obovatus var. *obovatus*	NC	0.4	0.1
Salsola australis	NC	0.1	0.1
Scaevola spinescens	NC	0.6	0.5
Senna artemisioides subsp. *helmsii*	NC	1.1	1
Senna glutinosa subsp. ×luerssenii	NC	1.2	0.1
Solanum lasiophyllum	NC	0.2	0.1
Streptoglossa bubakii	NC	0.4	0.1

Site Type	Site Name	Date
Relevé	Spr04	24-08-23
Dimensions	-	
Described by	Scott Pansini,Jac Clark	
Location (GDA) Zone 50K		
Easting	424922	mE
Northing	7291990	mS
Site Characteristics		
Landform	Stony Plain	
Slope	Low (1-20º)	
Aspect	North-west	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Loamy Sand	
Soil Colour	Brown	
Rock Type	Ironstone	
Coarse Surface Particles		
Average Size (mm)	Gravel (1-4cm)	
Abundance	Very common	
Exposed Bedrock (%)	Negligible (<5%)	

Site Photograph.

Vegetation Description	*Acacia cuspidifolia* scattered low trees.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia cuspidifolia	NC	2.1	1
Acacia synchronicia	NC	0.5	0.1
Acacia tetragonophylla	NC	0.4	0.1
Aristida contorta	NC	0.2	0.1
**Cenchrus ciliaris*	NC	0.3	0.1
Eremophea spinosa	NC	0.1	0.1
Eremophila cuneifolia	NC	0.5	0.1
Gomphrena kanisii	=O4-01	0.1	0.1
Goodenia tenuiloba	=Spmn06-03	0.2	0.1
Lepidium platypetalum	Spr04-01	0.4	0.1
Ptilotus exaltatus	NC	0.1	0.1
Sclerolaena cuneata	NC	0.2	0.1
Sclerolaena densiflora	=Q3-16	0.1	0.1
Senna artemisioides subsp. *helmsii*	NC	0.4	0.1
Solanum lasiophyllum	NC	0.1	0.1

Site Type	Site Name	Date
Relevé	Spr03	26-08-23
Dimensions	-	
Described by	Scott Pansini,Jac Clark	
Location (GDA) Zone 50K		
Easting	429842	mE
Northing	7276217	mS
Site Characteristics		
Landform	Sand Plain	
Slope	Low (1-20º)	
Aspect	South	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Loamy Sand	
Soil Colour	Red/Orange	
Rock Type	None_discernible	
Coarse Surface Particles		
Average Size (mm)	Negligible	
Abundance	None	
Exposed Bedrock (%)	Negligible (<5%)	

Site Photograph.

Vegetation Description	*Acacia kempeana* tall open shrubland over *Acacia curryana* and *Senna artemisioides* subsp. *helmsii* over *Aristida contorta* open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia curryana	NC	1.9	0.5
Acacia kempeana	NC	2.2	6
Acacia tetragonophylla	NC	1.4	0.1
Aristida contorta	NC	0.2	28
Corchorus crozophorifolius	NC	0.2	0.1
Enchylaena tomentosa var. *tomentosa*	NC	0.4	0.1
Eriachne aristidea	NC	0.3	0.1
Indigofera decipiens	=Sp60	0.3	0.1
Ptilotus obovatus var. *obovatus*	NC	0.3	0.1
Senna artemisioides subsp. *helmsii*	NC	1.5	12
Solanum lasiophyllum	NC	0.4	0.1

Site Type	Site Name	Date
Relevé	Yinn03	16-08-23
Dimensions	-	
Described by	Jonas Mitchell,Jacquie Mason	
Location (GDA) Zone 50K		
Easting	426051	mE
Northing	7288370	mS
Site Characteristics		
Landform	Undulating Low Hills	
Slope	Low (1-20º)	
Aspect	North-east	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	None discernible	
Fire Age (years)	Unknown (no evidence)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Clay Loam	
Soil Colour	Orange	
Rock Type	Granite,Quartz	
Coarse Surface Particles		
Average Size (mm)	Pebbles (5-10cm)	
Abundance	Moderate	
Exposed Bedrock (%)	Minor (10-30%)	

Site Photograph.

Vegetation Description	*Acacia ?curryana* and *Eremophila exilifolia* open shrubland over *Ptilotus schwartzii* var. *schwartzii* scattered herbs over *Aristida contorta* very open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia curryana	YINN03-01	1.3	0.5
Acacia tetragonophylla	NC	1.8	1
Aristida contorta	NC	0.3	11
Eremophila exilifolia	NC	1.4	5
Goodenia tenuiloba	YINN03-02	0.05	0.1
Hibiscus ?sturtii	YINN03-03	0.1	0.1
Ptilotus obovatus var. *obovatus*	NC	0.3	0.1
Senna artemisioides subsp. *helmsii*	NC	0.8	1.5
Solanum lasiophyllum	NC	0.2	0.1

Site Type	Site Name	Date
Relevé	YnTr01	04-07-24
Dimensions	-	
Described by	Scott Pansini	
Location (GDA) Zone 50K		
Easting	423612	mE
Northing	7281584	mS
Site Characteristics		
Landform	Undulating Low Hills	
Slope	Low (1-20º)	
Aspect	N/A	
Condition		
Vegetation Condition	Excellent	
Disturbance Type	Cattle grazing	
Fire Age (years)	Old (6+yrs)	
Fire Notes	N/A	
Water Presence	No	
Soils		
Soil Type	Sandy Loam	
Soil Colour	Red/Orange	
Rock Type	Quartz,Granite,Sandstone,Calcrete	
Coarse Surface Particles		
Average Size (mm)	Gravel (1-4cm)	
Abundance	Very common	
Exposed Bedrock (%)	Limited (5-10%)	

Site Photograph.

Vegetation Description	*Eremophila exilifolia* , *Acacia tetragonophylla* and *Acacia curryana* open shrubland over *Senna artemisioides* subsp. *helmsii* low scattered shrubs over *Aristida contorta* open tussock grassland.

Taxon	Collection Code	Height (m)	Cover (%)
Acacia kempeana	NC	0.3	0.1
Eremophila latrobei subsp. *glabra*	NC	1.9	0.1
Eremophila latrobei subsp. *latrobei*	NC	0.5	0.1
Ptilotus roei	NC	0.1	0.1
Senna glutinosa subsp. *glutinosa*	NC	1.1	0.1
Solanum lasiophyllum	NC	0.8	0.1

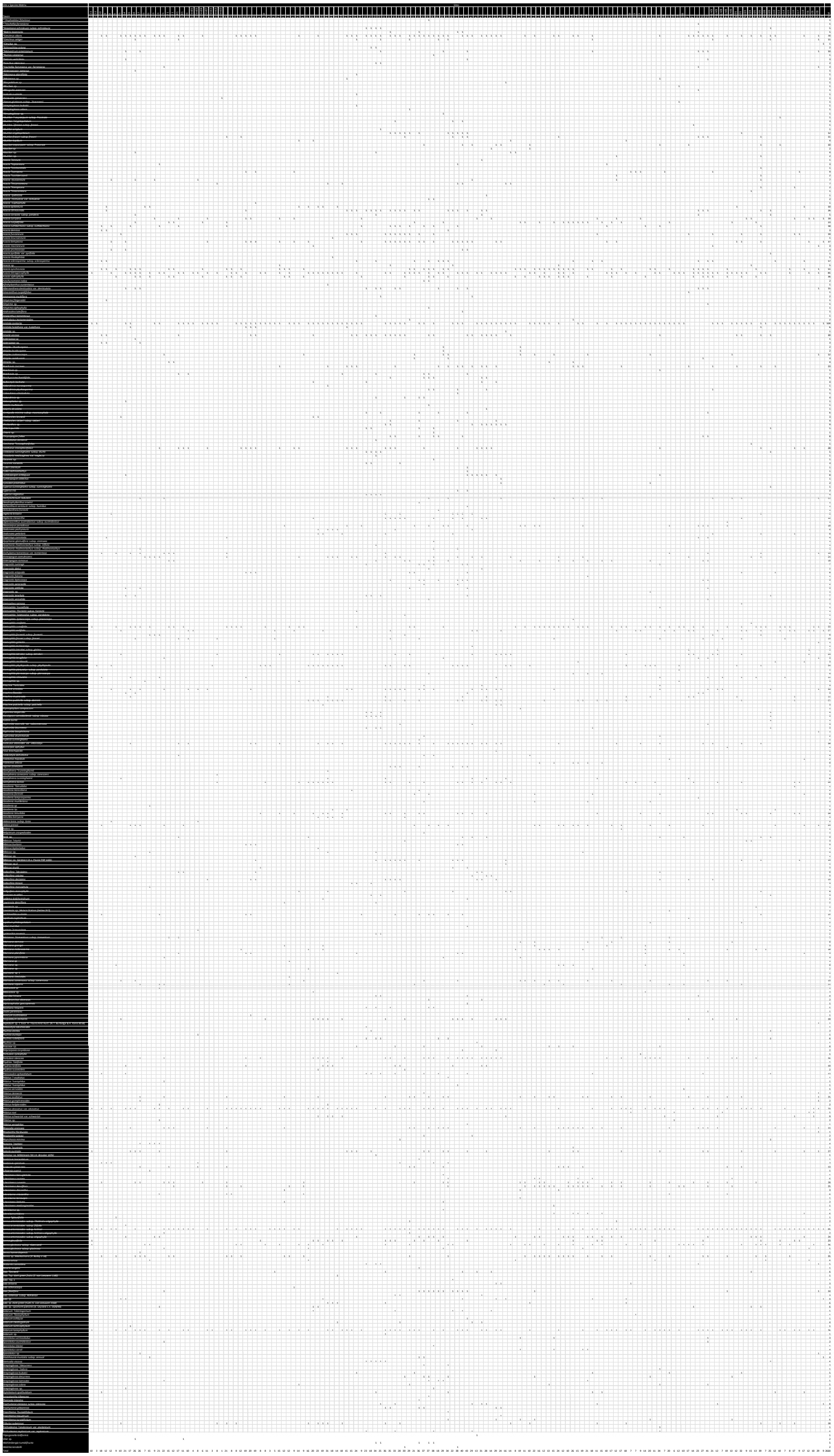
Appendix G Vegetation Condition Scale

Rating	Description
Excellent	Pristine or nearly so; no obvious signs of damage caused by human activities since European settlement.
Very Good	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds or occasional vehicle tracks.
Good	More obvious signs of damage caused by human activities since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or by selective logging. Weeds as above, possibly plus some more aggressive ones such as *Cenchrus* spp.
Poor	Still retains basic vegetation structure or ability to regenerate to it after very obvious impacts of activities of European man, such as grazing, partial clearing (chaining) or frequent fires. Weeds as above, probably plus some more aggressive ones such as *Cenchrus* spp.
Degraded	Severely impacted by grazing, very frequent fires, 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 very aggressive species.
Completely Degraded	Areas that are completely or almost completely without native species in the structure of their vegetation; i.e. areas that are cleared or 'parkland cleared' with their flora comprising weed or crop species with isolated native trees or shrubs.

Adapted from Trudgen (1988), as presented in EPA (2016a)

Appendix H Site by Species Matrices

Site x Species Matrix



Appendix I Vascular Flora List

Family	Taxa	Significance	Introduced
Acanthaceae	*Dicladanthera forrestii*		
	Dipteracanthus australasicus subsp. *australasicus*		
Aizoaceae	*Trianthema triquetrum*		
	Trianthema turgidifolium		
	Trianthema ?turgidifolium		
Amaranthaceae	*Alternanthera denticulata* var. *denticulata*		
	Amaranthus cuspidifolius		
	Gomphrena cunninghamii		
	Gomphrena ?cunninghamii		
	Gomphrena canescens subsp. *canescens*		
	Gomphrena kanisii		
	Ptilotus sp.		
	Ptilotus ?exaltatus		
	Ptilotus ?xerophilus		
	Ptilotus aervoides		
	Ptilotus clementii		
	Ptilotus exaltatus		
	Ptilotus gomphrenoides		
	Ptilotus helipteroides		
	Ptilotus obovatus var. *obovatus*		
	Ptilotus polystachyus		
	Ptilotus roei		
	Ptilotus rotundifolius		
	Ptilotus schwartzii var. *schwartzii*		
	Ptilotus xerophilus		
Apocynaceae	*Leichhardtia australis*		
	Vincetoxicum lineare		
Araliaceae	*Trachymene cyanopetala*		
	Trachymene oleracea subsp. *oleracea*		
	Trachymene pilbarensis		
Asphodelaceae	**Asphodelus fistulosus*		*
	Bulbine semibarbata		
Asteraceae	*Angianthus tomentosus*		
	Asteraceae sp.		
	**Bidens bipinnata*		*
	Brachyscome iberidifolia		

Family	Taxa	Significance	Introduced
	Brachyscome ?iberidifolia		
	Calocephalus francisii		
	Calocephalus sp.		
	Calotis multicaulis		
	Calotis plumulifera		
	Centipeda minima subsp. *macrocephala*		
	Erymophyllum compactum		
	**Flaveria trinervia*		*
	Helipterum craspedioides		
	Myriocephalus gascoynensis		
	Olearia plucheacea		
	Pluchea sp.		
	Pluchea dentex		
	Pluchea dunlopii		
	Pluchea rubelliflora		
	Podolepis sp.		
	Pseudognaphalium luteoalbum		
	Pterocaulon sphacelatum		
	Rhodanthe sp.		
	Rhodanthe floribunda		
	Rhodanthe polakii		
	Rhodanthe stricta		
	Schoenia ayersii		
	**Sonchus oleraceus*		*
	Streptoglossa sp.		
	Streptoglossa bubakii		
	Streptoglossa ?bubakii		
	Streptoglossa decurrens		
	Streptoglossa ?decurrens		
	Streptoglossa odora		
	Streptoglossa ?odora		
	Streptoglossa liatroides		
	Walshia kendallii		
Boraginaceae	*Euploca cunninghamii*		
	Heliotropium ammophilum		
	Trichodesma zeylanicum var. *zeylanicum*		
	Trichodesma ?zeylanicum var. *zeylanicum*		
Brassicaceae	*Lepidium oxytrichum*		
	Lepidium pedicellosum		

Family	Taxa	Significance	Introduced
	Lepidium phlebopetalum		
	Lepidium platypetalum		
	**Sisymbrium irio*		*
	Sisymbrium orientalis		
Campanulaceae	*Lobelia heterophylla* subsp. *pilbarensis*		
	Lobelia heterophylla ?subsp. *pilbarensis*		
	Wahlenbergia gracilenta		
	Wahlenbergia tumidifructa		
Caryophyllaceae	Polycarpaea corymbosa		
Celastraceae	Stackhousia muricata subsp. annual		
Chenopodiaceae	*Atriplex* sp.		
	Atriplex bunburyana		
	Atriplex ?bunburyana		
	Atriplex codonocarpa		
	Atriplex ?codonocarpa		
	Atriplex semilunaris		
	Dysphania glomulifera subsp. *eremaea*		
	Dysphania rhadinostachya subsp. *inflata*		
	Dysphania rhadinostachya subsp. *rhadinostachya*		
	Dissocarpus paradoxus		
	Eremophea spinosa		
	Enchylaena tomentosa var. *tomentosa*		
	Maireana sp.		
	Maireana carnosa		
	Maireana georgei		
	Maireana melanocoma		
	Maireana planifolia		
	Maireana ?planifolia		
	Maireana pyramidata		
	Maireana thesioides		
	Maireana tomentosa subsp. *tomentosa*		
	Maireana ?tomentosa subsp. *tomentosa*		
	Maireana triptera		
	Rhagodia eremaea		
	Rhagodia ?eremaea		

Family	Taxa	Significance	Introduced
	Sclerolaena sp.		
	Salsola australis		
	Salsola ?australis		
	Sclerolaena beaugleholei		
	Sclerolaena costata		
	Sclerolaena cuneata		
	Sclerolaena densiflora		
	Sclerolaena diacantha		
	Sclerolaena eriacantha		
	Sclerolaena lanicuspis		
	Sclerolaena limbata		
	Sclerolaena medicaginoides		
	Sclerolaena tridens		
	Tecticornia disarticulata		
Cleomaceae	*Arivela viscosa*		
Colchicaceae	*Wurmbea densiflora*		
	Wurmbea fluviatilis	P2	
	Wurmbea inflata		
Convolvulaceae	*Convolvulus clementii*		
	Duperreya commixta		
	Evolvulus alsinoides var. *villosicalyx*		
	Ipomoea muelleri		
Cucurbitaceae	**Citrullus* sp.		*
	**Citrullus amarus*		*
	**Citrullus colocynthis*		*
	Cucumis sp.		
	Cucumis ?myriocarpus		
	Cucumis variabilis		
Cyperaceae	*Bulbostylis barbata*		
	Cyperus cunninghamii subsp. *cunninghamii*		
	Cyperus iria		
	Cyperus vaginatus		
	Fimbristylis dichotoma		
Euphorbiaceae	*Euphorbia australis* var. *subtomentosa*		
	Euphorbia biconvexa		
	Euphorbia boophthona		
	Euphorbia drummondii		
	Euphorbia tannensis subsp. *eremophila*		

Family	Taxa	Significance	Introduced
Fabaceae	*Acacia* sp.		
	Acacia ?aneura		
	Acacia aptaneura		
	Acacia ?aptaneura		
	Acacia citrinoviridis		
	Acacia ?citrinoviridis		
	Acacia coriacea subsp. *pendens*		
	Acacia curryana	P1	
	Acacia ?curryana		
	Acacia cuspidifolia		
	Acacia cuthbertsonii subsp. *cuthbertsonii*		
	Acacia ?cuthbertsonii		
	Acacia demissa		
	Acacia fuscaneura		
	Acacia ?fuscaneura		
	Acacia incurvaneura		
	Acacia ?incurvaneura		
	Acacia kempeana		
	Acacia ?kempeana		
	Acacia macraneura		
	Acacia ?macraneura		
	Acacia petricola	P2	
	Acacia ?petricola		
	Acacia pruinocarpa		
	Acacia pyrifolia var. *morrisonii*		
	Acacia pyrifolia var. *pyrifolia*		
	Acacia rhodophloia		
	Acacia ramulosa var. *?ramulosa*		
	Acacia sclerosperma subsp. *sclerosperma*		
	Acacia synchronicia		
	Acacia tetragonophylla		
	Acacia xiphophylla		
	Acacia ?xiphophylla		
	Aeschynomene indica		
	Crotalaria cunninghamii subsp. *sturtii*		
	Crotalaria medicaginea var. *neglecta*		
	Cullen cinereum		
	Cullen lachnostachys		

Family	Taxa	Significance	Introduced
	Cullen leucanthum		
	Erythrina vespertilio		
	Fabaceae sp.		
	Glycine canescens		
	Indigofera colutea		
	Indigofera decipiens		
	Indigofera ?decipiens		
	Indigofera linnaei		
	Indigofera monophylla		
	Indigofera sp.		
	Isotropis forrestii	P1	
	Lotus cruentus		
	Muelleranthus obovatus		
	Petalostylis labicheoides		
	Rhynchosia minima		
	Senna sp.		
	Senna artemisioides subsp. *filifolia*		
	Senna artemisioides subsp. *helmsii*		
	Senna artemisioides subsp. *helmsii* x *oligophylla*		
	Senna artemisioides subsp. *?helmsii* x *oligophylla*		
	Senna artemisioides subsp. *oligophylla*		
	Senna glaucifolia		
	Senna ?glaucifolia		
	Senna glutinosa subsp. *chatelainiana*		
	Senna glutinosa subsp. *glutinosa*		
	Senna glutinosa subsp. ×luerssenii		
	?Senna glutinosa subsp. *?xluerssenii*		
	Senna glutinosa subsp. pruinosa		
	Senna hamersleyensis		
	Senna sp. Meekatharra (E. Bailey 1-26)		
	Senna ?sp. Meekatharra (E. Bailey 1-26)		
	Senna stricta		
	Sesbania cannabina		
	Swainsona forrestii		
	Swainsona kingii		

Family	Taxa	Significance	Introduced
	Templetonia egena		
	Tephrosia rosea var. *clementii*		
	**Vachellia farnesiana* var. *farnesiana*		*
Frankeniaceae	*Frankenia hispidula*		
	Frankenia setosa		
Gentianaceae	*Schenkia clementii*		
Geraniaceae	*Erodium cygnorum*		
Goodeniaceae	*Goodenia sp.*		
	Goodenia berardiana		
	Goodenia berringbinensis	P4	
	Goodenia forrestii		
	Goodenia lamprosperma		
	Goodenia muelleriana		
	Goodenia tenuiloba		
	Goodenia ?tenuiloba		
	Scaevola cunninghamii		
	Scaevola spinescens		
	Scaevola ?spinescens		
	Scaevola tomentosa		
Lamiaceae	*Teucrium teucriiflorum*		
Loranthaceae	*Amyema fitzgeraldii*		
	Amyema sp.		
	Amyema xiphophylla		
	Lysiana casuarinae		
	Lysiana ?casuarinae		
Lythraceae	*Ammannia multiflora*		
Malvaceae	*Abutilon* sp.		
	Abutilon amplum		
	Abutilon cryptopetalum		
	Abutilon ?cryptopetalum		
	Abutilon fraseri subsp. *fraseri*		
	Abutilon fraseri subsp. *?fraseri*		
	Abutilon lepidum		
	Abutilon oxycarpum subsp. *Prostrate*		
	Abutilon ?oxycarpum subsp. *Prostrate*		
	Androcalva luteiflora		
	Corchorus crozophorifolius		
	Corchorus ?crozophorifolius		
	Gossypium australe		

Family	Taxa	Significance	Introduced
	Hibiscus sp.		
	Hibiscus burtonii		
	Hibiscus sp. Gardneri (A.L. Payne PRP 1435)		
	Hibiscus leptocladus		
	Hibiscus sturtii		
	Hibiscus ?sturtii		
	Lawrencia sp.		
	Lawrencia densiflora		
	Lawrencia ?densiflora		
	Lawrencia sp. Mulein Station (Setter 317)		
	Malvaceae sp.		
	**Malvastrum americanum*		*
	**Malvastrum ?americanum*		*
	Sida sp.		
	Sida brownii		
	Sida ?brownii		
	Sida echinocarpa		
	Sida fibulifera		
	Sida rohlenae subsp. *Rohlenae*		
	Sida sp. *dark green fruits* (S. van Leeuwen 2260)		
	Sida ?sp. *dark green fruits* (S. van Leeuwen 2260)		
	Sida sp. *spiciform panicles* (E. Leyland s.n. 14/8/90)		
	Sida ?sp. *spiciform panicles* (E. Leyland s.n. 14/8/90)		
Marsileaceae	*Marsilea hirsuta*		
Montiaceae	*Calandrinia* sp.		
	Calandrinia monosperma		
	Calandrinia ptychosperma		
	Calandrinia schistorhiza		
Moraceae	*Ficus brachypoda*		
Myrtaceae	*Calytrix desolata*		
	Eucalyptus sp.		
	Eucalyptus camaldulensis subsp. *obtusa*		
	Homalocalyx staminosus		
	Melaleuca glomerata		
Nyctaginaceae	*Boerhavia* sp		
	Boerhavia coccinea		

Family	Taxa	Significance	Introduced
Oxalidaceae	*Oxalis perennans*		
Papaveraceae	**Argemone ochroleuca* subsp. *ochroleuca*		*
Phrymaceae	*Peplidium* sp. *C Evol. Fl. Fauna Arid Aust.* (N.T. Burbidge & A. Kanis 8158)		
Phyllanthaceae	*Dendrophyllanthus erwinii*		
	Nellica maderaspatensis		
Plantaginaceae	*Stemodia viscosa*		
Poaceae	*Aristida* sp.		
	Aristida contorta		
	Aristida holathera var. *holathera*		
	Bothriochloa ewartiana		
	**Cenchrus ciliaris*		*
	**Cenchrus ?ciliaris*		*
	**Cenchrus setiger*		*
	**Cenchrus ?setiger*		*
	Chloris sp.		
	Chloris pumilio		
	Chrysopogon fallax		
	Cymbopogon ambiguus		
	Cymbopogon ?ambiguus		
	Cymbopogon obtectus		
	Cynodon prostratus		
	Dactyloctenium radulans		
	Dichanthium sericeum subsp. *humilius*		
	Digitaria brownii		
	Digitaria ctenantha		
	**Echinochloa colona*		*
	Enneapogon caerulescens		
	Enteropogon ramosus		
	?Enteropogon ramosus		
	Eriachne aristidea		
	Eriachne ?aristidea		
	Eriachne flaccida		
	Eriachne mucronata		
	Eriachne pulchella subsp. *dominii*		
	Eriachne pulchella subsp. *pulchella*		
	Eragrostis sp.		
	Eragrostis cumingii		

Family	Taxa	Significance	Introduced
	Eragrostis dielsii		
	Eragrostis eriopoda		
	Eragrostis falcata		
	Eragrostis leptocarpa		
	Eragrostis pergracilis		
	Eragrostis setifolia		
	Eragrostis tenellula		
	Eragrostis xerophila		
	Eulalia aurea		
	Iseilema dolichotrichum		
	Panicum australiense		
	?*Paspalidium* sp.		
	Paraneurachne muelleri		
	Paspalidium clementii		
	Setaria surgens		
	**Setaria verticillata*		*
	Sporobolus sp.		
	Sporobolus actinocladus		
	Sporobolus australasicus		
	Sporobolus blakei	P3	
	Sporobolus caroli		
	Themeda triandra		
	Tragus australianus		
	Tripogonella loliiformis		
	Triraphis mollis		
Polygonaceae	**Rumex vesicarius*		*
Portulacaceae	*Portulaca cyclophylla*		
	Portulaca oleracea		
Primulaceae	*Lysimachia arvensis*		
	Samolus sp. *Millstream* (M.I.H. Brooker 2076)		
Proteaceae	*Grevillea berryana*		
	Grevillea striata		
	Hakea sp.		
	Hakea lorea subsp. *lorea*		
	Hakea preissii		
Pteridaceae	*Cheilanthes* sp.		
	Cheilanthes brownii		
	Cheilanthes sieberi subsp. *sieberi*		
Rubiaceae	*Psydrax latifolia*		
	Psydrax ?latifolia		

Family	Taxa	Significance	Introduced
	Psydrax suaveolens		
	Synaptantha tillaeacea		
Santalaceae	*Anthobolus leptomerioides*		
	Exocarpos aphyllus		
	Santalum lanceolatum		
	Santalum spicatum		
Sapindaceae	*Dodonaea amplisemina*	P4	
	Dodonaea pachyneura		
	Dodonaea petiolaris		
Scrophulariaceae	*Eremophila* sp.		
	Eremophila conferta		
	Eremophila ?cuneifolia		
	Eremophila cuneifolia		
	Eremophila exilifolia		
	Eremophila forrestii subsp. *forrestii*		
	Eremophila ?forrestii subsp. *forrestii*		
	Eremophila forrestii subsp. *hastieana*		
	Eremophila fraseri subsp. *fraseri*		
	Eremophila galeata		
	Eremophila lachnocalyx		
	Eremophila latrobei subsp. *glabra*		
	Eremophila latrobei subsp. *latrobei*		
	Eremophila longifolia		
	Eremophila maitlandii		
	Eremophila oppositifolia subsp. *angustifolia*		
	Eremophila pantonii		
	Eremophila phyllopoda subsp. *phyllopoda*		
	Eremophila platycalyx subsp. *pardalota*		
	Eremophila platycalyx subsp. *?pardalota*		
	Eremophila ?pterocarpa		
	Eremophila pterocarpa subsp. *pterocarpa*		
	Eremophila pterocarpa subsp. *?pterocarpa*		
	Eremophila reticulata		

Family	Taxa	Significance	Introduced
Solanaceae	**Datura leichhardtii* subsp. *leichhardtii*		*
	Nicotiana hesperis		
	Solanum sp.		
	Solanum ashbyae		
	Solanum cleistogamum		
	Solanum ?cleistogamum		
	Solanum lachnophyllum		
	Solanum lasiophyllum		
	Solanum ?lasiophyllum		
Surianaceae	*Stylobasium spathulatum*		
Violaceae	*Afrohybanthus aurantiacus*		
Zygophyllaceae	*Roepera ?eichleri*		
	Roepera similis		
	Tribulus sp.		
	Tribulus astrocarpus		
	Tribulus suberosus		

Appendix J Significant Flora Records within the Survey Area

Priority Flora Species	Representative Photograph / Specimen Image. *All photographs taken by Stantec unless otherwise acknowledged.
Acacia curryana (P1) (Suzanne's Golden-pod Wattle) Shrub. Flowers yellow	
Acacia petricola (P2) (Mount Augustus Rock Wattle) Shrub. Flowers yellow	

Priority Flora Species	Representative Photograph / Specimen Image. *All photographs taken by Stantec unless otherwise acknowledged.
Dodonaea amplisemina (P4) Dioecious, multi-stemmed shrub, 0.3-1 m high. Red-brown sandy clay on basalt and gabbro and banded ironstone or on dolerite and quartzite. Rocky hills.	
Goodenia berringbinensis (P4) Ascending annual, herb, 0.1-0.3 m high. Flowers yellow, October. Red sandy loam. Along watercourses.	

Priority Flora Species	Representative Photograph / Specimen Image. *All photographs taken by Stantec unless otherwise acknowledged.
Isotropis forrestii (P1) Erect shrub, 0.4-1.5 m high. Flowers yellow/orange & red, April to September or December. Stony clay loam, sandy alluvium. Along drainage lines.	
Sporobolus blakei (P3) Tufted perennial, grass-like or herb, 0.45-0.6 m high. Flowers green-purple, March or June to July. Red sandy clay, loam. Creeks.	

Priority Flora Species	Representative Photograph / Specimen Image. *All photographs taken by Stantec unless otherwise acknowledged.
Wurmbea fluviatilis (P2) Herbs. Perennial (above ground parts annual). Flowers purple.	

Taxon	Record Method	Abundance/ Cover	GDA 94, Zone 50J	
			Easting	Northing
Acacia ?curryana (P1)	B1-03	14/ 4%	431451	7273644
Acacia ?curryana (P1)	2B2-01	4/ 3%	431766	7273990
Acacia ?curryana (P1)	Jm34	1	428428	7279327
Acacia ?curryana (P1)	Spmn16-01	1	428743	7280388
Acacia ?curryana (P1)	oppj127	3	422702	7287503
Acacia ?curryana (P1)	=oppj127	4	421715	7287806
Acacia ?curryana (P1)	2O6-01	6/ 1%	421617	7288058
Acacia ?curryana (P1)	=oppj127	1/ 4%	421617	7288058
Acacia ?curryana (P1)	=oppj127	4	422286	7288163
Acacia ?curryana (P1)	=oppj127	6/ 3%	422703	7287884
Acacia ?curryana (P1)	=B1-03	1/ 1%	424190	7288690
Acacia ?curryana (P1)	=oppj127	1/ 3%	422666	7288820
Acacia ?curryana (P1)	=B1-03	1	424593	7288564
Acacia ?curryana (P1)	=B1-03	1/ 1%	423910	7291766

Taxon	Record Method	Abundance/ Cover	GDA 94, Zone 50J	
			Easting	Northing
Acacia ?curryana (P1)	=oppj127	5	417320	7295160
Acacia ?curryana (P1)	O10-01	3/ 1%	417755	7294842
Acacia ?curryana (P1)	=oppj127	3/ 1%	417755	7294842
Acacia ?curryana (P1)	=oppj127	5	417994	7294471
Acacia ?curryana (P1)	=oppj127	1	417415	7293988
Acacia ?curryana (P1)	=oppj127	2	418616	7294155
Acacia ?curryana (P1)	=oppj127	5	418674	7294369
Acacia ?curryana (P1)	=oppj127	1/ 1%	418680	7294576
Acacia ?curryana (P1)	=oppj127	1/ 1%	418680	7294576
Acacia ?curryana (P1)	=oppj127	2	423200	7288282
Acacia ?curryana (P1)	=oppj127	6	422911	7288173
Acacia ?curryana (P1)	=oppj127	5	431840	7273759
Acacia ?curryana (P1)	=oppj127	9	431724	7273677
Acacia ?curryana (P1)	=oppj127	2	431025	7274711
Acacia ?curryana (P1)	=oppj127	5	431176	7274683
Acacia ?petricola (P2)	=oppjc01	5	422648	7281954
Acacia ?petricola (P2)	=oppjc01	2	422670	7282095
Acacia ?petricola (P2)	=oppjc01	1	423602	7281712
Acacia ?petricola (P2)	=oppjc01	3	423558	7282296
Acacia ?petricola (P2)	oppj182	1	432420	7273579
Acacia ?petricola (P2)	=oppjc01	9	422543	7281900
Acacia ?petricola (P2)	=oppjc-01	6	423105	7281945
Acacia ?petricola (P2)	-oppjc01	1	422584	7281650
Acacia ?petricola (P2)	=oppjc01	3	422498	7281886
Acacia ?petricola (P2)	=oppjc01	3	422551	7281648
Acacia ?petricola (P2)	=oppjc01	2	422433	7281874
Acacia ?petricola (P2)	=oppjc01	1/ 0.1%	425738	7279442
Acacia ?petricola (P2)	=oppjc01	5	423123	7282096
Acacia ?petricola (P2)	-OppOR-02	5	423127	7282111
Acacia ?petricola (P2)	-oppjc1	1	422612	7281871
Acacia ?petricola (P2)	-OppOR-01	1	422892	7281984
Acacia ?petricola (P2)	K4-02	1/ 0.1%	425738	7279442
Acacia ?petricola (P2)	SPP-01	12	431239	7274643
Acacia curryana (P1)	YINN03-01	2/ 0.5%	426051	7288370
Acacia curryana (P1)	=YINN-03-01	1/ 3%	426340	7287843

Taxon	Record Method	Abundance/ Cover	GDA 94, Zone 50J	
			Easting	Northing
Acacia curryana (P1)	=YINN-03-01	5/ 2%	426340	7287843
Acacia curryana (P1)	2B1-01	9/ 7%	431451	7273644
Acacia curryana (P1)	2B2-01	2/ 6%	431729	7273819
Acacia curryana (P1)	OPPJ40	15	427724	7277979
Acacia curryana (P1)	Spmn16-02	1	428743	7280388
Acacia curryana (P1)	=OPPJ40	1/ 0.1%	428256	7279203
Acacia curryana (P1)	=OPPJ40	2/ 0.5%	426427	7279932
Acacia curryana (P1)	K5-01	1/ 0.5%	426427	7279932
Acacia curryana (P1)	=K5-01	1/ 0.5%	424843	7281840
Acacia curryana (P1)	=OPPJ40	1	430737	7284817
Acacia curryana (P1)	2C7-01	7/ 3%	422703	7287884
Acacia curryana (P1)	2O12-01	8/ 3%	424190	7288690
Acacia curryana (P1)	=K5-01	1/ 2%	424629	7288678
Acacia curryana (P1)	Spp15	19	423286	7291653
Acacia curryana (P1)	=Spp15	6/ 2%	423240	7291872
Acacia curryana (P1)	=K5-01	1/ 3%	423240	7291872
Acacia curryana (P1)	=K5-01	1/ 3%	423604	7291833
Acacia curryana (P1)	=K5-01	4/ 2%	423604	7291833
Acacia curryana (P1)	=K5-01	1/ 11%	419983	7293968
Acacia curryana (P1)	=oppj127	7. 0.5%	429842	7276217
Acacia curryana (P1)	=K5-01	30	429779	7276327
Acacia curryana (P1)	=K5-01	3	428136	7277447
Acacia curryana (P1)	=K5-01	3	428084	7277454
Acacia curryana (P1)	=oppj127	5	423808	7288649
Acacia curryana (P1)	=oppj127	8	423787	7288615
Acacia curryana (P1)	=oppj127	1	423719	7288577
Acacia curryana (P1)	=K5-01	23	423728	7288558
Acacia curryana (P1)	=K5-01	3	423569	7288576
Acacia curryana (P1)	=K5-01	13	423864	7288290
Acacia curryana (P1)	=K5-01	6	423876	7288394
Acacia curryana (P1)	=K5-01	1	423798	7288434
Acacia curryana (P1)	=Spp15	3	423805	7288507
Acacia curryana (P1)	=K5-01	16	423842	7288596
Acacia curryana (P1)	2oppse3	3	422931	7291915
Acacia curryana (P1)	2yinnse04	4	422465	7288446

Taxon	Record Method	Abundance/ Cover	GDA 94, Zone 50J	
			Easting	Northing
Acacia curryana (P1)	2oppse06	14	420887	7288273
Acacia curryana (P1)	-OppJCOR-05	4	417774	7295113
Acacia curryana (P1)	F4-01-A	8/ 6%	419984	7293967
Acacia curryana (P1)	-OppJCOR-20	3	425098	7281251
Acacia curryana (P1)	=oppjcor20	5	425267	7281436
Acacia curryana (P1)	=oppjcor20	2	425024	7281779
Acacia curryana (P1)	=oppjcor20	4	426398	7279502
Acacia curryana (P1)	-oppjcor21	5	426354	7279664
Acacia curryana (P1)	-oppjcor21	7	426491	7279518
Acacia curryana (P1)	=oppjcor21	3	426463	7279445
Acacia curryana (P1)	=oppjcor21	3	426420	7279362
Acacia curryana (P1)	2mnsp03-01	5	429324	7276735
Acacia curryana (P1)	2Yinn 07-01	7/ 3%	429811	7276264
Acacia curryana (P1)	-OppJCOR23	3	423633	7288541
Acacia curryana (P1)	2OPPSE-10	2	431223	7274657
Acacia curryana (P1)	2W1-03	2/ 1%	426676	7279376
Acacia curryana (P1)	=2W1-03	3	426684	7279302
Acacia curryana (P1)	=2W1-03	1	426680	7279238
Acacia curryana (P1)	=2W1-03	3	426714	7279180
Acacia curryana (P1)	-oppjc02	6	422887	7281843
Acacia curryana (P1)	-oppjc02	2	424476	7287544
Acacia curryana (P1)	=oppjc2	6	423055	7281964
Acacia curryana (P1)	-oppjc02	1	423103	7281944
Acacia curryana (P1)	-oppjcor65	19	423105	7281945
Acacia curryana (P1)	=oppjcor65	11	423141	7281988
Acacia curryana (P1)	=oppjc02	9	423103	7282079
Acacia curryana (P1)	=oppjc02	4	423077	7282161
Acacia curryana (P1)	=oppjc02	4	423027	7282385
Acacia curryana (P1)	=oppjc02	2	423474	7291657
Acacia curryana (P1)	=oppjc02	2	423444	7291644
Acacia curryana (P1)	Sppt04	5	423396	7291699
Acacia curryana (P1)	=Sppt04	9	423343	7291686
Acacia curryana (P1)	=Sppt04	15	423316	7291668
Acacia curryana (P1)	Sppt05	17	423284	7291654
Acacia curryana (P1)	=Sppt05	11	423117	7291568

Taxon	Record Method	Abundance/ Cover	GDA 94, Zone 50J	
			Easting	Northing
Acacia curryana (P1)	=Sppt05	7	423064	7291573
Acacia curryana (P1)	=Sppt05	6	423018	7291551
Acacia curryana (P1)	=Sppt05	7	422963	7291536
Acacia curryana (P1)	OPPJ-02-03	32	421977	7291015
Acacia curryana (P1)	=OPPJ-02-03	7	422923	7291543
Acacia curryana (P1)	=oppj-02-03	29	421934	7291043
Acacia curryana (P1)	=oppj-02-03	8	422842	7291502
Acacia curryana (P1)	=oppj-02-03	2	422755	7291492
Acacia curryana (P1)	=oppj-02-03	3	422706	7291493
Acacia curryana (P1)	Oppj-02-03	8	421902	7291059
Acacia curryana (P1)	Oppj-02-03	15	421886	7291089
Acacia curryana (P1)	Oppj-02-03	9	421852	7291097
Acacia curryana (P1)	=oppj-02-03	2	422628	7291501
Acacia curryana (P1)	=oppjc-02-03	24	421846	7291068
Acacia curryana (P1)	=oppjc-02-03	13	421827	7291030
Acacia curryana (P1)	=oppj-02-03	30	421795	7291037
Acacia curryana (P1)	=oppj-02-03	5	422560	7291521
Acacia curryana (P1)	=oppj-02-03	12	422498	7291532
Acacia curryana (P1)	=oppj-02-03	18	422494	7291587
Acacia curryana (P1)	Oppj-02-3	22	421796	7291060
Acacia curryana (P1)	=oppj-02-03	2	422273	7291663
Acacia curryana (P1)	=oppj-02-03	1	422242	7291653
Acacia curryana (P1)	Oppj-02-03	5	421803	7291097
Acacia curryana (P1)	=oppj-02-03	5	422194	7291641
Acacia curryana (P1)	=Oppj-02-03	16	421863	7291078
Acacia curryana (P1)	Sppt06	3	422117	7291647
Acacia curryana (P1)	=oppj-02-03	18	421910	7291107
Acacia curryana (P1)	=oppjc-02-03	15	421943	7291128
Acacia curryana (P1)	=oppj-02-03	25	421984	7291095
Acacia curryana (P1)	Sppt07	3	422086	7291641
Acacia curryana (P1)	=oppj-02-03	19	421990	7291039
Acacia curryana (P1)	=oppjc-02-03	1	421898	7290988
Acacia curryana (P1)	Oppj-02-03	5	421876	7291021
Acacia curryana (P1)	=oppjc-02-03	8	421814	7291525
Acacia curryana (P1)	=oppjc-02-03	2	421128	7292060

Taxon	Record Method	Abundance/ Cover	GDA 94, Zone 50J	
			Easting	Northing
Acacia curryana (P1)	=oppjc-02-03	13	421042	7292116
Acacia curryana (P1)	=oppjc-02-03	6	421002	7292172
Acacia curryana (P1)	=oppjc-02-03	2	420928	7292201
Acacia curryana (P1)	=oppjc-02-03	5	420852	7292192
Acacia curryana (P1)	=oppjc-02-03	5	420798	7292142
Acacia curryana (P1)	=oppjc-02-03	2	420789	7291886
Acacia curryana (P1)	=oppjc-02-03	10	420838	7291785
Acacia curryana (P1)	Z1-01	9/ 2.5%	420803	7291647
Acacia curryana (P1)	JCT01	9	420758	7291599
Acacia curryana (P1)	=JCT01	8	420685	7291627
Acacia curryana (P1)	=JCT01	11	420650	7291591
Acacia curryana (P1)	=JCT01	7	420728	7291543
Acacia curryana (P1)	=jct01	5	420643	7291516
Acacia curryana (P1)	Sppt10	5	420663	7291468
Acacia curryana (P1)	=jct01	11	420718	7291489
Acacia curryana (P1)	=JCT01	5	420720	7291426
Acacia curryana (P1)	=jct01	8	420655	7291448
Acacia curryana (P1)	=JCT01	4	420707	7291400
Acacia curryana (P1)	=jct01	10	420650	7291367
Acacia curryana (P1)	=jct01	2	420682	7291305
Acacia curryana (P1)	=jct01	4	420905	7290172
Acacia curryana (P1)	=jct01	16	421084	7290201
Acacia curryana (P1)	=jct01	12	421296	7290368
Acacia curryana (P1)	=jct01	3	421415	7290387
Acacia curryana (P1)	=JCT01	11	421763	7290859
Acacia curryana (P1)	=JCT01	12	421790	7290853
Acacia curryana (P1)	=JCT01	8	421865	7290928
Acacia curryana (P1)	=jct01	3	421889	7290917
Acacia curryana (P1)	=jct01	12	421825	7290228
Acacia curryana (P1)	=jct01	12	421882	7290215
Acacia curryana (P1)	=jct01	11	422088	7290384
Acacia curryana (P1)	=jct01	24	422156	7290417
Acacia curryana (P1)	=jCT01	6	425285	7289017
Acacia curryana (P1)	=jCT01	4	425168	7289061
Acacia curryana (P1)	=jct01	8	425061	7289109

Taxon	Record Method	Abundance/ Cover	GDA 94, Zone 50J	
			Easting	Northing
Acacia curryana (P1)	=jct01	4	425064	7288953
Acacia curryana (P1)	=jct01	2	425094	7288964
Acacia curryana (P1)	=jct01	8	425151	7288956
Acacia curryana (P1)	=jct01	9	425178	7288921
Acacia curryana (P1)	=jct01	7	425215	7288929
Acacia curryana (P1)	=jct01	3	425243	7288970
Acacia curryana (P1)	=jct01	3	425312	7288959
Acacia curryana (P1)	Sppt03-01	1	422395	7282580
Acacia curryana (P1)	=sppt-03-01	1	422491	7282546
Acacia curryana (P1)	=sppt-03-01	10	422603	7282367
Acacia curryana (P1)	=sppt-03-01	10	422640	7282356
Acacia curryana (P1)	=sppt-03-01	2	422570	7282342
Acacia curryana (P1)	=sppt-03-01	1	422547	7282340
Acacia curryana (P1)	=sppt-03-01	2	422511	7282323
Acacia curryana (P1)	=sppt-03-01	9	422475	7282308
Acacia curryana (P1)	=sppt-03-01	8	422455	7282303
Acacia curryana (P1)	=sppt-03-01	2	422441	7282271
Acacia curryana (P1)	=sppt-03-01	1	422576	7281899
Acacia curryana (P1)	=sppt-03-01	2	422733	7282071
Acacia curryana (P1)	=spt-03-01	6	422757	7282097
Acacia curryana (P1)	=spp-03-01	2	422785	7282107
Acacia curryana (P1)	=spt-03-01	3	422799	7282127
Acacia curryana (P1)	=spt-03-01	9	422804	7282161
Acacia curryana (P1)	=spt-03-01	4	422808	7282208
Acacia curryana (P1)	=sppt-03-01	7	422825	7282225
Acacia curryana (P1)	=sppt-03-01	6	422853	7282226
Acacia curryana (P1)	=sppt-03-01	5	422871	7282242
Acacia curryana (P1)	=sppt-03-01	3	422900	7282258
Acacia curryana (P1)	=sppt-03-01	3	422775	7282420
Acacia curryana (P1)	=sppt-03-01	5	422900	7282296
Acacia curryana (P1)	=sppt-03-01	4	422910	7282317
Acacia curryana (P1)	=sppt-03-01	2	422665	7282518
Acacia curryana (P1)	=sppt-03-01	2	422928	7282357
Acacia curryana (P1)	=sppt-03-01	4	422649	7282563
Acacia curryana (P1)	=sppt-03-01	5	422671	7282610

Taxon	Record Method	Abundance/ Cover	GDA 94, Zone 50J	
			Easting	Northing
Acacia curryana (P1)	JCPT-03-01	10	423545	7282339
Acacia curryana (P1)	=sppt-03-01	1	423599	7282274
Acacia curryana (P1)	=JCPT-03-01	7	423510	7282318
Acacia curryana (P1)	=JCPT-03-01	5	423453	7282272
Acacia curryana (P1)	=JCPT-03-01	8	423440	7282251
Acacia curryana (P1)	=JCPT-03-01	2	423631	7282165
Acacia curryana (P1)	=JCPT-03-01	4	423411	7282274
Acacia curryana (P1)	=JCPT-03-01	8	423582	7282145
Acacia curryana (P1)	=JCPT-03-01	14	423389	7282209
Acacia curryana (P1)	Spot03-04	9	423554	7282173
Acacia curryana (P1)	=JCPT-03-01	5	423371	7282197
Acacia curryana (P1)	=JCPT-03-01	9	423385	7282179
Acacia curryana (P1)	=JCPT-03-01	5	423392	7282138
Acacia curryana (P1)	=JCPT-03-01	9	423525	7282175
Acacia curryana (P1)	=JCPT-03-01	15	423361	7282127
Acacia curryana (P1)	=JCPT-03-01	5	423483	7282064
Acacia curryana (P1)	=JCPT-03-01	5	423351	7282073
Acacia curryana (P1)	=JCPT-03-01	12	423335	7282073
Acacia curryana (P1)	=JCPT-03-01	8	423444	7281950
Acacia curryana (P1)	=JCPT-03-01	9	423316	7282089
Acacia curryana (P1)	=JCPT-03-01	4	423542	7281892
Acacia curryana (P1)	=JCPT-03-01	5	423607	7281782
Acacia curryana (P1)	=JCPT-03-01	4	423627	7281756
Acacia curryana (P1)	=JCPT-03-01	7	423664	7281724
Acacia curryana (P1)	=JCPT-03-01	1	423602	7281712
Acacia curryana (P1)	=JCPT-03-01	10	423666	7281676
Acacia curryana (P1)	=JCPT-03-01	2	423651	7281640
Acacia curryana (P1)	=JCPT-03-01	17	423262	7282100
Acacia curryana (P1)	=JCPT-03-01	1	423611	7281586
Acacia curryana (P1)	=JCPT-03-01	1/ 2%	423612	7281584
Acacia curryana (P1)	=JCPT-03-01	11	423237	7282100
Acacia curryana (P1)	=JCPT-03-01	11	423251	7282033
Acacia curryana (P1)	=JCPT-03-01	12	423530	7281545
Acacia curryana (P1)	=JCPT-03-01	12	423268	7281962
Acacia curryana (P1)	=JCPT-03-01	12	423500	7281534

Taxon	Record Method	Abundance/ Cover	GDA 94, Zone 50J	
			Easting	Northing
Acacia curryana (P1)	=jcpt-03-01	8	423243	7281962
Acacia curryana (P1)	=jcpt-03-01	13	423249	7281939
Acacia curryana (P1)	=jcpt-03-01	11	423265	7281925
Acacia curryana (P1)	=jcpt-03-01	10	423253	7281909
Acacia curryana (P1)	=jcpt-03-01	1	423232	7281889
Acacia curryana (P1)	=JCPT-03-01	9	423481	7281532
Acacia curryana (P1)	=jcpt-03-01	1	423253	7281854
Acacia curryana (P1)	=JCPT-03-01	12	423441	7281488
Acacia curryana (P1)	=JCPT-03-01	2	423391	7281486
Acacia curryana (P1)	=JCPT-03-01	18	423428	7281423
Acacia curryana (P1)	=JCPT-03-01	9	423379	7281389
Acacia curryana (P1)	=JCPT-03-01	3	423359	7281319
Acacia curryana (P1)	=jcpt-03-01	1	423095	7281580
Acacia curryana (P1)	=jcpt-03-01	1	423071	7281568
Acacia curryana (P1)	=jcpt-03-01	3	423057	7281536
Acacia curryana (P1)	=JCPT-03-01	9	423299	7281196
Acacia curryana (P1)	=JCPT-03-01	16	423269	7281160
Acacia curryana (P1)	=JCPT-03-01	1	423229	7281106
Acacia curryana (P1)	=JCPT-03-01	7	424101	7280264
Acacia curryana (P1)	=JCPT-03-01	1	424148	7280094
Acacia curryana (P1)	Sppt03-05	5	424120	7280077
Acacia curryana (P1)	=Sppt03-05	1	424134	7279973
Acacia curryana (P1)	=Sppt03-05	1	424132	7279943
Acacia curryana (P1)	=Sppt03-05	4	424109	7279925
Acacia curryana (P1)	=Sppt03-05	1	424168	7279788
Acacia curryana (P1)	=Sppt03-05	3	424156	7279195
Acacia curryana (P1)	=Sppt03-05	4	424375	7279396
Acacia curryana (P1)	=Sppt03-05	1	424479	7279469
Acacia curryana (P1)	=Sppt03-05	5	424603	7279739
Acacia curryana (P1)	=Sppt03-05	1	424631	7279895
Acacia curryana (P1)	=Sppt03-05	3	424641	7279956
Acacia curryana (P1)	=Sppt03-05	4	424683	7279963
Acacia curryana (P1)	=Sppt03-05	2	424669	7280036
Acacia curryana (P1)	=Sppt03-05	7	424666	7280083
Acacia curryana (P1)	=Sppt03-05	3	424647	7280252

Taxon	Record Method	Abundance/ Cover	GDA 94, Zone 50J	
			Easting	Northing
Acacia curryana (P1)	=Sppt03-05	12	424619	7280651
Acacia curryana (P1)	=jcpt-03-06	5	424013	7280452
Acacia curryana (P1)	=jcpt-03-06	2	424721	7280720
Acacia curryana (P1)	=jcpt-03-06	1	424638	7280761
Acacia curryana (P1)	=jcpt-03-06	1	424622	7280858
Acacia curryana (P1)	=jcpt-03-06	5	424635	7280888
Acacia curryana (P1)	=jcpt-03-06	12	424669	7280938
Acacia curryana (P1)	=jcpt-03-06	2	424712	7281006
Acacia curryana (P1)	Jcpt-03-08	1	423835	7281027
Acacia curryana (P1)	=Jcpt-03-08	5	424737	7281106
Acacia curryana (P1)	=Jcpt-03-08	1	424721	7281159
Acacia curryana (P1)	=Jcpt-03-08	1	424716	7281242
Acacia curryana (P1)	=Jcpt-03-08	1	424675	7281340
Acacia curryana (P1)	=jcpt-03-08	12	423771	7281135
Acacia curryana (P1)	=jcpt-03-08	2	423762	7281238
Acacia curryana (P1)	=jcpt-03-08	1	423768	7281262
Acacia curryana (P1)	=jcpt-03-08	2	423769	7281289
Acacia curryana (P1)	=jcpt-03-08	1	423785	7281351
Acacia curryana (P1)	=jcpt-03-08	1	423750	7281403
Acacia curryana (P1)	=jcpt-03-08	5	423746	7281424
Acacia curryana (P1)	=Sppt03-05	1	423779	7281598
Acacia curryana (P1)	=Sppt03-05	2	424370	7281561
Acacia curryana (P1)	=Sppt03-05	12	423788	7281633
Acacia curryana (P1)	=Sppt03-05	2	424317	7281613
Acacia curryana (P1)	=Sppt03-05	4	423789	7281656
Acacia curryana (P1)	=Sppt03-05	5	423780	7281676
Acacia curryana (P1)	=Sppt03-05	8	423772	7281694
Acacia curryana (P1)	=Sppt03-05	5	423766	7281713
Acacia curryana (P1)	=Sppt03-05	3	423760	7281784
Acacia curryana (P1)	=Sppt03-05	6	423780	7281807
Acacia curryana (P1)	=Sppt03-05	5	423772	7281858
Acacia curryana (P1)	=Sppt03-05	3	423704	7281916
Acacia curryana (P1)	=Sppt03-05	2	423817	7282100
Acacia curryana (P1)	=Sppt03-05	8	423676	7281931
Acacia curryana (P1)	=Sppt03-05	1	423785	7282114

Taxon	Record Method	Abundance/ Cover	GDA 94, Zone 50J	
			Easting	Northing
Acacia curryana (P1)	=Sppt03-05	6	423761	7282161
Acacia curryana (P1)	=Sppt03-05	1	423651	7282036
Acacia curryana (P1)	=Sppt03-05	15	423592	7282135
Acacia curryana (P1)	=Sppt03-05	5	423580	7282159
Acacia curryana (P1)	=Sppt03-05	9	423611	7282299
Acacia curryana (P1)	JCPT-04-02	4	425047	7289091
Acacia curryana (P1)	=JCPT-04-02	11	425022	7289099
Acacia curryana (P1)	=JCPT-04-02	9	424983	7289099
Acacia curryana (P1)	=JCPT-04-02	4	424960	7289095
Acacia curryana (P1)	=JCPT-04-02	5	424928	7289092
Acacia curryana (P1)	JCPT-04-02	1	424867	7289091
Acacia curryana (P1)	=JCPT-04-02	6	424872	7289067
Acacia curryana (P1)	=JCPT-04-02	2	424887	7289047
Acacia curryana (P1)	=JCPT-04-02	4	424949	7289042
Acacia curryana (P1)	=JCPT-04-02	1	425040	7289038
Acacia curryana (P1)	=JCPT-04-02	3	425163	7289054
Acacia curryana (P1)	=JCPT-04-02	1	425293	7289035
Acacia curryana (P1)	=JCPT-04-02	1	425425	7289026
Acacia curryana (P1)	=JCPT-04-02	3	425531	7289003
Acacia curryana (P1)	=JCPT-04-02	1	425427	7289022
Acacia curryana (P1)	=JCPT-04-02	9	425346	7288997
Acacia curryana (P1)	=JCPT-04-02	2	425267	7288990
Acacia curryana (P1)	=JCPT-04-02	3	425249	7289003
Acacia curryana (P1)	=JCPT-04-02	2	425173	7288989
Acacia curryana (P1)	=JCPT-04-02	1	424998	7288974
Acacia curryana (P1)	=JCPT-04-02	4	424944	7288997
Acacia curryana (P1)	=JCPT-04-02	10	424902	7289014
Acacia curryana (P1)	=JCPT-04-02	3	424936	7288978
Acacia curryana (P1)	=JCPT-04-02	2	425003	7288941
Acacia curryana (P1)	=JCPT-04-02	2	425855	7288716
Acacia curryana (P1)	Sppt04-02	5	425673	7288699
Acacia curryana (P1)	JCPT-04-02	5	425160	7288943
Acacia curryana (P1)	=JCPT-04-02	13	425184	7288928
Acacia curryana (P1)	=JCPT-04-02	1	425574	7288682
Acacia curryana (P1)	=jcpt-04-02	1	425215	7288919

Taxon	Record Method	Abundance/ Cover	GDA 94, Zone 50J	
			Easting	Northing
Acacia curryana (P1)	=jcpt-04-02	1	425241	7288908
Acacia curryana (P1)	=jcpt-04-02	8	425297	7288927
Acacia curryana (P1)	=jcpt-04-02	1	425454	7288941
Acacia curryana (P1)	=jcpt-04-01	12	425940	7288938
Acacia curryana (P1)	=Sppt04-02	6	425430	7288787
Acacia curryana (P1)	=Sppt04-02	4	425407	7288748
Acacia curryana (P1)	=jcpt-04-01	1	425986	7288939
Acacia curryana (P1)	=Sppt04-02	5	425392	7288888
Acacia curryana (P1)	=Sppt04-02	2	425353	7288890
Acacia curryana (P1)	=Sppt04-02	4	425324	7288890
Acacia curryana (P1)	=jcpt-04-02	6	425213	7289136
Acacia curryana (P1)	=jcpt-04-02	5	424939	7289156
Acacia curryana (P1)	=jcpt-04-02	3	424923	7289141
Acacia curryana (P1)	=Sppt04-02	1	424819	7289371
Acacia curryana (P1)	=jcpt-04-02	1	425131	7289335
Acacia curryana (P1)	Jcpt-05-01	1	426778	7290815
Acacia curryana (P1)	Jcpt-06-02	1	430759	7284785
Acacia curryana (P1)	=jcpt-06-03	1	430738	7284818
Acacia curryana (P1)	=jcpt-06-03	1	429483	7285283
Acacia curryana (P1)	=Sppt04-02	12	429324	7286431
Acacia curryana (P1)	=Sppt04-02	9	429289	7286417
Acacia curryana (P1)	=Sppt04-02	12	429277	7286394
Acacia curryana (P1)	=Sppt04-02	10	429260	7286372
Acacia curryana (P1)	=Spp06-03	1	429209	7286346
Acacia curryana (P1)	=Spp06-03	6	429237	7286394
Acacia curryana (P1)	=Spp06-03	10	429226	7286439
Acacia curryana (P1)	=Spp06-03	13	429268	7286466
Acacia curryana (P1)	=Spp06-03	6	429303	7286491
Acacia curryana (P1)	=Spp06-03	3	429163	7286485
Acacia curryana (P1)	=Spp06-03	1	423320	7288272
Acacia curryana (P1)	=Spp06-03	4	423149	7288233
Acacia curryana (P1)	=Spp06-03	4	423129	7288211
Acacia curryana (P1)	=Spp06-03	11	423218	7288133
Acacia curryana (P1)	=Spp06-03	2	423243	7288147
Acacia curryana (P1)	=Spp06-03	5	423285	7288152

Taxon	Record Method	Abundance/ Cover	GDA 94, Zone 50J	
			Easting	Northing
Acacia curryana (P1)	=Spp06-03	1	423322	7288180
Acacia curryana (P1)	=Spp06-03	3	426367	7287843
Acacia curryana (P1)	=Spp06-03	8	426437	7287867
Acacia curryana (P1)	=Spp06-03	13	426444	7287900
Acacia curryana (P1)	=Spp06-03	3	426472	7287868
Acacia curryana (P1)	=Spp06-03	7	426434	7287931
Acacia curryana (P1)	=Spp06-03	2	426410	7287942
Acacia curryana (P1)	=Spp06-03	14	426303	7287868
Acacia curryana (P1)	=Spp06-03	17	426310	7287859
Acacia curryana (P1)	=Spp06-03	13	426301	7287842
Acacia curryana (P1)	=Spp06-03	6	426291	7287923
Acacia curryana (P1)	=Spp06-03	7	426310	7287823
Acacia curryana (P1)	=Spp06-03	14	426286	7287949
Acacia curryana (P1)	=Spp06-03	9	426305	7287971
Acacia curryana (P1)	=Spp06-03	22	426280	7287988
Acacia curryana (P1)	=Spp06-03	20	426288	7287824
Acacia curryana (P1)	=Spp06-03	14	426278	7287844
Acacia curryana (P1)	=Spp06-03	14	426264	7288032
Acacia curryana (P1)	=Spp06-03	3	426272	7287872
Acacia curryana (P1)	=Spp06-03	24	426250	7288058
Acacia curryana (P1)	=Spp06-03	4	426259	7287891
Acacia curryana (P1)	=Spp06-03	14	426238	7288084
Acacia curryana (P1)	=Spp06-03	15	426235	7287888
Acacia curryana (P1)	=Spp06-03	10	426206	7288090
Acacia curryana (P1)	=Spp06-03	19	426197	7288068
Acacia curryana (P1)	=Spp06-03	15	426231	7287868
Acacia curryana (P1)	=Spp06-03	16	426184	7288048
Acacia curryana (P1)	=Spp06-03	9	426168	7288022
Acacia curryana (P1)	=Spp06-03	8	426217	7287836
Acacia curryana (P1)	=Spp06-03	8	426157	7288005
Acacia curryana (P1)	=Spp06-03	9	426217	7287805
Acacia curryana (P1)	=Spp06-03	4	426144	7287990
Acacia curryana (P1)	=Spp06-03	7	426153	7287968
Acacia curryana (P1)	=Spp06-03	8	426164	7287945
Acacia curryana (P1)	=Spp06-03	7	426061	7287698

Taxon	Record Method	Abundance/ Cover	GDA 94, Zone 50J	
			Easting	Northing
Acacia curryana (P1)	=Spp06-03	6	426188	7287800
Acacia curryana (P1)	=Spp06-03	9	426115	7287757
Acacia curryana (P1)	=Spp06-03	8	426105	7287724
Acacia curryana (P1)	=Spp06-03	9/ 4%	426011	7287718
Acacia curryana (P1)	=Spp06-03	1	426102	7287715
Acacia curryana (P1)	=Spp06-03	9	426335	7287840
Acacia curryana (P1)	=Spp06-03	12	426265	7287808
Acacia curryana (P1)	=Spp06-03	9	426157	7287799
Acacia curryana (P1)	=Spp06-03	5	426135	7287815
Acacia curryana (P1)	=Spp06-03	2	426150	7287836
Acacia curryana (P1)	=Spp06-03	16	426153	7287860
Acacia curryana (P1)	=Spp06-03	16	426172	7287856
Acacia curryana (P1)	=Spp06-03	13	426099	7287800
Acacia curryana (P1)	=Spp06-03	8	426080	7287814
Acacia curryana (P1)	=Spp06-03	8	426089	7287842
Acacia curryana (P1)	=Spp06-03	8	426070	7287835
Acacia curryana (P1)	=Spp06-03	10	426047	7287805
Acacia curryana (P1)	=Spp06-03	9	426057	7287786
Acacia curryana (P1)	=Spp06-03	6	426062	7287773
Acacia curryana (P1)	=Spp06-03	16	426068	7287754
Acacia curryana (P1)	=Spp06-03	16	426084	7287740
Acacia curryana (P1)	=Spp06-03	19	426065	7287728
Acacia curryana (P1)	=Spp06-03	11	426047	7287735
Acacia curryana (P1)	=Spp06-03	3	426021	7287751
Acacia curryana (P1)	=Spp06-03	2	425992	7287745
Acacia curryana (P1)	=Spp06-03	5	425991	7287713
Acacia curryana (P1)	=Spp06-03	11	425983	7287690
Acacia curryana (P1)	=Spp06-03	10	425993	7287666
Acacia curryana (P1)	=Spp06-03	13	426007	7287651
Acacia curryana (P1)	=Spp06-03	9	426029	7287651
Acacia curryana (P1)	=Spp06-03	9	426031	7287629
Acacia curryana (P1)	=Spp06-03	12	426011	7287629
Acacia curryana (P1)	=Spp06-03	7	425986	7287631
Acacia curryana (P1)	=Spp06-03	3	425965	7287633
Acacia curryana (P1)	=Spp06-03	2	425922	7287673

Taxon	Record Method	Abundance/ Cover	GDA 94, Zone 50J	
			Easting	Northing
Acacia curryana (P1)	=Spp06-03	8	425903	7287637
Acacia curryana (P1)	=Spp06-03	10	425904	7287618
Acacia curryana (P1)	=Spp06-03	12	425910	7287597
Acacia curryana (P1)	=Spp06-03	23	425924	7287583
Acacia curryana (P1)	=Spp06-03	13	425957	7287583
Acacia curryana (P1)	=Spp06-03	19	425950	7287565
Acacia curryana (P1)	=Spp06-03	19	425929	7287567
Acacia curryana (P1)	=Spp06-03	9	425906	7287572
Acacia curryana (P1)	=Spp06-03	15	425889	7287582
Acacia curryana (P1)	=Spp06-03	13	425878	7287592
Acacia curryana (P1)	=Spp06-03	5	425842	7287594
Acacia curryana (P1)	=Spp06-03	12	425850	7287575
Acacia curryana (P1)	=Spp06-03	16	425853	7287552
Acacia curryana (P1)	=Spp06-03	17	425833	7287527
Acacia curryana (P1)	=Spp06-03	16	425813	7287546
Acacia curryana (P1)	=Spp06-03	6	425787	7287527
Acacia curryana (P1)	=Spp06-03	6	424976	7287269
Acacia curryana (P1)	=Spp06-03	8	424927	7287270
Acacia curryana (P1)	=Spp06-03	4	424882	7287275
Acacia curryana (P1)	=Spp06-03	1/ 1.5%	424851	7287320
Acacia curryana (P1)	=Spp06-03	8	424875	7287369
Acacia curryana (P1)	=Spp06-03	13	424875	7287390
Acacia curryana (P1)	=Spp06-03	9	424907	7287397
Acacia curryana (P1)	=Spp06-03	9	424939	7287401
Acacia curryana (P1)	=Spp06-03	8	424967	7287411
Acacia curryana (P1)	=Spp06-03	15	424951	7287432
Acacia curryana (P1)	=Spp06-03	7	424981	7287441
Acacia curryana (P1)	=Spp06-03	5	425026	7287468
Acacia curryana (P1)	=Spp06-03	2	425137	7287575
Acacia curryana (P1)	=Spp06-03	7	425362	7287501
Acacia curryana (P1)	=Spp06-03	2	425336	7287517
Acacia curryana (P1)	=Spp06-03	7	425307	7287527
Acacia curryana (P1)	=Spp06-03	9	425281	7287547
Acacia curryana (P1)	=Spp06-03	1	425146	7287795
Acacia curryana (P1)	=Spp06-03	6	425104	7287824

Taxon	Record Method	Abundance/ Cover	GDA 94, Zone 50J	
			Easting	Northing
Acacia curryana (P1)	=Spp06-03	4	425078	7287838
Acacia curryana (P1)	=Spp06-03	13	425276	7287601
Acacia curryana (P1)	=Spp06-03	5	425291	7287616
Acacia curryana (P1)	=Spp06-03	2	425114	7287878
Acacia curryana (P1)	=Spp06-03	11	425308	7287627
Acacia curryana (P1)	=Spp06-03	7	425328	7287655
Acacia curryana (P1)	=Spp06-03	4	425294	7287940
Acacia curryana (P1)	=Spp06-03	6	425349	7287664
Acacia curryana (P1)	=Spp06-03	6	425323	7287940
Acacia curryana (P1)	=Spp06-03	8	425347	7287932
Acacia curryana (P1)	=Spp06-03	5	425379	7287675
Acacia curryana (P1)	=Spp06-03	9	425354	7287913
Acacia curryana (P1)	=Spp06-03	3	425411	7287673
Acacia curryana (P1)	=Spp06-03	13	425358	7287891
Acacia curryana (P1)	=Spp06-03	8	425391	7287922
Acacia curryana (P1)	=Spp06-03	8	425424	7287922
Acacia curryana (P1)	=Spp06-03	9	425474	7287726
Acacia curryana (P1)	=Spp06-03	4	425484	7287750
Acacia curryana (P1)	=Spp06-03	8	425515	7287952
Acacia curryana (P1)	=Spp06-03	7	425489	7287950
Acacia curryana (P1)	=Spp06-03	8	425565	7288011
Acacia curryana (P1)	=Spp06-03	8	425620	7288001
Acacia curryana (P1)	=Spp06-03	3	425530	7287804
Acacia curryana (P1)	=Spp06-03	5	425574	7287830
Acacia curryana (P1)	=Spp06-03	5	425775	7288008
Acacia curryana (P1)	=Spp06-03	1	425624	7287851
Acacia curryana (P1)	=Spp06-03	12	425830	7287995
Acacia curryana (P1)	=Spp06-03	9	425967	7287991
Acacia curryana (P1)	=Spp06-03	7	426018	7287988
Acacia curryana (P1)	=Spp06-03	6	425753	7287855
Acacia curryana (P1)	=Spp06-03	15	425782	7287854
Acacia curryana (P1)	=Spp06-03	11	425801	7287861
Acacia curryana (P1)	=Spp06-03	12	425871	7287866
Acacia curryana (P1)	=Spp06-03	9	425904	7287865
Acacia curryana (P1)	=Spp06-03	13	425937	7287859

Taxon	Record Method	Abundance/ Cover	GDA 94, Zone 50J	
			Easting	Northing
Acacia curryana (P1)	=Spp06-03	9	426249	7287961
Acacia curryana (P1)	=Spp06-03	9	426217	7287952
Acacia curryana (P1)	=Spp06-03	29	426212	7287984
Acacia curryana (P1)	=Spp06-03	2	419548	7294531
Acacia curryana (P1)	=Spp06-03	1	419548	7294430
Acacia curryana (P1)	=Spp06-03	11	419528	7294382
Acacia curryana (P1)	=Spp06-03	8	419534	7294345
Acacia curryana (P1)	Jcpt-09-01	11	419339	7294572
Acacia curryana (P1)	=Spp06-03	5	419594	7294298
Acacia curryana (P1)	=jcpt-09-01	1	419335	7294550
Acacia curryana (P1)	=Spp06-03	4	419575	7294267
Acacia curryana (P1)	=jcpt-09-01	5	419315	7294473
Acacia curryana (P1)	=Spp06-03	4	419566	7294237
Acacia curryana (P1)	=jcpt-09-01	3	419397	7294443
Acacia curryana (P1)	=Spp06-03	4	419568	7294196
Acacia curryana (P1)	=jcpt-09-01	4	419445	7294433
Acacia curryana (P1)	=Spp06-03	18	419590	7294138
Acacia curryana (P1)	=jcpt-09-01	5	419482	7294435
Acacia curryana (P1)	=Spp06-03	12	419552	7294080
Acacia curryana (P1)	=jcpt-09-01	4	419462	7294410
Acacia curryana (P1)	=Spp06-03	8	419513	7294065
Acacia curryana (P1)	=Spp06-03	15	419507	7294025
Acacia curryana (P1)	=jcpt-09-01	4	419436	7294394
Acacia curryana (P1)	=jcpt-09-01	1	419399	7294379
Acacia curryana (P1)	=Spp06-03	4	419459	7293970
Acacia curryana (P1)	=Spp06-03	7	419397	7293969
Acacia curryana (P1)	=jcpt-09-01	4	419392	7294357
Acacia curryana (P1)	=Spp06-03	14	419363	7293964
Acacia curryana (P1)	=Spp06-03	4	419289	7293993
Acacia curryana (P1)	=jcpt-09-01	6	419303	7294345
Acacia curryana (P1)	=Spp06-03	2	419213	7293989
Acacia curryana (P1)	=Spp06-03	6	419184	7294011
Acacia curryana (P1)	=jcpt-09-01	11	419272	7294385
Acacia curryana (P1)	=Spp06-03	2	419143	7294021
Acacia curryana (P1)	=Spp06-03	3	419082	7294014

Taxon	Record Method	Abundance/ Cover	GDA 94, Zone 50J	
			Easting	Northing
Acacia curryana (P1)	=Spp06-03	5	419034	7294021
Acacia curryana (P1)	=Spp06-03	4	418999	7294034
Acacia curryana (P1)	=jcpt-09-01	4	419302	7294394
Acacia curryana (P1)	=Spp06-03	6	418947	7294031
Acacia curryana (P1)	=Spp06-03	4	419333	7294435
Acacia curryana (P1)	=Spp06-03	6	418891	7294037
Acacia curryana (P1)	=Spp06-03	5	418828	7294032
Acacia curryana (P1)	=jcpt-09-01	5	419286	7294459
Acacia curryana (P1)	=Spp06-03	10	418765	7294026
Acacia curryana (P1)	=Spp06-03	8	419281	7294484
Acacia curryana (P1)	=Spp06-03	5	418723	7294028
Acacia curryana (P1)	=Spp06-03	5	419271	7294518
Acacia curryana (P1)	=Spp06-03	7	419269	7294554
Acacia curryana (P1)	=Spp06-03	10	419262	7294574
Acacia curryana (P1)	=Spp06-03	11	419220	7294588
Acacia curryana (P1)	=Spp06-03	3	419201	7294530
Acacia curryana (P1)	=Spp06-03	3	419548	7294531
Acacia curryana (P1)	=Spp06-03	4	418689	7294060
Acacia curryana (P1)	=Spp06-03	5	419190	7294509
Acacia curryana (P1)	=Spp06-03	8	419188	7294487
Acacia curryana (P1)	=Spp06-03	4	418751	7294068
Acacia curryana (P1)	=Spp06-03	12	419189	7294457
Acacia curryana (P1)	=Spp06-03	4	418800	7294077
Acacia curryana (P1)	=Spp06-03	7	418843	7294126
Acacia curryana (P1)	=Spp06-03	12	418862	7294143
Acacia curryana (P1)	=Spp06-03	12	419195	7294437
Acacia curryana (P1)	=Spp06-03	11	418894	7294165
Acacia curryana (P1)	=Spp06-03	22	419198	7294403
Acacia curryana (P1)	=Spp06-03	5	418919	7294142
Acacia curryana (P1)	=Spp06-03	15	419197	7294379
Acacia curryana (P1)	=Spp06-03	7	418971	7294157
Acacia curryana (P1)	=Spp06-03	12	419195	7294352
Acacia curryana (P1)	=Spp06-03	3	418999	7294157
Acacia curryana (P1)	=Spp06-03	9	419033	7294173
Acacia curryana (P1)	=Spp06-03	26	419197	7294331

Taxon	Record Method	Abundance/ Cover	GDA 94, Zone 50J	
			Easting	Northing
Acacia curryana (P1)	=Spp06-03	12	418987	7294257
Acacia curryana (P1)	=Spp06-03	5	419193	7294310
Acacia curryana (P1)	=Spp06-03	2	418938	7294309
Acacia curryana (P1)	=Spp06-03	6	419157	7294318
Acacia curryana (P1)	=Spp06-03	8	419131	7294347
Acacia curryana (P1)	=Spp06-03	5	418875	7294390
Acacia curryana (P1)	=Spp06-03	7	419125	7294392
Acacia curryana (P1)	=Spp06-03	8	418852	7294434
Acacia curryana (P1)	=Spp06-03	13	419109	7294420
Acacia curryana (P1)	=Spp06-03	7	418844	7294486
Acacia curryana (P1)	=Spp06-03	3	419051	7294530
Acacia curryana (P1)	=Spp06-03	1	418877	7294676
Acacia curryana (P1)	=Spp06-03	9	419062	7294587
Acacia curryana (P1)	=Spp06-03	5	418850	7294689
Acacia curryana (P1)	=Spp06-03	8	418872	7294727
Acacia curryana (P1)	=Spp06-03	5	418926	7294753
Acacia curryana (P1)	=Spp06-03	1	419044	7294632
Acacia curryana (P1)	=Spp06-03	5	418925	7294788
Acacia curryana (P1)	=Spp06-03	1	419040	7294678
Acacia curryana (P1)	=Spp06-03	5	418935	7294830
Acacia curryana (P1)	=Spp06-03	3	420750	7292861
Acacia curryana (P1)	=Spp06-03	8	420771	7292838
Acacia curryana (P1)	=Spp06-03	9	420693	7293252
Acacia curryana (P1)	=Spp06-03	6	420671	7293246
Acacia curryana (P1)	=Spp06-03	6	420847	7292758
Acacia curryana (P1)	=Spp06-03	6	420878	7292727
Acacia curryana (P1)	=Spp06-03	9	420631	7293254
Acacia curryana (P1)	Spp08-03	5	420891	7292700
Acacia curryana (P1)	=Spp08-03	11	420632	7293277
Acacia curryana (P1)	=Spp08-03	2	420643	7293297
Acacia curryana (P1)	=Spp08-03	5	420673	7293325
Acacia curryana (P1)	=Spp08-03	5	420665	7293344
Acacia curryana (P1)	=Spp08-03	3	420640	7293371
Acacia curryana (P1)	=Spp08-03	1	426403	7280780
Acacia curryana (P1)	=Spp08-03	1	426382	7280750

Taxon	Record Method	Abundance/ Cover	GDA 94, Zone 50J	
			Easting	Northing
Acacia curryana (P1)	=Spp08-03	2	426106	7280514
Acacia curryana (P1)	=Spp08-03	1	426088	7280382
Acacia curryana (P1)	=Spp08-03	1	425988	7280516
Acacia curryana (P1)	=Spp08-03	5	425970	7280473
Acacia curryana (P1)	=Spp08-03	3	426023	7280328
Acacia curryana (P1)	=Spp08-03	2	425966	7280445
Acacia curryana (P1)	=Spp08-03	1	425969	7280263
Acacia curryana (P1)	=Spp08-03	1	426039	7280189
Acacia curryana (P1)	=Spp08-03	2	425978	7280159
Acacia curryana (P1)	=Spp08-03	1	425930	7280127
Acacia curryana (P1)	=Spp08-03	5	425832	7280093
Acacia curryana (P1)	=Spp08-03	2	425832	7280069
Acacia curryana (P1)	=Spp08-03	4	425754	7280429
Acacia curryana (P1)	=Spp08-03	11	425775	7280398
Acacia curryana (P1)	=Spp08-03	3	425752	7280383
Acacia curryana (P1)	=Spp08-03	6	425722	7280396
Acacia curryana (P1)	=Spp08-10	1	425708	7280400
Acacia curryana (P1)	=Spp08-10	2	425703	7280029
Acacia curryana (P1)	=Spp08-10	3	425909	7280137
Acacia curryana (P1)	=Spp08-10	2	425838	7280644
Acacia curryana (P1)	=Spp08-10	4	425999	7280728
Acacia curryana (P1)	=Spp08-10	15	426032	7280757
Acacia curryana (P1)	=Spp08-10	14	426065	7280772
Acacia curryana (P1)	=Spp08-10	1	425806	7288643
Acacia curryana (P1)	=Spp08-10	3	425880	7288641
Acacia curryana (P1)	=Spp08-10	6	425909	7288648
Acacia curryana (P1)	=Spp08-10	7	425941	7288628
Acacia curryana (P1)	=Spp08-10	5	425927	7288641
Acacia curryana (P1)	=Spp08-10	7	425916	7288619
Acacia curryana (P1)	=Spp08-10	1	425784	7288667
Acacia curryana (P1)	=Spp08-10	4	425531	7288618
Acacia curryana (P1)	=Spp08-10	4	425506	7288625
Acacia curryana (P1)	=Spp08-10	1	425515	7288582
Acacia curryana (P1)	=Spp08-10	7	425496	7288560
Acacia curryana (P1)	=Spp08-10	1	425467	7288622

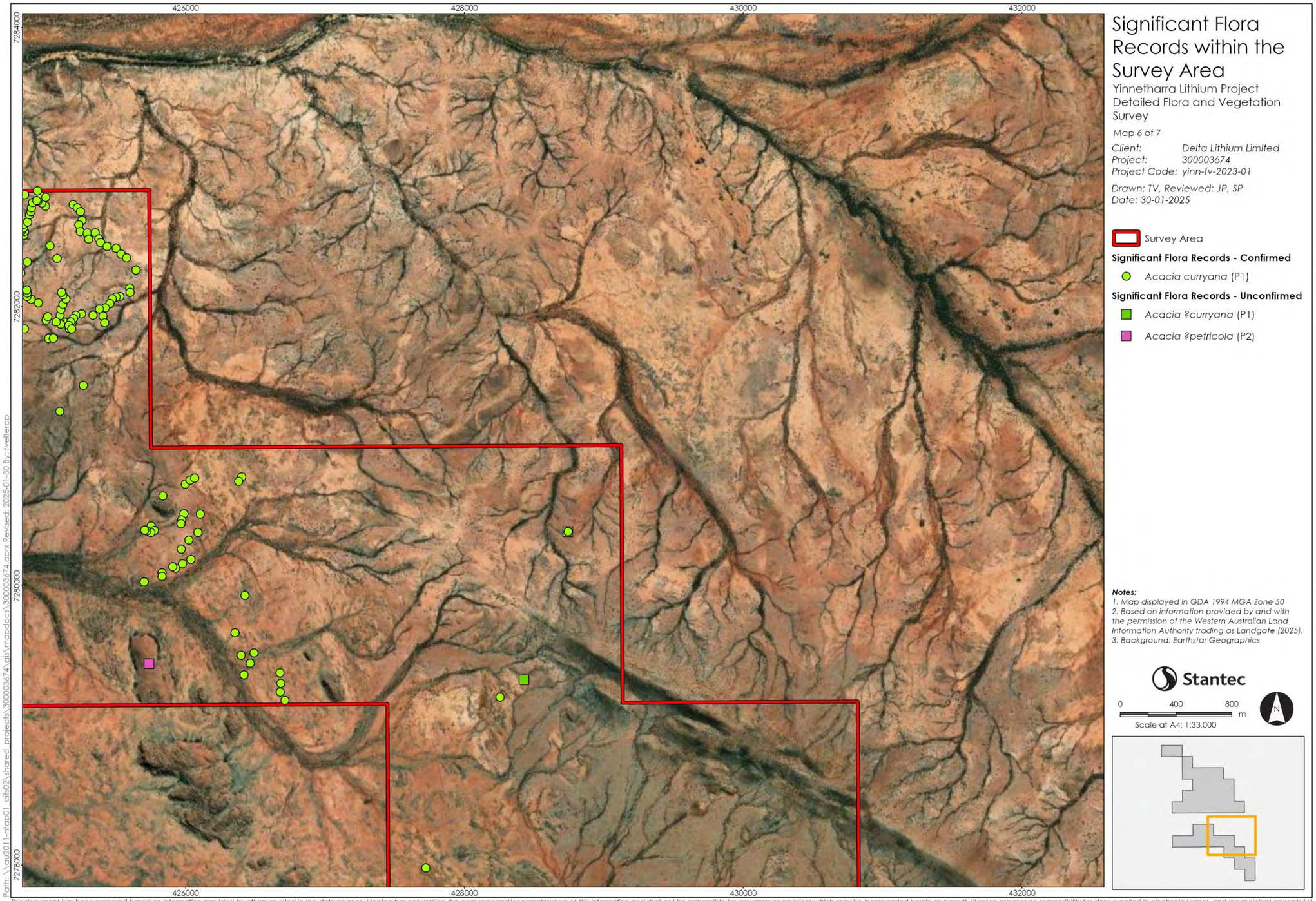
Taxon	Record Method	Abundance/ Cover	GDA 94, Zone 50J	
			Easting	Northing
Acacia curryana (P1)	=Spp08-10	4	425454	7288606
Acacia curryana (P1)	=Spp08-10	5	425426	7288598
Acacia curryana (P1)	=Spp08-10	5	425490	7288512
Acacia curryana (P1)	=Spp08-10	8	425420	7288544
Acacia curryana (P1)	=Spp08-10	7	425480	7288472
Acacia curryana (P1)	=Spp08-10	7	425412	7288523
Acacia curryana (P1)	=Spp08-10	9	425473	7288437
Acacia curryana (P1)	=Spp08-10	9	425405	7288485
Acacia curryana (P1)	=Spp08-10	3	425444	7288463
Acacia curryana (P1)	=Spp08-10	4	425420	7288426
Acacia curryana (P1)	=Spp08-10	5	425403	7288428
Acacia curryana (P1)	=Spp08-10	5	425384	7288423
Acacia curryana (P1)	=Spp08-10	2	425344	7288442
Acacia curryana (P1)	=Spp08-10	5	425298	7288449
Acacia curryana (P1)	=Spp08-10	5	425321	7288506
Acacia curryana (P1)	=Spp08-10	5	425247	7288468
Acacia curryana (P1)	=Spp08-10	3	425226	7288485
Acacia curryana (P1)	=Spp08-10	5	425280	7288463
Acacia curryana (P1)	=Spp08-10	4	425218	7288409
Acacia curryana (P1)	=Spp08-10	1	425181	7288417
Acacia curryana (P1)	=Spp08-10	9	425536	7288314
Acacia curryana (P1)	=Spp08-10	10	425556	7288333
Acacia curryana (P1)	=Spp08-10	9	425594	7288296
Acacia curryana (P1)	=Spp08-10	13	425617	7288297
Acacia curryana (P1)	=Spp08-10	5	425563	7288358
Acacia curryana (P1)	=Spp08-10	14	425643	7288338
Acacia curryana (P1)	=Spp08-10	9	425555	7288376
Acacia curryana (P1)	=Spp08-10	7	425669	7288361
Acacia curryana (P1)	=Spp08-10	9	425580	7288383
Acacia curryana (P1)	=Spp08-10	8	425645	7288382
Acacia curryana (P1)	=Spp08-10	3	425578	7288419
Acacia curryana (P1)	=Spp08-10	7	425663	7288397
Acacia curryana (P1)	=Spp08-10	2	425680	7288423
Acacia curryana (P1)	=Spp08-10	7	425592	7288443
Acacia curryana (P1)	=Spp08-10	2	425599	7288464

Taxon	Record Method	Abundance/ Cover	GDA 94, Zone 50J	
			Easting	Northing
Acacia curryana (P1)	=Spp08-10	6	424211	7282121
Acacia curryana (P1)	=Spp08-10	1	425018	7281772
Acacia curryana (P1)	=Spp08-10	3	425051	7281775
Acacia curryana (P1)	=Spp08-10	12	424999	7281904
Acacia curryana (P1)	=Spp08-10	17	425166	7281843
Acacia curryana (P1)	=Spp08-10	6	425012	7281930
Acacia curryana (P1)	=Spp08-10	14	425186	7281881
Acacia curryana (P1)	=Spp08-10	7	425131	7281890
Acacia curryana (P1)	Jcpt-09-11	4	424944	7282028
Acacia curryana (P1)	Jcpt-09-11	10	425097	7281892
Acacia curryana (P1)	=Jcpt-09-11	8	425099	7281939
Acacia curryana (P1)	=Jcpt-09-11	7	425106	7281981
Acacia curryana (P1)	=Jcpt-09-11	8	424893	7282054
Acacia curryana (P1)	=Jcpt-09-11	12	425121	7282017
Acacia curryana (P1)	=Jcpt-09-11	9	424863	7282074
Acacia curryana (P1)	=Jcpt-09-11	9	424864	7282098
Acacia curryana (P1)	=Jcpt-09-11	5	425142	7282054
Acacia curryana (P1)	=Jcpt-09-11	7	425121	7282083
Acacia curryana (P1)	=Jcpt-09-11	3	424860	7282120
Acacia curryana (P1)	=Jcpt-09-11	2	425110	7282104
Acacia curryana (P1)	=Jcpt-09-11	6	424811	7282159
Acacia curryana (P1)	=Jcpt-09-11	6	424799	7282188
Acacia curryana (P1)	=Jcpt-09-11	6	424790	7282219
Acacia curryana (P1)	=Jcpt-09-11	9	425078	7282346
Acacia curryana (P1)	=Jcpt-09-11	2	425029	7282437
Acacia curryana (P1)	=Jcpt-09-11	1	424818	7282241
Acacia curryana (P1)	=Jcpt-09-11	7	424995	7282721
Acacia curryana (P1)	=Jcpt-09-11	7	424969	7282741
Acacia curryana (P1)	=Jcpt-09-11	14	424941	7282757
Acacia curryana (P1)	=Jcpt-09-11	7	424864	7282321
Acacia curryana (P1)	=Jcpt-09-11	9	424963	7282792
Acacia curryana (P1)	=Jcpt-09-11	15	424997	7282784
Acacia curryana (P1)	=Jcpt-09-11	17	425194	7282733
Acacia curryana (P1)	=Jcpt-09-11	6	425222	7282709
Acacia curryana (P1)	=Jcpt-09-11	4	424840	7282511

Taxon	Record Method	Abundance/ Cover	GDA 94, Zone 50J	
			Easting	Northing
Acacia curryana (P1)	=Jcpt-09-11	7	425247	7282681
Acacia curryana (P1)	=Jcpt-09-11	19	424843	7282538
Acacia curryana (P1)	=Jcpt-09-11	7	425257	7282619
Acacia curryana (P1)	=Jcpt-09-11	10	424826	7282547
Acacia curryana (P1)	=Jcpt-09-11	17	425235	7282588
Acacia curryana (P1)	=Jcpt-09-11	9	424839	7282564
Acacia curryana (P1)	=Jcpt-09-11	13	424835	7282590
Acacia curryana (P1)	=Jcpt-09-11	6	425244	7282539
Acacia curryana (P1)	=Jcpt-09-11	6	425294	7282528
Acacia curryana (P1)	=Jcpt-09-11	2	424867	7282606
Acacia curryana (P1)	=Jcpt-09-11	12	425305	7282485
Acacia curryana (P1)	=Jcpt-09-11	11	424879	7282659
Acacia curryana (P1)	=Jcpt-09-11	9	424889	7282681
Acacia curryana (P1)	=Jcpt-09-11	7	425352	7282531
Acacia curryana (P1)	=Jcpt-09-11	6	424894	7282709
Acacia curryana (P1)	=Jcpt-09-11	6	424903	7282746
Acacia curryana (P1)	=Jcpt-09-11	6	425379	7282487
Acacia curryana (P1)	=Jcpt-09-11	13	424932	7282761
Acacia curryana (P1)	=Jcpt-09-11	4	425392	7282459
Acacia curryana (P1)	=Jcpt-09-11	6	425438	7282432
Acacia curryana (P1)	=Jcpt-09-11	10	424937	7282830
Acacia curryana (P1)	=Jcpt-09-11	4	425501	7282419
Acacia curryana (P1)	=Jcpt-09-11	7	425538	7282379
Acacia curryana (P1)	=Jcpt-09-11	1	424845	7282804
Acacia curryana (P1)	=Jcpt-09-11	8	425577	7282350
Acacia curryana (P1)	=Jcpt-09-11	3	424774	7282772
Acacia curryana (P1)	=Jcpt-09-11	1	425644	7282261
Acacia curryana (P1)	=Jcpt-09-11	2	424749	7282731
Acacia curryana (P1)	=Jcpt-09-11	4	424733	7282708
Acacia curryana (P1)	=Jcpt-09-11	2	424699	7282645
Acacia curryana (P1)	=Jcpt-09-11	8	425600	7282136
Acacia curryana (P1)	=Jcpt-09-11	12	425602	7282104
Acacia curryana (P1)	=Jcpt-09-11	5	425528	7282075
Acacia curryana (P1)	=Jcpt-09-11	5	424617	7282522
Acacia curryana (P1)	=Jcpt-09-11	11	425501	7282070

Taxon	Record Method	Abundance/ Cover	GDA 94, Zone 50J	
			Easting	Northing
Acacia curryana (P1)	=Jcpt-09-11	14	425474	7282057
Acacia curryana (P1)	=Jcpt-09-11	7	425459	7282023
Acacia curryana (P1)	=Jcpt-09-11	3	424645	7282478
Acacia curryana (P1)	=Jcpt-09-11	9	424634	7282458
Acacia curryana (P1)	=Jcpt-09-11	10	425425	7281992
Acacia curryana (P1)	=Jcpt-09-11	7	424610	7282426
Acacia curryana (P1)	=Jcpt-09-11	10	425383	7281984
Acacia curryana (P1)	=Jcpt-09-11	5	425407	7281934
Acacia curryana (P1)	=Jcpt-09-11	3	425419	7281884
Acacia curryana (P1)	=Jcpt-09-11	3	424518	7282309
Acacia curryana (P1)	=Jcpt-09-11	8	425336	7281940
Acacia curryana (P1)	=Jcpt-09-11	2	424533	7282293
Acacia curryana (P1)	=Jcpt-09-11	18	425255	7281949
Acacia curryana (P1)	=Jcpt-09-11	1	424545	7282245
Acacia curryana (P1)	=Jcpt-09-11	18	425213	7281939
Acacia curryana (P1)	=Jcpt-09-11	4	424568	7282252
Acacia curryana (P1)	=Jcpt-09-11	6	424583	7282211
Acacia curryana (P1)	=Jcpt-09-11	10	425195	7281916
Acacia curryana (P1)	=Jcpt-09-11	18	425177	7281891
Acacia curryana (P1)	=Jcpt-09-11	2	424599	7282182
Acacia curryana (P1)	=Jcpt-09-11	11	425162	7281867
Acacia curryana (P1)	=Jcpt-09-11	17	425184	7281841
Acacia curryana (P1)	=Jcpt-09-11	8	424568	7282148
Acacia curryana (P1)	=Jcpt-09-11	9	424548	7282134
Acacia curryana (P1)	=Jcpt-09-11	11	425104	7281875
Acacia curryana (P1)	=Jcpt-09-11	8	425073	7281891
Acacia curryana (P1)	=Jcpt-09-11	7	424526	7282119
Acacia curryana (P1)	=Jcpt-09-11	3	424444	7282139
Acacia curryana (P1)	=Jcpt-09-11	5	423456	7282368
Acacia petricola (P2)	OPPJ41	1	427646	7277678
Dodonaea amplisemina (P4)	Spp06-01	9	430418	7284895
Dodonaea amplisemina (P4)	=Spp06-01	19	430484	7284938
Dodonaea amplisemina (P4)	=Spp06-01	2	430226	7284907
Dodonaea amplisemina (P4)	=Spp06-01	49	430467	7284905
Dodonaea amplisemina (P4)	=Spp06-01	14	430515	7284892

Taxon	Record Method	Abundance/ Cover	GDA 94, Zone 50J	
			Easting	Northing
Dodonaea amplisemina (P4)	=Spp06-01	10	430370	7284916
Dodonaea amplisemina (P4)	=Spp06-01	12	430439	7284884
Dodonaea amplisemina (P4)	=Spp06-01	4	430527	7284870
Dodonaea amplisemina (P4)	=jcpt-06-01	10	430629	7284817
Dodonaea amplisemina (P4)	=jcpt-06-01	29	430471	7284922
Dodonaea amplisemina (P4)	=jcpt-06-01	7	430495	7284903
Dodonaea amplisemina (P4)	Jcpt-06-01	19	430612	7284831
Dodonaea amplisemina (P4)	=jcpt-06-01	10	430486	7284867
Dodonaea amplisemina (P4)	sp45	1	430610	7284832
Goodenia berringbinensis (P4)	MNJM02-01	1	432424	7274244
Isotropis forrestii (P1)	Jcpt-07-11	1	426015	7287849
Isotropis forrestii (P1)	=Sppt11	46	425189	7289111
Isotropis forrestii (P1)	Sppt11	31	424964	7288936
Isotropis forrestii (P1)	Sppt11	38	425149	7289097
Isotropis forrestii (P1)	Jcpt-04-01	16	425154	7289099
Isotropis forrestii (P1)	Sppt11	11	425153	7288935
Isotropis forrestii (P1)	Jcpt-07-10	3	425698	7287819
Isotropis forrestii (P1)	Sp61	15	425189	7289103
Sporobolus blakei (P3)	=oppj85	40/ 0.1%	419845	7279958
Sporobolus blakei (P3)	Oppj85	18	419900	7279924
Sporobolus blakei (P3)	Sppt09	3	421128	7292060
Sporobolus blakei (P3)	oppj132	12	422308	7288122
Sporobolus blakei (P3)	=Sppt09	18	423172	7288253
Sporobolus blakei (P3)	Spp06-04	9	423193	7288268
Sporobolus blakei (P3)	=oppj132	35	422479	7288260
Sporobolus blakei (P3)	=Sppt09	16	423149	7288233
Sporobolus blakei (P3)	=Sppt09	14	423124	7288206
Wurmbea fluviatilis (P2)	Spopp02-03	150	420761	7292103


426000
428000
430000
432000
7284000
7282000
7280000
7278000
Significant Flora Records within the Survey Area
Yinnetharra Lithium Project
Detailed Flora and Vegetation Survey
Map 6 of 7
Client: Delta Lithium Limited
Project: 300003674
Project Code: yinn-fv-2023-01
Drawn: TV, Reviewed: JP, SP
Date: 30-01-2025
Survey Area
Significant Flora Records - Confirmed
Acacia curryana (P1)
Significant Flora Records - Unconfirmed
Acacia ?curryana (P1)
Acacia ?petricola (P2)
Notes:
1. Map displayed in GDA 1994 MGA Zone 50
2. Based on information provided by and with the permission of the Western Australian Land Information Authority trading as Landgate (2025).
3. Background: Earthstar Geographics
Stantec
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800
m
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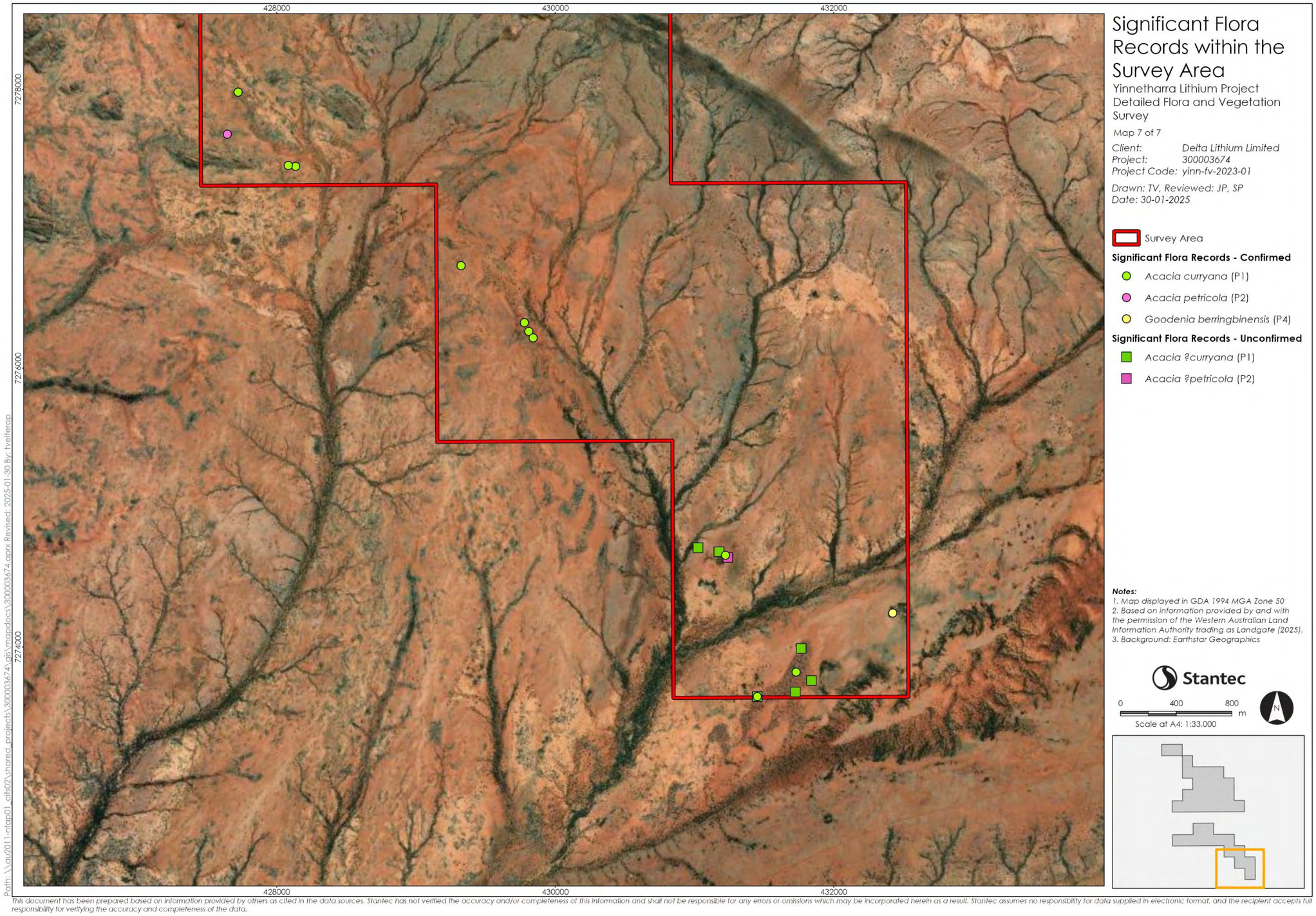
Scale at A4: 1:33,000
Path: \\au2011-ntap01_cifs02\shared_projects\300003674\gis\mapdocs\300003674.aprx Revised: 2025-01-30 By: tvelterop
This document has been prepared based on information provided by others as cited in the data sources. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

Figure J - 1


428000
430000
432000
7278000
7276000
7274000
Significant Flora Records within the Survey Area
Yinnetharra Lithium Project
Detailed Flora and Vegetation Survey
Map 7 of 7
Client: Delta Lithium Limited
Project: 300003674
Project Code: yinn-fv-2023-01
Drawn: TV, Reviewed: JP, SP
Date: 30-01-2025
Survey Area
Significant Flora Records - Confirmed
Acacia curryana (P1)
Acacia petricola (P2)
Goodenia berringbinensis (P4)
Significant Flora Records - Unconfirmed
Acacia ?curryana (P1)
Acacia ?petricola (P2)
Notes:
1. Map displayed in GDA 1994 MGA Zone 50
2. Based on information provided by and with the permission of the Western Australian Land Information Authority trading as Landgate (2025).
3. Background: Earthstar Geographics
Stantec
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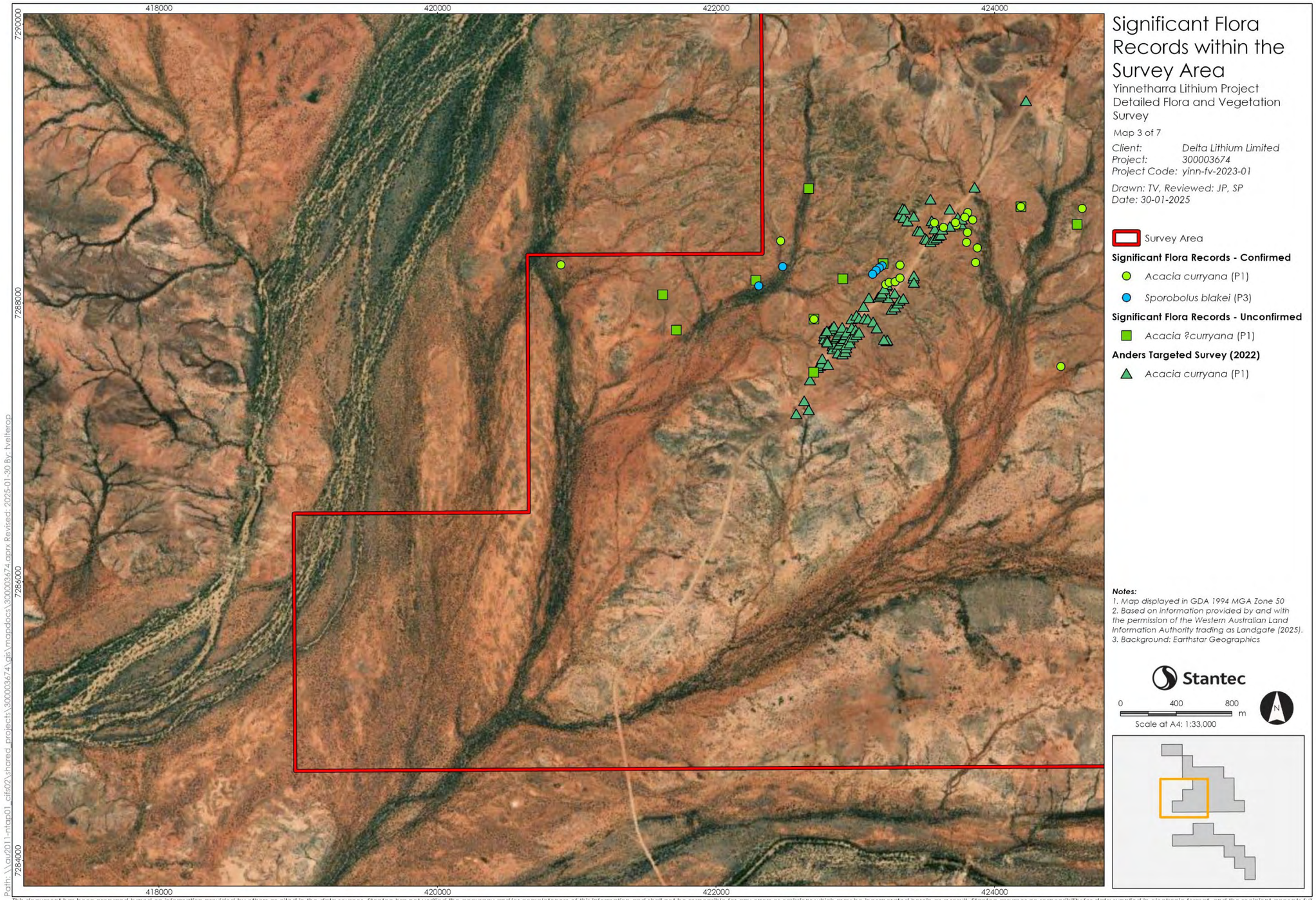
Path: \\au2011-ntapo01_cifs02\shared_projects\300003674\gis\mapdocs\300003674.aprx Revised: 2025-01-30 By: tvelterop
This document has been prepared based on information provided by others as cited in the data sources. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

Figure J - 2


418000
420000
422000
424000
7290000
7288000
7286000
7284000
Significant Flora Records within the Survey Area
Yinnetharra Lithium Project
Detailed Flora and Vegetation Survey
Map 3 of 7
Client: Delta Lithium Limited
Project: 300003674
Project Code: yinn-fv-2023-01
Drawn: TV, Reviewed: JP, SP
Date: 30-01-2025
Survey Area
Significant Flora Records - Confirmed
Acacia curryana (P1)
Sporobolus blakei (P3)
Significant Flora Records - Unconfirmed
Acacia ?curryana (P1)
Anders Targeted Survey (2022)
Acacia curryana (P1)
Notes:
1. Map displayed in GDA 1994 MGA Zone 50
2. Based on information provided by and with the permission of the Western Australian Land Information Authority trading as Landgate (2025).
3. Background: Earthstar Geographics
Stantec
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400
800
m
Scale at A4: 1:33,000
N
Path: \\au2011-ntap01_cifs02\shared_projects\300003674\gis\mapdocs\300003674.aprx Revised: 2025-01-30 By: tvelterop
This document has been prepared based on information provided by others as cited in the data sources. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

Figure J - 3

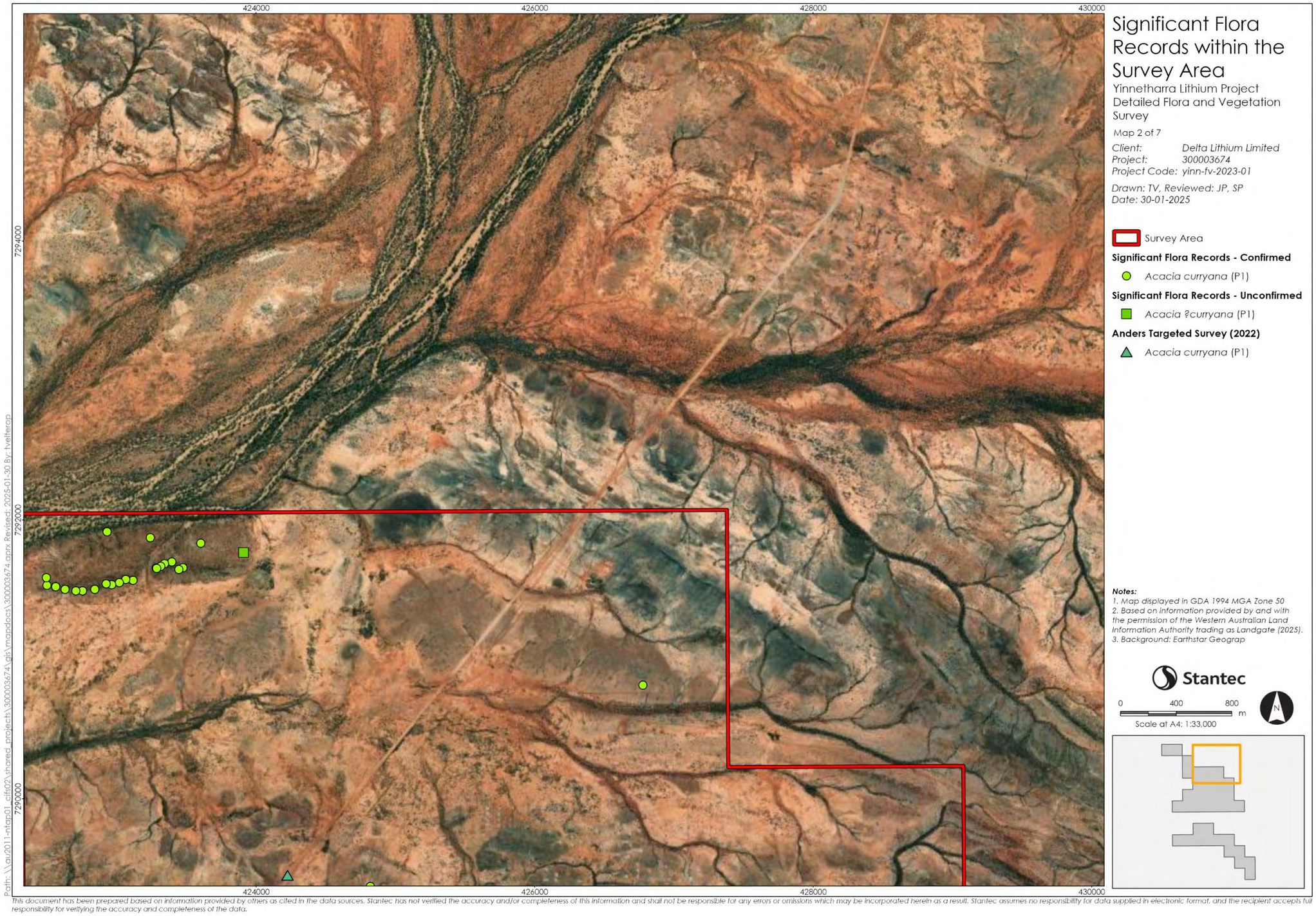
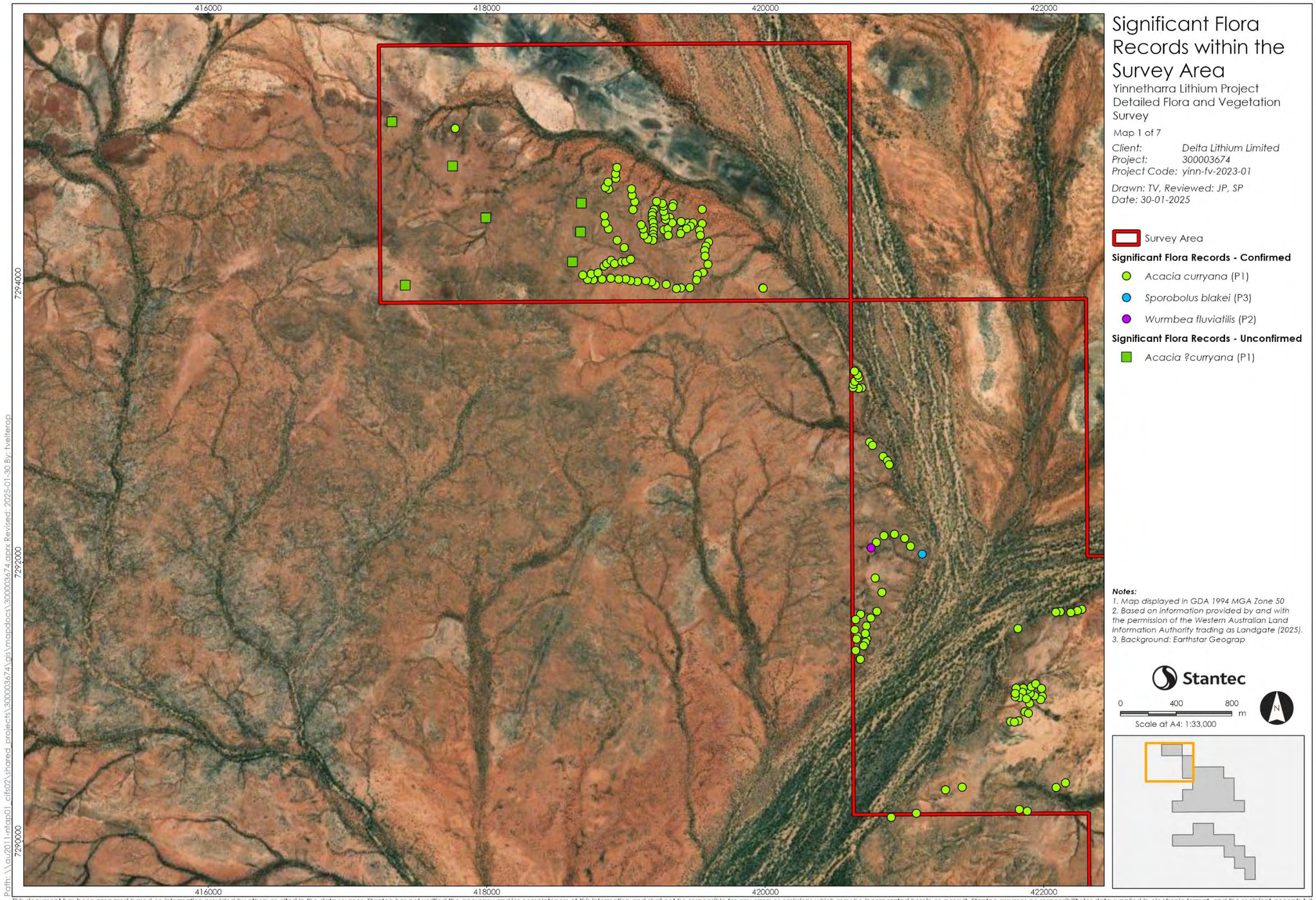

424000
426000
428000
430000
7294000
7292000
7290000
Significant Flora Records within the Survey Area
Yinnetharra Lithium Project
Detailed Flora and Vegetation Survey
Map 2 of 7
Client: Delta Lithium Limited
Project: 300003674
Project Code: yinn-fv-2023-01
Drawn: TV, Reviewed: JP, SP
Date: 30-01-2025
Survey Area
Significant Flora Records - Confirmed
Acacia curryana (P1)
Significant Flora Records - Unconfirmed
Acacia ?curryana (P1)
Anders Targeted Survey (2022)
Acacia curryana (P1)
Notes:
1. Map displayed in GDA 1994 MGA Zone 50
2. Based on information provided by and with the permission of the Western Australian Land Information Authority trading as Landgate (2025).
3. Background: Earthstar Geograp
Stantec
0
400
800
m
Scale at A4: 1:33,000
N
Path: \\au2011-ntap01_cifs02\shared_projects\300003674\gis\mapdocs\300003674.aprx Revised: 2025-01-30 By: tvelterop
This document has been prepared based on information provided by others as cited in the data sources. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

Figure J - 4


416000
418000
420000
422000
7294000
7292000
7290000
Significant Flora Records within the Survey Area
Yinnetharra Lithium Project
Detailed Flora and Vegetation Survey
Map 1 of 7
Client: Delta Lithium Limited
Project: 300003674
Project Code: yinn-fv-2023-01
Drawn: TV, Reviewed: JP, SP
Date: 30-01-2025
Survey Area
Significant Flora Records - Confirmed
Acacia curryana (P1)
Sporobolus blakei (P3)
Wurmbea fluviatilis (P2)
Significant Flora Records - Unconfirmed
Acacia ?curryana (P1)
Notes:
1. Map displayed in GDA 1994 MGA Zone 50
2. Based on information provided by and with the permission of the Western Australian Land Information Authority trading as Landgate (2025).
3. Background: Earthstar Geograp
Stantec
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m
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Scale at A4: 1:33,000
Path: \\au2011-ntap01_cifs02\shared_projects\300003674\gis\mapdocs\300003674.aprx Revised: 2025-01-30 By: tveiterop
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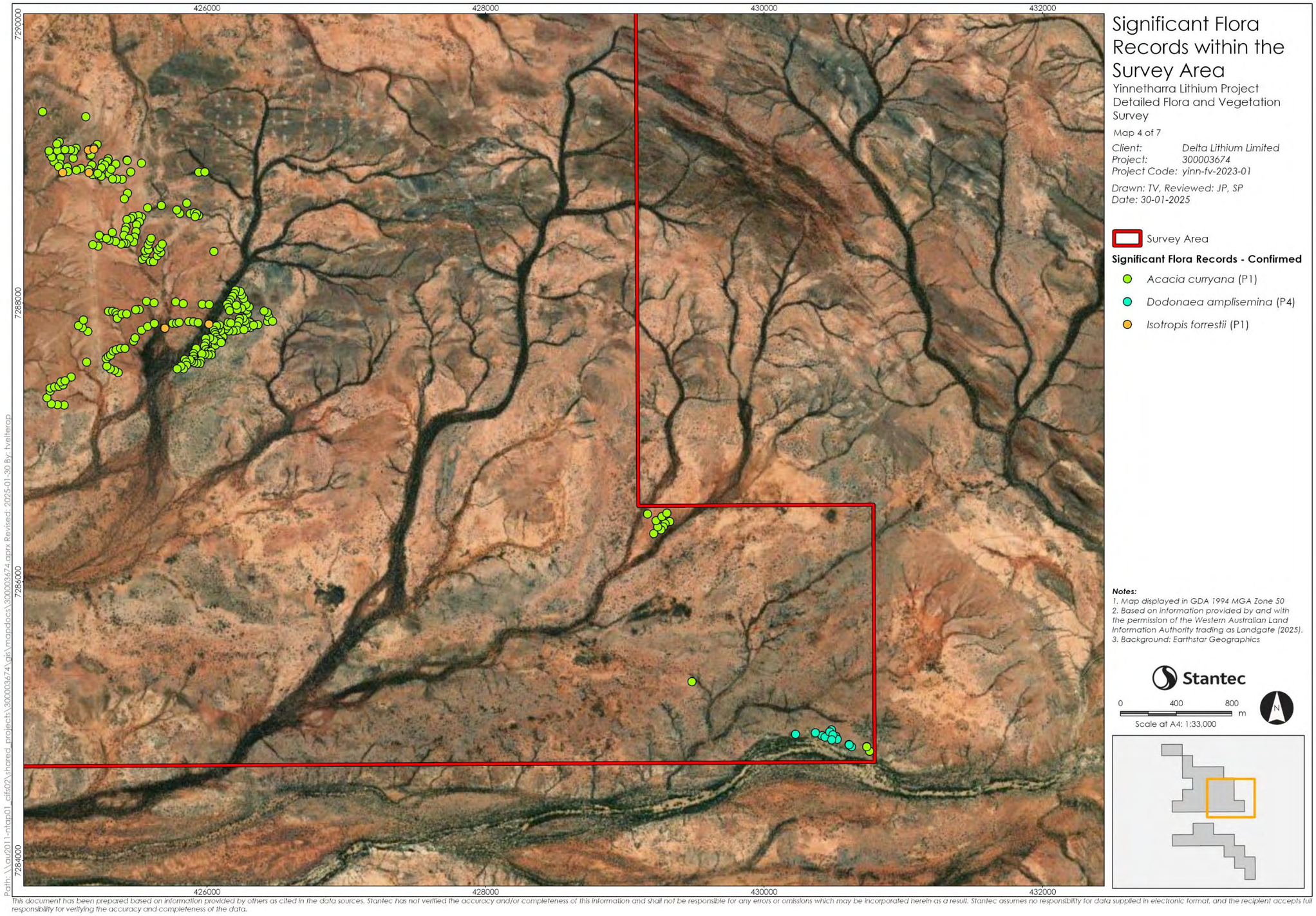
Figure J - 5


426000
428000
430000
432000
7290000
7288000
7286000
7284000
Significant Flora Records within the Survey Area
Yinnetharra Lithium Project
Detailed Flora and Vegetation Survey
Map 4 of 7
Client: Delta Lithium Limited
Project: 300003674
Project Code: yinn-fv-2023-01
Drawn: TV, Reviewed: JP, SP
Date: 30-01-2025
Survey Area
Significant Flora Records - Confirmed
Acacia curryana (P1)
Dodonaea amplisemina (P4)
Isotropis forrestii (P1)
Notes:
1. Map displayed in GDA 1994 MGA Zone 50
2. Based on information provided by and with the permission of the Western Australian Land Information Authority trading as Landgate (2025).
3. Background: Earthstar Geographics
Stantec
0
400
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m
N
Scale at A4: 1:33,000
Path: \\au2011-ntap01_cifs02\shared_projects\300003674\gis\mapdocs\300003674 aprx Revised: 2025-01-30 By: tvelterop
This document has been prepared based on information provided by others as cited in the data sources. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

Figure J - 6

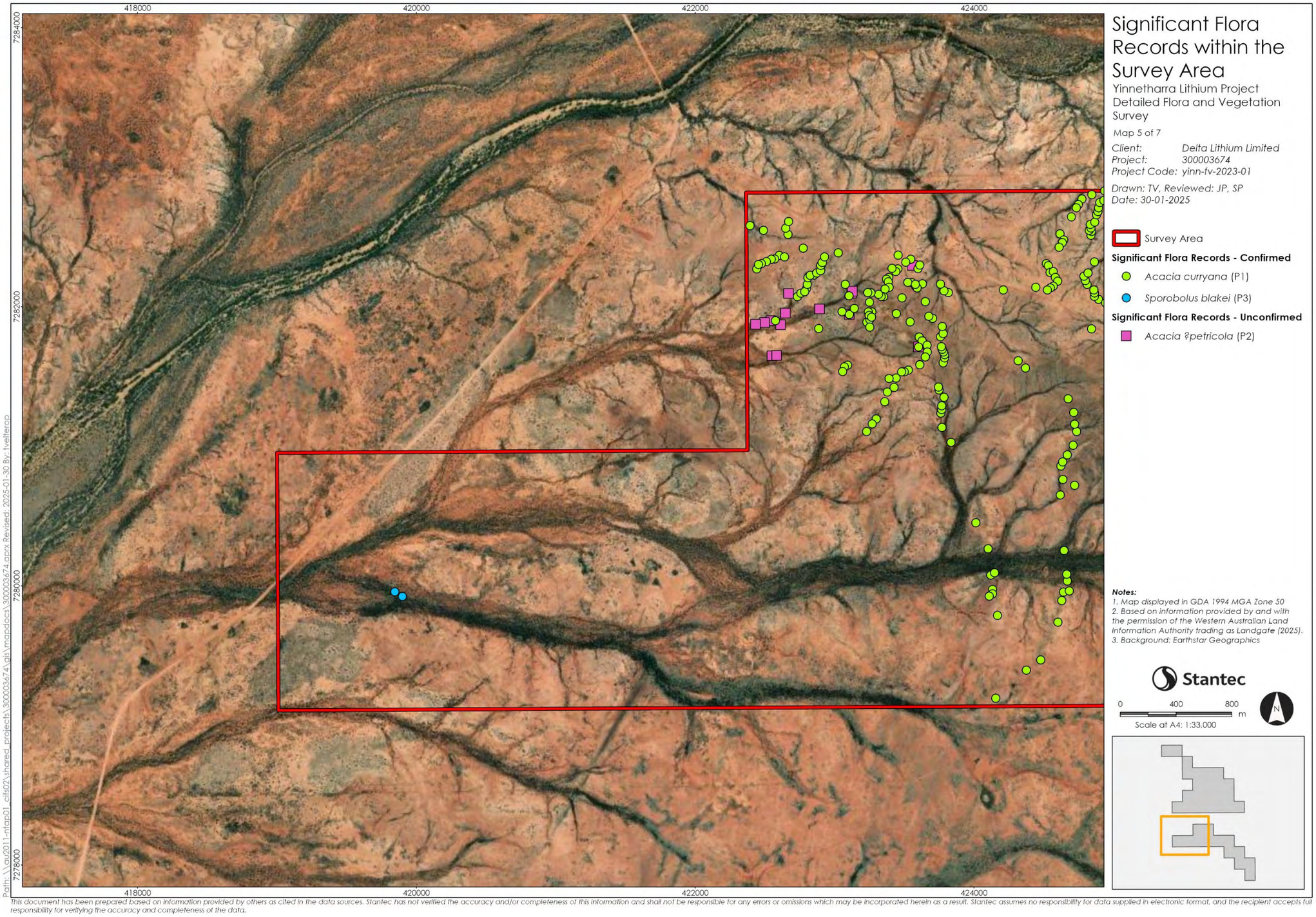
418000
420000
422000
424000
7284000
7282000
7280000
7278000
Significant Flora Records within the Survey Area
Yinnetharra Lithium Project
Detailed Flora and Vegetation Survey
Map 5 of 7
Client: Delta Lithium Limited
Project: 300003674
Project Code: yinn-fv-2023-01
Drawn: TV, Reviewed: JP, SP
Date: 30-01-2025
Survey Area
Significant Flora Records - Confirmed
Acacia curryana (P1)
Sporobolus blakei (P3)
Significant Flora Records - Unconfirmed
Acacia ?petricola (P2)
Notes:
1. Map displayed in GDA 1994 MGA Zone 50
2. Based on information provided by and with the permission of the Western Australian Land Information Authority trading as Landgate (2025).
3. Background: Earthstar Geographics
Stantec
0
400
800
m
Scale at A4: 1:33,000
N
Path: \\au2011-ntap01_cifs02\shared_projects\300003674\gis\mapdocs\300003674.aprx Revised: 2025-01-30 By: tvelterop
This document has been prepared based on information provided by others as cited in the data sources. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

Figure J - 7

Department of Biodiversity, Conservation and Attractions

Threatened and Priority Flora Report Form

Version 1.4 March 2021

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at www.dpaw.wa.gov.au/plants-and-animals/threatened-species-and-communities/threatened-plants

TAXON: Acacia curryana **TPFL Pop. No:**

OBSERVATION DATE: 2/7/2024–11/7/2024 **CONSERVATION STATUS:** P1 **New population** ☐

OBSERVER/S: Jac Clark, Scott Pansini **PHONE** +61 8 6222 7052

ROLE: Environmental Scientist: Botanist **ORGANISATION:** Stantec

EMAIL: Jac.Clark@stantec.com

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place)**:**

The survey area is located 110km northeast of Gascoyne Junction in the Gascoyne bioregion of Western Australia.

Reserve No:

DBCA DISTRICT: Gascoyne **LGA:** Shire of Upper Gascoyne Land manager present: ☐

DATUM:
GDA94 / MGA94 ☒
AGD84 / AMG84 ☐
WGS84 ☐
Unknown ☐

COORDINATES: (If UTM coords provided, **Zone** is also required)
DecDegrees ☐ DegMinSec ☐ UTMs ☒
Lat / Northing: See attached
Long / Easting: See attached
ZONE: 50

METHOD USED:
GPS ☒ Differential GPS ☐ Map ☐
No. satellites: ____ Map used: ____
Boundary polygon captured: ☐ Map scale: ____

LAND TENURE:

Nature reserve ☐	Timber reserve ☐	Private property ☐	Rail reserve ☐	Shire road reserve ☐
National park ☐	State forest ☐	Pastoral lease ☐	MRWA road reserve ☐	Other Crown reserve ☐
Conservation park ☐	Water reserve ☐	UCL ☐	SLK/Pole ____ to ____	Specify other: ____

AREA ASSESSMENT: Edge survey ☐ Partial survey ☐ Full survey ☒ Area observed (m²): ____

EFFORT: Time spent surveying (minutes): ____ No. of minutes spent / 100 m²: ____

POP'N COUNT ACCURACY: Actual ☐ Extrapolation ☐ Estimate ☒ Count method: ____
(Refer to field manual for list)

WHAT COUNTED: Plants ☒ Clumps ☐ Clonal stems ☐

TOTAL POP'N STRUCTURE:

	Mature:	Juveniles:	Seedlings:	Totals:
Alive	5271			5271
Dead	13			13

Area of pop (m²): ____

Note: Pls record count as numbers (not percentages) for database.

QUADRATS PRESENT: No. 11 Size 20x20 Data attached ☐ Total area of quadrats (m²): 4400

Summary Quad. Totals: Alive

REPRODUCTIVE STATE: Clonal ☐ Vegetative ☒ Flowerbud ☒ Flower ☒
Immature fruit ☒ Fruit ☒ Dehisced fruit ☒ Percentage in flower: 1%

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT:

THREATS - type, agent and supporting information: Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. **Specify agent** where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)	**Current impact (N-E)**	**Potential Impact (L-E)**	**Potential Threat Onset (S-L)**
• Weed invasion			
• Cattle grazing			
•			

Please return completed form to **Species And Communities Program** DBCA,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer,** Species and Communities Program.

Record entered by:_____ **Sheet No.:**_____ **Record Entered in Database** ❑

Department of Biodiversity, Conservation and Attractions

Threatened and Priority Flora Report Form

Version 1.4 March 2021

HABITAT INFORMATION:

LANDFORM:
Crest ☐
Hill ☐
Ridge ☐
Outcrop ☒
Slope ☐
Flat ☐
Open depression ☐
Drainage line ☐
Closed depression ☐
Wetland ☐

ROCK TYPE:
Granite ☒
Dolerite ☐
Laterite ☐
Ironstone ☐
Limestone ☐
Quartz ☐
Specify other: _____

LOOSE ROCK:
(on soil surface; eg gravel, quartz fields)
0-10% ☐
10-30% ☐
30-50% ☐
50-100% ☒

SOIL TYPE:
Sand ☐
Sandy loam ☒
Loam ☐
Clay loam ☐
Light clay ☐
Peat ☐
Specify other: _____

SOIL COLOUR:
Red ☐
Brown ☒
Yellow ☐
White ☐
Grey ☐
Black ☐
Specify other: _____

DRAINAGE:
Well drained ☐
Seasonally inundated ☐
Permanently inundated ☐
Tidal ☐

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☐ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:
Eg: **1**. Banksia woodland (B. attenuata, B. ilicifolia); **2**. Open shrubland (Hibbertia sp., Acacia spp.) ; **3**. Isolated clumps of sedges (M.tetragona)

1. See attached
2.
3.
4.

ASSOCIATED SPECIES:

Other (non-dominant) spp

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: **Last Fire:** Season/Month: _____ Year: _____ **Fire Intensity:** High ☐ Medium ☐ Low ☐ No signs of fire ☐

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

Fire scar evident at one site (fire occurred over six years ago)

FLORA AUTHORISATION / LICENCE No: FB62000506, TFL 2223-0108 Note if only observing plants (i.e. no specimens or plant matieral is taken) then no authorisation/licence is required. For further information on authorisation and licening requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under authorisations/licences should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: Jcpt-09-11 WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: Stantec

LODGEMENT: WA Herb Lodgement No: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☐ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☐ Other: _____

Submitter of Record: Eva Spiegl Role: Graduate Botanist Signed: E. Spiegl Date: 12/03/2024

Please return completed form to **Species And Communities Program** DBCA,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer,** Species and Communities Program.

Record entered by:_____ **Sheet No.:**_____ **Record Entered in Database** ❑

Department of Biodiversity, Conservation and Attractions

Threatened and Priority Flora Report Form

Version 1.4 March 2021

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at www.dpaw.wa.gov.au/plants-and-animals/threatened-species-and-communities/threatened-plants

TAXON: Acacia petricola **TPFL Pop. No:**

OBSERVATION DATE: 19/8/2023 **CONSERVATION STATUS:** P2 **New population** ☐

OBSERVER/S: Jac Clark, Scott Pansini **PHONE** +61 8 6222 7052

ROLE: Environmental Scientist: Botanist **ORGANISATION:** Stantec

EMAIL: Jac.Clark@stantec.com

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place)**:**

The survey area is located 110km northeast of Gascoyne Junction in the Gascoyne bioregion of Western Australia.

Reserve No:

DBCA DISTRICT: Gascoyne **LGA:** Shire of Upper Gascoyne Land manager present: ☐

DATUM:
GDA94 / MGA94 ☒
AGD84 / AMG84 ☐
WGS84 ☐
Unknown ☐

COORDINATES: (If UTM coords provided, **Zone** is also required)
DecDegrees ☐ DegMinSec ☐ UTMs ☒
Lat / Northing: 7277678.023
Long / Easting: 427646.478
ZONE: 50

METHOD USED:
GPS ☒ Differential GPS ☐ Map ☐
No. satellites: ____ Map used: _____
Boundary polygon captured: ☐ Map scale: _____

LAND TENURE:

Nature reserve ☐	Timber reserve ☐	Private property ☐	Rail reserve ☐	Shire road reserve ☐
National park ☐	State forest ☐	Pastoral lease ☐	MRWA road reserve ☐	Other Crown reserve ☐
Conservation park ☐	Water reserve ☐	UCL ☐	SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey ☐ Partial survey ☐ Full survey ☒ Area observed (m²): _____

EFFORT: Time spent surveying (minutes): _____ No. of minutes spent / 100 m²: _____

POP'N COUNT ACCURACY: Actual ☐ Extrapolation ☐ Estimate ☒ Count method: _____
(Refer to field manual for list)

WHAT COUNTED: Plants ☒ Clumps ☐ Clonal stems ☐

TOTAL POP'N STRUCTURE:

	Mature:	Juveniles:	Seedlings:	Totals:
Alive	1			1
Dead				

Area of pop (m²): _____
Note: Pls record count as numbers (not percentages) for database.

QUADRATS PRESENT: No. ____ Size 20x20 Data attached ☐ Total area of quadrats (m²): _____

Summary Quad. Totals: Alive				

REPRODUCTIVE STATE: Clonal ☐ Vegetative ☐ Flowerbud ☒ Flower ☐
Immature fruit ☐ Fruit ☐ Dehisced fruit ☐ Percentage in flower: 0%

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT:

THREATS - type, agent and supporting information: Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. **Specify agent** where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)	**Current impact (N-E)**	**Potential Impact (L-E)**	**Potential Threat Onset (S-L)**
•			
•			
•			

Please return completed form to **Species And Communities Program** DBCA,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer,** Species and Communities Program.

Record entered by:_____ **Sheet No.:**_____ **Record Entered in Database** ❑

Department of Biodiversity, Conservation and Attractions

Threatened and Priority Flora Report Form

Version 1.4 March 2021

HABITAT INFORMATION:

LANDFORM:
Crest ☐
Hill ☐
Ridge ☐
Outcrop ☐
Slope ☐
Flat ☐
Open depression ☐
Drainage line ☐
Closed depression ☐
Wetland ☐

ROCK TYPE:
Granite ☐
Dolerite ☐
Laterite ☐
Ironstone ☐
Limestone ☐
Quartz ☐
Specify other: _____

LOOSE ROCK:
(on soil surface; eg gravel, quartz fields)
0-10% ☐
10-30% ☐
30-50% ☐
50-100% ☐

SOIL TYPE:
Sand ☐
Sandy loam ☐
Loam ☐
Clay loam ☐
Light clay ☐
Peat ☐
Specify other: _____

SOIL COLOUR:
Red ☐
Brown ☐
Yellow ☐
White ☐
Grey ☐
Black ☐
Specify other: _____

DRAINAGE:
Well drained ☐
Seasonally inundated ☐
Permanently inundated ☐
Tidal ☐

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☐ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:
Eg: **1**. Banksia woodland (B. attenuata, B. ilicifolia); **2**. Open shrubland (Hibbertia sp., Acacia spp.) ; **3**. Isolated clumps of sedges (M.tetragona)

1. _____
2. _____
3. _____
4. _____

ASSOCIATED SPECIES: _____

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☐ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT: _____

FIRE HISTORY: **Last Fire:** Season/Month: _____ Year: _____ **Fire Intensity:** High ☐ Medium ☐ Low ☐ No signs of fire ☐

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

FLORA AUTHORISATION / LICENCE No: FB62000506, TFL 2223-0108 Note if only observing plants (i.e. no specimens or plant matieral is taken) then no authorisation/licence is required. For further information on authorisation and licening requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under authorisations/licences should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: Jcpt-09-11 WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: Stantec

LODGEMENT: WA Herb Lodgement No: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☐ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☐ Other: _____

Submitter of Record: Eva Spiegl Role: Graduate Botanist Signed: E. Spiegl Date: 12/03/2024

Please return completed form to **Species And Communities Program** DBCA,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer,** Species and Communities Program.

Record entered by:_____ **Sheet No.:**_____ **Record Entered in Database** ❑

Department of Biodiversity, Conservation and Attractions

Threatened and Priority Flora Report Form

Version 1.4 March 2021

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at www.dpaw.wa.gov.au/plants-and-animals/threatened-species-and-communities/threatened-plants

TAXON: Dodonaea amplisemina **TPFL Pop. No:**

OBSERVATION DATE: 15/8/2023–11/7/2024 **CONSERVATION STATUS:** P4 **New population** ☐

OBSERVER/S: Jac Clark, Scott Pansini **PHONE** +61 8 6222 7052

ROLE: Environmental Scientist: Botanist **ORGANISATION:** Stantec

EMAIL: Jac.Clark@stantec.com

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place)**:**

The survey area is located 110km northeast of Gascoyne Junction in the Gascoyne bioregion of Western Australia.

Reserve No:

DBCA DISTRICT: Gascoyne **LGA:** Shire of Upper Gascoyne Land manager present: ☐

DATUM:
GDA94 / MGA94 ☒
AGD84 / AMG84 ☐
WGS84 ☐
Unknown ☐

COORDINATES: (If UTM coords provided, **Zone** is also required)
DecDegrees ☐ DegMinSec ☐ UTMs ☒
Lat / Northing: See attached
Long / Easting: See attached
ZONE: 50

METHOD USED:
GPS ☒ Differential GPS ☐ Map ☐
No. satellites: ____ Map used: _____
Boundary polygon captured: ☐ Map scale: _____

LAND TENURE:

Nature reserve ☐	Timber reserve ☐	Private property ☐	Rail reserve ☐	Shire road reserve ☐
National park ☐	State forest ☐	Pastoral lease ☐	MRWA road reserve ☐	Other Crown reserve ☐
Conservation park ☐	Water reserve ☐	UCL ☐	SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey ☐ Partial survey ☐ Full survey ☒ Area observed (m²): _____

EFFORT: Time spent surveying (minutes): _____ No. of minutes spent / 100 m²: _____

POP'N COUNT ACCURACY: Actual ☐ Extrapolation ☐ Estimate ☒ Count method: _____
(Refer to field manual for list)

WHAT COUNTED: Plants ☒ Clumps ☐ Clonal stems ☐

TOTAL POP'N STRUCTURE:

	Mature:	Juveniles:	Seedlings:	Totals:
Alive	195			
Dead				

Area of pop (m²): _____
Note: Pls record count as numbers (not percentages) for database.

QUADRATS PRESENT: No. ____ Size 20x20 Data attached ☐ Total area of quadrats (m²): _____

Summary Quad. Totals: Alive				

REPRODUCTIVE STATE: Clonal ☐ Vegetative ☒ Flowerbud ☐ Flower ☐
Immature fruit ☐ Fruit ☐ Dehisced fruit ☐ Percentage in flower: 0%

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT:

THREATS - type, agent and supporting information: Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. **Specify agent** where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)	**Current impact (N-E)**	**Potential Impact (L-E)**	**Potential Threat Onset (S-L)**
•			
•			
•			

Please return completed form to **Species And Communities Program** DBCA,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer,** Species and Communities Program.

Record entered by:_____ **Sheet No.:**_____ **Record Entered in Database** ❑

Department of Biodiversity, Conservation and Attractions

Threatened and Priority Flora Report Form

Version 1.4 March 2021

HABITAT INFORMATION:

LANDFORM:
Crest ☐
Hill ☐
Ridge ☐
Outcrop ☐
Slope ☐
Flat ☐
Open depression ☐
Drainage line ☐
Closed depression ☐
Wetland ☐

ROCK TYPE:
Granite ☐
Dolerite ☐
Laterite ☐
Ironstone ☐
Limestone ☐
Quartz ☐
Specify other: _____

LOOSE ROCK:
(on soil surface; eg gravel, quartz fields)
0-10% ☐
10-30% ☐
30-50% ☐
50-100% ☐

SOIL TYPE:
Sand ☐
Sandy loam ☐
Loam ☐
Clay loam ☐
Light clay ☐
Peat ☐
Specify other: _____

SOIL COLOUR:
Red ☐
Brown ☐
Yellow ☐
White ☐
Grey ☐
Black ☐
Specify other: _____

DRAINAGE:
Well drained ☐
Seasonally inundated ☐
Permanently inundated ☐
Tidal ☐

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☐ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:
Eg: **1**. Banksia woodland (B. attenuata, B. ilicifolia); **2**. Open shrubland (Hibbertia sp., Acacia spp.) ; **3**. Isolated clumps of sedges (M.tetragona)

1. _____
2. _____
3. _____
4. _____

ASSOCIATED SPECIES: _____

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☐ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT: _____

FIRE HISTORY: **Last Fire:** Season/Month: _____ Year: _____ **Fire Intensity:** High ☐ Medium ☐ Low ☐ No signs of fire ☐

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

FLORA AUTHORISATION / LICENCE No: FB62000506, TFL 2223-0108 Note if only observing plants (i.e. no specimens or plant matieral is taken) then no authorisation/licence is required. For further information on authorisation and licening requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under authorisations/licences should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: Jcpt-09-11 WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: Stantec

LODGEMENT: WA Herb Lodgement No: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☐ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☐ Other: _____

Submitter of Record: Eva Spiegl Role: Graduate Botanist Signed: E. Spiegl Date: 12/03/2024

Please return completed form to **Species And Communities Program** DBCA,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer,** Species and Communities Program.

Record entered by:_____ **Sheet No.:**_____ **Record Entered in Database** ❑

Department of Biodiversity, Conservation and Attractions

Threatened and Priority Flora Report Form

Version 1.4 March 2021

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TAXON: Goodenia berringbinensis **TPFL Pop. No:**

OBSERVATION DATE: 15/8/2023–11/7/2024 **CONSERVATION STATUS:** P4 **New population** ☐

OBSERVER/S: Jac Clark, Scott Pansini **PHONE** +61 8 6222 7052

ROLE: Environmental Scientist: Botanist **ORGANISATION:** Stantec

EMAIL: Jac.Clark@stantec.com

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place)**:**

The survey area is located 110km northeast of Gascoyne Junction in the Gascoyne bioregion of Western Australia.

Reserve No:

DBCA DISTRICT: Gascoyne **LGA:** Shire of Upper Gascoyne Land manager present: ☐

DATUM:
GDA94 / MGA94 ☒
AGD84 / AMG84 ☐
WGS84 ☐
Unknown ☐

COORDINATES: (If UTM coords provided, **Zone** is also required)
DecDegrees ☐ DegMinSec ☐ UTMs ☒
Lat / Northing: 7274243.593
Long / Easting: 432423.608
ZONE: 50

METHOD USED:
GPS ☒ Differential GPS ☐ Map ☐
No. satellites: ____ Map used: _____
Boundary polygon captured: ☐ Map scale: _____

LAND TENURE:

Nature reserve ☐	Timber reserve ☐	Private property ☐	Rail reserve ☐	Shire road reserve ☐
National park ☐	State forest ☐	Pastoral lease ☐	MRWA road reserve ☐	Other Crown reserve ☐
Conservation park ☐	Water reserve ☐	UCL ☐	SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey ☐ Partial survey ☐ Full survey ☒ Area observed (m²): _____

EFFORT: Time spent surveying (minutes): _____ No. of minutes spent / 100 m²: _____

POP'N COUNT ACCURACY: Actual ☐ Extrapolation ☐ Estimate ☒ Count method: _____
(Refer to field manual for list)

WHAT COUNTED: Plants ☒ Clumps ☐ Clonal stems ☐

TOTAL POP'N STRUCTURE:

	Mature:	Juveniles:	Seedlings:	Totals:
Alive	1			
Dead				

Area of pop (m²): 400

Note: Pls record count as numbers (not percentages) for database.

QUADRATS PRESENT: No. ____ Size 20x20 Data attached ☐ Total area of quadrats (m²): _____

Summary Quad. Totals: Alive				

REPRODUCTIVE STATE: Clonal ☐ Vegetative ☐ Flowerbud ☐ Flower ☒
Immature fruit ☐ Fruit ☐ Dehisced fruit ☐ Percentage in flower: ____%

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT:

THREATS - type, agent and supporting information: Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. **Specify agent** where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)	**Current impact (N-E)**	**Potential Impact (L-E)**	**Potential Threat Onset (S-L)**
• Cattle grazing and trampling	M	M	
•			
•			

Please return completed form to **Species And Communities Program** DBCA,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

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HABITAT INFORMATION:

LANDFORM:
Crest ☐
Hill ☐
Ridge ☐
Outcrop ☐
Slope ☐
Flat ☐
Open depression ☐
Drainage line ☐
Closed depression ☒
Wetland ☐

ROCK TYPE:
Granite ☐
Dolerite ☐
Laterite ☐
Ironstone ☐
Limestone ☐
Quartz ☒
Specify other: _____

LOOSE ROCK:
(on soil surface; eg gravel, quartz fields)
0-10% ☒
10-30% ☐
30-50% ☐
50-100% ☐

SOIL TYPE:
Sand ☐
Sandy loam ☐
Loam ☐
Clay loam ☒
Light clay ☐
Peat ☐
Specify other: _____

SOIL COLOUR:
Red ☒
Brown ☐
Yellow ☐
White ☐
Grey ☐
Black ☐
Specify other: _____

DRAINAGE:
Well drained ☐
Seasonally inundated ☒
Permanently inundated ☐
Tidal ☐

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:
Eg: **1**. Banksia woodland (B. attenuata, B. ilicifolia); **2**. Open shrubland (Hibbertia sp., Acacia spp.) ; **3**. Isolated clumps of sedges (M.tetragona)

1. Acacia pruinocarpa, Acacia tetragonophylla and Acacia kempeana tall open shrubland.
2. Eremophila phyllopoda subsp. phyllopoda and Senna artemisiodes subsp. oligophylla open shrubland.
3. Eriachne sp. and Eragrostis spp.
4.

ASSOCIATED SPECIES:

Other (non-dominant) spp

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☐ Very good ☒ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: **Last Fire:** Season/Month: _____ Year: _____ **Fire Intensity:** High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

FLORA AUTHORISATION / LICENCE No: FB62000506, TFL 2223-0108 Note if only observing plants (i.e. no specimens or plant matieral is taken) then no authorisation/licence is required. For further information on authorisation and licening requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under authorisations/licences should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: Jcpt-09-11 WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: Stantec

LODGEMENT: WA Herb Lodgement No: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☐ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☐ Other: _____

Submitter of Record: Eva Spiegl Role: Graduate Botanist Signed: E. Spiegl Date: 12/03/2024

Please return completed form to **Species And Communities Program** DBCA,
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TAXON: Isotropis forestii **TPFL Pop. No:**

OBSERVATION DATE: 15/8/2023–11/7/2024 **CONSERVATION STATUS:** P1 **New population** ☐

OBSERVER/S: Jac Clark, Scott Pansini **PHONE** +61 8 6222 7052

ROLE: Environmental Scientist: Botanist **ORGANISATION:** Stantec

EMAIL: Jac.Clark@stantec.com

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place)**:**

The survey area is located 110km northeast of Gascoyne Junction in the Gascoyne bioregion of Western Australia.

Reserve No:

DBCA DISTRICT: Gascoyne **LGA:** Shire of Upper Gascoyne Land manager present: ☐

DATUM:
GDA94 / MGA94 ☒
AGD84 / AMG84 ☐
WGS84 ☐
Unknown ☐

COORDINATES: (If UTM coords provided, **Zone** is also required)
DecDegrees ☐ DegMinSec ☐ UTMs ☒
Lat / Northing: See attached
Long / Easting: See attached
ZONE: 50

METHOD USED:
GPS ☒ Differential GPS ☐ Map ☐
No. satellites: ____ Map used: _____
Boundary polygon captured: ☐ Map scale: _____

LAND TENURE:
Nature reserve ☐ Timber reserve ☐ Private property ☐ Rail reserve ☐ Shire road reserve ☐
National park ☐ State forest ☐ Pastoral lease ☐ MRWA road reserve ☐ Other Crown reserve ☐
Conservation park ☐ Water reserve ☐ UCL ☐ SLK/Pole _____ to _____ Specify other: _____

AREA ASSESSMENT: Edge survey ☐ Partial survey ☐ Full survey ☒ Area observed (m²): _____

EFFORT: Time spent surveying (minutes): _____ No. of minutes spent / 100 m²: _____

POP'N COUNT ACCURACY: Actual ☐ Extrapolation ☐ Estimate ☒ Count method: _____
(Refer to field manual for list)

WHAT COUNTED: Plants ☒ Clumps ☐ Clonal stems ☐

TOTAL POP'N STRUCTURE:	**Mature:**	**Juveniles:**	**Seedlings:**	**Totals:**
Alive	16			16
Dead	145			145

Area of pop (m²): _____

Note: Pls record count as numbers (not percentages) for database.

QUADRATS PRESENT: No. ____ Size 20x20 Data attached ☐ Total area of quadrats (m²): _____

Summary Quad. Totals: Alive				

REPRODUCTIVE STATE: Clonal ☐ Vegetative ☒ Flowerbud ☐ Flower ☒
Immature fruit ☐ Fruit ☐ Dehisced fruit ☐ Percentage in flower: 9%

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT:

THREATS - type, agent and supporting information: Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. **Specify agent** where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)	**Current impact (N-E)**	**Potential Impact (L-E)**	**Potential Threat Onset (S-L)**
•			
•			
•			

Please return completed form to **Species And Communities Program** DBCA,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer,** Species and Communities Program.

Record entered by:_____ **Sheet No.:**_____ **Record Entered in Database** ❑

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Version 1.4 March 2021

HABITAT INFORMATION:

LANDFORM:
Crest ☐
Hill ☐
Ridge ☐
Outcrop ☐
Slope ☐
Flat ☐
Open depression ☐
Drainage line ☐
Closed depression ☐
Wetland ☐

ROCK TYPE:
Granite ☐
Dolerite ☐
Laterite ☐
Ironstone ☐
Limestone ☐
Quartz ☐
Specify other: _____

LOOSE ROCK:
(on soil surface; eg gravel, quartz fields)
0-10% ☐
10-30% ☐
30-50% ☐
50-100% ☐

SOIL TYPE:
Sand ☐
Sandy loam ☐
Loam ☐
Clay loam ☐
Light clay ☐
Peat ☐
Specify other: _____

SOIL COLOUR:
Red ☐
Brown ☐
Yellow ☐
White ☐
Grey ☐
Black ☐
Specify other: _____

DRAINAGE:
Well drained ☐
Seasonally inundated ☐
Permanently inundated ☐
Tidal ☐

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☐ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:
Eg: **1**. Banksia woodland (B. attenuata, B. ilicifolia); **2**. Open shrubland (Hibbertia sp., Acacia spp.) ; **3**. Isolated clumps of sedges (M.tetragona)

1. _____
2. _____
3. _____
4. _____

ASSOCIATED SPECIES: _____

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☐ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT: _____

FIRE HISTORY: **Last Fire:** Season/Month: _____ Year: _____ **Fire Intensity:** High ☐ Medium ☐ Low ☐ No signs of fire ☐

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

FLORA AUTHORISATION / LICENCE No: FB62000506, TFL 2223-0108 Note if only observing plants (i.e. no specimens or plant matieral is taken) then no authorisation/licence is required. For further information on authorisation and licening requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under authorisations/licences should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: Jcpt-09-11 WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: Stantec

LODGEMENT: WA Herb Lodgement No: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☐ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☐ Other: _____

Submitter of Record: Eva Spiegl Role: Graduate Botanist Signed: E. Spiegl Date: 12/03/2024

Please return completed form to **Species And Communities Program** DBCA,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer,** Species and Communities Program.

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TAXON: Sporobolus blakei **TPFL Pop. No:**

OBSERVATION DATE: 15/8/2023–11/7/2024 **CONSERVATION STATUS:** P3 **New population** ☐

OBSERVER/S: Jac Clark, Scott Pansini **PHONE** +61 8 6222 7052

ROLE: Environmental Scientist: Botanist **ORGANISATION:** Stantec

EMAIL: Jac.Clark@stantec.com

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place)**:**

The survey area is located 110km northeast of Gascoyne Junction in the Gascoyne bioregion of Western Australia.

Reserve No:

DBCA DISTRICT: Gascoyne **LGA:** Shire of Upper Gascoyne Land manager present: ☐

DATUM:
GDA94 / MGA94 ☒
AGD84 / AMG84 ☐
WGS84 ☐
Unknown ☐

COORDINATES: (If UTM coords provided, **Zone** is also required)
DecDegrees ☐ DegMinSec ☐ UTMs ☒
Lat / Northing: See attached
Long / Easting: See attached
ZONE: 50

METHOD USED:
GPS ☒ Differential GPS ☐ Map ☐
No. satellites: ____ Map used: ____
Boundary polygon captured: ☐ Map scale: ____

LAND TENURE:

Nature reserve ☐	Timber reserve ☐	Private property ☐	Rail reserve ☐	Shire road reserve ☐
National park ☐	State forest ☐	Pastoral lease ☐	MRWA road reserve ☐	Other Crown reserve ☐
Conservation park ☐	Water reserve ☐	UCL ☐	SLK/Pole ____ to ____	Specify other: ____

AREA ASSESSMENT: Edge survey ☐ Partial survey ☐ Full survey ☒ Area observed (m²): ____

EFFORT: Time spent surveying (minutes): ____ No. of minutes spent / 100 m²: ____

POP'N COUNT ACCURACY: Actual ☐ Extrapolation ☐ Estimate ☒ Count method: ____
(Refer to field manual for list)

WHAT COUNTED: Plants ☒ Clumps ☐ Clonal stems ☐

TOTAL POP'N STRUCTURE:

	Mature:	Juveniles:	Seedlings:	Totals:
Alive	165			165
Dead				

Area of pop (m²): ____
Note: Pls record count as numbers (not percentages) for database.

QUADRATS PRESENT: No. 1 Size 20x20 Data attached ☐ Total area of quadrats (m²): 400

Summary Quad. Totals: Alive				

REPRODUCTIVE STATE: Clonal ☐ Vegetative ☐ Flowerbud ☐ Flower ☐
Immature fruit ☐ Fruit ☒ Dehisced fruit ☐ Percentage in flower: 0%

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT:

THREATS - type, agent and supporting information: Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. **Specify agent** where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)	**Current impact (N-E)**	**Potential Impact (L-E)**	**Potential Threat Onset (S-L)**
• Cattle grazing			
• Weed invasion			
•			

Please return completed form to **Species And Communities Program** DBCA,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

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HABITAT INFORMATION:

LANDFORM:
Crest ☐
Hill ☐
Ridge ☐
Outcrop ☐
Slope ☐
Flat ☐
Open depression ☐
Drainage line ☒
Closed depression ☐
Wetland ☐

ROCK TYPE:
Granite ☐
Dolerite ☐
Laterite ☐
Ironstone ☐
Limestone ☐
Quartz ☒
Specify other: _____

LOOSE ROCK:
(on soil surface; eg gravel, quartz fields)
0-10% ☒
10-30% ☐
30-50% ☐
50-100% ☐

SOIL TYPE:
Sand ☒
Sandy loam ☐
Loam ☐
Clay loam ☐
Light clay ☐
Peat ☐
Specify other: _____

SOIL COLOUR:
Red ☒
Brown ☐
Yellow ☐
White ☐
Grey ☐
Black ☐
Specify other: _____

DRAINAGE:
Well drained ☐
Seasonally inundated ☐
Permanently inundated ☐
Tidal ☐

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☐ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:
Eg: **1**. Banksia woodland (B. attenuata, B. ilicifolia); **2**. Open shrubland (Hibbertia sp., Acacia spp.) ; **3**. Isolated clumps of sedges (M.tetragona)

1. Acacia cuthbertsonii subsp. cuthbertsonii tall open shrubland.
2. Senna artemisioides subsp. helmsii and Acacia kempeana open shrubland.
3. Eriachne aristidea, Aristida contorta, Cenchrus ciliaris open tussock grassland.
4.

ASSOCIATED SPECIES:

Other (non-dominant) spp

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: **Last Fire:** Season/Month: _____ Year: _____ **Fire Intensity:** High ☐ Medium ☐ Low ☐ No signs of fire ☐

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

FLORA AUTHORISATION / LICENCE No: FB62000506, TFL 2223-0108 Note if only observing plants (i.e. no specimens or plant matieral is taken) then no authorisation/licence is required. For further information on authorisation and licening requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under authorisations/licences should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: Jcpt-09-11 WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: Stantec

LODGEMENT: WA Herb Lodgement No: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☐ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☐ Other: _____

Submitter of Record: Eva Spiegl Role: Graduate Botanist Signed: E. Spiegl Date: 12/03/2024

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Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer,** Species and Communities Program.

Record entered by:_____ **Sheet No.:**_____ **Record Entered in Database** ❑

Department of Biodiversity, Conservation and Attractions

Threatened and Priority Flora Report Form

Version 1.4 March 2021

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at www.dpaw.wa.gov.au/plants-and-animals/threatened-species-and-communities/threatened-plants

TAXON: Wurmbea fluviatilis **TPFL Pop. No:**

OBSERVATION DATE: 15/8/2023–11/7/2024 **CONSERVATION STATUS:** P2 **New population** ☐

OBSERVER/S: Jac Clark, Scott Pansini **PHONE** +61 8 6222 7052

ROLE: Environmental Scientist: Botanist **ORGANISATION:** Stantec

EMAIL: Jac.Clark@stantec.com

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place)**:**

The survey area is located 110km northeast of Gascoyne Junction in the Gascoyne bioregion of Western Australia.

Reserve No:

DBCA DISTRICT: Gascoyne **LGA:** Shire of Upper Gascoyne Land manager present: ☐

DATUM:
GDA94 / MGA94 ☒
AGD84 / AMG84 ☐
WGS84 ☐
Unknown ☐

COORDINATES: (If UTM coords provided, **Zone** is also required)
DecDegrees ☐ DegMinSec ☐ UTMs ☒
Lat / Northing: 7292103.497
Long / Easting: 420760.879
ZONE: 50

METHOD USED:
GPS ☒ Differential GPS ☐ Map ☐
No. satellites: ____ Map used: _____
Boundary polygon captured: ☐ Map scale: _____

LAND TENURE:

Nature reserve ☐	Timber reserve ☐	Private property ☐	Rail reserve ☐	Shire road reserve ☐
National park ☐	State forest ☐	Pastoral lease ☐	MRWA road reserve ☐	Other Crown reserve ☐
Conservation park ☐	Water reserve ☐	UCL ☐	SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey ☐ Partial survey ☐ Full survey ☒ Area observed (m²): _____

EFFORT: Time spent surveying (minutes): _____ No. of minutes spent / 100 m²: _____

POP'N COUNT ACCURACY: Actual ☐ Extrapolation ☐ Estimate ☒ Count method: _____
(Refer to field manual for list)

WHAT COUNTED: Plants ☒ Clumps ☐ Clonal stems ☐

TOTAL POP'N STRUCTURE:

	Mature:	Juveniles:	Seedlings:	Totals:
Alive	150			150
Dead				

Area of pop (m²): _____
Note: Pls record count as numbers (not percentages) for database.

QUADRATS PRESENT: No. ____ Size 20x20 Data attached ☐ Total area of quadrats (m²): _____

Summary Quad. Totals: Alive				

REPRODUCTIVE STATE: Clonal ☐ Vegetative ☒ Flowerbud ☐ Flower ☐
Immature fruit ☐ Fruit ☐ Dehisced fruit ☐ Percentage in flower: 0%

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT:

THREATS - type, agent and supporting information: Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. **Specify agent** where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)	**Current impact (N-E)**	**Potential Impact (L-E)**	**Potential Threat Onset (S-L)**
•			
•			
•			

Please return completed form to **Species And Communities Program** DBCA,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer,** Species and Communities Program.

Record entered by:_____ **Sheet No.:**_____ **Record Entered in Database** ❑

Department of Biodiversity, Conservation and Attractions

Threatened and Priority Flora Report Form

Version 1.4 March 2021

HABITAT INFORMATION:

LANDFORM:
Crest ☐
Hill ☐
Ridge ☐
Outcrop ☐
Slope ☐
Flat ☐
Open depression ☐
Drainage line ☐
Closed depression ☐
Wetland ☐

ROCK TYPE:
Granite ☐
Dolerite ☐
Laterite ☐
Ironstone ☐
Limestone ☐
Quartz ☐
Specify other: _____

LOOSE ROCK:
(on soil surface; eg gravel, quartz fields)
0-10% ☐
10-30% ☐
30-50% ☐
50-100% ☐

SOIL TYPE:
Sand ☐
Sandy loam ☐
Loam ☐
Clay loam ☐
Light clay ☐
Peat ☐
Specify other: _____

SOIL COLOUR:
Red ☐
Brown ☐
Yellow ☐
White ☐
Grey ☐
Black ☐
Specify other: _____

DRAINAGE:
Well drained ☐
Seasonally inundated ☐
Permanently inundated ☐
Tidal ☐

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☐ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:
Eg: **1**. Banksia woodland (B. attenuata, B. ilicifolia); **2**. Open shrubland (Hibbertia sp., Acacia spp.) ; **3**. Isolated clumps of sedges (M.tetragona)

1. _____
2. _____
3. _____
4. _____

ASSOCIATED SPECIES: _____

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☐ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT: _____

FIRE HISTORY: **Last Fire:** Season/Month: _____ Year: _____ **Fire Intensity:** High ☐ Medium ☐ Low ☐ No signs of fire ☐

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

FLORA AUTHORISATION / LICENCE No: FB62000506, TFL 2223-0108 Note if only observing plants (i.e. no specimens or plant matieral is taken) then no authorisation/licence is required. For further information on authorisation and licening requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under authorisations/licences should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: Jcpt-09-11 WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: Stantec

LODGEMENT: WA Herb Lodgement No: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☐ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☐ Other: _____

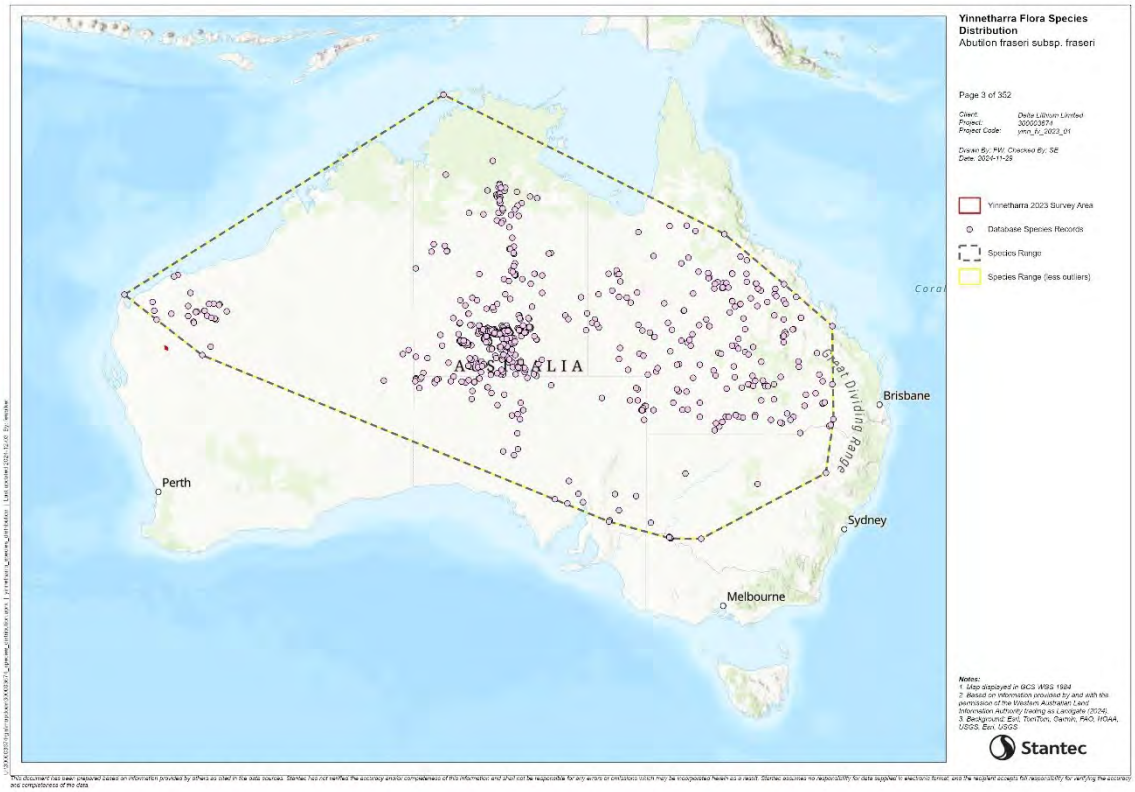
Submitter of Record: Eva Spiegl Role: Graduate Botanist Signed: E. Spiegl Date: 12/03/2024

Please return completed form to **Species And Communities Program** DBCA,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer,** Species and Communities Program.

Record entered by:_____ **Sheet No.:**_____ **Record Entered in Database** ❑

Appendix K Species Range Distribution Figures


Yinnetharra Flora Species Distribution
Abutilon fraseri subsp. fraseri
Page 3 of 352
Client: Delta Lithium Limited
Project: 300003674
Project Code: ynn_fc_2023_01
Drawn By: FW; Checked By: SE
Date: 2024-11-29
Yinnetharra 2023 Survey Area
Database Species Records
Species Range
Species Range (less outliers)
AUSTRALIA
Great Dividing Range
Brisbane
Perth
Sydney
Melbourne
Notes:
1. Map displayed in GCS WGS 1984
2. Based on information provided by and with the permission of the Western Australian Land Information Authority trading as Landgate (2024).
3. Background: Esri, TomTom, Garmin, FAO, NOAA, USGS, Esri, USGS
Stantec


Yinnetharra Flora Species Distribution
Acacia curryana
Page 8 of 352
Client: Delta Lithium Limited
Project: 300003674
Project Code: ynn_fc_2023_01
Drawn By: FW; Checked By: SE
Date: 2024-11-29
Yinnetharra 2023 Survey Area
Database Species Records
Species Range
Species Range (less outliers)
AUSTRALIA
Great Dividing Range
Brisbane
Perth
Sydney
Melbourne
Notes:
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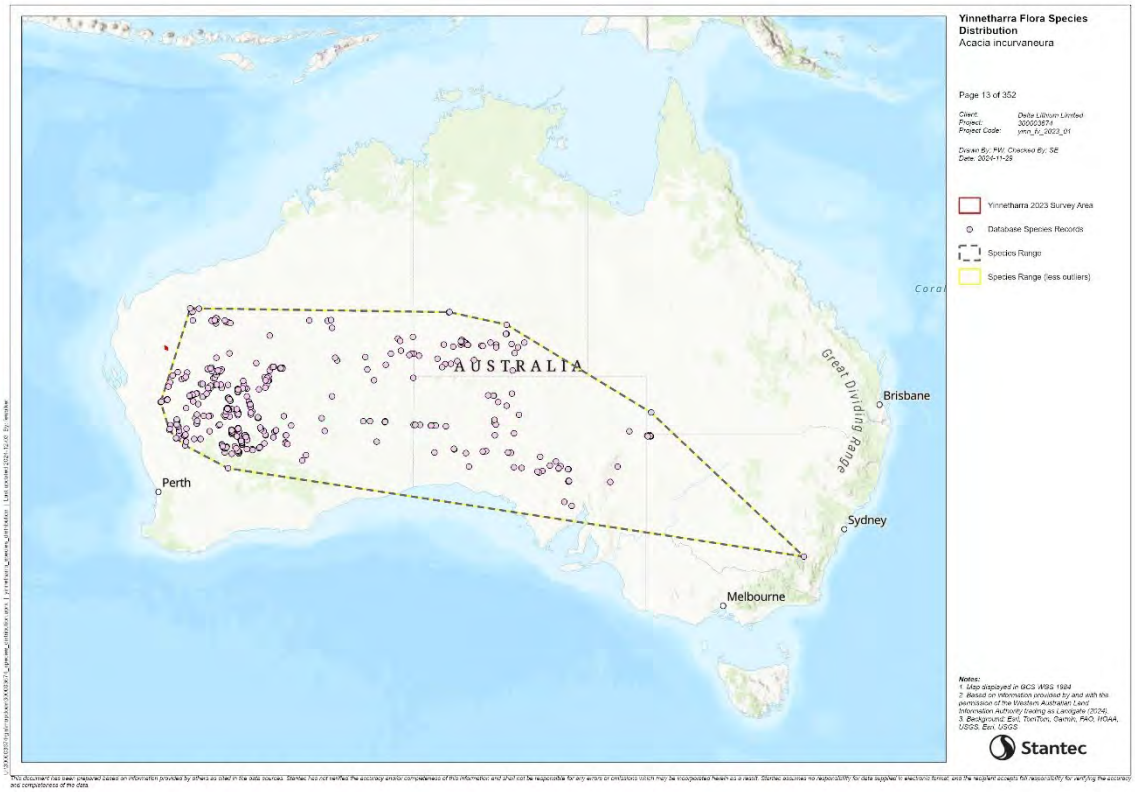
3. Background: Esri, TomTom, Garmin, FAO, NOAA, USGS, Esri, USGS
Stantec


Yinnetharra Flora Species Distribution
Acacia incurvaneura
Page 13 of 352
Client: Delta Lithium Limited
Project: 300003674
Project Code: ymn_fc_2023_01
Drawn By: FW; Checked By: SE
Date: 2024-11-29
Yinnetharra 2023 Survey Area
Database Species Records
Species Range
Species Range (less outliers)
AUSTRALIA
Great Dividing Range
Brisbane
Perth
Sydney
Melbourne
Notes:
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2. Based on information provided by and with the permission of the Western Australian Land Information Authority trading as Landgate (2024).
3. Background: Esri, TomTom, Garmin, FAO, NOAA, USGS, Esri, USGS
Stantec


Yinnetharra Flora Species Distribution
Acacia petricola
Page 16 of 352
Client: Delta Lithium Limited
Project: 300003674
Project Code: ymn_fc_2023_01
Drawn By: FW; Checked By: SE
Date: 2024-11-29
Yinnetharra 2023 Survey Area
Database Species Records
Species Range
Species Range (less outliers)
AUSTRALIA
Great Dividing Range
Brisbane
Perth
Sydney
Melbourne
Notes:
1. Map displayed in GCS WGS 1984
2. Based on information provided by and with the permission of the Western Australian Land Information Authority trading as Landgate (2024).
3. Background: Esri, TomTom, Garmin, FAO, NOAA, USGS, Esri, USGS
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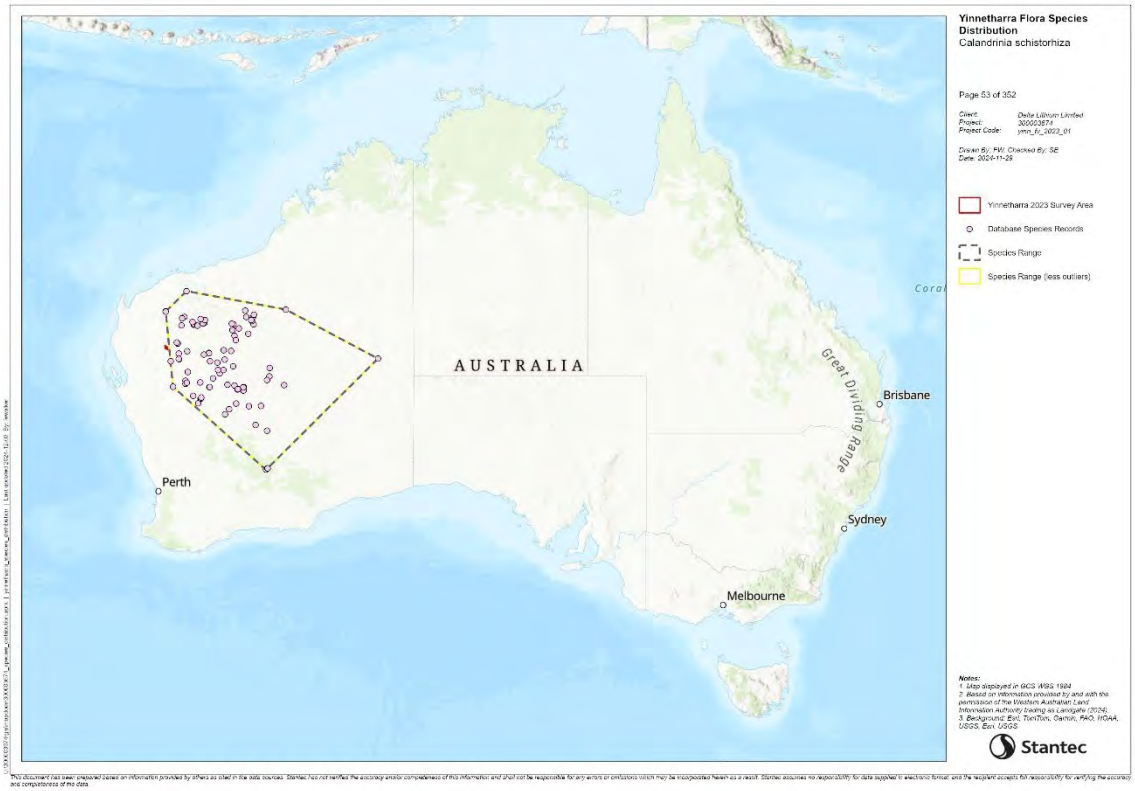
Yinnetharra Flora Species Distribution
Calandrinia monosperma
Client: Delta Lithium Limited
Project: 300003674
Project Code: ynn_fc_2023_01
Drawn By: TV, Checked By: SF
Date: 2024-12-19
Yinnetharra 2023 Survey Area
Database Species Records
Species Range
Species Range (less outliers)
AUSTRALIA
Perth
Brisbane
Sydney
Melbourne
Great Dividing Range
Coral Sea
Notes:
1. Map displayed in GCS WGS 1984
2. Based on information provided by and with the permission of the Western Australian Land Information Authority trading as Landgate (2024).
3. Background Esri, TomTom, Garmin, FAO, NOAA, USGS, Esri, USGS
Stantec


Yinnetharra Flora Species Distribution
Calandrinia schistorhiza
Page 53 of 352
Client: Delta Lithium Limited
Project: 300003674
Project Code: ynn_fc_2023_01
Drawn By: FW, Checked By: SE
Date: 2024-11-29
Yinnetharra 2023 Survey Area
Database Species Records
Species Range
Species Range (less outliers)
AUSTRALIA
Perth
Brisbane
Sydney
Melbourne
Great Dividing Range
Notes:
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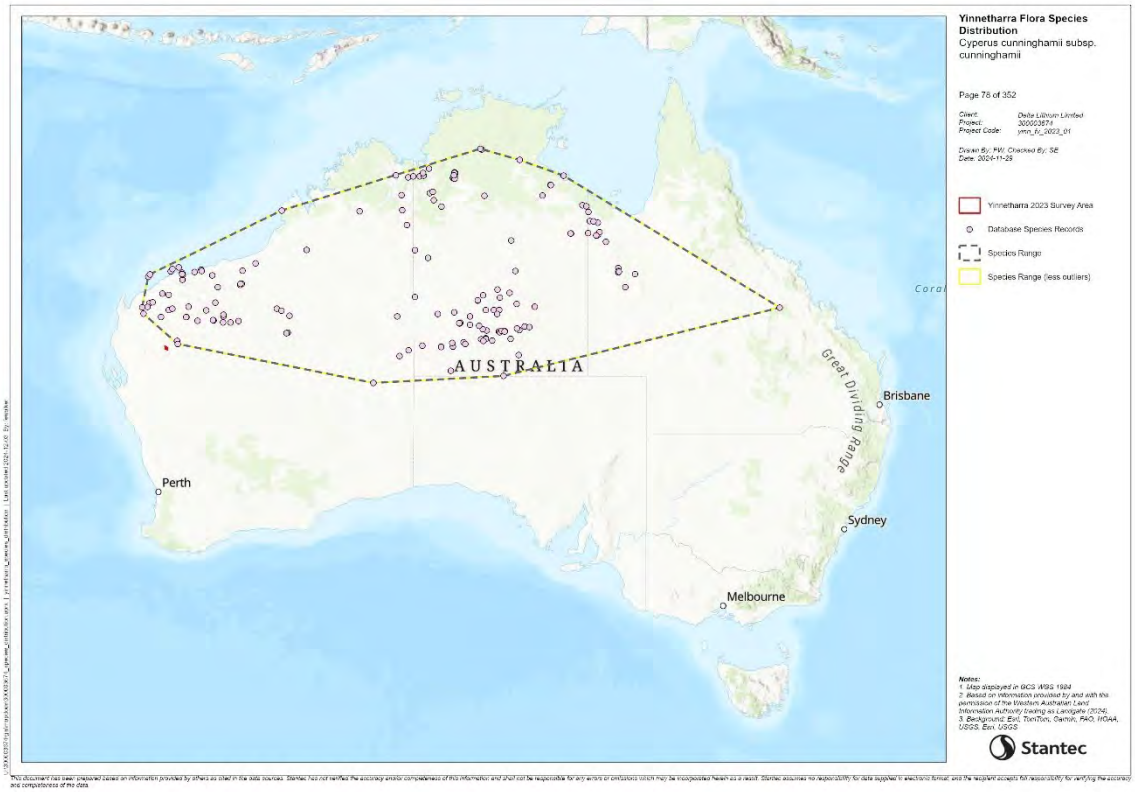
2. Based on information provided by and with the permission of the Western Australian Land Information Authority trading as Landgate (2024).
3. Background Esri, TomTom, Garmin, FAO, NOAA, USGS, Esri, USGS
Stantec


Yinnetharra Flora Species Distribution
Cyperus cunninghamii subsp. cunninghamii
Page 78 of 352
Client: Delta Lithium Limited
Project: 300003674
Project Code: ymn_fc_2023_01
Drawn By: FW; Checked By: SE
Date: 2024-11-29
Yinnetharra 2023 Survey Area
Database Species Records
Species Range
Species Range (less outliers)
AUSTRALIA
Great Dividing Range
Brisbane
Perth
Sydney
Melbourne
Notes:
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3. Background: Esri, TomTom, Garmin, FAO, NOAA, USGS, Esri, USGS
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Yinnetharra Flora Species Distribution
Dodonaea amplisemina
Page 89 of 352
Client: Delta Lithium Limited
Project: 300003674
Project Code: ymn_fc_2023_01
Drawn By: FW; Checked By: SE
Date: 2024-11-29
Yinnetharra 2023 Survey Area
Database Species Records
Species Range
Species Range (less outliers)
AUSTRALIA
Great Dividing Range
Brisbane
Perth
Sydney
Melbourne
Notes:
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3. Background: Esri, TomTom, Garmin, FAO, NOAA, USGS, Esri, USGS
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Yinnetharra Flora Species Distribution
Eremophila platycalyx subsp. pardalota
Page 127 of 352
Client: Delta Lithium Limited
Project: 300003674
Project Code: ymn_fc_2023_01
Drawn By: FW; Checked By: SE
Date: 2024-11-29
Yinnetharra 2023 Survey Area
Database Species Records
Species Range
Species Range (less outliers)
AUSTRALIA
Great Dividing Range
Brisbane
Perth
Sydney
Melbourne
Notes:
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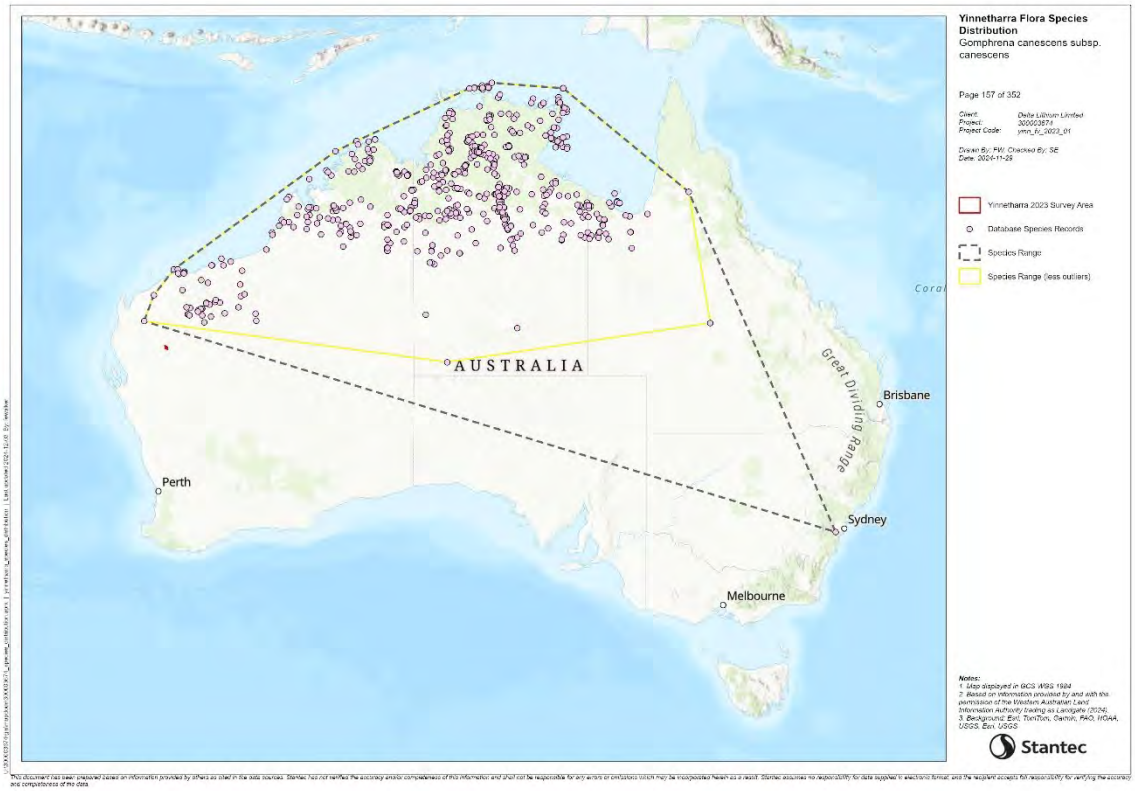
Stantec


Yinnetharra Flora Species Distribution
Gomphrena canescens subsp. canescens
Page 157 of 352
Client: Delta Lithium Limited
Project: 300003674
Project Code: ymn_fc_2023_01
Drawn By: FW; Checked By: SE
Date: 2024-11-29
Yinnetharra 2023 Survey Area
Database Species Records
Species Range
Species Range (less outliers)
AUSTRALIA
Great Dividing Range
Brisbane
Perth
Sydney
Melbourne
Notes:
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AUSTRALIA
Great Dividing Range
Brisbane
Perth
Sydney
Melbourne
Yinnetharra Flora Species Distribution
Goodenia muelleriana
Page 164 of 352
Client: Delta Lithium Limited
Project: 300003674
Project Code: ymn_fc_2023_01
Drawn By: FW; Checked By: SE
Date: 2024-11-29
Yinnetharra 2023 Survey Area
Database Species Records
Species Range
Species Range (less outliers)
Notes:
1. Map displayed in GCS WGS 1984
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AUSTRALIA
Great Dividing Range
Brisbane
Perth
Sydney
Melbourne
Yinnetharra Flora Species Distribution
Homalocalyx staminosus
Page 186 of 352
Client: Delta Lithium Limited
Project: 300003674
Project Code: ymn_fc_2023_01
Drawn By: FW; Checked By: SE
Date: 2024-11-29
Yinnetharra 2023 Survey Area
Database Species Records
Species Range
Species Range (less outliers)
Notes:
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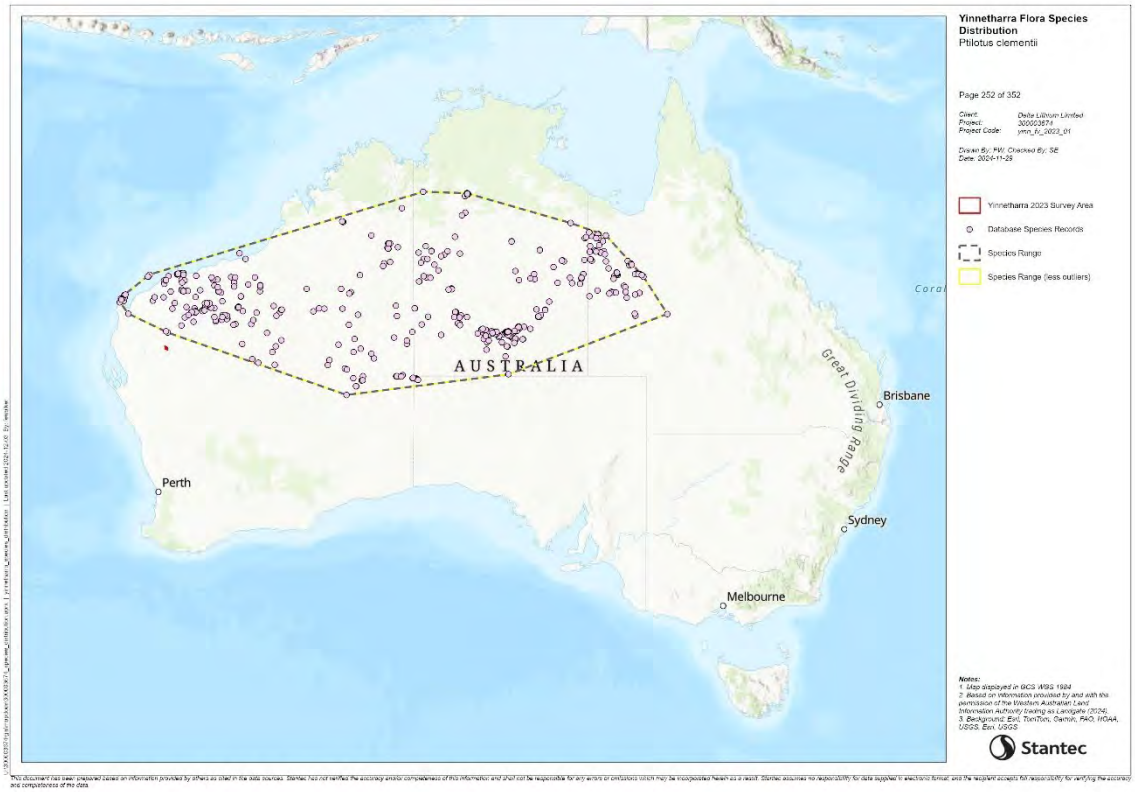
Yinnetharra Flora Species Distribution
Ptilotus clementii
Page 252 of 352
Client: Delta Lithium Limited
Project: 300003674
Project Code: ymn_fc_2023_01
Drawn By: FW; Checked By: SE
Date: 2024-11-29
Yinnetharra 2023 Survey Area
Database Species Records
Species Range
Species Range (less outliers)
AUSTRALIA
Great Dividing Range
Brisbane
Perth
Sydney
Melbourne
Notes:
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Yinnetharra Flora Species Distribution
Sclerolaena beaugleholei
Page 277 of 352
Client: Delta Lithium Limited
Project: 300003674
Project Code: ymn_fc_2023_01
Drawn By: FW; Checked By: SE
Date: 2024-11-29
Yinnetharra 2023 Survey Area
Database Species Records
Species Range
Species Range (less outliers)
AUSTRALIA
Great Dividing Range
Brisbane
Perth
Sydney
Melbourne
Notes:
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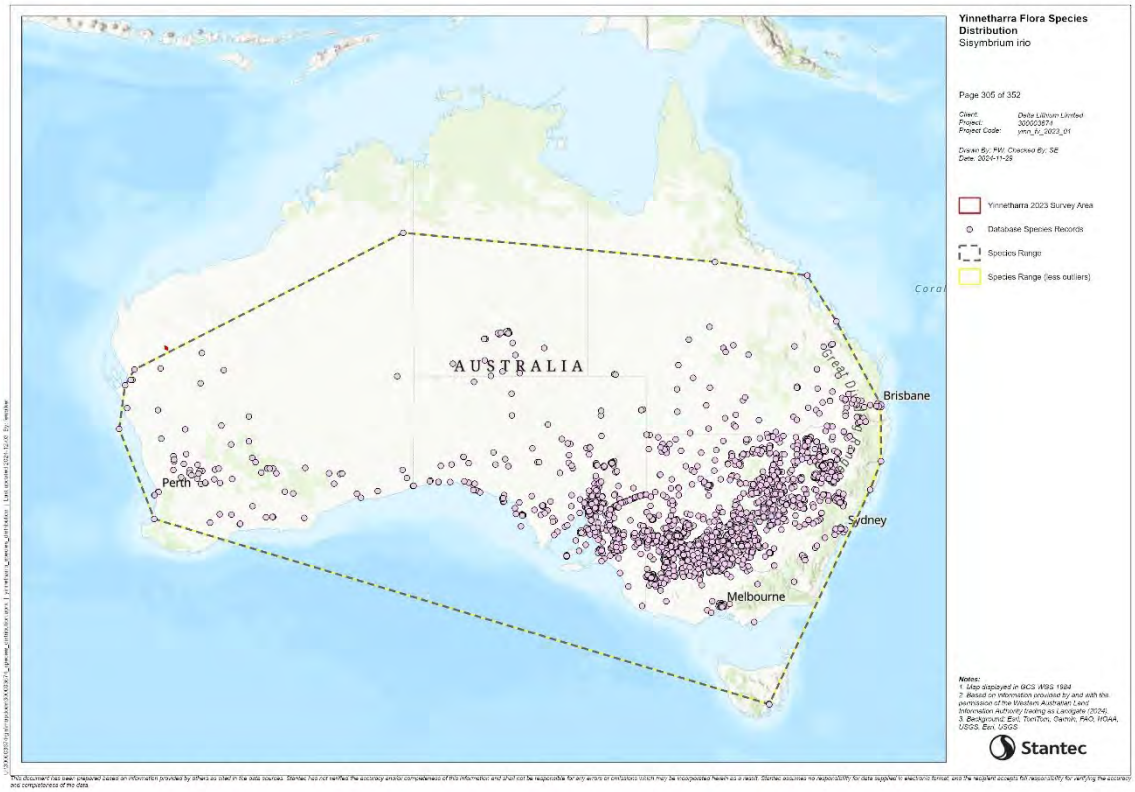
Stantec


Yinnetharra Flora Species Distribution
Sisymbrium irio
Page 305 of 352
Client: Delta Lithium Limited
Project: 300003674
Project Code: ymn_fc_2023_01
Drawn By: FW; Checked By: SE
Date: 2024-11-29
Yinnetharra 2023 Survey Area
Database Species Records
Species Range
Species Range (less outliers)
AUSTRALIA
Great Dividing Range
Brisbane
Perth
Sydney
Melbourne
Notes:
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Stantec


Yinnetharra Flora Species Distribution
Solanum lachnophyllum
Page 309 of 352
Client: Delta Lithium Limited
Project: 300003674
Project Code: ymn_fc_2023_01
Drawn By: FW; Checked By: SE
Date: 2024-11-29
Yinnetharra 2023 Survey Area
Database Species Records
Species Range
Species Range (less outliers)
AUSTRALIA
Great Dividing Range
Brisbane
Perth
Sydney
Melbourne
Notes:
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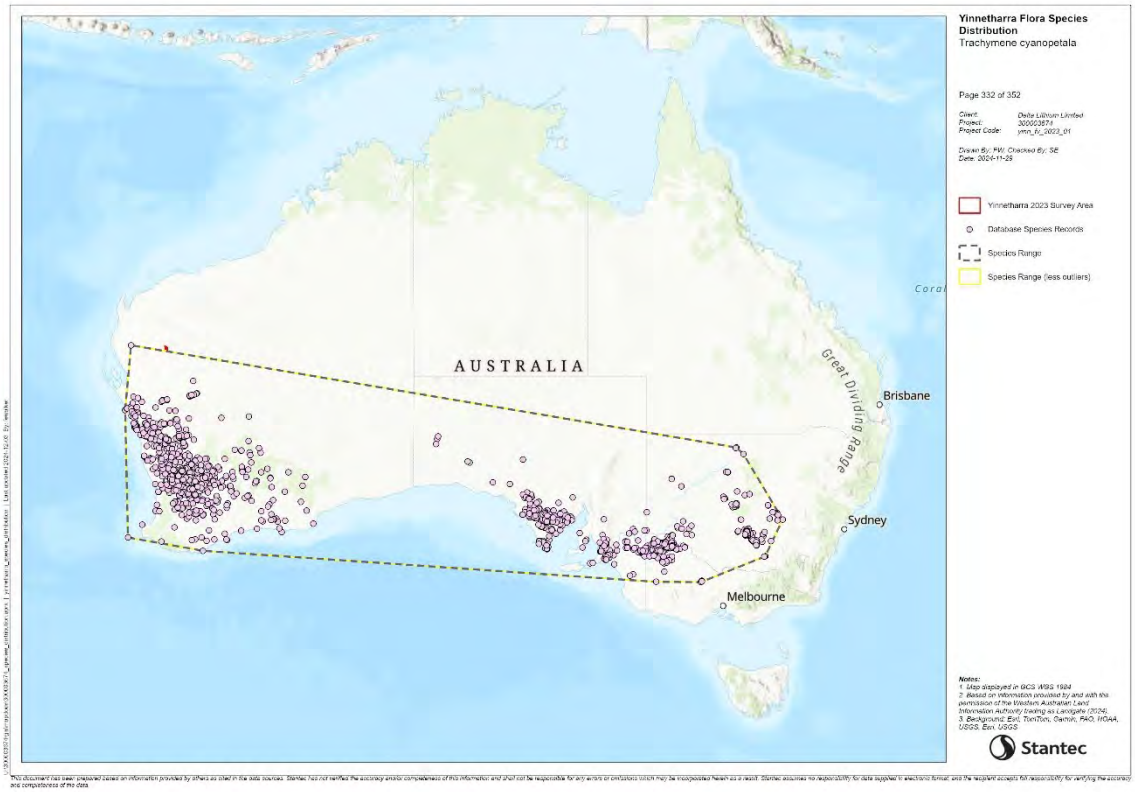
3. Background: Esri, TomTom, Garmin, FAO, NOAA, USGS, Esri, USGS
Stantec


Yinnetharra Flora Species Distribution
Trachymene cyanopetala
Page 332 of 352
Client: Delta Lithium Limited
Project: 300003674
Project Code: ymn_fc_2023_01
Drawn By: FW; Checked By: SE
Date: 2024-11-29
Yinnetharra 2023 Survey Area
Database Species Records
Species Range
Species Range (less outliers)
AUSTRALIA
Great Dividing Range
Brisbane
Sydney
Melbourne
Notes:
1. Map displayed in GCS WGS 1984
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3. Background: Esri, TomTom, Garmin, FAO, NOAA, USGS, Esri, USGS
Stantec


Yinnetharra Flora Species Distribution
Trachymene oleracea subsp. oleracea
Page 333 of 352
Client: Delta Lithium Limited
Project: 300003674
Project Code: ymn_fc_2023_01
Drawn By: FW; Checked By: SE
Date: 2024-11-29
Yinnetharra 2023 Survey Area
Database Species Records
Species Range
Species Range (less outliers)
AUSTRALIA
Great Dividing Range
Brisbane
Perth
Sydney
Melbourne
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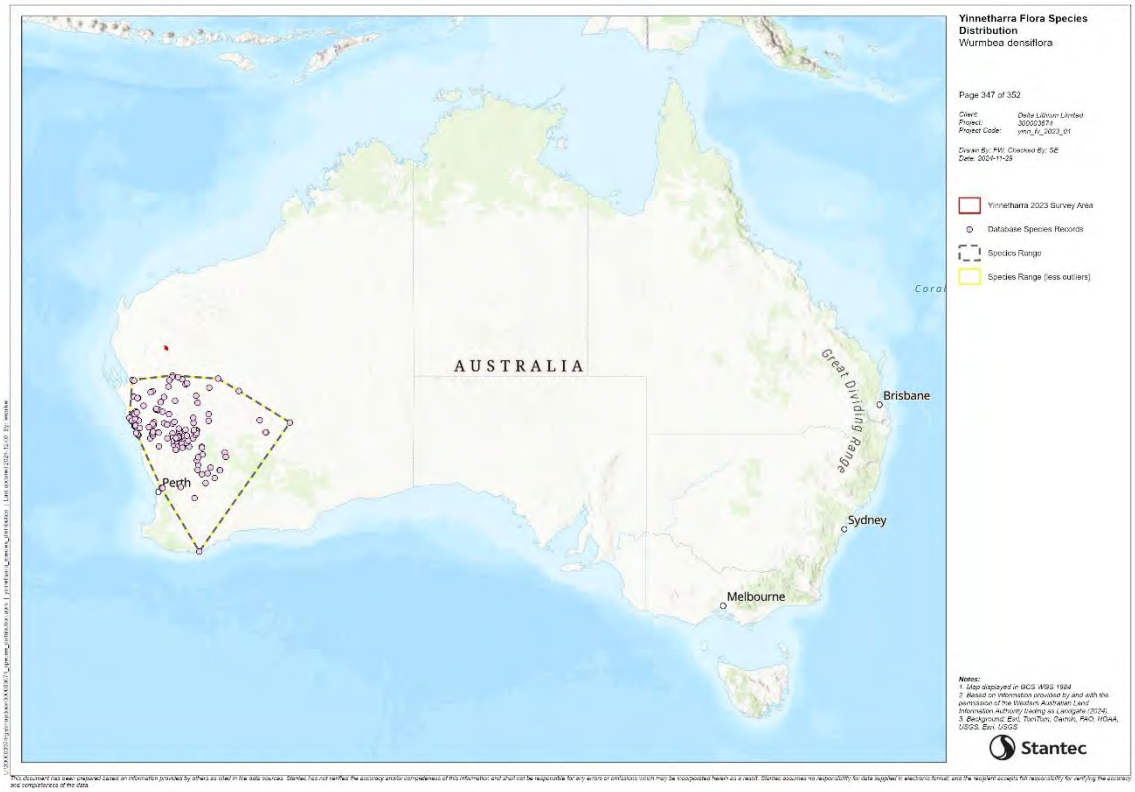
3. Background: Esri, TomTom, Garmin, FAO, NOAA, USGS, Esri, USGS
Stantec


AUSTRALIA
Perth
Brisbane
Sydney
Melbourne
Great Dividing Range
Yinnetharra Flora Species Distribution
Wurmbea densiflora
Page 347 of 352
Client: Delta Lithium Limited
Project: 300003674
Project Code: ynn_fc_2023_01
Drawn By: FW; Checked By: SE
Date: 2024-11-29
Yinnetharra 2023 Survey Area
Database Species Records
Species Range
Species Range (less outliers)
Notes:
1. Map displayed in GCS WGS 1984
2. Based on information provided by and with the permission of the Western Australian Land Information Authority trading as Landgate (2024).
3. Background: Esri, TomTom, Garmin, FAO, NOAA, USGS, Esri, USGS
Stantec


AUSTRALIA
Perth
Brisbane
Sydney
Melbourne
Great Dividing Range
Yinnetharra Flora Species Distribution
Wurmbea fluviatilis
Page 348 of 352
Client: Delta Lithium Limited
Project: 300003674
Project Code: ynn_fc_2023_01
Drawn By: FW; Checked By: SE
Date: 2024-11-29
Yinnetharra 2023 Survey Area
Database Species Records
Species Range
Species Range (less outliers)
Notes:
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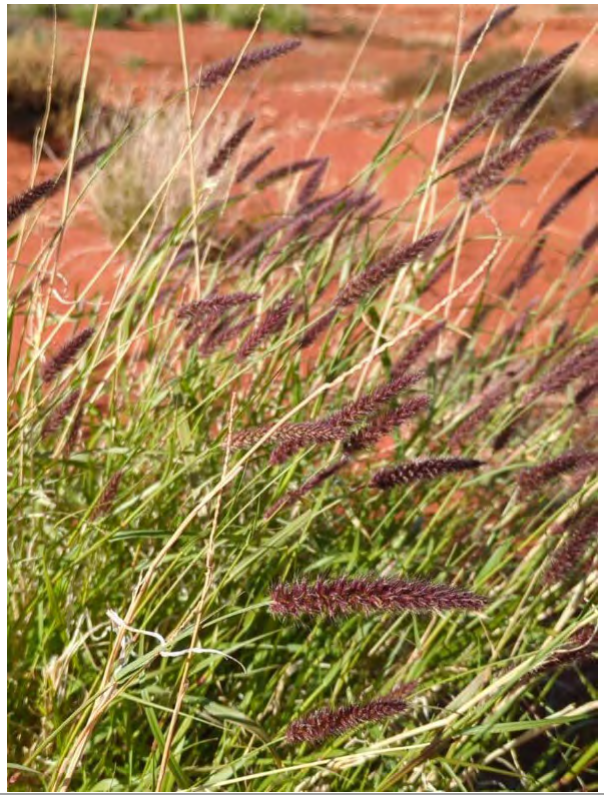
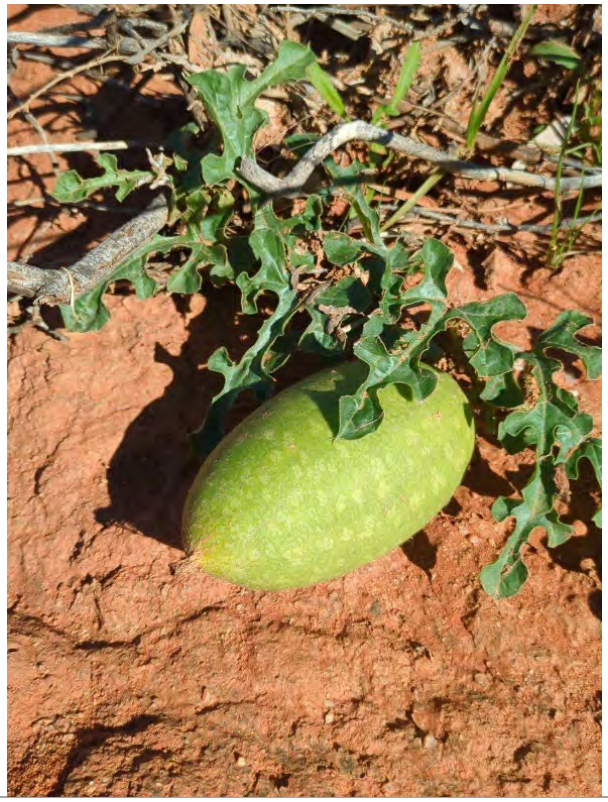
3. Background: Esri, TomTom, Garmin, FAO, NOAA, USGS, Esri, USGS
Stantec

Appendix L Introduced Flora

Weed Species	Representative Photograph / Specimen Image. *All photographs taken by Stantec unless otherwise acknowledged.
**Argemone ochroleuca* subsp. o*chroleuca* (Mexican Poppy) Erect, glaucous annual, herb, 0.2-1 m high, spiny, with yellow latex. Flowers white-cream-yellow, February to March or July to November. Sandy soils, red-brown clay loam. Creek edges, riverbanks, roadsides.	
**Asphodelus fistulosus* (Onion Weed) Annual or biennial, herb, 0.2-0.4 m high. Flower white, June to October. Sand, clay, calcareous soils.	

Weed Species	Representative Photograph / Specimen Image. *All photographs taken by Stantec unless otherwise acknowledged.
**Bidens bipinnata* (Bipinnate Beggartick) Erect annual, herb, 0.1-0.9(-1.5) m high. Flowers yellow, March to September. Alluvium, clay, loam over sandstone, limestone. Along rivers & creeks, coastal areas, rocky hillsides.	
**Cenchrus ciliaris* (Buffel Grass) Tufted or sometimes stoloniferous perennial, grass-like or herb, 0.2-1.5 m high. Flowers purple, February to October. White, red or brown sand, stony red loam, black cracking clay.	

Weed Species	Representative Photograph / Specimen Image. *All photographs taken by Stantec unless otherwise acknowledged.
**Cenchrus setiger* (Buffel Grass) Tufted or sometimes stoloniferous perennial, grass-like or herb, 0.2-1.5 m high. Flowers purple, February to October. White, red or brown sand, stony red loam, black cracking clay.	
**Citrullus amarus* (Melon) Introduced annual herb or climber, prostrate or to 3 m tall. Stems hairy to rough. Found in grassy areas, disturbed sites, and along streams.	

Weed Species	Representative Photograph / Specimen Image. *All photographs taken by Stantec unless otherwise acknowledged.
**Citrullus colocynthis* (Melon) Trailing perennial, herb or climber. Flower yellow, January to October. Sandy, rocky, stony loam, clay soils, wet soils. In disturbed areas, floodplains.	
**Citrullus sp.* (Melon) Trailing, herb or climber. Flower yellow, Found in sandy loam soils, clay soils and in disturbed areas	

Weed Species	Representative Photograph / Specimen Image. *All photographs taken by Stantec unless otherwise acknowledged.
**Datura leichhardtii subsp. leichhardtii* (Thornapples) Stout annual, herb, 0.2-1 m high. Flowers white, June to October. Alluvium. Along watercourses.	
**Echinochloa colona* (Awnless Barnyard Grass) Tufted annual, grass-like or herb, 0.2-0.6(-0.9) m high. Flowers green/purple, February to July. Black sand, black clay. Near watercourses and swamps.	

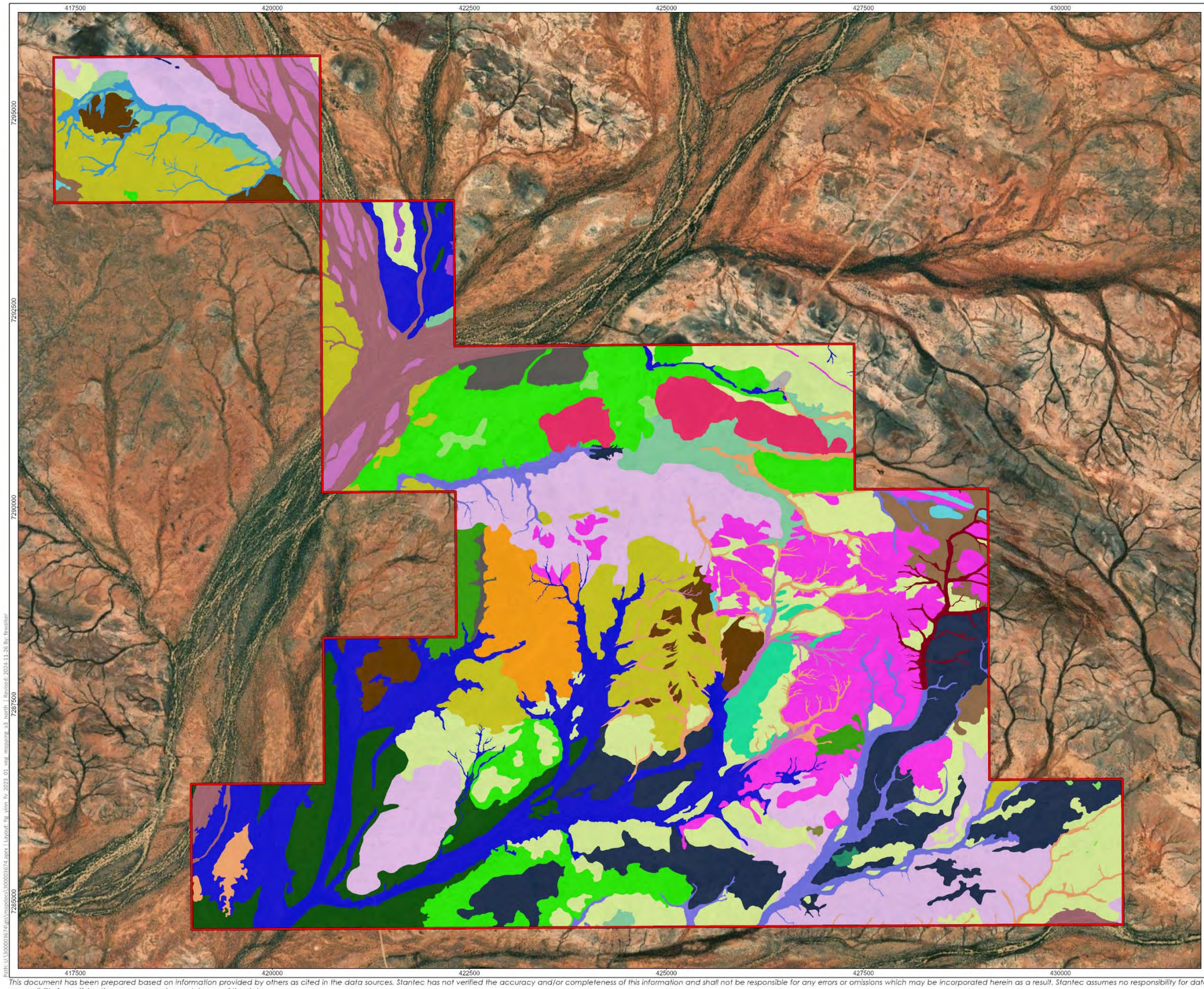
Weed Species	Representative Photograph / Specimen Image. *All photographs taken by Stantec unless otherwise acknowledged.
**Flaveria trinervia* (Speedy Weed) Much-branched erect or procumbent annual herb, usually up to 75 cm tall, rarely taller. Flowers yellow. Found on a range of disturbed habitats.	
**Malvastrum americanum* (Spiked Malvastrum) Erect perennial, herb or shrub, 0.5-1.3 m high. Flowers yellow-orange, Apr to Jul. Orange/red/yellow sands, gritty alluvial sand, black/brown clay, alluvial cracking clays, limestone, calcrete. Stony ridges and hillsides, floodplains, along drainage lines.	

Weed Species	Representative Photograph / Specimen Image. *All photographs taken by Stantec unless otherwise acknowledged.
**Rumex vesicarius* (Ruby Dock) Erect herb/shrub to 1.2 m tall. Grows in rocky habitats and disturbed ground such as roadsides and windrows.	
**Setaria verticillata* (Whorled Pigeon Grass) Loosely tufted annual, grass-like or herb, 0.1-1.3 m high. Flowers December or January to June. Sand, clay, loam.	

Weed Species	Representative Photograph / Specimen Image. *All photographs taken by Stantec unless otherwise acknowledged.
**Sisymbrium irio* (London Rocket) Erect annual or biennial, herb, 0.1-0.6(-1) m high. Flowers yellow, July to December. Sandy & clayey soils.	
**Sonchus oleraceus* (Common Sowthistle) Erect annual, herb, to 1.5 m high. Flowers yellow, January to December. Variety of soils. Weed of waste places & disturbed ground.	

Weed Species	Representative Photograph / Specimen Image. *All photographs taken by Stantec unless otherwise acknowledged.
**Vachellia farnesiana* var. *farnesiana* (Mimosa bush) Erect, spreading, thicket-forming, thorny tree or shrub, to 4 m high, bark dark grey, rough; leaves pinnate. Flowers yellow, Jun to Aug. Stony sandy, clay or loam soils, gravel. Low-lying areas, river and creek banks, disturbed sites.	

Appendix M Vegetation Type Mapping



Vegetation Mapping: Northern Survey Area

Yinnetharra Lithium Project
Detailed Flora and Vegetation Survey

Client: *Delta Lithium Limited*
Project: *300003674*
Project Code: *yinn-fv-2023-01*

Drawn: JP, Reviewed: FW, SP
Date: 26-11-2024

Survey Area

Notes:
1. Map displayed in GDA 1994 MGA Zone 50
2. Based on information provided by and with the permission of the Western Australian Land Information Authority trading as Landgate (2024).
3. Background: Earthstar Geographics

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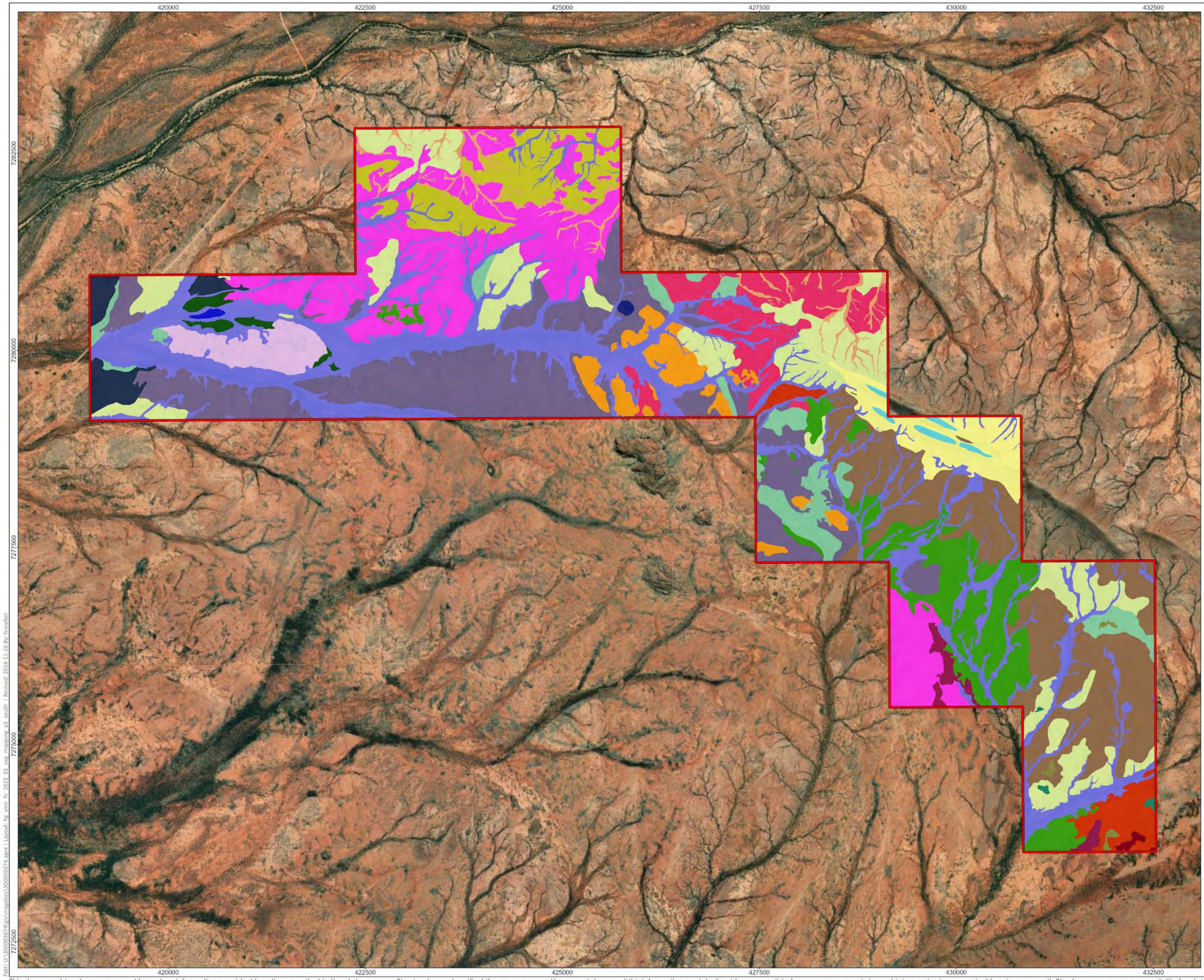
0 0.5 1 km

Scale at A3: 1:45,000



Vegetation Mapping: Southern Survey Area

Yinnetharra Lithium Project
Detailed Flora and Vegetation Survey

Client: Delta Lithium Limited
Project: 300003674
Project Code: yinn-fv-2023-01

Drawn: JP, Reviewed: FW, SP
Date: 26-11-2024

Survey Area

Notes:
1. Map displayed in GDA 1994 MGA Zone 50
2. Based on information provided by and with the permission of the Western Australian Land Information Authority trading as Landgate (2024).
3. Background: Earthstar Geographics

Stantec

0 0.5 1 km

Scale at A3: 1:45,000

Vegetation Types of the Yinnetharra Study Area

Vegetation Type

AaAtEppAc: *Acacia aptaneura* and *Acacia tetragonophylla* tall shrubland over *Eremophila phyllopoda* subsp. *phyllopoda* open shrubland over *Aristida contorta* very open tussock grassland.

AaSglEcr: *Acacia aptaneura* tall open shrubland over *Senna glutinosa* subsp.*xluerssenii* scattered shrubs over *Enneapogon caerulescens* very open tussock grassland.

Ac: *Aristida contorta* open tussock grassland.

AcsAsAcdSd: *Acacia cuspidifolia* and *Acacia syncronicia* tall open shruband over *Atriplex codonocarpa* and *Sclerolaena densiflora* scattered chenopods.

AcsAssHpReSaoFs: *Acacia cuspidifolia, Acacia sclerosperma* subsp. *Sclerospermaand Hakea preissii* tall open shrubland over *Rhagodia eremaea* and *Senna artemisioides* subsp. *oligophylla* scattered shrubs over *Frankenia setosa* low open shrubland.

AcsHpAsEcuSmReMspp.Sspp.: *Acacia cuspidifolia, Hakea preissii* and *Acacia syncronicia* tall open shrubland over *Eremophila cuneifolia, Senna* sp. *Meekatharra* (E. Bailey 1-26) and *Rhagodia.*

AcuAkSahCcPooAhhAc: *Acacia curryana* and *Acacia kempiana* tall open shrubland over *Senna artemisioides* subsp. *helmsii, Corchorus crozophorifolius* and *Ptilotus obovatus* var. *obovatus* open shrubland over *Aristida holathera* var. *holathera* and *Aristida contorta* open tussock grass.

AcuEeSahAc: *Acacia curryana, Eremophila exilifolia* and *Senna artemisioides* subsp. *helmsii* open shrubland over *Aristida* contorta very open tussock grassland.

AcuEffSaoEcrAc: *Acacia curryana* tall open shrubland over *Eremophila forrestii* subsp. *forrestii* and *Senna artemisioides* subsp. *oligophylla* low open shrubland over *Enneapogon caerulescens* and *Aristida contorta* open tussock grassland.

AcuSahAc: *Acacia curryana* and *Senna artemisioides* subsp. *helmsii* scattered shrubs over *Aristida contorta* very open tussock grassland.

AdAssHpSscReCcCs: *Acacia demissa, Acacia sclerosperma* subsp. *Sclerosperma* and *Hakea preissii* woodland over *Santalum spicatum* and *Rhagodia eremaea* open woodland over *Cenchrus ciliaris* and *Cenchrus setiger* tussock grassland.

AfAccAkSahCcAcDc: *Acacia fuscaneura, Acacia cuthbertsonii* subsp. *cuthbertsonii* and *Acacia kempeana* tall open shrubland over *Senna artemisioides* subsp. *helmsii* scatter shrubs over *Cenchrus ciliaris, Aristida contorta* and *Digitaria ctenantha* very open tussock grassland.

AfAciSahPooCczAcCc: *Acacia fuscaneura* and *Acacia citrinoviridis* open woodland over *Senna artemisioides* subsp. *helmsii, Ptilotus obovatus* var. *obovatus* and *Corchorus crozophorifolius* scattered shrubs over *Aristida contorta* and *Cenchrus ciliaris* very open tussock grassland.

AfAcuSgAc: *Acacia fuscaneura* tall open woodland over *Acacia curryana* and *Senna glaucifolia* open shrubland over *Aristida contorta* open tussock grassland.

AfEllCc: *Acacia fuscaneura* low open woodland over *Eremophila latrobei* subsp. *latrobei* scattered shrubs over *Cenchrus ciliaris* very open tussock grassland.

AiAkAfSahPooDbAc: *Acacia incurvaneura* and *Acacia kempeana* low woodland over *Acacia tetragonophylla, Senna artemisioides* subsp. *helmsii* and *Ptilotus obovatus* var. *obovatus* open shrubland over *Digitaria brownii* and *Aristida contorta* open tussock grassland.

AiAtEllEppAc: *Acacia incurvaneura* tall open shrubland over *Eremophila latrobei* subsp. *latrobei* and *Eremophila phyllopoda* subsp. *phyllopoda* open shrubland over *Aristida contorta* very open tussock grassland.

AkAfSahAcEaCc: *Acacia kempeana* and *Acacia fuscaneura* tall shrubland over *Senna artemisioides* subsp. *helmsii* scattered shrubs over *Aristida contorta, Eriachne aristidea* and *Cenchrus ciliaris* open tussock grassland.

AkAtApPooSahEtEf: *Acacia kempeana, Acacia tetragonophylla, Acacia pruinocarpa* tall shrubland over *Ptilotus obovatus* var. *obovatus* and *Senna artemisioides* subsp. *helmsii* scattered low shrubs over *Eriachne aristidea* and *Eriachne flaccida* tussock grassland.

AssHpReAsSahCc: *Acacia sclerosperma* subsp. *sclerosperma* and *Hakea preissii* tall open shrubland over *Rhagodia eremaea, Acacia synchronicia* and *Senna artemisioides* subsp. *helmsii* shrubland over *Cenchrus ciliaris* scattered tussock grasses.

AtAsyErSaoEaCcEs: *Acacia tetragonophylla* and *Acacia synchronicia* tall open shrubland over *Eremophila reticulata* and *Senna artemisioides* subsp. *oligophylla* low scattered shrubs over *Eriachne aristidea, Cenchrus ciliaris* and *Eragrostis setifolia* tussock grassland.

AtEeSahAc: *Acacia tetragonophylla, Eremophila exilifolia* and *Senna artemisioides* subsp. *helmsii* open shrubland over *Aristida contorta* open tussock grassland.

AtSahAcCcCa: *Acacia tetragonophylla* tall open shrubland over *Senna artemisioides* subsp. *helmsii* scattered shrubland over *Aristida contorta, Cenchrus ciliaris* and *Cymbopogon ambiguus* very open tussock grassland.

AtSglEcuAc: *Acacia tetragonophylla* tall open shrubland over *Senna glutinosa* subsp. *xluerssenii* and *Eremophila cuneifolia* open shrubland over *Aristida contorta* open tussock grassland.

AxAcsSmEcuSdSc: *Acacia xiphophylla* and *Acacia cuspidifolia* tall open shrubland over *Senna* sp. *Meekatharra* (E. Bailey 1-26) and *Eremophila cuneifolia* scattered shrubs over *Sclerolaena densiflora* and *Sclerolaena cuneata* very open herbland.

AxAsSmEcuSd: *Acacia xiphophylla* over *Acacia synchronicia, Senna* sp. *Meekatharra* (E. Bailey 1-26) and *Eremophila cuneifolia* open shrubland over *Sclerolaena densiflora* scattered herbs.

EcoAciCvCc: *Eucalyptus camaldulensis* subsp. *obtusa* and *Acacia citrinoviridis* woodland over *Cyperus vaginatus* very open sedgeland over *Cenchrus ciliaris* open tussock grassland.

EffErSahAc: *Eremophila fraseri* subsp. *fraseri* scattered tall shrubs over *Eremophila reticulata* and *Senna artemisioides* subsp. *helmsii* scattered shrubs over *Aristida contorta* open tussock grassland.

EffSahAtCczIdAc: *Eremophila fraseri* subsp. *fraseri, Senna artemisioides* subsp. *helmsii* and *Acacia tetragonophylla* open shrubland *Corchorus crozophorifolius* and *Indigofera decipiens* scattered low shrubs over *Aristida contorta* open tussock grassland.

EppAc: *Eremophila phyllopoda* subsp. *phyllopoda* open shrubland over *Aristida contorta* open tussock grassland.

HpAcsAsEcuSaoScoSd: *Hakea preissii* and *Acacia cuspidifolia* scattered tall shrubs over *Acacia synchronicia, Eremophila cuneifolia* and *Senna artemisioides* subsp. *oligophylla* open shrubland over *Sclerolaena cuneata* and *Sclerolaena densiflora* scattered herbs.

HpAtAsEcuReSmEaEf: *Hakea preissii, Acacia tetragonophylla* and *Acacia synchronicia* tall shrubland over *Eremophila cuneifolia, Rhagodia eremaea* and *Senna* sp. *Meekatharra* (E. Bailey 1-26) open shrubland over *Eriachne aristidea* and *Eriachne flaccida* tussock grassland.

CD: Completely degraded

Vegetation Type Descriptions
Legend Sheet 1

Stantec

Appendix N Floristic Analysis Dendrograms: This Survey

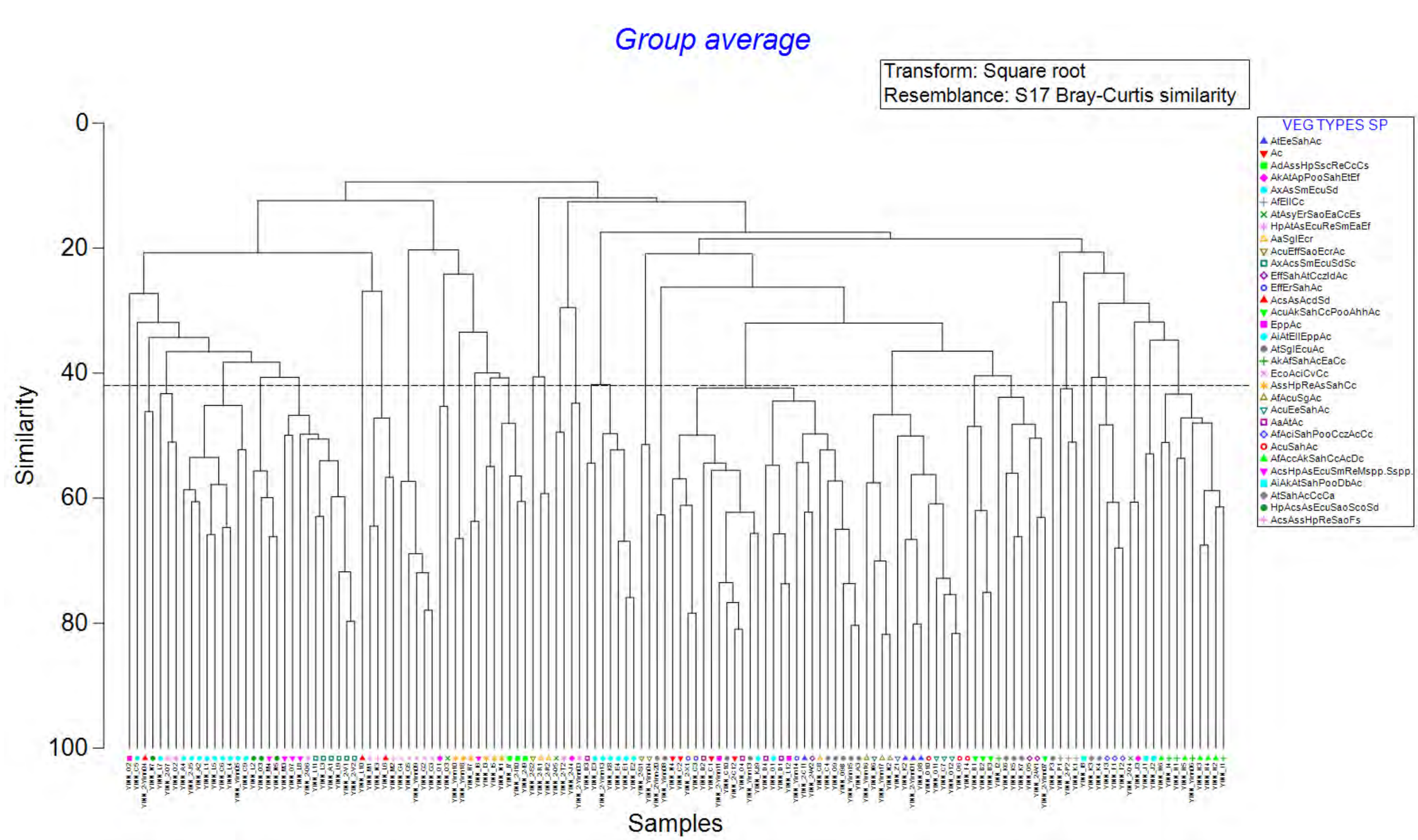


Figure P 1: Results of the statistical analysis of all quadrats sampled during the survey, and an assessment against vegetation types described for the Survey Area (Overview).

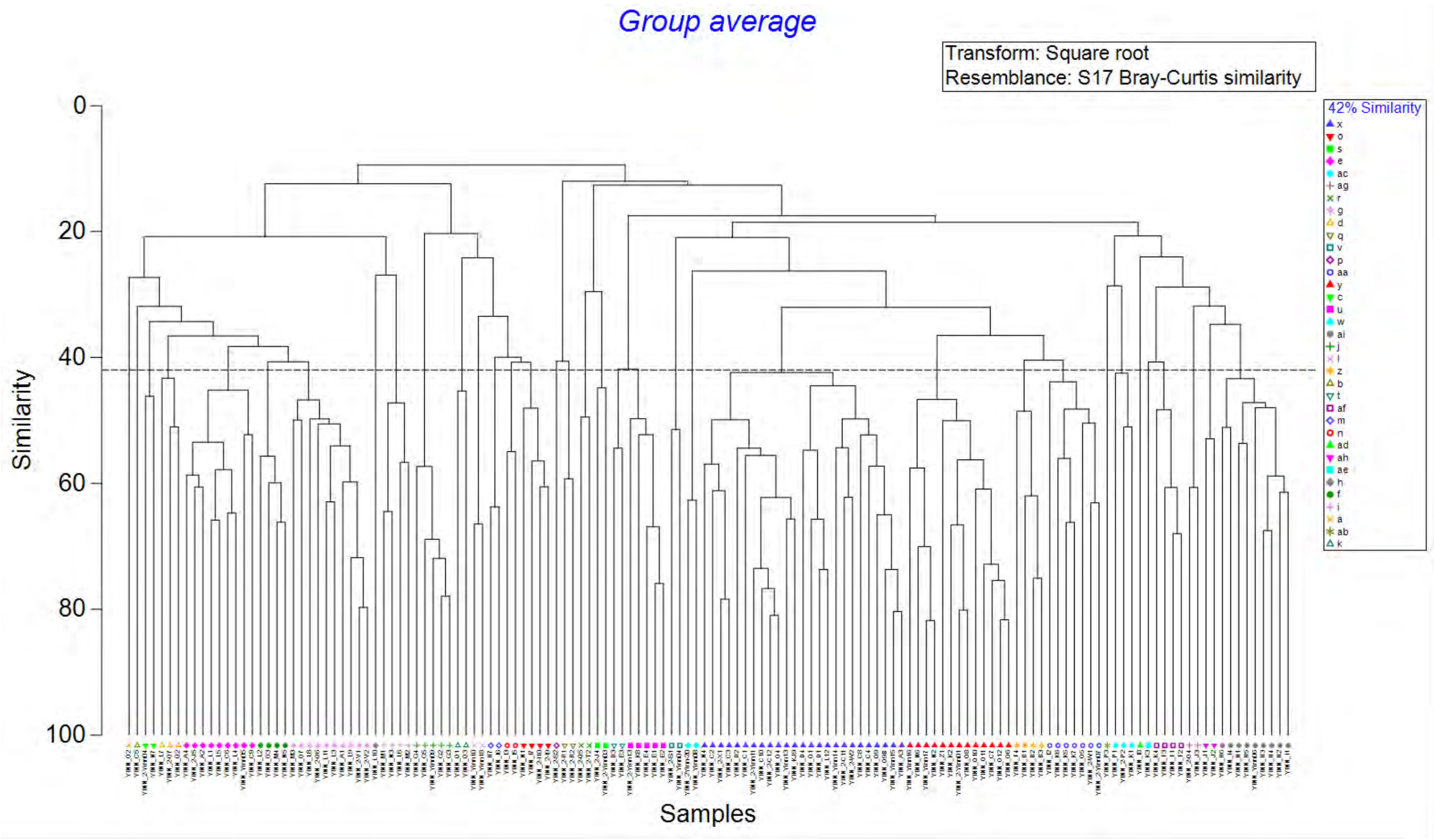


Figure P 2: Results of the statistical analysis of all quadrats sampled during the survey, and an assessment against 35 groupings made under a 42% cut-off described for the Survey Area (Overview).

Table P 1: Bray-Curtis Similarity results classified into a Group Average dendrogram with a 42% similarity cutoff applied to create best-fit local vegetation groupings based on statistical outputs. The results demonstrate a generally good alignment between Stantec's vegetation mapping groups and statistical analysis groups.

Site_Quadrat	Yinnetharra Veg Map Groups	42% Similarity Primer Veg Groups
YINN_O2	EppAc	a
YINN_2-Yinn07	AcuAkSahCcPooAhhAc	aa
YINN_I2	AkAfSahAcEaCc	aa
YINN_K5	AtSahAcCcCa	aa
YINN_K6	AtSahAcCcCa	aa
YINN_K7	AtSahAcCcCa	aa
YINN_2-W1	EffSahAtCczIdAc	aa
YINN_O5	EffSahAtCczIdAc	aa
YINN_P3	AtSglEcuAc	ab
YINN_2-P2	AfEllCc	ac
YINN_K1	AfEllCc	ac
YINN_P1	AfEllCc	ac
YINN_I8	AiAkAtSahPooDbAc	ad
YINN_K3	AtSahAcCcCa	ae
YINN_F1	AfAciSahPooCczAcCc	af
YINN_F2	AfAciSahPooCczAcCc	af
YINN_F3	AfAciSahPooCczAcCc	af
YINN_K4	AtSahAcCcCa	af
YINN_J3	AkAtApPooSahEtEf	ag
YINN_2-Q4	AtAsyErSaoEaCcEs	ag
YINN_J1	AiAkAtSahPooDbAc	ah
YINN_J2	AiAkAtSahPooDbAc	ah
YINN_H2	AfAccAkSahCcAcDc	ai
YINN_H3	AfAccAkSahCcAcDc	ai
YINN_H4	AfAccAkSahCcAcDc	ai
YINN_H5	AfAccAkSahCcAcDc	ai
YINN_H6	AfAccAkSahCcAcDc	ai
YINN_H1	AkAfSahAcEaCc	ai
YINN_I1	AkAfSahAcEaCc	ai
YINN_I4	AkAfSahAcEaCc	ai
YINN_Yinn06	AkAfSahAcEaCc	ai
YINN_C5	AxAsSmEcuSd	b
YINN_2-Yinn04	AcsAsAcdSd	c
YINN_N7	HpAcsAsEcuSaoScoSd	c
YINN_L7	AxAsSmEcuSd	d
YINN_2-Q7	HpAtAsEcuReSmEaEf	d
YINN_Q2	HpAtAsEcuReSmEaEf	d
YINN_2-J5	AxAsSmEcuSd	e
YINN_A2	AxAsSmEcuSd	e
YINN_A4	AxAsSmEcuSd	e

Site_Quadrat	Yinnetharra Veg Map Groups	42% Similarity Primer Veg Groups
YINN_C6	AxAsSmEcuSd	e
YINN_C9	AxAsSmEcuSd	e
YINN_L1	AxAsSmEcuSd	e
YINN_L4	AxAsSmEcuSd	e
YINN_L5	AxAsSmEcuSd	e
YINN_Yinn05	AxAsSmEcuSd	e
YINN_M4	AcsHpAsEcuSmReMspp.Sspp.	f
YINN_L2	HpAcsAsEcuSaoScoSd	f
YINN_N5	HpAcsAsEcuSaoScoSd	f
YINN_O3	HpAcsAsEcuSaoScoSd	f
YINN_L8	AcsHpAsEcuSmReMspp.Sspp.	g
YINN_M3	AcsHpAsEcuSmReMspp.Sspp.	g
YINN_O7	AcsHpAsEcuSmReMspp.Sspp.	g
YINN_2-V1	AxAcsSmEcuSdSc	g
YINN_2-V2	AxAcsSmEcuSdSc	g
YINN_A1	AxAcsSmEcuSdSc	g
YINN_L11	AxAcsSmEcuSdSc	g
YINN_L3	AxAcsSmEcuSdSc	g
YINN_L9	AxAcsSmEcuSdSc	g
YINN_2-Q6	HpAtAsEcuReSmEaEf	g
YINN_L10	AcsAsAcdSd	h
YINN_L6	AcsAsAcdSd	i
YINN_M1	AcsAssHpReSaoFs	i
YINN_M2	AcsAssHpReSaoFs	i
YINN_N3	AcsAssHpReSaoFs	i
YINN_G2	EcoAciCvCc	j
YINN_G3	EcoAciCvCc	j
YINN_G4	EcoAciCvCc	j
YINN_G5	EcoAciCvCc	j
YINN_Yinn09	EcoAciCvCc	j
YINN_Q1	AkAtApPooSahEtEf	k
YINN_Q3	AtAsyErSaoEaCcEs	k
YINN_Yinn10	AssHpReAsSahCc	l
YINN_Yinn18	AssHpReAsSahCc	l
YINN_I6	AcsHpAsEcuSmReMspp.Sspp.	m
YINN_H7	AssHpReAsSahCc	m
YINN_I3	AssHpReAsSahCc	n
YINN_I5	AssHpReAsSahCc	n
YINN_2-I10	AdAssHpSscReCcCs	o
YINN_2-I9	AdAssHpSscReCcCs	o
YINN_I7	AdAssHpSscReCcCs	o
YINN_N1	AssHpReAsSahCc	o
YINN_2-S2	AcuEffSaoEcrAc	p

Site_Quadrat	Yinnetharra Veg Map Groups	42% Similarity Primer Veg Groups
YINN_2-R1	AaSglEcr	q
YINN_2-R2	AaSglEcr	q
YINN_2-Q5	AtAsyErSaoEaCcEs	r
YINN_2-T2	HpAtAsEcuReSmEaEf	r
YINN_2-J4	AkAtApPooSahEtEf	s
YINN_2-Yinn03	HpAtAsEcuReSmEaEf	s
YINN_D3	AaAtAc	t
YINN_E3	AiAtEllEppAc	t
YINN_2-Yinn13	AiAtEllEppAc	u
YINN_E1	AiAtEllEppAc	u
YINN_E2	AiAtEllEppAc	u
YINN_E4	AiAtEllEppAc	u
YINN_K8	AiAtEllEppAc	u
YINN_2-S1	AcuEffSaoEcrAc	v
YINN_Yinn04	AcuEffSaoEcrAc	v
YINN_2-Yinn20	AtSglEcuAc	w
YINN_Yinn08	AtSglEcuAc	w
YINN_D1	AaAtAc	x
YINN_D2	AaAtAc	x
YINN_D4	AaAtAc	x
YINN_O4	AaAtAc	x
YINN_C8	AaSglEcr	x
YINN_2-C12	Ac	x
YINN_C1	Ac	x
YINN_C2	Ac	x
YINN_N4	Ac	x
YINN_KJ9	AiAtEllEppAc	x
YINN_O1	AiAtEllEppAc	x
YINN_2-C11	AtEeSahAc	x
YINN_A3	AtSglEcuAc	x
YINN_C10	AtSglEcuAc	x
YINN_C4	AtSglEcuAc	x
YINN_O9	AtSglEcuAc	x
YINN_O9B	AtSglEcuAc	x
YINN_Yinn13	AtSglEcuAc	x
YINN_Yinn15	AtSglEcuAc	x
YINN_2-X1	EffErSahAc	x
YINN_C3	EffErSahAc	x
YINN_Yinn14	EffErSahAc	x
YINN_2-W2	EffSahAtCczIdAc	x
YINN_2-Yinn11	EppAc	x
YINN_L12	EppAc	x
YINN_C7	AcuEeSahAc	y

Site_Quadrat	Yinnetharra Veg Map Groups	42% Similarity Primer Veg Groups
YINN_N6	AcuEeSahAc	y
YINN_O11	AcuEeSahAc	y
YINN_O12	AcuEeSahAc	y
YINN_Z1	AcuEeSahAc	y
YINN_O10	AcuSahAc	y
YINN_O6	AcuSahAc	y
YINN_N2	AfAcuSgAc	y
YINN_Yinn16	AfAcuSgAc	y
YINN_Yinn17	AfAcuSgAc	y
YINN_2-Yinn01	AtEeSahAc	y
YINN_K2	AtEeSahAc	y
YINN_O8	AtEeSahAc	y
YINN_B1	AcuAkSahCcPooAhhAc	z
YINN_B2	AcuAkSahCcPooAhhAc	z
YINN_B3	AcuAkSahCcPooAhhAc	z
YINN_F4	AcuSahAc	z

Appendix O Floristic Analysis Dendrograms: Regional Contextual Analysis

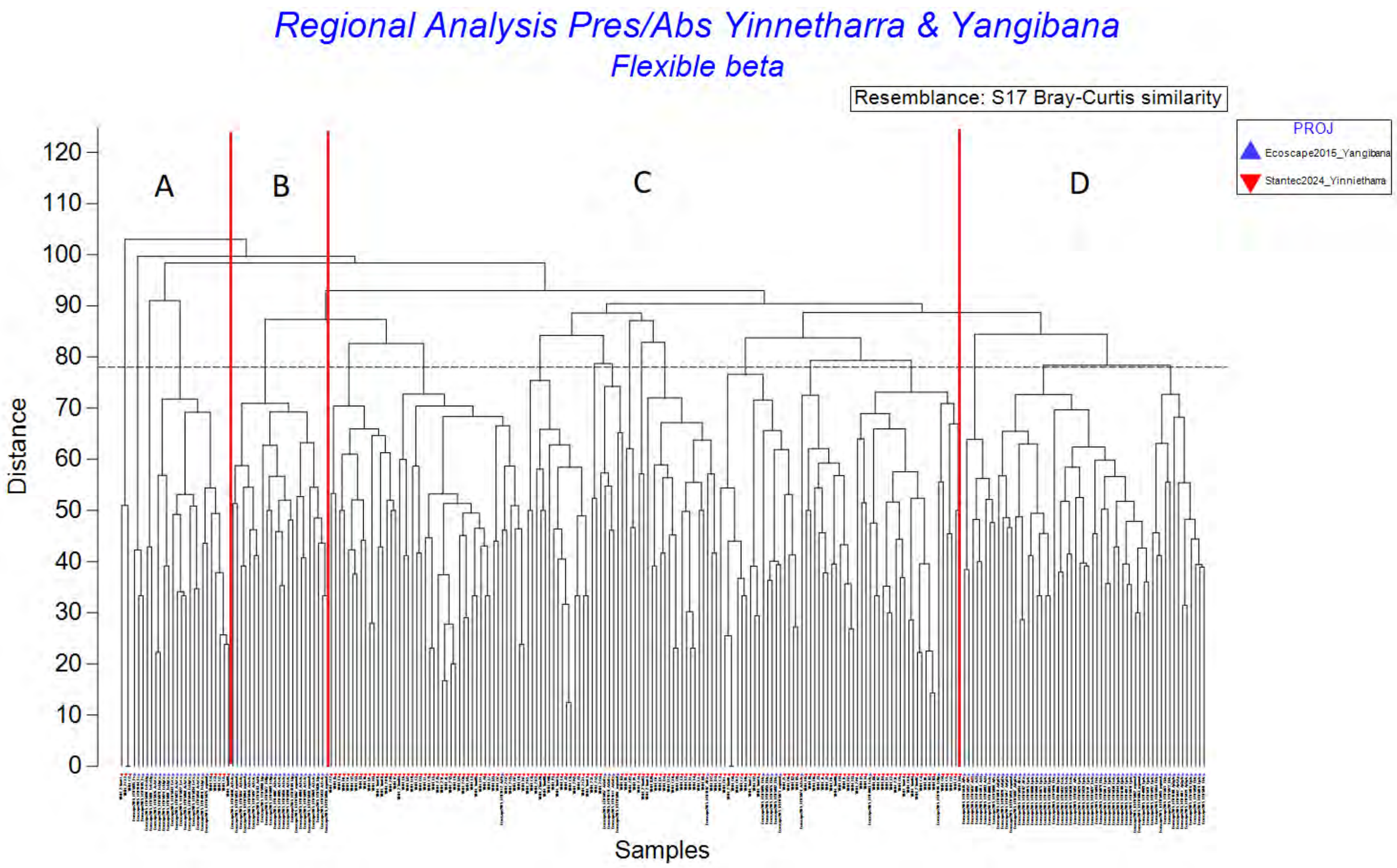


Figure N 1: Results of the statistical analysis of 254 samples representing the regional contextual analysis. Sections A-D represent broad groupings.

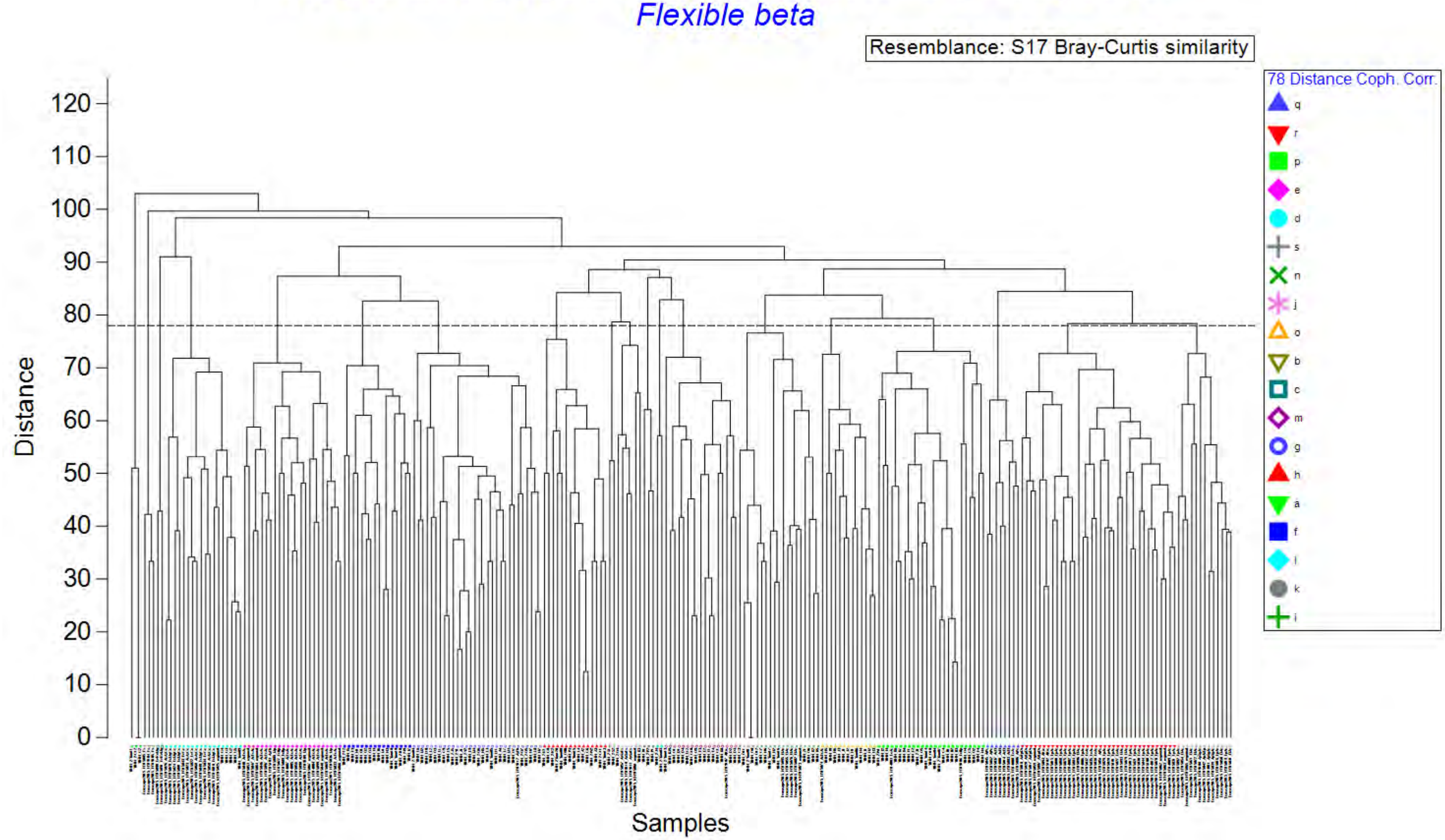


Figure N 2: Results of the statistical analysis of 254 samples representing the regional contextual analysis represented by 19 broad groupings.

Table N 1: Results of Primer7 Analysis of Stantec (2024) Yinnetharra Project and Ecoscape (2015) Yangibana Project statistical analysis of consolidated data.

Note: presence/absence data of perennial flora species, with singleton and doubleton records removed unless a dominant species, annuals removed, incomplete identifications removed and likely identifications merged with full identifications. Data was transferred into a similarity matrix using Bray-Curtis Similarity, and classified into a space-conserving dendrogram using Flexible Beta -1 to 1, with a 78 cophenetic correlation distance cutoff applied to create best-fit regional vegetation groupings. The results demonstrate a good fit between regional vegetation groups and the vegetation codes applied by both Stantec (2024) and Ecoscape (2015). Regional Group D is a riparian creekline vegetation unit across both the Yinnetharra and Yangibana projects, dominated by species just as *Eucalyptus camaldulensis* (River Red Gum), *Eucalyptus victrix* (Coolabah) and *Acacia citrinoviridis*.

PROJ	SITE	VegType	FlexBeta_78DistanceGroups Regional_Veg_Groups
Stantec2024	YINN_2-C12	Ac	a
Stantec2024	YINN_C2	Ac	a
Stantec2024	YINN_2-Yinn11	EppAc	a
Ecoscape2015	HY15085	Fs	b
Ecoscape2015	HY19104	Fs	b
Ecoscape2015	HY19105	Fs	b
Ecoscape2015	HY15090	EvReMg	c
Ecoscape2015	HY15091	EvReMg	c
Ecoscape2015	HY15023	AcAsCc	d
Ecoscape2015	HY15026	AcAsCc	d
Ecoscape2015	HY15058	AcAsCc	d
Ecoscape2015	HY15068	AcAsCc	d
Ecoscape2015	HY14010	EcMgCc	d
Ecoscape2015	HY15024	EcMgCc	d
Ecoscape2015	HY15049	EcMgCc	d
Ecoscape2015	HY15078	EcMgCc	d
Ecoscape2015	HY15081	EcMgCc	d
Stantec2024	YINN_G2	EcoAciCvCc	d
Stantec2024	YINN_G3	EcoAciCvCc	d
Stantec2024	YINN_G4	EcoAciCvCc	d
Stantec2024	YINN_G5	EcoAciCvCc	d
Stantec2024	YINN_Yinn09	EcoAciCvCc	d
Ecoscape2015	HY15022	EvCc	d
Ecoscape2015	HY15034	EvCc	d
Ecoscape2015	HY15043	EvCc	d
Ecoscape2015	RHY15025	regional	d
Ecoscape2015	HY15103	AsFh	e
Ecoscape2015	HY14004	AxEcAc	e
Ecoscape2015	HY14005	AxEcAc	e
Ecoscape2015	HY14007	AxEcAc	e
Ecoscape2015	HY15033	AxEcAc	e
Ecoscape2015	HY15040	AxEcAc	e
Ecoscape2015	HY15046	AxEcAc	e
Ecoscape2015	HY15047	AxEcAc	e
Ecoscape2015	HY15056	AxEcAc	e
Ecoscape2015	HY15069	AxEcAc	e
Ecoscape2015	HY15097	AxEcAc	e
Ecoscape2015	HY15098	AxEcAc	e
Ecoscape2015	HY15099	AxEcAc	e

PROJ	SITE	VegType	FlexBeta_78DistanceGroups Regional_Veg_Groups
Ecoscape2015	HY15077	EcBp	e
Ecoscape2015	HY15089	EcBp	e
Ecoscape2015	HY15036	Mp	e
Ecoscape2015	HY15088	Mp	e
Ecoscape2015	HY19109	Mp	e
Ecoscape2015	RHY15048	regional	e
Ecoscape2015	RHY15053	regional	e
Ecoscape2015	RHY15064	regional	e
Ecoscape2015	RHY15066	regional	e
Ecoscape2015	RHY15067	regional	e
Stantec2024	YINN_M1	AcsAssHpReSaoFs	f
Stantec2024	YINN_N3	AcsAssHpReSaoFs	f
Stantec2024	YINN_I6	AcsHpAsEcuSmReMspp.Sspp.	f
Stantec2024	YINN_2-I10	AdAssHpSscReCcCs	f
Stantec2024	YINN_2-I9	AdAssHpSscReCcCs	f
Stantec2024	YINN_I7	AdAssHpSscReCcCs	f
Stantec2024	YINN_F3	AfAciSahPooCczAcCc	f
Stantec2024	YINN_Q1	AkAtApPooSahEtEf	f
Stantec2024	YINN_I3	AssHpReAsSahCc	f
Stantec2024	YINN_I5	AssHpReAsSahCc	f
Stantec2024	YINN_N1	AssHpReAsSahCc	f
Stantec2024	YINN_Yinn10	AssHpReAsSahCc	f
Stantec2024	YINN_Yinn18	AssHpReAsSahCc	f
Stantec2024	YINN_Q3	AtAsyErSaoEaCcEs	f
Stantec2024	YINN_2-T2	HpAtAsEcuReSmEaEf	f
Stantec2024	YINN_Q2	HpAtAsEcuReSmEaEf	f
Stantec2024	YINN_2-Yinn04	AcsAsAcdSd	g
Stantec2024	YINN_L10	AcsAsAcdSd	g
Stantec2024	YINN_L6	AcsAsAcdSd	g
Stantec2024	YINN_M2	AcsAssHpReSaoFs	g
Stantec2024	YINN_L8	AcsHpAsEcuSmReMspp.Sspp.	g
Stantec2024	YINN_M3	AcsHpAsEcuSmReMspp.Sspp.	g
Stantec2024	YINN_M4	AcsHpAsEcuSmReMspp.Sspp.	g
Stantec2024	YINN_O7	AcsHpAsEcuSmReMspp.Sspp.	g
Ecoscape2015	HY19112	AsFh	g
Stantec2024	YINN_H7	AssHpReAsSahCc	g
Stantec2024	YINN_2-Q5	AtAsyErSaoEaCcEs	g
Stantec2024	YINN_2-V1	AxAcsSmEcuSdSc	g
Stantec2024	YINN_2-V2	AxAcsSmEcuSdSc	g
Stantec2024	YINN_A1	AxAcsSmEcuSdSc	g
Stantec2024	YINN_L11	AxAcsSmEcuSdSc	g
Stantec2024	YINN_L3	AxAcsSmEcuSdSc	g
Stantec2024	YINN_L9	AxAcsSmEcuSdSc	g
Stantec2024	YINN_2-J5	AxAsSmEcuSd	g
Stantec2024	YINN_A4	AxAsSmEcuSd	g
Stantec2024	YINN_C9	AxAsSmEcuSd	g
Stantec2024	YINN_L1	AxAsSmEcuSd	g

PROJ	SITE	VegType	FlexBeta_78DistanceGroups Regional_Veg_Groups
Stantec2024	YINN_L5	AxAsSmEcuSd	g
Stantec2024	YINN_L7	AxAsSmEcuSd	g
Stantec2024	YINN_Yinn05	AxAsSmEcuSd	g
Stantec2024	YINN_L2	HpAcsAsEcuSaoScoSd	g
Stantec2024	YINN_N5	HpAcsAsEcuSaoScoSd	g
Stantec2024	YINN_N7	HpAcsAsEcuSaoScoSd	g
Stantec2024	YINN_O3	HpAcsAsEcuSaoScoSd	g
Stantec2024	YINN_2-Q6	HpAtAsEcuReSmEaEf	g
Stantec2024	YINN_2-Q7	HpAtAsEcuReSmEaEf	g
Stantec2024	YINN_2-R1	AaSglEcr	h
Stantec2024	YINN_2-R2	AaSglEcr	h
Stantec2024	YINN_C8	AaSglEcr	h
Stantec2024	YINN_2-C11	AtEeSahAc	h
Stantec2024	YINN_2-Yinn20	AtSglEcuAc	h
Stantec2024	YINN_A3	AtSglEcuAc	h
Stantec2024	YINN_O9B	AtSglEcuAc	h
Stantec2024	YINN_P3	AtSglEcuAc	h
Stantec2024	YINN_Yinn08	AtSglEcuAc	h
Stantec2024	YINN_Yinn13	AtSglEcuAc	h
Stantec2024	YINN_Yinn15	AtSglEcuAc	h
Stantec2024	YINN_A2	AxAsSmEcuSd	h
Stantec2024	YINN_C6	AxAsSmEcuSd	h
Stantec2024	YINN_L4	AxAsSmEcuSd	h
Stantec2024	YINN_2-W2	EffSahAtCczIdAc	h
Stantec2024	YINN_2-S1	AcuEffSaoEcrAc	i
Stantec2024	YINN_2-S2	AcuEffSaoEcrAc	i
Ecoscape2015	HY15057	AaSaEs	j
Ecoscape2015	HY19110	AaSaEs	j
Ecoscape2015	HY19111	AaSaEs	j
Stantec2024	YINN_2-Q4	AtAsyErSaoEaCcEs	j
Stantec2024	YINN_K3	AtSahAcCcCa	j
Ecoscape2015	RHY15061	regional	j
Stantec2024	YINN_2-P2	AfEllCc	k
Stantec2024	YINN_K1	AfEllCc	k
Stantec2024	YINN_P1	AfEllCc	k
Stantec2024	YINN_2-J4	AkAtApPooSahEtEf	l
Stantec2024	YINN_2-Yinn03	HpAtAsEcuReSmEaEf	l
Stantec2024	YINN_D1	AaAtAc	m
Stantec2024	YINN_D2	AaAtAc	m
Stantec2024	YINN_D3	AaAtAc	m
Stantec2024	YINN_D4	AaAtAc	m
Stantec2024	YINN_C1	Ac	m
Stantec2024	YINN_2-Yinn13	AiAtEllEppAc	m
Stantec2024	YINN_E1	AiAtEllEppAc	m
Stantec2024	YINN_E2	AiAtEllEppAc	m
Stantec2024	YINN_E3	AiAtEllEppAc	m
Stantec2024	YINN_E4	AiAtEllEppAc	m

PROJ	SITE	VegType	FlexBeta_78DistanceGroups Regional_Veg_Groups
Stantec2024	YINN_K8	AiAtEllEppAc	m
Stantec2024	YINN_KJ9	AiAtEllEppAc	m
Stantec2024	YINN_O1	AiAtEllEppAc	m
Ecoscape2015	HY19107	AtGc	m
Stantec2024	YINN_C10	AtSglEcuAc	m
Stantec2024	YINN_O9	AtSglEcuAc	m
Stantec2024	YINN_L12	EppAc	m
Stantec2024	YINN_C7	AcuEeSahAc	n
Stantec2024	YINN_N6	AcuEeSahAc	n
Stantec2024	YINN_O11	AcuEeSahAc	n
Stantec2024	YINN_O12	AcuEeSahAc	n
Stantec2024	YINN_Z1	AcuEeSahAc	n
Stantec2024	YINN_O6	AcuSahAc	n
Stantec2024	YINN_N2	AfAcuSgAc	n
Stantec2024	YINN_Yinn16	AfAcuSgAc	n
Stantec2024	YINN_Yinn17	AfAcuSgAc	n
Stantec2024	YINN_2-Yinn01	AtEeSahAc	n
Stantec2024	YINN_K2	AtEeSahAc	n
Stantec2024	YINN_O8	AtEeSahAc	n
Stantec2024	YINN_K5	AtSahAcCcCa	n
Ecoscape2015	HY15055	EfAc	n
Ecoscape2015	HY15076	EfAc	n
Ecoscape2015	HY15082	EfAc	n
Ecoscape2015	HY15095	EfAc	n
Stantec2024	YINN_C3	EffErSahAc	n
Ecoscape2015	RHY15073	regional	n
Stantec2024	YINN_H2	AfAccAkSahCcAcDc	o
Stantec2024	YINN_H3	AfAccAkSahCcAcDc	o
Stantec2024	YINN_H4	AfAccAkSahCcAcDc	o
Stantec2024	YINN_H5	AfAccAkSahCcAcDc	o
Stantec2024	YINN_H6	AfAccAkSahCcAcDc	o
Stantec2024	YINN_I8	AiAkAtSahPooDbAc	o
Stantec2024	YINN_J1	AiAkAtSahPooDbAc	o
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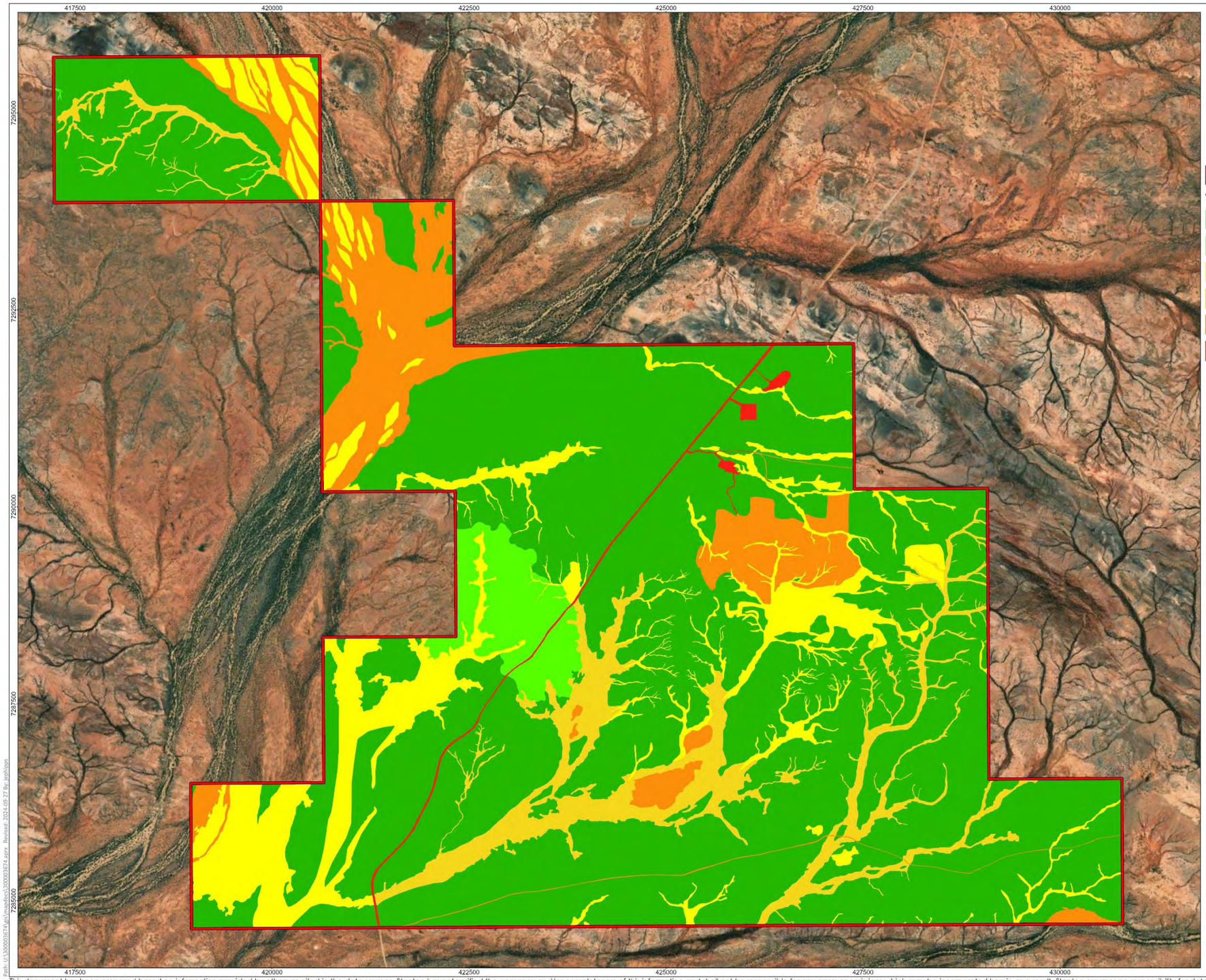
Stantec2024	YINN_I1	AkAfSahAcEaCc	o
Stantec2024	YINN_Yinn06	AkAfSahAcEaCc	o
Stantec2024	YINN_J3	AkAtApPooSahEtEf	o
Ecoscape2015	HY15074	AxEcAc	o
Stantec2024	YINN_O4	AaAtAc	p
Stantec2024	YINN_N4	Ac	p
Stantec2024	YINN_2-Yinn07	AcuAkSahCcPooAhhAc	p
Stantec2024	YINN_B1	AcuAkSahCcPooAhhAc	p
Stantec2024	YINN_B2	AcuAkSahCcPooAhhAc	p
Stantec2024	YINN_B3	AcuAkSahCcPooAhhAc	p
Stantec2024	YINN_Yinn04	AcuEffSaoEcrAc	p
Stantec2024	YINN_F4	AcuSahAc	p

PROJ	SITE	VegType	FlexBeta_78DistanceGroups Regional_Veg_Groups
Stantec2024	YINN_O10	AcuSahAc	p
Stantec2024	YINN_F1	AfAciSahPooCczAcCc	p
Stantec2024	YINN_F2	AfAciSahPooCczAcCc	p
Stantec2024	YINN_I2	AkAfSahAcEaCc	p
Stantec2024	YINN_I4	AkAfSahAcEaCc	p
Stantec2024	YINN_K4	AtSahAcCcCa	p
Stantec2024	YINN_K6	AtSahAcCcCa	p
Stantec2024	YINN_K7	AtSahAcCcCa	p
Stantec2024	YINN_C4	AtSglEcuAc	p
Stantec2024	YINN_C5	AxAsSmEcuSd	p
Ecoscape2015	HY19106	EcBp	p
Ecoscape2015	HY14003	EeAc	p
Stantec2024	YINN_2-X1	EffErSahAc	p
Stantec2024	YINN_Yinn14	EffErSahAc	p
Stantec2024	YINN_2-W1	EffSahAtCczIdAc	p
Stantec2024	YINN_O5	EffSahAtCczIdAc	p
Stantec2024	YINN_O2	EppAc	p
Ecoscape2015	HY14001	AcEt	q
Ecoscape2015	HY15014	AcEt	q
Ecoscape2015	HY15037	AcEt	q
Ecoscape2015	HY15083	AcEt	q
Ecoscape2015	HY15045	ArPc	q
Ecoscape2015	HY15052	ArPc	q
Ecoscape2015	HY15086	ArPc	q
Ecoscape2015	HY14008	EeAc	q
Ecoscape2015	HY15017	AaEpDr	r
Ecoscape2015	HY15018	AaEpDr	r
Ecoscape2015	HY15020	AaEpDr	r
Ecoscape2015	HY15087	AaEpDr	r
Ecoscape2015	HY15051	ArPc	r
Ecoscape2015	HY15094	AtGc	r
Ecoscape2015	HY15102	AtGc	r
Ecoscape2015	HY15027	EeAc	r
Ecoscape2015	HY15030	EeAc	r
Ecoscape2015	HY15032	EeAc	r
Ecoscape2015	HY15035	EeAc	r
Ecoscape2015	HY15038	EeAc	r
Ecoscape2015	HY15079	EfAc	r
Ecoscape2015	HY15093	EfAc	r
Ecoscape2015	HY15096	EfAc	r
Ecoscape2015	HY14002	EpAc	r
Ecoscape2015	HY14006	EpAc	r
Ecoscape2015	HY14009	EpAc	r
Ecoscape2015	HY14012	EpAc	r
Ecoscape2015	HY15013	EpAc	r
Ecoscape2015	HY15015	EpAc	r
Ecoscape2015	HY15021	EpAc	r

PROJ	SITE	VegType	FlexBeta_78DistanceGroups Regional_Veg_Groups
Ecoscape2015	HY15028	EpAc	r
Ecoscape2015	HY15029	EpAc	r
Ecoscape2015	HY15031	EpAc	r
Ecoscape2015	HY15044	EpAc	r
Ecoscape2015	HY15060	EpAc	r
Ecoscape2015	HY15070	EpAc	r
Ecoscape2015	HY15075	EpAc	r
Ecoscape2015	HY15080	EpAc	r
Ecoscape2015	HY15084	EpAc	r
Ecoscape2015	HY15100	EpAc	r
Ecoscape2015	HY15101	EpAc	r
Ecoscape2015	RHY15059	regional	r
Ecoscape2015	RHY15062	regional	r
Ecoscape2015	RHY15063	regional	r
Ecoscape2015	HY15042	ApAsEp	s
Ecoscape2015	HY14011	ApSgAc	s
Ecoscape2015	HY15039	ApSgAc	s
Ecoscape2015	HY19108	ApSgAc	s
Ecoscape2015	HY15041	EfAc	s
Ecoscape2015	HY15050	EfAc	s
Ecoscape2015	HY15054	EfAc	s
Ecoscape2015	HY15071	EfAc	s
Ecoscape2015	HY15072	EfAc	s
Ecoscape2015	HY15016	EpAc	s
Ecoscape2015	HY15019	EpAc	s
Ecoscape2015	HY15092	EpAc	s
Ecoscape2015	RHY15065	regional	s

Appendix P Vegetation Condition Mapping



Vegetation Condition: Northern Survey Area

Yinnetharra Lithium Project
Detailed Flora and Vegetation Survey

Client: *Delta Lithium Limited*
Project: *300003674*
Project Code: *yinn-fv-2023-01*

Drawn: JP, Reviewed: FW, SP
Date: 27-09-2024

Survey Area

Vegetation Condition Rating

- Excellent
- Very Good
- Good
- Poor
- Degraded
- Completely degraded

Notes:
1. Map displayed in GDA 1994 MGA Zone 50
2. Based on information provided by and with the permission of the Western Australian Land Information Authority trading as Landgate (2024).
3. Background: Maxar

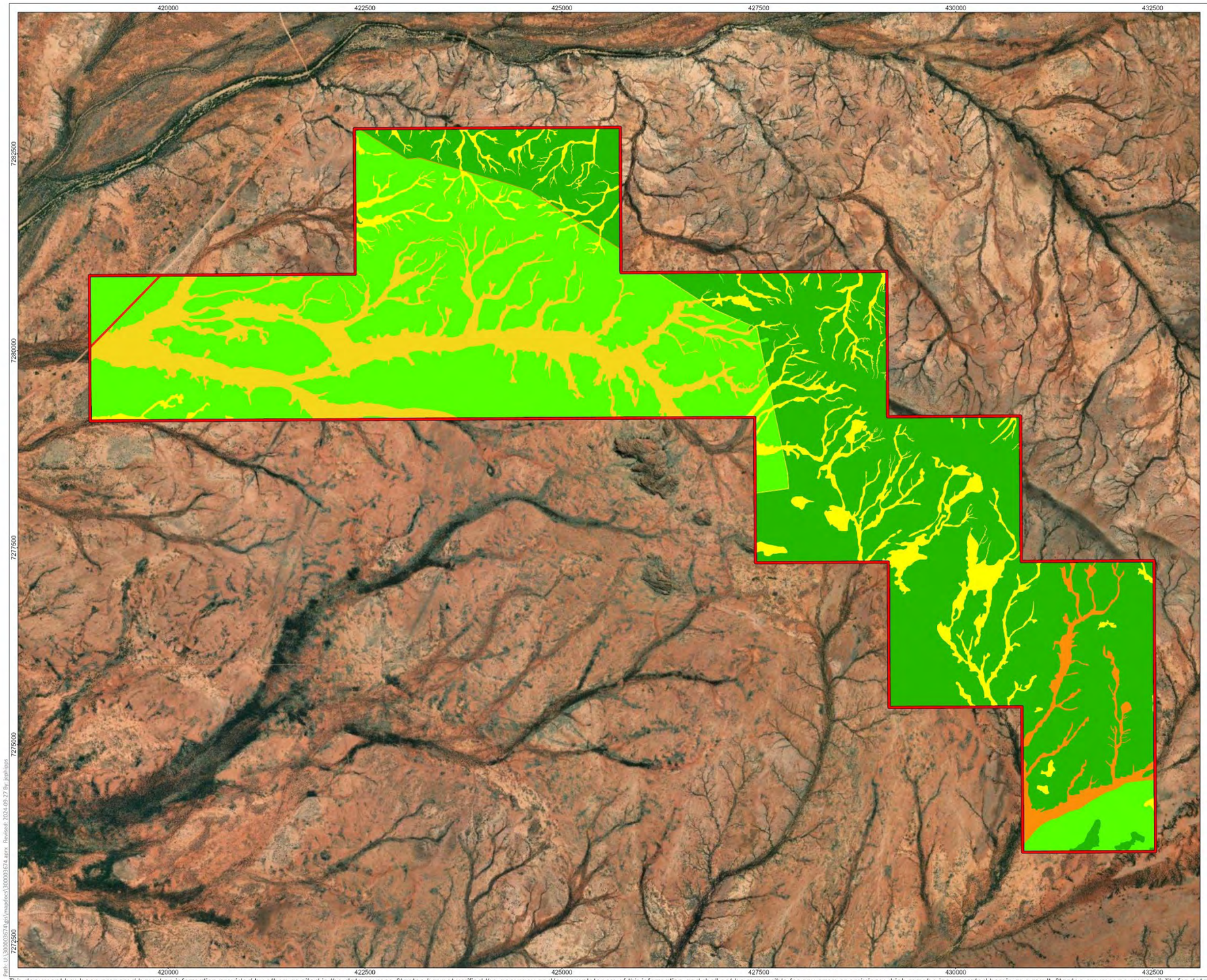
Stantec

0 0.5 1 km

Scale at A3: 1:45,000

N

GASCOYNE JUNCTION



Vegetation Condition: Southern Survey Area

Yinnetharra Lithium Project
Detailed Flora and Vegetation Survey

Client: *Delta Lithium Limited*
Project: *300003674*
Project Code: *yinn-fv-2023-01*

Drawn: JP, Reviewed: FW, SP
Date: 27-09-2024

Survey Area

Vegetation Condition Rating

- Excellent
- Very Good
- Good
- Poor
- Degraded
- Completely degraded

Notes:
1. Map displayed in GDA 1994 MGA Zone 50
2. Based on information provided by and with the permission of the Western Australian Land Information Authority trading as Landgate (2024).
3. Background: Maxar

Stantec

0 0.5 1 km

Scale at A3: 1:45,000

N

Path: U:\300003674\gis\mxds\300003674.aprx Revised: 2024-09-27 By: jpshipps

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