PURPOSE PERMIT APPLICATION
DUKETON GOLD PROJECT

Commonwealth Gold Mine M38/1305

March 2023

EXECUTIVE SUMMARY

Regis Resources Limited (Regis) operates the Duketon Gold Project between 50 and 115 km north of Laverton. The Duketon Gold Project comprises three processing plants (Moolart Well, Garden Well and Rosemont), which processes ore from open pits and underground mines.

Regis has submitted this purpose clearing permit application for a new mining area at Commonwealth (M38/1305), approximately 10 km west of its Moolart Well processing plant.

Development at Commonwealth will comprise of at least one open pit (dependent on optimisation studies) and two small waste rock dumps. Commonwealth is planned to be strip mined resulting in most waste rock being backfilled into the open pit. The mine will also require site infrastructure such as turkey's nests, buildings, ROM pad and drainage. Commonwealth is immediately adjacent to the Petra to Moolart Well haul road (L38/315) which eliminates the need to develop a new haul road to Moolart Well. Regis proposes to disturb up to 420 ha at Commonwealth, which will occupy most of the tenement.

From recent studies, key environmental values present across the new application areas are:

- Three land systems – Felix (Commonwealth), Steer (Commonwealth) and Teutonic (Commonwealth).
- Vegetation mapping is dominated by Acacia and to a lesser extent Chenopod vegetation associations, typical of the East Murchison IBRA subregion and Austin Botanical District.
- No Threatened flora or Threatened Ecological Communities present.
- One Priority flora species recorded - *Eremophila pungens* (Priority 4) at seven locations across Commonwealth during a recent flora survey (Mattiske Consulting Pty Ltd 2022).
- Commonwealth is in the Lake Carnegie catchment.
- One key fauna habitats present flat open mulga woodlands.
- Conservation significant avian species Princess Parrot, Fork-tailed Swift and Peregrine Falcon may infrequently be seen in the Commonwealth area, or any other area across the Duketon Gold Project.

Environmental management of potential impacts are discussed in Section 4 based on existing site controls used across the Duketon Gold Project.

An assessment of the application areas against the ten Clearing Principles is presented in Table ES1.

Table ES.1 Assessment of the Proposal Against the Ten Clearing Principles

Clearing Principle	Assessment	Discussion
1. Native vegetation should not be cleared if it comprises a high level of biological diversity	Proposal is not at variance to this principle	Comparison of aerial photography of the survey area and surrounding areas suggests the area under application is typical of the vegetation throughout the region. Cowan (2001) states that the Eastern Murchison subregion is rich and diverse in both flora and fauna however most species are wide ranging and usually occur in at least one, and often several, adjoining sub regions. Additionally, Beard states the Murchison is essentially the Mulga region of Western Australia and those conditions within the Murchison region favour Mulga more generally than in any other part of Western Australia. The vegetation to be cleared does not have a high level of biodiversity and is well represented within the local and broader region.
2. Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.	Proposal is not at variance to this principle	Although the proposed clearing areas will comprise habitat that may be suitable for fauna indigenous to Western Australia, from a regional context, the vegetation associations within the project area are well represented within the broader region and is without specific habitats of significance to fauna of conservation value.
3. Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, Threatened flora.	Proposal is not at variance to this principle	No Threatened flora species pursuant to section 19 of the *Biodiversity Conservation Act*, or pursuant to section 179 of the EPBC Act were recorded near the project area by Mattiske Consulting Pty Ltd experienced botanists at Commonwealth or any other Duketon Gold Project sites (between 2009 and 2022).
4. Native vegetation should not be cleared if it comprises the whole or part of, or is necessary for the maintenance of a Threatened Ecological Community.	Proposal is not at variance to this principle	No Threatened Ecological Communities have been recorded from any surveys across the Duketon Gold Project.
5. Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.	Proposal is not at variance to this principle	The area under application is not considered significant as extensive areas nearby remain uncleared. Surveys conducted by Mattiske Consulting Pty Ltd determined the vegetation at Commonwealth is typical of vegetation throughout the region. The area under application forms part of the Banjawarn Pastoral Station where grazing has already occurred in various densities.
6. Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.	Proposal is unlikely to be at variance to this principle	Commonwealth is at the catchment divide with very limited minor ephemeral drainage which only flows following sporadic heavy rainfall events, such as cyclonic rain and hence unlikely to be at variance with this principle. No wetlands exist within the area under application.
7. Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	Proposal is not at variance to this principle	Vegetation across the Commonwealth survey area ranged from Degraded (6 sites) to Excellent (2 sites), although with most sites being either Very Good (28 sites), Good (17 sites) or Poor (12 sites). With a flat landscape at Commonwealth, appreciable degradation is unlikely.

Clearing Principle	Assessment	Discussion
8. Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.	Proposal is not at variance to this principle	The De La Poer Range Nature Reserve (Reserve No. 41831) is the closest reserve in the area (approximately 20 km northwest of the northern boundary of this application. No impacts on the environmental values of the reserve will occur as a result of clearing in the area under application due to the distance from the proposed activities. For completeness, it is noted M38/1305 slightly overlaps with the corner of R10165 "State Battery", although this is not a conservation reserve.
9. Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface and underground water.	Proposal is unlikely to be at variance to this principle	With Commonwealth being near the catchment divide, very limited ephemeral drainage lines exist, which only have sporadic, surface water flows following large storms or cyclonic systems. Such drainage regimes often have of poor quality surface water (high TSS) due to high intensity. Nevertheless impacts from proposed clearing activities should be minimised through surface drainage to minimise impacts to surface water quality.
10. Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.	Proposal is not at variance to this principle	The area under application occurs on flat, landscape where flooding occurs following sporadic heavy rainfall, typically from cyclonic systems. There are no major watercourses in the application area.

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1. INTRODUCTION

1.1 Project Overview

Regis Resources Limited (Regis) operates the Duketon Gold Project between 50 and 115 km north of Laverton (Figure 1). The Duketon Gold Project comprises three processing plants (Moolart Well, Garden Well and Rosemont), which processes ore from open pits and underground mines.

Regis has submitted this purpose clearing permit application for a new mining area at Commonwealth (M38/1305), approximately 10 km west of its Moolart Well processing plant.

Development at Commonwealth will comprise of at least one open pit (dependent on optimisation studies) and two small waste rock dumps. Commonwealth is planned to be strip mined resulting with most waste rock being backfilled into the open pit. The mine will also require site infrastructure such as turkey's nests, buildings, ROM pad and drainage. Commonwealth is immediately adjacent to the Petra to Moolart Well haul road which eliminates the need to develop a new haul road to Moolart Well. Regis proposes to disturb up to 420 ha at Commonwealth.

Commonwealth sits entirely within M38/1305. Regis Resources Limited is the registered tenement holder.

The boundary of the M38/1305 and therefore this permit application is shown in Figure 2.

1.2 Statutory Requirements

This application does not trigger items listed under the Memorandum of Understanding between the Environmental Protection Authority (EPA) and Department of Mines, Industry Regulation and Safety (DMIRS). Based on previously approved Mining Proposals and Native Vegetation Clearing Permits (NVCP) in the immediate region and taking into account the scope, location and environmental setting of the proposal, the proposed clearing and impacts can be adequately managed under the *Mining Act, Environmental Protection (Clearing of Native Vegetation) Regulations* and Part V of the *Environmental Protection Act*.

This document is to be read in conjunction with the completed Form C4 Application to Amend and Clearing Permit.

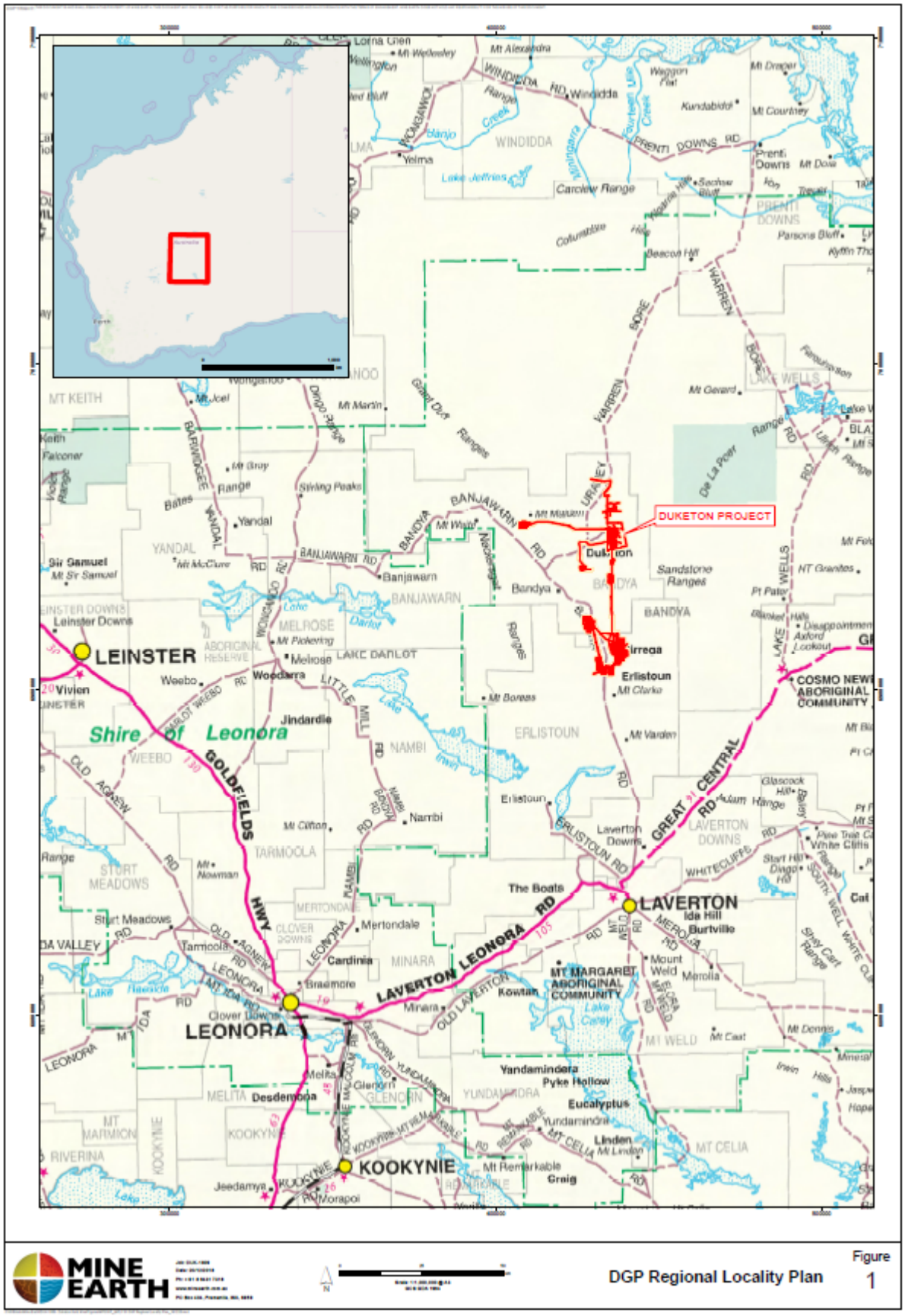


Figure 1: Duketon Gold Project Regional Location

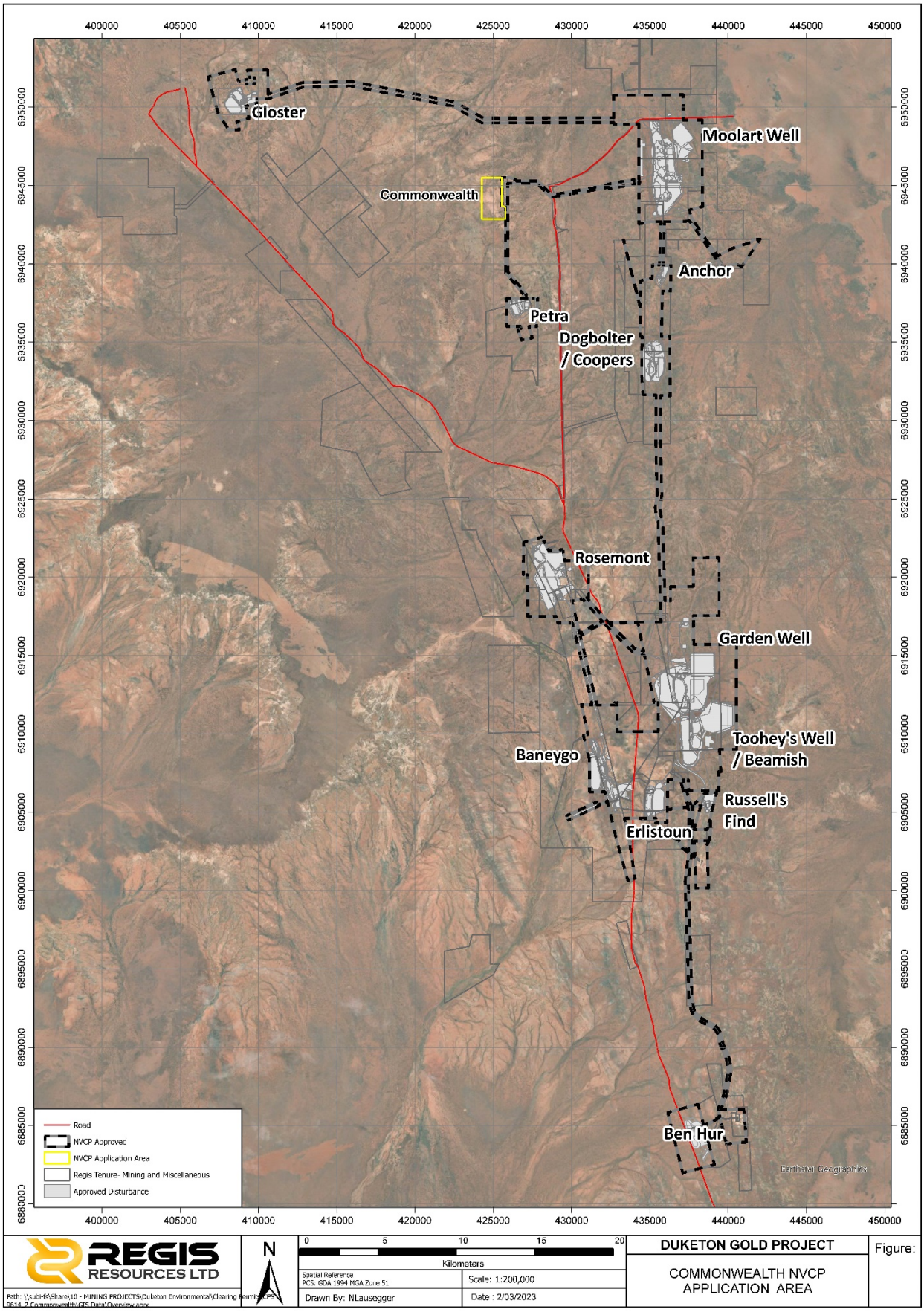


Figure 2: Commonwealth Application Area

2. PROJECT DESCRIPTION

The Duketon Gold Project (DGP) occurs between ~50 and 115 km north of Laverton (Figure 1). Whilst mining has been occurring at the DGP since 2010, earlier phases of mining have occurred at several sites by previous operators.

The proposed Commonwealth gold mine is located ~105 km north of Laverton and ~10 km west of Moolart Well.

Disturbance activities at Commonwealth are expected to contain one to three open pits (dependent on optimisation studies) and two small waste rock dumps. Commonwealth is a large low grade oxide deposit which is planned to be strip mined (as a single pit). This will enable most of the waste rock to be returned in pit, resulting in relatively small volumes of out of pit waste rock placement. The mine site will also require mine infrastructure such as a turkey's nest, buildings, workshop, topsoil stockpiles, ROM pad and drainage. A disturbance footprint of 420 ha has been allowed for development of Commonwealth. In addition to approval of a Mining Proposal, Geological Survey of Western Australia sterilisation approval is also required for backfilling to be approved as part of strip mining.

Commonwealth with operate as a satellite deposit for the Moolart Well processing plant, which is the nearest processing centre. Thus separate processing and tailings disposal infrastructure is not required for Commonwealth.

3. REGIONAL ENVIRONMENTAL SETTING

3.1 Natural Environment

The DGP is located in the Murchison biogeographic region (bioregion) of the Interim Biogeographic Regionalisation for Australia (IBRA). The Murchison bioregion is subdivided into the East Murchison (MUR 1) and West Murchison (MUR 2) subregions.

The DGP is located in MUR 1 containing the northern parts of the Southern Cross and Eastern Goldfields' terrains of the Yilgarn Craton. The subregion is characterised by expansive elevated red desert sandplains with minimal dune development, internal drainage and salt lakes, which are associated with the occluded palaeodrainage system. Red-brown soils dominate the terrain forming broad plains and breakaway complexes. Vegetation of this region typically consists of Mulga Woodlands rich in ephemeral grass and shrub communities, specifically, hummock grasslands, saltbush shrublands and *Halosarcia* shrublands (Cowan, 2001).

3.2 Climate

The climatic region within which the DGP is located is classified as desert, being described as arid, with rainfall averaging less than 250 mm a year (Beard, 1990). Rainfall occurs over summer and winter months and is sporadic with no month being reliably wet or dry (Beard, 1990).

The nearest meteorological station is located at Laverton. The average monthly maximum and minimum temperatures and the average monthly rainfall recorded for Laverton are shown on Figure 3.

The mean maximum monthly temperature at Laverton ranges from 17.8 °C in July to 35.8 °C in January, with the mean precipitation being 235.6 mm per year (Bureau of Meteorology, BoM, 2021). The mean number of rain days receiving >1 mm for Laverton is 29.8 per year.

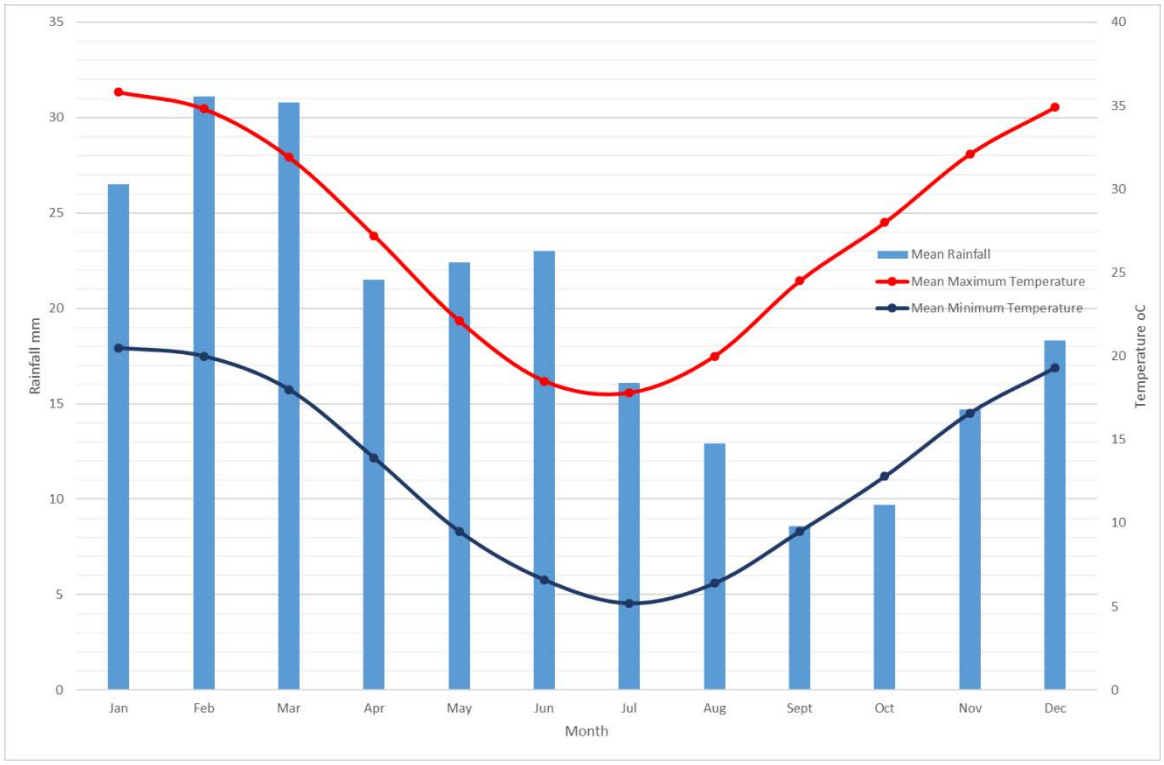


Figure 3: Mean Maximum and Minimum Temperatures and Precipitation at Laverton

3.3 Geology, Soils and Topography

The Eastern Goldfields region is underlain by rocks of the Yilgarn Craton which are mostly Archaean granitic rocks, often intruded by quartz veins and dolerite dykes. Areas of Archaean migmatite and gneiss are associated with Archaean greenstone belts, which contain a mix of metamorphosed mafic-ultramafic and felsic volcanics and metasediments. The Archaean bedrock has been extensively weathered and is often covered by Tertiary and Quaternary alluvial, colluvial and Aeolian deposits (Beard 1990; Tille 2006).

Topographically, it comprises undulating low hills and extensive sandplains in the eastern half. Soils are predominantly shallow earthy loam overlying red-brown hardpan; shallow stony loams on hills and red earthy sands on the plains (Beard, 1990).

In more recent times, mapping of soils and landscapes has become available at a greater level of detail. The Department of Primary Industries and Regional Development (DPIRD), in its "Soil-landscapes of Western Australia's Rangelands and Arid Interior" (Tille, 2006), describes a range of soil-landscape mapping units. The project falls within the Salinaland Plains Zone of the Murchison Province. The Salinaland Plains Zone is characterised by;

- Sandplains (with hardpan wash plains and some mesas, stony plains and salt lakes) on granitic rocks (and some greenstone) of the Yilgarn Craton.
- Red sandy earths, red deep sands, red shallow loams and red loamy earths with some red-brown hardpan shallow loams, saltlake soils and red shallow sandy duplexes.
- Mulga shrublands with spinifex grasslands (and some halophytic shrublands and eucalypt woodlands).

3.4 Land Systems

The Austin Botanical District is the largest of the Eremaean regions and is essentially Mulga (*Acacia aneura*) woodlands associated with red loams over siliceous hardpans on the plains reducing to scrub on the rises and hills (Pringle *et al*., 1994). This botanical district is also comprised of Mulga and *Eremophila* shrublands which dominate on stony plains and chenopod communities are more often associated with duplex soils (Pringle *et al*., 1994).

Land system mapping of the north eastern Goldfields, including the survey area has been prepared by DPIRD (Pringle *et al*., 1994). This mapping sought to define the topographic characteristics of the north eastern Goldfields. Land systems are grouped into land types according to a combination of landforms, soils, vegetation and drainage patterns. Pringle *et al*. (1994) found that boundaries between plant communities are often sharp and mostly associated with boundaries between landforms and their soils along the slope of the land. Greater diversity in plant communities is often found higher in the landscape where differential weathering and erosion occurs across slope.

Three land systems are present within the Commonwealth tenement M38/1305, which are described in Table 1.

Table 1: Land Systems Present at Commonwealth

Land System	Description
Felix	Gently undulating plains with quartz mantles, supporting *Acacia – Eremophila* shrublands locally with wanderrie grasses
Steer	Gravelly alluvial plains supporting chenopod shrublands.
Teutonic	Hills and stony plains on acid volcanic rocks supporting Acacia shrublands.

3.5 Surface Water

The DGP is located within the internally draining Salt Lake Basin (~441,000 km^2), which extends across much of central Western Australia. The Salt Lake Basin comprises several large and broad sub-parallel southeast trending salt lake drainage systems which extend from a regional divide to the west of Wiluna/Sandstone and drain to either Ponton Creek (Raeside and Rebecca system) or terminate at the edge of sand plains (Carey/Minigwal system).

Most of the DGP occurs within the Lake Carey catchment area (113,780 km^2). Commonwealth occurs near the catchment divide, within the Lake Carnegie catchment area (68,675, km^2). No significant river systems or Ramsar sites occur in the vicinity of the DGP.

Ephemeral drainage lines are scattered across the landscape. These primarily occur in an east-west direction.

3.6 Vegetation and Flora

A flora and vegetation survey was conducted over the Commonwealth tenement (M38/1305) and beyond by Mattiske Consulting Pty Ltd (2022).

3.6.1 Threatened and Priority Flora

No Threatened flora species pursuant to section 19 of the *Biodiversity Conservation Act* and as listed by the Department of Biodiversity, Conservation and Attractions (DBCA), or pursuant to section 179 of the EPBC Act or listed by the Department of Agriculture, Water and the Environment, were recorded (or elsewhere across the DGP).

Within the Commonwealth survey area*, Eremophila pungens* has been recorded in seven locations, of which four occur within M38/1305. Elsewhere in the DGP, *Eremophila pungens* has also previously been recorded at Moolart Well, Gloster, Anchor, Dogbolter-Coopers, Petra, Garden Well, Toohey's Well, Russell's Find, Rosemont and Ventnor.

3.6.2 Vegetation Associations

Vegetation associations have either been mapped in accordance with the structural forms of vegetation described by Beard (1990) or based on Aplin's (1979) modification of the vegetation classification system of Specht (1970), to align with the National Vegetation Information Systems (NVIS). Vegetation associations across the DGP are however broadly similar, with associations being primarily dominated by Mulga Woodlands and to a lesser extent Chenopod grasslands.

Four vegetation associations were identified in the Commonwealth survey area dominated by *Acacia* vegetation associations, with A5, A22 and A23 occupying approximately 87% of the survey area and A23 alone occupying 82%. The only non-Acacia dominated association (CH1) occupies ~13% of the survey area (Table 2).

Table 2: Vegetation Associations At Commonwealth

Vegetation Association Code	Description	Mapped Area Area (ha)
A5	Mid-sparse shrubland of Acacia aptaneura and Acacia tetragonophylla over low sparse shrubland of Senna artemisioides on sandy red clay in minor drainage lines	12.76
A22	Tall open shrubland of Acacia sect. Juliflorae (A. aneura, A. aptaneura, and A. fuscaneura) over mid-sparse shrubland of A. tetragonophylla, Eremophila pungens (P4), and Psydrax suaveolens over isolated ferns of Cheilanthes sieberi subsp. sieberi on red clay loam in minor drainage lines	41.09
A23	Tall open shrubland of Acacia sect. Juliflorae (A. aneura, A. aptaneura, and A. fuscaneura) over mid-sparse shrubland of A. tetragonophylla and Psydrax suaveolens over isolated ferns of Cheilanthes sieberi subsp. sieberi on flats or slopes of red clay with ironstone gravel	956.52
CH1	Mid-isolated shrubs of Acacia aneura and Acacia aptaneura over low sparse chenopod shrubland of Sclerolaena cuneata, Sclerolaena eriacantha, and Maireana georgei on red clay flats with quartz pebbles	4.63

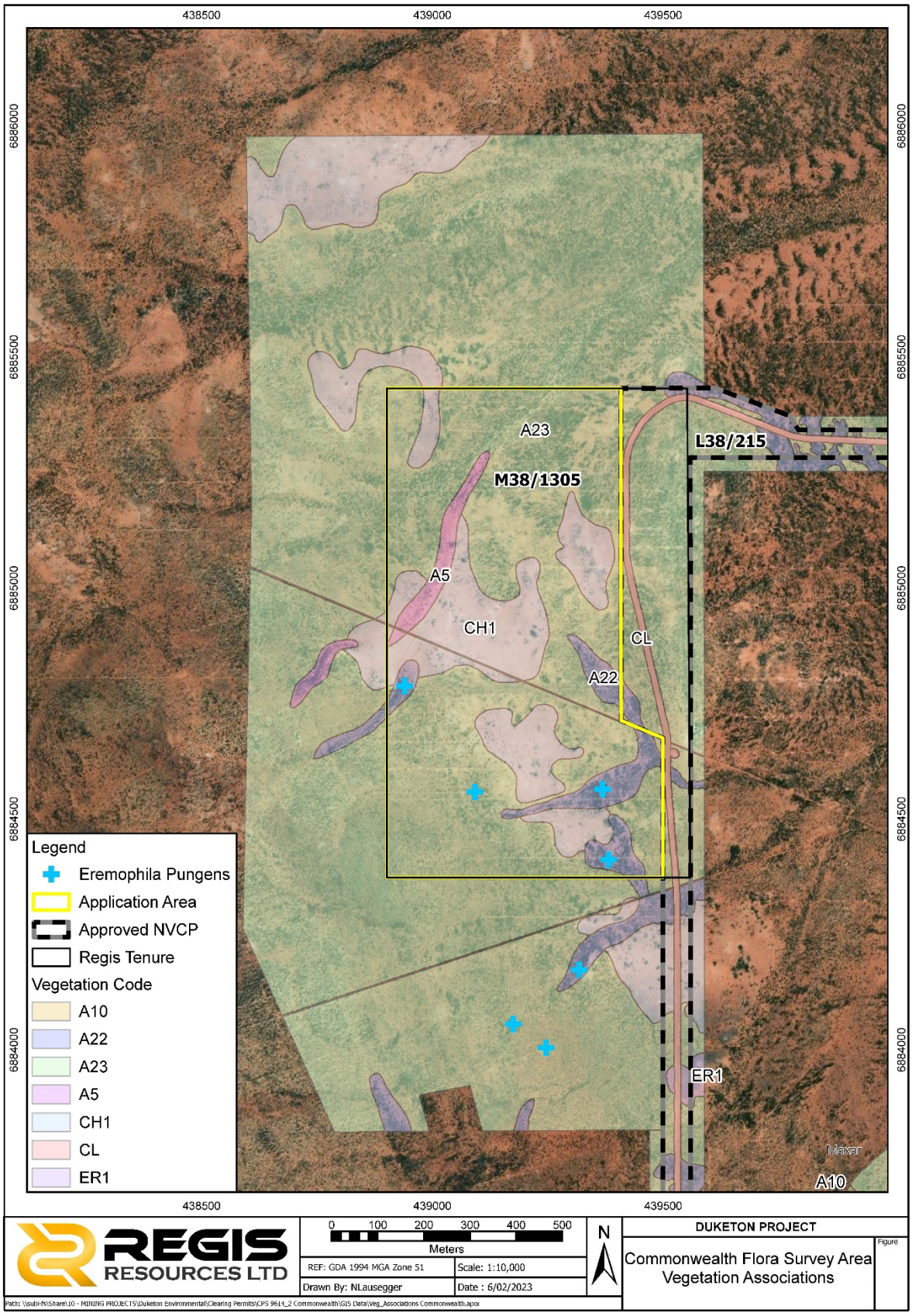


Figure 4: Vegetation Associations at Commonwealth

3.6.3 Vegetation Condition

Vegetation across the Commonwealth survey area ranged from Degraded (6 sites) to Excellent (2 sites). Most sites are either Very Good (28 sites), Good (17 sites) or Poor (12 sites). When mapped, the vegetation condition at Commonwealth is mostly Very Good vegetation but with substantial areas classed as Good.

3.6.4 Riparian Vegetation

Ephemeral drainage lines occur across the DGP landscape, which typically only flow after sustained heavy rainfall such as remnants of ex-tropical cyclones. As an area which exists near the catchment divide, ephemeral drainage lines are minimal which are approximated by the A5 and A22 vegetation associations. No wetlands exist at Commonwealth.

3.7 Vertebrate Fauna

Regis has commissioned a regional fauna survey across several areas including Commonwealth (Terrestrial Ecosystems 2022). The fauna habitat at Commonwealth comprises Open Mulga woodlands.

3.7.1 Conservation Significant Species Potentially Present

Table 3 identifies conservation significant species which are assessed to have some potential to be present at Commonwealth for at least part of the year.

Table 3: Current Conservation Significant Species Potentially Present in the Application Areas (from Terrestrial Ecosystems 2022)

Species	Conservation Significance	Commonwealth
Princess Parrot	BC Act Vulnerable EPBC Act Vulnerable	May infrequently be seen
Fork-tailed Swift	BC Act Migratory EPBC Migratory	May infrequently be seen flying
Peregrine Falcon	BC Act Other Specially Protected	May infrequently be seen

4. PROJECT IMPACTS AND MANAGEMENT

4.1 Managing Environmental Impacts

4.1.1 Approach to Environmental Management

Regis is committed to fulfilling its social and regulatory environmental responsibility. The company plans its mining activities to avoid or minimise impacts to environmental values.

Areas have been reviewed and assessed for potential impacts on the surrounding environment and Aboriginal heritage values.

Development activities will result in the direct loss of native vegetation through clearing. There is also potential for indirect losses from dust, competition from weeds, inadequate topsoil stripping and management and poor machinery control during rehabilitation.

Clearing of native vegetation can also directly affect fauna, for example as a result of deaths caused during clearing operations, and through the loss of habitat.

Management controls addressing each of these aspects are identified in the following sections.

4.1.2 Land Clearing

Up to 420 ha of vegetation will be cleared for development of Commonwealth. This will result in direct loss of vegetation, requiring removal of topsoil from disturbance areas from the vast majority of the tenement.

Objectives

- Avoid clearing of native vegetation wherever possible.
- Limit clearing of native vegetation to approved areas.
- Undertake activities in a manner to minimise adverse impacts to vegetation.
- Strip and stockpile topsoil for use in rehabilitation.

Management Controls

Management controls that relate to land clearing are detailed below:

- Clearing is managed across the DGP via a clearing permit system. As part of the clearing permit system, proposed activities are checked against flora and fauna values, Priority flora locations, Aboriginal heritage, tenure and Mining Proposal footprints (for key mining activities).
- Inductions cover the importance of minimising vegetation clearing and disturbance.
- Areas to be cleared will be delineated on project drawings and defined in the field by survey using coloured flagging to indicate the extent of authorised clearing. The site representative, work area supervisor and equipment operator will walk the area to be cleared prior to the commencement of clearing. Conspicuous flagging will be used to identify clearing boundaries.
- Personnel involved in clearing activities will be informed about avoidance areas (flora, fauna, heritage areas and other features) and the conditions that apply to each area. All employees will be competent in managing potential risks to these areas.
- Clearing activities will be undertaken on an as required basis, rather than the full footprint of the planned disturbance.

- The Survey Department undertake monthly reconciliations of:
  - Area of land cleared in the past month.
  - Progressive total area of land cleared.
  - Locations of topsoil stockpiles.

Other specific actions which are planned to reduce disturbance activities include strip mining of the Commonwealth pit enable backfill of mine waste into completed parts of the pit once the first strips are complete. This will reduce the disturbance footprint required for establishment of waste rock dumps. Some out of pit waste rock placement will still need to occur during mining of the initial strips.

Temporary use areas will be biased towards areas identified for future strip mining.

It is noted that even with strip mining, most of the tenement will be disturbed. However, if strip mining was not planned for the full pit extent of Commonwealth, a substantial area of additional clearing (and tenure) would be necessary.

Regis notes strip mining is subject to fluctuating economics of the pit itself. With unfavourable economics, strip mining will be reduced or even prevented from occurring. In which case the overall footprint will reduce as the mining footprint will reduce.

4.1.3 Flora

No Threatened flora has been identified in past surveys across the DGP, however five Priority species have been recorded during previous surveys at other DGP mine sites and the Priority 4 taxon *E. pungens* at Commonwealth. The following measures are designed to minimise adverse impacts on flora and vegetation within the project area and surrounds.

Objectives

- Avoid impacts to native vegetation wherever possible.
- Limit disturbance of native vegetation to those areas necessary.
- Design infrastructure to minimise disturbance to Priority Flora species wherever possible. For Commonwealth, disturbance is planned to occur to *E. pungens*
- Mitigate impacts to native vegetation.
- Rehabilitate disturbance areas as soon as practicable.

Management Controls

Management controls that relate specifically to flora are detailed below:

- Internal clearing permits are developed, assessed and approved before clearing can commence (as described in section 4.1.2).
- Vegetation clearing will be minimised, with preferential use of previously disturbed or degraded areas where possible.
- Temporary use areas will be biased towards areas identified for future strip mining.
- Progressive rehabilitation will be undertaken as soon as practicable.
- Dust suppression will be regularly undertaken on high traffic roads to minimise potential dust related impacts on adjacent vegetation.

4.1.4 Introduced Flora

Objectives

- Prevent and minimise the introduction and spread of weeds within the project area.

Management Controls

Management controls that relate specifically to introduced flora are detailed below:

- All ground engaging, earthmoving and tracked equipment will be cleaned prior to arrival on site to remove all earth, stones or vegetative material, and prior to entering a weed free area to prevent the introduction of weeds, plants and plants and plant pathogens.
- All other general equipment, including light vehicles, will be presented to site in a clean state, free from soil or vegetative material.
- Any new weed infestations will be reported as an environmental incident.
- If substantial populations of weeds are identified, targeted weed spraying will be implemented.
- Work areas will be inspected for weeds on an ongoing basis.

4.1.5 Topsoil and Rehabilitation

Disturbed areas that are not rehabilitated, or inadequately rehabilitated, may result in long-term changes to the landscape through soil erosion and associated sedimentation, introduction of weeds and use of tracks to gain access to restricted areas.

Objectives

- Meet legislative requirements with respect to the rehabilitation of relevant project sites and to liaise closely with Government bodies to ensure compliance.
- Maintain positive topsoil balances when planning topsoil stripping for new disturbance.
- Encourage re-establishment of self-sustaining ecosystems compatible with surrounding undisturbed areas.

Management Controls

Management controls that relate specifically to topsoil management and rehabilitation are detailed below:

- Topsoil will be stripped and stockpiled as part of clearing works.
- Topsoil will be removed to a depth of 100 mm to 300 mm, depending on the nature of the material and existing materials balance.
- Topsoil will be directly transferred to areas being rehabilitated where possible. Where this is not possible, topsoil will be stored in stockpiles for later use.
- No burning of vegetation spoil will occur.
- All disturbed areas no longer required will be landformed and have topsoil applied.
- Where practicable, disturbed areas will be progressively rehabilitated.
- Disused compacted surfaces will be scarified to a depth of approximately 500 mm, along contour lines, should ground conditions and hydrology allow.
- Topsoil and vegetation will be respread over disused areas.
- Large rocks and logs will be placed in rehabilitation areas to simulate fauna habitats.
- Where appropriate, natural drainage patterns will be reinstated.

- Where the establishment of supplementary vegetation cover is necessary, local seed and plants will be used in site rehabilitation.
- The Survey Department undertake monthly reconciliations of:
  - Area of land cleared in the past month.
  - Progressive total area of land cleared.
  - Locations of topsoil stockpiles.

4.1.6 Surface Water

Regis undertakes project activities in a manner that minimises adverse impacts to ephemeral surface water quality and hydrology.

Objectives

- Avoid impacts to the quality of surface water wherever possible.
- Minimise unavoidable impacts on the quality of surface water.
- Avoid unnecessary disturbance to natural surface water drainage.

Management Controls

Management controls that relate specifically to surface water are detailed below:

- Project design seeks to avoid interaction with drainage where possible. Where drainage interception is required, diversions, culverts, overflows or flood-ways are designed to protect people and infrastructure from flooding risks. In the case of Commonwealth, minor drainage diversion around the northwestern corner of the project is required.
- The establishment and construction of drainage structures will be monitored to ensure compliance with the design specifications.

4.1.7 Fauna

Most fauna is expected to move into adjacent areas during clearing activities. The consequence will be that whilst some sedentary fauna may be lost, most will shift into neighbouring areas. Migrants increase competition for resources, which may result in the subsequent loss of migrants or local individuals who have been displaced. Impacts associated with clearing vegetation in the project area in a landscape or bioregion context on the vertebrate fauna are likely to be low as there are vast tracts of similar habitat in adjacent areas.

Conservation significant fauna are unlikely to be affected as the only identified Priority fauna with infrequent potential to occur are aerial specialists occasional visiting habitats or opportunistically exploiting conditions (such as after heavy rainfall events). Nevertheless, vegetation has some intrinsic value as general fauna habitat.

Objectives

- Minimise impacts to native fauna species during the works.
- Ensure conservation significant fauna are not adversely affected by the project.
- Minimise the spread of pest species.

Management Controls

Management controls that relate specifically to fauna are detailed below:

- Road kills, including those resulting from travel to and from project areas, will be removed from the road and reported as an environmental incident.

- All fauna deaths and feral animal sightings will be reported to the site environmental representative.
- A feral animal control programme has been introduced across the DGP.
- No pets or other animals will be brought onto the site.
- Firearms will be prohibited on site.
- An employee induction program outlining fauna and habitat of conservation significance will be implemented.

5. CLEARING PRINCIPLES

An assessment of the disturbance identified in this application has been made against the ten Principles for Native Vegetation Clearing (Table 4).

Table 4: Assessment of the Proposal Against the Ten Clearing Principles

Clearing Principle	Assessment	Discussion
1. Native vegetation should not be cleared if it comprises a high level of biological diversity	Proposal is not at variance to this principle	Comparison of aerial photography of the survey area and surrounding areas suggests the area under application is typical of the vegetation throughout the region. Cowan (2001) states that the Eastern Murchison subregion is rich and diverse in both flora and fauna however most species are wide ranging and usually occur in at least one, and often several, adjoining sub regions. Additionally, Beard states the Murchison is essentially the Mulga region of Western Australia and those conditions within the Murchison region favour Mulga more generally than in any other part of Western Australia. The vegetation to be cleared does not have a high level of biodiversity and is well represented within the local and broader region.
2. Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.	Proposal is not at variance to this principle	Although the proposed clearing areas will comprise habitat that may be suitable for fauna indigenous to Western Australia, from a regional context, the vegetation associations within the project area are well represented within the broader region and is without specific habitats of significance to fauna of conservation value.
3. Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, Threatened flora.	Proposal is not at variance to this principle	No Threatened flora species pursuant to section 19 of the *Biodiversity Conservation Act*, or pursuant to section 179 of the EPBC Act were recorded near the project area by Mattiske Consulting Pty Ltd experienced botanists at Commonwealth or any other Duketon Gold Project sites (between 2009 and 2022).
4. Native vegetation should not be cleared if it comprises the whole or part of, or is necessary for the maintenance of a Threatened Ecological Community.	Proposal is not at variance to this principle	No Threatened Ecological Communities have been recorded from any surveys across the Duketon Gold Project.
5. Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.	Proposal is not at variance to this principle	The area under application is not considered significant as extensive areas nearby remain uncleared. Surveys conducted by Mattiske Consulting Pty Ltd determined the vegetation at Commonwealth is typical of vegetation throughout the region. The area under application forms part of the Banjawarn Pastoral Station where grazing has already occurred in various densities.
6. Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.	Proposal is unlikely to be at variance to this principle	Commonwealth is at the catchment divide with very limited minor ephemeral drainage which only flows following sporadic heavy rainfall events, such as cyclonic rain and hence unlikely to be at variance with this principle. No wetlands exist within the area under application.
7. Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	Proposal is not at variance to this principle	Vegetation across the Commonwealth survey area ranged from Degraded (6 sites) to Excellent (2 sites), although with most sites being either Very Good (28 sites), Good (17 sites) or Poor (12 sites). With a flat landscape at Commonwealth, appreciable degradation is unlikely.

Clearing Principle	Assessment	Discussion
8. Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.	Proposal is not at variance to this principle	The De La Poer Range Nature Reserve (Reserve No. 41831) is the closest reserve in the area (approximately 20 km northwest of the northern boundary of this application. No impacts on the environmental values of the reserve will occur as a result of clearing in the area under application due to the distance from the proposed activities. For completeness, it is noted M38/1305 slightly overlaps with the corner of R10165 "State Battery", although this is not a conservation reserve.
9. Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface and underground water.	Proposal is unlikely to be at variance to this principle	With Commonwealth being near the catchment divide, very limited ephemeral drainage lines exist, which only have sporadic, surface water flows following large storms or cyclonic systems. Such drainage regimes often have of poor quality surface water (high TSS) due to high intensity. Nevertheless impacts from proposed clearing activities should be minimised through surface drainage to minimise impacts to surface water quality.
10. Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.	Proposal is not at variance to this principle	The area under application occurs on flat, landscape where flooding occurs following sporadic heavy rainfall, typically from cyclonic systems. There are no major watercourses in the application area.

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APPENDICES

APPENDIX 1: TENEMENT SUMMARY REPORT FOR M38/1305

Government of Western Australia
Department of Mines, Industry Regulation and Safety

eMiTS MINERAL TITLES ONLINE

MINING TENEMENT SUMMARY REPORT

MINING LEASE 38/1305

Status: Live

TENEMENT SUMMARY

Area: 432.88561 HA
Mark Out : 03/07/2022 13:10:00
Received : 07/07/2022 15:12:33
Term Granted : 21 Years
Death Reason :
Death Date :
Commence : 07/12/2022

CURRENT HOLDER DETAILS

Name and Address
REGIS RESOURCES LIMITED
TENEMENT & LAND MANAGER, C/- REGIS RESOURCES LIMITED, PO BOX 862, SUBIACO PO, WA, 6904,
xxxxxxxxxx@regisresources.com, xxxxxxx200

DESCRIPTION

Locality: COMMONWEALTH
Datum: All coordinates are in GDA94 in Zone 51 Datum
6945504mN 425902mE
Boundary: From Datum Thence 6942858mN 425918mE Thence
6942858mN 424274mE Thence 6945504mN 424274mE
Back to Datum

Area :

Type	Dealing No	Start Date	Area
Granted		07/12/2022	432.88561 HA
Applied For		03/07/2022	433.00000 HA

SHIRE DETAILS

Shire	Shire No	Start	End	Area
LAVERTON SHIRE	4970	07/07/2022		432.88561 HA

APPENDIX 2: DETAILED FLORA AND VEGETATION SURVEY: VENTNOR AND COMMONWEALTH PROJECT AREAS, WESTERN AUSTRALIA (MATTISKE CONSULTING PTY LTD 2022)

DETAILED FLORA AND VEGETATION SURVEY:

VENTNOR AND COMMONWEALTH PROJECT AREAS, WESTERN AUSTRALIA



Prepared By

Mattiske Consulting Pty Ltd

Prepared For

Regis Resources Ltd

September 2022



DOCUMENT STATUS				
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FINAL	Final report	J.C. Mooney	E. Mattiske	20/09/2022



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LIST OF ABBREVIATIONS

BAM Act:	*Biosecurity and Agriculture Management Act 2007* (WA)
BC Act:	*Biodiversity Conservation Act 2016* (WA)
BOM:	Bureau of Meteorology
DCCEEW:	Department of Climate Change, Energy, the Environment and Water
DBCA:	Department of Biodiversity, Conservation and Attractions
EP Act:	*Environmental Protection Act 1986* (WA)
EPA:	Environmental Protection Authority
EPBC Act:	*Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth)
IBRA:	Interim Biogeographical Regionalisation for Australia
MCPL:	Mattiske Consulting Pty Ltd
MEC:	Maia Environmental Consulting
OES:	Outback Ecology Services
PEC:	Priority Ecological Community
TEC:	Threatened ecological community
WAH:	Western Australian Herbarium (PERTH)

EXECUTIVE SUMMARY

Mattiske Consulting Pty Ltd was commissioned in May 2022 to conduct a desktop and field assessment to evaluate the flora and vegetation values within the Ventnor and Commonwealth Project Areas as part of the Regis Resources lease areas. A detailed field assessment of the flora and vegetation of the survey areas was undertaken over the 11th - 15th of July 2022 by four botanists from Mattiske Consulting. This report outlines the methodology and results from a desktop assessment and of field survey of vegetation within the Ventnor and Commonwealth Project Areas, performed in July 2022. A portion of the Ventnor Project areas had been previously mapped by MCPL in 2012 (MCPL 2012b). Previous mapping from this project was aligned with the 2022 survey to provide a holistic view of vegetation values within the Ventnor Project Area.

Desktop survey:

- A total of 724 vascular plant taxa, representative of 176 genera and 50 families had the potential to occur within the Ventnor and Commonwealth Project Areas with the most commonly represented families being Chenopodiaceae, Poaceae, Scrophulariaceae, and Fabaceae. The most commonly represented genera were *Acacia* and *Eremophila*.
- A total of four priority species, *Mirbelia stipitata* (P3), *Calytrix praecipua* (P3), *Lysiandra baeckeoides* (P3), and *Eremophila pungens* (P4), had the potential to be found within the survey area.
- No Threatened flora species or ecological communities had the potential to of occur in the Ventnor and Commonwealth survey areas.
- No introduced species were identified in the NatureMap search, however, previous MCPL surveys have found a total of nine introduced flora species had the potential to occur within the survey area; **Carpobrotus aequilaterus* (Angular Pigface), **Mesembryanthemum crystallinum* (Iceplant), **Bidens bipinnata* (Bipinnate Beggartick), **Sonchus oleraceus* (Common Sowthistle), **Sagina apetala* (Annual Pearlwort), **Chenopodium murale* (Nettle-leaf Goosefoot), **Malvastrum americanum* (Spiked Malvastrum), **Portulaca oleracea* (Purslane), and **Lysimachia arvensis* (Pimpernel).

Field survey:

- A total of 94 flora species, representative of 31 genera and 23 families were recorded within both the Commonwealth and Ventnor 2022 survey areas. The most common families were Fabaceae, Chenopodiaceae, and Scrophulariaceae. The most commonly represented genera were *Acacia, Eremophila,* and *Senna*.
- Species accumulation analysis shows that approximately 80.9% of taxa potentially present in the Commonwealth and Ventnor survey areas were recorded during the 2022 field survey.
- No Threatened flora species or ecological communities were recorded in the Commonwealth or Ventnor survey areas. Sixteen records of priority species *Eremophila pungens* (P4) were found within both Commonwealth and Ventnor Project areas (7 records in Commonwealth, 9 records in Ventnor). Additionally, sixteen historical records were identified within the Ventnor Project Area. Combined, these records account for approximately 302 individuals of this taxon (57 in Commonwealth, and 245 in Ventnor).
- No introduced flora species were found during the field survey.
- A total of 5 vegetation communities were mapped within the 2022 survey areas. Mapping from the Ventnor 2022 survey area was aligned with previous mapping by MCPL in 2012 in the prospect to provide a complete view of vegetation values in the Ventnor Project Area (MCPL 2012b).
- The dominant vegetation community consisted of an *Acacia* sect. *Juliflorae* (*A. aneura*, *A. aptaneura,* and *A. fuscaneura*) tall open shrubland, which occurred on the flat to gently undulating clay soils which dominated across both survey areas. 81.72% of the area surveyed in the Commonwealth and 50.68% in the Ventnor project areas are associated with this community.
- The majority of sites in the Commonwealth and Ventnor 2022 survey areas were considered to be in either very good (43.1%), or good (26.2%) condition.

- The vegetation communities defined within the Commonwealth and Ventnor 2022 survey areas are largely consistent with the Pre-European vegetation associations of the area. The communities are similar to those mapped in adjacent areas previously surveyed by Mattiske Consulting.
- There do not appear to be any floristic or vegetative concerns within the survey area to inhibit the progress of mining operations. However, it is advised that areas with significant living populations of *Eremophila pungens* (P4), particularly in minor drainage line community A22, are avoided.

1. INTRODUCTION

Mattiske Consulting Pty Ltd (MCPL) was commissioned in May 2022 to conduct a desktop and field assessment to evaluate the flora and vegetation values within the Regis Resources lease areas (Figure 1, Figure 2). This survey was conducted from the 11th to the 15th of July, 2022. The survey was commissioned specifically to assess the Commonwealth (E38/2231 and E38/2737) and Ventnor (M38/302 and M38/316) Project Areas. Previous mapping by MCPL in 2012 in the eastern portion of the Ventnor Project area was aligned with outcomes from the 2022 survey to provide a complete view of vegetation values within the area (MCPL 2012b).

1.1. Location and Scope of Project

The Ventnor and Commonwealth survey areas are located 110 km North of Laverton, Western Australia, within the Eastern Goldfields region (Figure 1). The Ventnor and Commonwealth survey areas intersect a number of tenements; E 38/2231 and E 38/2737 (Commonwealth) and M 38/302, M 38/316, and M 38/317 (Ventnor) (Figure 2). The survey areas fall within the Austin Botanical District in the Eremaean Botanical Province of Western Australia (Beard 1990), and the Eastern Murchison (MUR1) subregion of the Murchison Region of the Interim Biogeographic Regionalisation for Australia (IBRA) (DCCEEW 2022b). This report outlines the methodology and results from a desktop assessment and field survey of flora and vegetation of the Ventnor and Commonwealth survey area.

1.2. Environmental Legislation and Guidelines

The following key Commonwealth (federal) legislation relevant to this survey is the:

- *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The following key Western Australian (state) legislation relevant to this survey includes the:

- *Biodiversity Conservation Act 2016* (BC Act);
- *Biosecurity and Agriculture Management Act 2007* (BAM Act) and *Regulations 2013*;
- *Environmental Protection Act 1986* (EP Act); and
- *Environmental Protection (Clearing of Native Vegetation) Regulations 2004*

Furthermore, key Western Australian guidelines relevant to this survey are the:

- *Environmental Factor Guideline: Flora and Vegetation* (Environmental Protection Authority [EPA] 2016a); and
- *Technical Guidance – Flora and vegetation surveys for environmental impact assessment* (EPA 2016b).

Definitions of flora and vegetation terminology commonly used throughout this report are provided in Appendix A1.

1.3. Clearing of Native Vegetation

Under the *Environmental Protection Act 1986*, the clearing of native vegetation requires a permit to do so, from the Department of Water and Environmental Regulation or the Department of Mines, Industry Regulation, and Safety, unless that clearing is exempted under specific provisions listed in Schedule 6 of the Act, or are prescribed in the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004*. Under the *Environmental Protection Act* (1986), "native vegetation" means indigenous aquatic or terrestrial vegetation, and includes dead vegetation unless that dead vegetation is of a class declared by regulation to be excluded from this definition but does not include vegetation in a plantation. Under the *Environmental Protection Act 1986*, Section 51A, "clearing" means the killing or destruction of, the removal of, the severing or ringbarking of trunks or stems of, or the doing of any other substantial damage to, some or all of the native vegetation in an area, and includes the draining or flooding of land, the burning

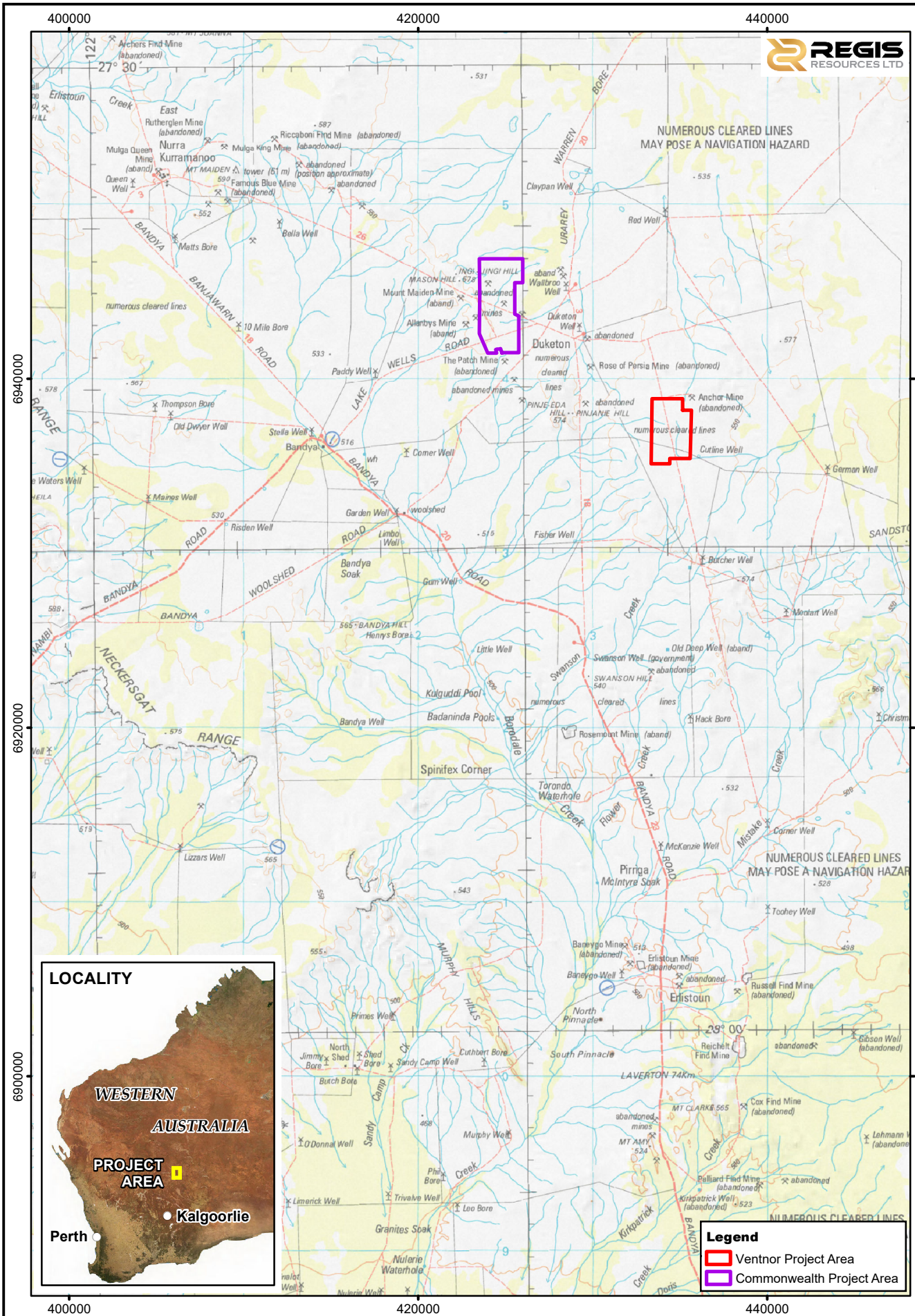
of vegetation, the grazing of stock, or any other act or activity, that causes any of the aforementioned consequences or results.

Under the *Environmental Protection Act 1986*, ten principles are set out, under which native vegetation should not be cleared. These principles state that native vegetation should not be cleared, if:

a. it comprises a high level of biological diversity;
b. it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia;
c. it includes, or is necessary for the continued existence of, threatened flora;
d. it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community;
e. it is significant as a remnant of native vegetation in an area that has been extensively cleared;
f. it is growing in, or in association with, an environment associated with a watercourse or wetland;
g. the clearing of the vegetation is likely to cause appreciable land degradation;
h. the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area;
i. the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water; or
j. the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

The *Environmental Protection (Clearing of Native Vegetation) Regulations 2004*, under Regulation 5, sets out prescribed clearing actions that do not require a clearing permit, as defined in Section 51C of the *Environmental Protection Act 1986*. However, exemptions under these Regulations do not apply in Environmentally Sensitive Areas (ESA's).

Under the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004*, under Regulation 6 – "Environmentally sensitive areas" include "the area covered by vegetation within 50 m of threatened flora, to the extent to which the vegetation is continuous with the vegetation in which the threatened flora is located". Similarly, "the area covered by a threatened ecological community" is listed as an environmentally sensitive area under Regulation 6.



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Scale: 1:300,000
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Date: June 2022 | Rev: A | A4

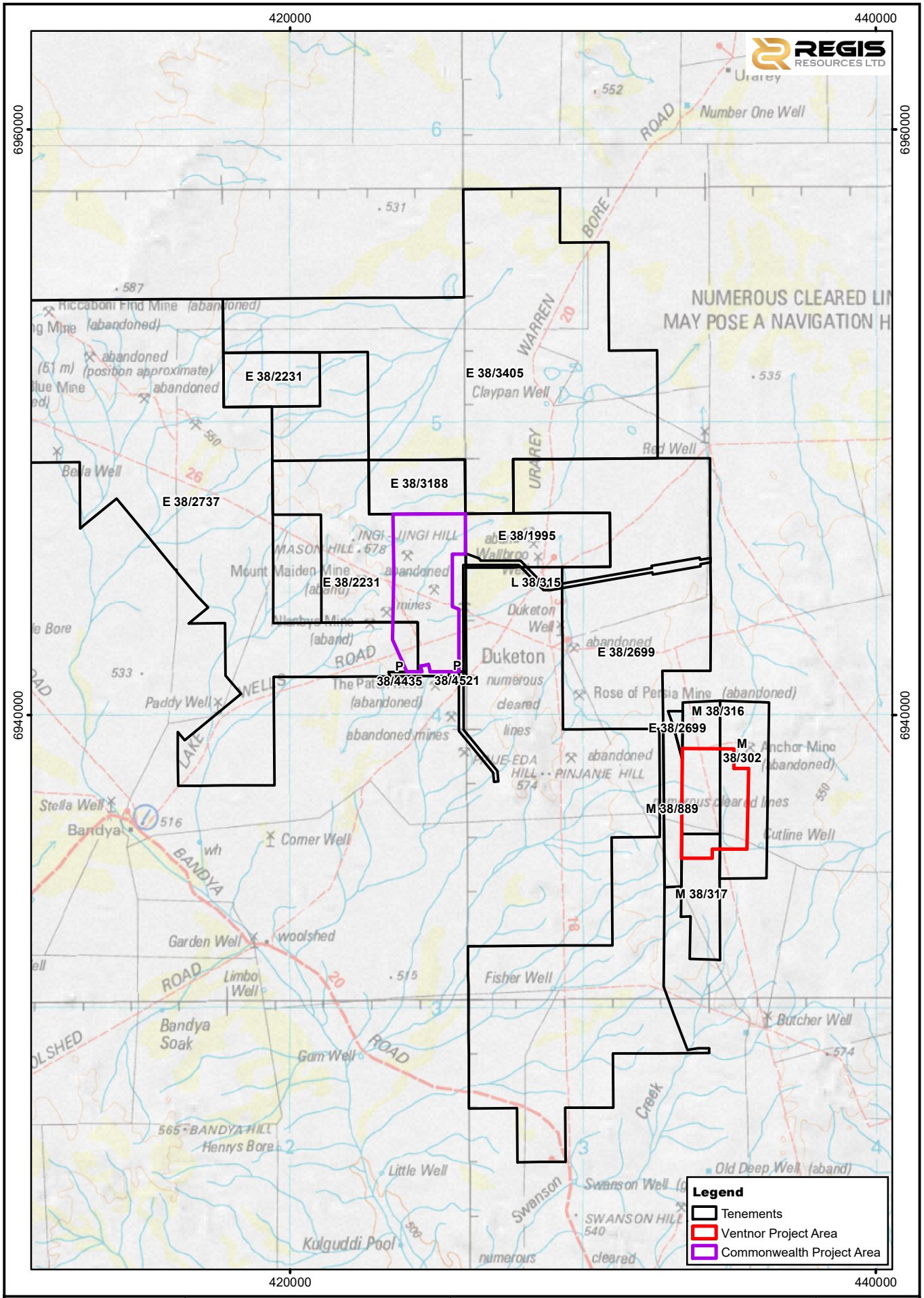
Mattiske Consulting Pty Ltd
28 Central Road, Kalamunda WA 6076 ~ Tel: 9257 1625 ~ Fax: 9257 1640

Author: E M Matttiske | MCPL Ref: RRG2201

Drawn: CAD Resources ~ www.cadresources.com.au
Tel: (08) 9246 3242 ~ Fax (08) 9246 3202

Locality of Commonwealth and Ventnor Project Areas

Figure: 1



N

0 1 2 km

Scale: 1:175,000
MGA94 (Zone 51)

CAD Ref: a2501_f20_02

Date: June 2022 | Rev: A | A4

Mattiske Consulting Pty Ltd
28 Central Road, Kalamunda WA 6076 ~ Tel: 9257 1625 ~ Fax: 9257 1640

Author: E M Matttiske | MCPL Ref: RRG2201

Drawn: CAD Resources ~ www.cadresources.com.au
Tel: (08) 9246 3242 ~ Fax (08) 9246 3202

Regis Resources LTD
Lease Areas

Figure:
2

1.4. Objectives

The objective of this survey was to undertake a detailed flora and vegetation assessment of the Ventnor and Commonwealth survey areas, including:

- Perform a desktop survey of the survey areas to identify potential environmental values;
- Undertake a detailed field survey of the lease areas, and collect and identify the vascular plant species present;
- Undertake targeted searches for threatened and priority flora;
- Review the conservation status of the vascular plant species recorded by reference to current literature and listings by the Department of Biodiversity, Conservation and Attractions (DBCA) and plant collections held at the Western Australian State Herbarium (WAH), and listed by the Department of Climate Change, Energy, the Environment and Water (DCCEEW) (formerly the Department of Agriculture, Water and the Environment) under the EPBC Act;
- Identify and record the location of any threatened and priority flora located within each survey area;
- Identify and record the locations of any Declared Pest Organisms within each survey area;
- Define and prepare a vegetation map of the vegetation communities within the survey areas;
- Provide descriptions of the vegetation communities present within survey areas and evaluate their regional significance; and map their condition
- Prepare a report summarising the findings.

2. METHODS

2.1. Desktop Assessment

A desktop assessment was conducted using FloraBase (Western Australian Herbarium [WAH] 1998-), NatureMap (Department of Biodiversity, Conservation and Attractions [DBCA] 2007-) and the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) Protected Matters Search Tool (Department of Climate Change, Energy, the Environment and Water [DCCEEW] 2022a) databases to identify the possible occurrence of threatened and priority flora and communities within the Ventnor and Commonwealth survey areas.

Search parameters used in the NatureMap and PMST search were 'by point' (27°39'44.4"S, 122°17'25.0"E) and encompassed the survey area with a 40km buffer (DBCA 2007-; DCCEEW 2022a). In addition, historical documentation and vegetation mapping of the region that provide resource material for the floristics and vegetation of the survey areas were reviewed, for example: Beard (1974, 1976) description of the vegetation of the Murchison region; Beard (1990) overview of the Austin Botanical District; Pringle *et al.* (1994) description of the rangelands of the north-eastern Goldfields; Cowan (2001) description and overview of biodiversity values for the Murchison-1 IBRA subregion; Tille (2006) soil-landscape mapping for the Western Australian rangelands and interior; Maia Environmental Consulting [MEC] (2013); and previous MCPL surveys across the Regis Resources Ltd mining tenement (2009; 2012a; 2012b; 2013; 2015a; 2015b; 2015c, 2015d; 2016; 2017a; 2017b; 2017c; 2017d; 2018a; 2018b; 2021a; 2021b; 2021c). Nomenclature of flora species was checked against and is consistent with Florabase (WAH 1998-).

2.2. Field Survey

A detailed field assessment of the flora and vegetation of the survey areas was undertaken by four botanists from MCPL. The survey was completed over the 11th - 15th of July 2022. The survey work was carried out in accordance with methods outlined in *Technical Guidance – Flora and vegetation surveys for environmental impact assessment* (EPA 2016b). All botanists held valid collection licences to collect flora for scientific purposes, issued under the BC Act. Aerial photographic maps of each survey area were prepared and supplied by CAD Resources. Survey quadrats were selected and search areas identified using aerial photographic maps and other field observations to provide adequate coverage and replication.

A total of 65 survey plots, measuring 20 m x 20 m, were selected to sample all vegetation types, with replication, within the survey areas. Locations of survey quadrats and logs of GPS tracks from the 2022 survey can be found in Figure 6 and Appendix B. The survey quadrats were not pegged.

Flora and vegetation were described and sampled systematically at each survey quadrat, and additional opportunistic collections were undertaken wherever previously unrecorded plants were observed. At each quadrat the following floristic and environmental parameters were recorded:

- GPS location (GDA94 datum, zone 51J);
- Local topography;
- Soil type and colour;
- Outcropping rocks and their type;
- Percentage and type of litter cover and percentage bare ground;
- Approximate time since fire;
- Brief description of the vegetation;
- Vegetation condition (based on Trudgen 1988); and
- For each vascular plant species, the average height and the percentage cover (of both alive and dead material) over the survey quadrat.

All plant specimens collected during the field surveys were dried and processed in accordance with the requirements of the WAH (1998-). The plant species were identified based on taxonomic literature and through comparison with pressed specimens. Where appropriate, plant taxonomists with specialist skills were consulted. Nomenclature of the species recorded is in accordance with the WAH (1998-).

2.3. Survey Timing

According to the *Technical guidance – Flora and vegetation surveys for environmental impact assessment* (EPA 2016b), surveys in the Eremaean region should be undertaken in the optimal time for the area, approximately 6 – 8 weeks post wet season (March – June). This survey was performed in July, outside of the optimal range, which may have introduced constraints in terms of species observation and identification (Table 1).

2.4. Statistical Analysis of Data and Vegetation Mapping

A species accumulation curve, based on accumulated species versus number of quadrats surveyed was prepared, to evaluate the level of adequacy of the survey effort. The species accumulation curve was based on the species accumulation analysis of Colwell (2013). As the number of survey sites increases, and correspondingly the size of the area surveyed increases, there should be a diminishing number of new species recorded. Eventually the number of new species recorded becomes essentially asymptotic. The asymptotic value was determined using Michaelis-Menten modelling and provided an incidence-based coverage estimator of species richness (Chao 2004). When the number of new species being recorded for survey effort expended approaches this asymptotic value, the survey effort can be considered to be adequate.

Plymouth Routines in Multivariate Ecological Research version 7 (PRIMER v7) statistical analysis software was used to analyse species-by-site data and discriminate sites on the basis of their species composition (Clarke and Gorley 2015). To down weight the relative contributions of quantitatively dominant species a fourth root transformation was applied to the data set. Introduced species were excluded from the analysis. Annuals were removed from the data in analysis due to the likelihood of substantial differences between years based on seasonality of local rainfall events. Computation of similarity matrices was based on the Bray-Curtis similarity measure. Transformed data were analysed using a series of multivariate analysis routines including Hierarchical Clustering (CLUSTER), Similarity Profile (SIMPROF) and Similarity Percentages (SIMPER). Results were used to inform and support interpretation of aerial photography and delineation of individual vegetation communities.

2.5. Vegetation Descriptions

Vegetation descriptions were based on Aplin's (1979) modification of the vegetation classification system of Specht (1970), to align with the National Vegetation Information Systems (NVIS). Vegetation communities were described at the association level of the NVIS classification framework, as defined by the Executive Steering Committee for Australian Vegetation Information (DCCEEW 2017, Appendix A5). Vegetation communities identified in this report were described at the association level of the NVIS classification framework, consistent with the *Technical guidance – Flora and vegetation surveys for environmental impact assessment* (EPA 2016b). Vegetation communities were described and mapped using a combination of aerial imaging, previous vegetation mapping, statistical analysis and field observations. In 2012 a taxonomic revision of Mulga species (*Acacia aneura* and its close relatives) in Western Australia was carried out (Maslin & Reid 2012). Several new species, which previously were classified under *A. aneura,* were recognised. These include *A. caesaneura* and *A. incurvaneura*, which were recorded in this survey. When comparison is made here with vegetation communities defined prior to 2012, *Acacia aneura,* as listed in previous surveys, is treated as equivalent to *Acacia ?caesaneura* and *Acacia ?incurvaneura* in this survey.

2.6. Survey Limitations

A general assessment was made of the current survey against a range of factors that may have limited the outcomes and conclusions of this report (Table 1).

Table 1: Potential limitations affecting survey conclusions

Potential survey limitation	Impact on current survey
Availability of contextual information at a regional and local scale	**Not a limitation.** Previous surveys have been performed in the immediate area surrounding both the Commonwealth and Ventnor survey areas by MCPL (2009; 2012a; 2012b; 2013; 2015a; 2015b; 2015c, 2015d; 2016; 2017a; 2017b; 2017c; 2017d; 2018a; 2018b; 2021a; 2021b; 2021c) and MEC (2013). Adequate background information at a broader scale was obtained from sources such as regional biodiversity summaries (Cowan 2001), rangeland land system surveys (Pringle *et al.* 1994), vegetation mapping (Beard 1974, 1976, 1990) and online flora and vegetation databases. These sources have all provided detailed contextual information for the current project.
Competency/experience of team carrying out survey; experience in the bioregion surveyed	**Not a limitation.** Two Botanists had previous experience working within the Regis Resources Duketon project area. The other two team members had experience in the wider area of Western Australia.
Survey effort and extent of survey	**Not a limitation.** Generally the survey area was thoroughly covered. Survey quadrats were initially selected from high resolution aerial maps, with additional quadrats selected *in-situ* based on in-field observations. Lack of replication within some vegetation communities was unavoidable given their low occurrence within the survey area. The species accumulation cure (Figure 5) indicates that 80.9% of taxa potentially present were recorded.
Access restrictions within survey area	**Not a limitation.** Survey areas had extensive vehicle tracks through the general area, providing adequate access to undertake surveys.
Survey timing, rainfall, season of survey	**Minor limitation.** Survey timing was considered sub-optimal as it was performed outside of the recommended months of March-June, in July (EPA 2016b). While identification to species level was problematic for some flora the dominant structural components were largely definable and discernible between communities. Three of the six priority species potentially found in the area had the potential to be in flowering season during the survey period. However, if species were not in flower this did not unduly compromise identification as many of the target species can be recognised in the field by foliage alone.
Disturbances (fire/flood/clearing)	**Not a limitation.** Field observations suggest the last fire in the area was more than 20 years ago. The survey area is visibly disturbed by vehicle tracks throughout to support exploration drilling patterns in both Commonwealth and Ventnor survey areas.
Accuracy of data and suitability of statistical analysis	**Not a limitation.** Introduced species, annual species and singletons were excluded from the data set prior to analysis. Data collected was sufficient for delineation of vegetation communities based on statistical analysis.

3. RESULTS

The climate, geology, soils and landforms all influence the vegetation of the area and are described in this section. Flora, including threatened, priority and introduced species are described, along with possible vegetation communities, and placed within a local and regional context.

3.1. Climate

The Austin Botanical District is characterised by an arid climate with cool winters and hot, dry summers (Beard 1990). Rainfall occurs in both the warmer and cooler seasons. Winter rainfall promotes the growth of annual species and summer cyclonic rainfall tends to aid the growth of woody, sclerophyllous plants. Despite rainfall during hotter and dryer months, overall plant growth within the Austin Botanical District is greater during winter due to evaporative demand being lower as a consequence of lower temperatures and greater water retention in the soils (Beard 1990).

The nearest Bureau of Meteorology (BOM) weather station with the most complete long-term and the latest climate data is Laverton Aero Station (ID 12305) which is located approximately 110 km south of the project areas (BOM 2022). Rainfall and air temperature data for the twelve months to June 2022 and averaged over the long-term (1961-1990) are shown in Figure 3. Total rainfall for the 12 months to June 2022 was 127.2 mm, 46% lower than the long-term average annual rainfall of 276.2 mm for the same period. Over the 12 months to June 2022, 28.8 mm fell in the historically wet summer months (December 2021–February 2022), only 22% of the long-term average (127.5mm). However, winter rainfall to July 2022 was 26 mm (May-June 2022), 91% of the long term average of 28.3 for the same period. High rainfall during historically wet months is optimum for growth of annual species and for flowering and fruiting of perennial species, aiding in identification to species level.

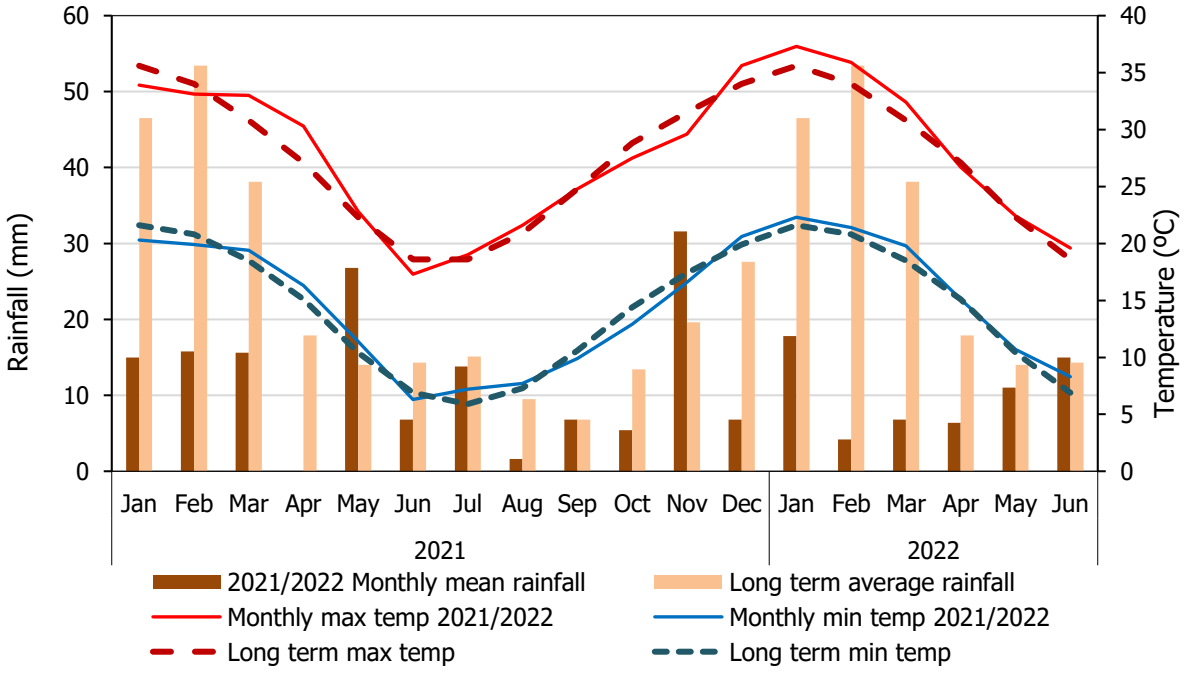


Figure 3: Climatic data for Laverton Aero Station, WA (BOM 2021-2022)
Long-term average rainfall data, together with monthly rainfall and average maximum and minimum temperature data, for the period January 2021 to June 2022 from the Laverton Airport Weather Station (ID12305).

3.2. Desktop

3.2.1. Geology, Soils and Topography

The Eastern Goldfields region is underlain by rocks of the Yilgarn Craton which are mostly Archaean granitic rocks, often intruded by quartz veins and dolerite dykes. Areas of Archaean migmatite and gneiss are associated with Archaean greenstone belts, which contain a mix of metamorphosed mafic-ultramafic and felsic volcanics and metasediments. The Archaean bedrock has been extensively weathered and is often covered by Tertiary and Quaternary alluvial, colluvial and Aeolian deposits (Beard 1990; Tille 2006).

Land system mapping of the north-eastern Goldfields, including the survey area, has been prepared by the Western Australia Department of Agriculture (now the Agriculture and Food division of the Department of Primary Industries and Regional Development [DPIRD]; Pringle *et al.* 1994). This mapping sought to define the topographic characteristics of the north-eastern Goldfields. Land systems are grouped into land types according to a combination of landforms, soils, vegetation and drainage patterns. Pringle *et al.* (1994) noted that boundaries between plant communities are often sharp and mostly associated with boundaries between landforms and their soils along the slope of the land. Greater diversity in plant communities is often found higher in the landscape where differential weathering and erosion occurs. Across slope, changes are usually more subtle.

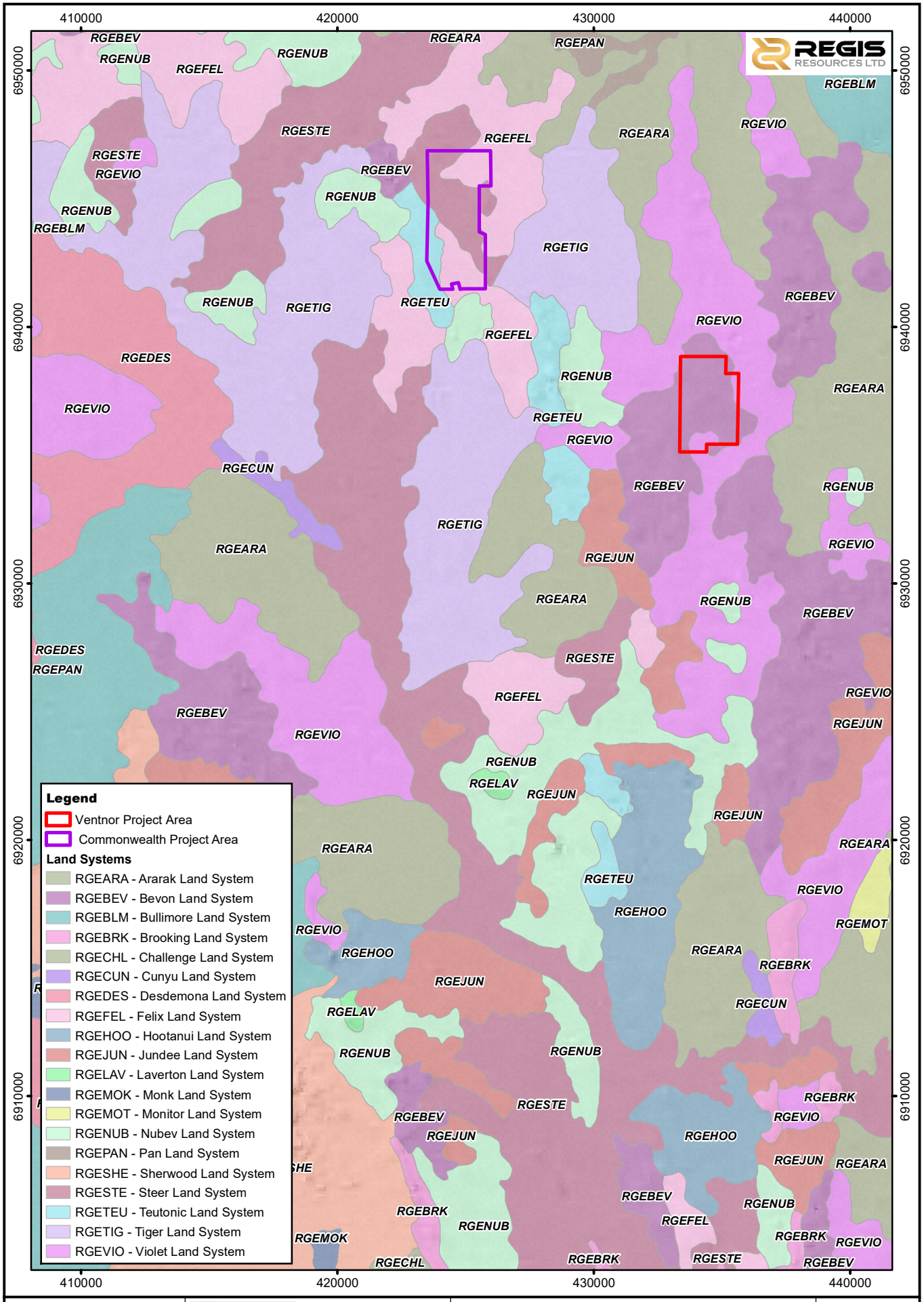
A total of five land systems are intersected by the Commonwealth and Ventnor prospect survey areas (Table 2a-b; Figure 4). A description of each land system, summarised from Pringle *et al.* (1994) is presented in Table 2a.

Table 2a: Land system descriptions

SYSTEM	DESCRIPTION
Bevon	Irregular low ironstone hills with stony lower slopes supporting mulga shrublands.
Felix	Gently undulating plains with quartz mantles, supporting *Acacia-Eremophila* shrublands locally with wanderrie grasses.
Steer	Gravelly alluvial plains supporting chenopod shrublands.
Teutonic	Hills and stony plains on acid volcanic rocks supporting *Acacia* shrublands.
Violet	Gently undulating gravelly plains on greenstone, laterite and hardpan, with low stony rises and minor saline plains; supporting groved mulga and bowgada shrublands and occasionally chenopod shrublands.

Table 2b: Extent of land systems intersecting the Commonwealth and Ventnor Project Areas
Data from Tille (2006).

LAND SYSTEM	MAP UNIT	HECTARES (HA) INSIDE SURVEY AREAS		CURRENT EXTENT (HA)	PERCENTAGE (%) IMPACT INSIDE SURVEY AREAS	
		COMMONWEALTH	VENTNOR		COMMONWEALTH	VENTNOR
Bevon	RGEBEV		670.05	217239.24		0.31
Felix	RGEFEL	491.97		34219.84	1.44	
Steer	RGESTE	555.59		71176.67	0.78	
Teutonic	RGETEU	122.79		15311.54	0.80	
Violet	RGEVIO		100.98	329295.32		0.03



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Scale: 1:200,000
MGA94 (Zone 51)

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Date: June 2022 | Rev: A | A4

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Land systems of Commonwealth and Ventnor Project Areas

Figure: **4**

3.2.2. Regional Vegetation

The Ventnor and Commonwealth survey areas reside within the Austin Botanical District of the Eremaean Botanical Province (Beard 1990). More recently, the vegetation of Western Australia has been assigned to bioregions and subregions under the Interim Biogeographical Regionalisation for Australia (IBRA, v7) (DCCEEW 2022b), with the project area being situated within the *MUR1 – Eastern Murchison* subregion of the Murchison Bioregion. Vegetation within this subregion is described as being 'dominated by Mulga Woodlands often rich in ephemerals; hummock grasslands, saltbush shrublands and *Tecticornia* shrublands'. There are no Threatened Ecological Communities in the East Murchison subregion (Cowan 2001).

The Austin Botanical District, in which the survey area is located, is the largest of the Eremaean regions and is predominately Mulga (*Acacia aneura* and its close relatives) low woodlands on red loams over siliceous hardpans on the plains reducing to scrub on the rises and hills (Pringle *et al.* 1994). This botanical district is also comprised of tree steppe of *Eucalyptus* spp. and *Triodia basedowii* on sand plains (Beard 1990), Mulga and *Eremophila* shrublands which dominate on stony plains, and chenopod communities are more often associated with duplex soils (Pringle *et al*. 1994).

Acacia aneura grows in the form of a tree with a single erect trunk on the more favourable soils, i.e. red loam soil overlying siliceous hardpan, forming low woodland. On other soils both further up slope or down slope towards the rivers, it takes the form of a shrub. It tends to be absent or sparingly present on sandplains and on heavy alkaline and saline soils. On stony plains and stony pediments in many parts of the region nearly all the Mulga is dead, under which conditions the understorey species of *Senna* and *Eremophila* become larger and numerous, as well as some secondary *Acacia* species (Beard 1990).

The structure and component species of Mulga low woodland consist of:

- An open low tree or tall shrub layer of more than 3 m, including *Acacia aneura* (most abundant), localised populations of *A. coriacea, A. ligulata, A. ramulosa, A. tetragonophylla, Hakea lorea,* and scattered *Eucalyptus kingsmillii, E. lucasii*;
- A sparse low shrub layer of 1 to 2 m including *Senna* spp., *Eremophila* spp. and *Ptilotus* spp.; and
- A ground layer of ephemeral herbs which may be a closed one in a favourable season, including *Cephalipterum drummondii*, *Ptilotus* spp., *Rhodanthe* spp., *Swainsona* spp. This layer may not be present in an unfavourable season. There are also sparse perennial and annual grasses including *Aristida* spp., *Eragrostis* spp. and *Eriachne* spp. (Beard 1990).

Pre-European vegetation complexes (Shepherd et al. 2002) within the Commonwealth and Ventnor survey areas are described in Table 3a and 3b. The survey areas are all dominated by continuous *Acacia* spp. woodland (units 18.16).

Table 3a: Pre-European vegetation unit descriptions

VEGETATION UNIT	DESCRIPTION
18.16	Low woodland, open low woodland or sparse woodland. Either as low woodland, open low woodland or sparse woodland.

Table 3b: Extent of Pre-European vegetation units in the Commonwealth and Ventnor Project Areas

VEGETATION UNIT	HECTARES (HA) INSIDE SURVEY AREAS		CURRENT EXTENT (HA)	PERCENTAGE (%) IMPACT INSIDE SURVEY AREAS	
	COMMONWEALTH	VENTNOR		COMMONWEALTH	VENTNOR
18.16	1170.35	771.03	2352766.68	0.05	0.03

3.2.3. Previous Surveys

There have been a number of surveys conducted by MCPL nearby to the Commonwealth and Ventnor 2022 survey areas and some performed by other consultancies. Previous flora and vegetation surveys have been conducted by MCPL (2009; 2012a; 2012b; 2013; 2015a; 2015b; 2015c, 2015d; 2016; 2017a; 2017b; 2017c; 2017d; 2018a; 2018b; 2021a; 2021b; 2021c), Outback Ecology Services [OES] (2007), and Maia Environmental Consultancy [MEC] (2013) within Regis Resources Ltd lease areas, including Moolart Well, Garden Well, Rosemount, Petra, Gloster, Baneygo, Reichelts, Russels, Dogbolter, Coopers, Anchor and Tooheys Well. The most relevant to this this survey are listed below as they either intersect the survey area or are in close proximity.

A total of 724 flora species, representative of 176 genera and 50 families have been recorded within the Dukton Gold project area since 2007 by OES (2007), MCPL (2009-2021), and MEC (2013). The most common families were Fabaceae, Poaceae, Chenopodiaceae and Scrophulariaceae. The most commonly represented genera were *Acacia* and *Eremophila*. Five priority species have been found including *Frankenia georgei* (P1), *Calytrix praecipua* (P3), *Einadia nutans* subsp. *nutans* (P3), *Lysiandra baeckeoides* (P3), and *Eremophila pungens* (P4). Twelve introduced flora species have been found.

The combined vegetation mapping of previous MPCL reports has produced 38 vegetation communities. Due to major taxonomic revisions (Mulga), different mapping scales, time elapsed between surveys, and inconsistency between data analysis standards, numerous overlapping vegetation communities have been defined for the surrounding areas (MPCL 2009-2021). The vegetation communities included eleven woodland, nineteen shrubland and eight low chenopod shrubland communities. Shrubland communities were the most dominant vegetation type, occurring on clay loam soils. The upper stratums of the shrublands were dominated by a range of *Acacia* species, namely *Acacia aneura* (Mulga) taxon and *Acacia tetragonophylla*. The understorey consisted of a range of shrubs, predominantly *Eremophila* and *Ptilotus* species. The chenopod communities are dominated by a mixture of *Tecticornia pergranulata* and *Maireana* spp. with emergent *Eremophila* spp. and mixed shrubs. Low woodland communities comprised of mixtures *Acacia* species, predominantly in thickets, over a dense mixture of under shrubs and mixed grasses.

Previous surveys of particular interest for to the Ventnor and Commonwealth survey areas are from the blocks; Anchor (east), Gloster (north), Moolart Well (north east), Petra (haul roads surround site), Dogbolter (south east). Within the northern section of the Dukton Gold project area a total of 440 flora species, representative of 118 genera and 37 families have been recorded since 2007 by OES (2007), and MCPL (2009; 2013; 2012b; 2015a; 2017a; 2017b; 2017c; 2018a; 2021b; 2021c).

3.2.4. Potential Flora

A total of 724 vascular plant taxa, representative of 176 genera and 50 families (Appendix E), had the potential to occur within the Ventnor and Commonwealth survey areas based on NatureMap (DBCA 2007-), the EPBC Act Protected Matters Search Tool (DCCEEW 2022A) search results, and records from previous surveys conducted in the area (MCPL 2009-2021, MEC, 2013, OES 2007) (see section 2.1 for methodology). The most commonly represented families being Chenopodiaceae (78 taxa), Poaceae (66 taxa), Scrophulariaceae (51 taxa), and Fabaceae (81 taxa). The most commonly represented genera were *Acacia* (41 taxa) and *Eremophila* (41 taxa).

- A total of six priority species, *Einadia nutans* subsp. *nutans* (P3), *Calytrix praecipua* (P3), *Lysiandra baeckeoides* (P3), *Mirbelia stipitata* (P3), *Eremophila pungens* (P4), and *Frankenia georgei* (P1), had the potential to be found within the survey area.
- No Threatened flora species or ecological communities had the potential to of occur in the Ventnor and Commonwealth survey areas.
- A total of nine introduced flora species had the potential to occur within the survey area; **Carpobrotus aequilaterus, *Mesembryanthemum crystallinum, *Bidens bipinnata, *Sonchus oleraceus, *Sagina apetala, *Chenopodium murale, *Malvastrum americanum, *Portulaca oleracea,* and **Lysimachia arvensis.*

3.2.5. Potential Threatened and Priority Flora

No threatened flora species, pursuant to section 179 of the *EPBC Act* and as listed by DCCEEW (2022c) or pursuant to Part 2, Division 1 and Subdivision 2 of the *BC Act* and as listed by DBCA (2022a) are likely to occur in the Ventnor and Commonwealth survey areas.

A total of six priority flora species as listed by DBCA (2022b) have the potential to occur within the survey area (Appendix D). These taxa are *Einadia nutans* subsp. *nutans* (P3), *Calytrix praecipua* (P3), *Lysiandra baeckeoides* (P3), *Mirbelia stipitata* (P3), *Eremophila pungens* (P4), and *Frankenia georgei* (P1). Five species had previously been recorded in other surveys, including are *Einadia nutans* subsp. *nutans* (P3) *Calytrix praecipua* (P3), *Lysiandra baeckeoides* (P3), *Mirbelia stipitata* (P3), and *Eremophila pungens* (P4) (MCPL 2010-2018, MEC 2013), and identified in the NatureMap (DBCA 2007-) but were not identified in PMST (DCCEEW 2022a) searches.

The likelihood that these species would occur within the survey areas was determined using the following criteria:

- Known records within a 20 km radius of the centre of the survey area (as described above). More recent, proximal and numerous records were ranked higher.
- Potential presence of suitable habitat and landforms for the species within the survey area (e.g. soil type, bedrock type, topography, drainage lines, vegetation).
- The likelihood was ranked Low, Medium or High.

Three species were ranked as high likelihood of being recorded in the survey area as they had been recorded in nearby surveys with similar vegetation and landforms (*Calytrix praecipua* (P3), *Lysiandra baeckeoides* (P3), and *Eremophila pungens* (P4)). *Frankenia georgei* (P1), and *Mirbelia stipitata* (P3) were given a moderate likelihood rating of being found as limited records have been identified in previous MCPL studies nearby. *Einadia nutans* subsp. *nutans* (P3), was given a low likelihood as it has only been identified very rarely in this area. All potential threatened and priority flora are listed in Appendix C1, along with their State Conservation Codes (see Appendix A for definitions), a description and an assessment of the likelihood of their occurrence in the survey areas.

There were no Threatened Ecological Communities (TECs) listed at the Commonwealth level pursuant to sections 181 and 182 of the EPBC Act and listed by the BCCEEW (2022e), or at State level pursuant to

Part 2 of the BC Act and as listed by DBCA (2022c). There were no Priority Ecological Communities (PECs) as listed at State level by DBCA (2022e) that could potentially occur within the 2022 Commonwealth and Ventnor survey areas.

Table 4: Likelihood of finding priority species within the Commonwealth and Ventnor 2022 survey areas

SPECIES	CONS. CODE	FAMILY	HABIT DESCRIPTION	HABITAT PREFERENCES	LIKELIHOOD
Frankenia georgei	P1	FRANKENIACEAE	Small shrub, Flowers pink in December	Rocky slopes	Moderate
Einadia nutans subsp. nutans	P3	CHENOPODIACEAE	Scrambling/ low domed perennial, shrub, 0.3-1 m high.	Low stony hills	Low
Calytrix praecipua	P3	MYRTACEAE	Shrub, 0.7 m high, Pink to white flowers during July-to July or September to November.	Skeletal sandy soils on breakaways and outcrops of granite and laterite.	High
Lysiandra baeckeoides	P3	PHYLLANTHACEAE	Shrub up to 1.5 m high, white-yellow or green- yellow flowers during July to September.	Red lateritic and sandy soils among granite outcrops.	High
Mirbelia stipitata	P3	FABACEAE	Spiny shrub to 0.6 m high, pink/purple flowers throughout August.	Red sandy loam soils.	Moderate
Eremophila pungens	P4	SCROPHULARIACEAE	Erect viscid shrub up to 1.5 m high, purple-violet flowers throughout June to August.	Sandy loam or clayey sand over laterite on plains, ridges, and breakaways.	High

3.2.6. Potential Introduced (Weed) Species and Declared Pest (Plant) Organisms

No introduced taxa were identified during the desktop survey, based on the NatureMap (DBCA 2007-) and PMST (DCCEEW 2022a). However, previous MCPL surveys and other records in the area have identified a total of nine introduced taxa were identified in the desktop survey, based on NatureMap (DBCA 2007-), the *EPBC Act* Protected Matters Search Tool (DCCEEW 2022a) search results (Table 5 and Appendix D) and records from MCPL (2009; 2012a; 2012b; 2013; 2015a; 2015b; 2015c, 2015d; 2016; 2017a; 2017b; 2017c; 2017d; 2018a; 2018b; 2021a; 2021b; 2021c) surveys. These taxa are; **Carpobrotus aequilaterus*, **Mesembryanthemum crystallinum*, **Bidens bipinnata*, **Sonchus oleraceus*, **Sagina apetala*, **Chenopodium murale*, **Malvastrum americanum*, **Portulaca oleracea*, and **Lysimachia arvensis.* All these taxa have a Prohibited Organism Control category of 'Permitted-s11' (see Appendix A for definitions).

Table 5: Introduced plant species in the vicinity of the Commonwealth and Ventnor Survey Areas

INTRODUCED SPECIES	COMMON NAME	FAMILY	RECORDED
**Bidens bipinnata*	Bipinnate Beggartick	**ASTERACEAE**	MCPL 2015a
**Carpobrotus aequilaterus*	Angular Pigface	**AIZOACEAE**	MCPL 2016
**Chenopodium murale*	Nettle-leaf Goosefoot	**CHENOPODIACEAE**	MCPL 2015b
**Lysimachia arvensis*	Pimpernel	**PRIMULACEAE**	MCPL 2016
**Malvastrum americanum*	Spiked Malvastrum	**MALVACEAE**	MCPL 2012b; 2017d
**Mesembryanthemum crystallinum*	Iceplant	**AIZOACEAE**	MCPL 2010
**Portulaca oleracea*	Purslane	**PORTULACACEAE**	MCPL 2012a; 2017c; 2017d; MEC 2013
**Sagina apetala*	Annual Pearlwort	**CARYOPHYLLACEAE**	MCPL 2012a
**Sonchus oleraceus*	Sowthistle	**ASTERACEAE**	OES 2007; MCPL 2015b, 2017b

3.3. Field Survey

3.3.1. Flora

A total of 94 vascular plant taxa, representative of 31 genera and 23 families (Appendix E) were recorded within the Commonwealth and Ventnor 2022 survey areas. The most commonly represented families were Fabaceae (28 taxa), Chenopodiaceae (14 taxa), and Scrophulariaceae (14 taxa). The most commonly represented genera were *Acacia* (18 taxa) and *Eremophila* (14 taxa). Plant species as recorded at each site are listed in Appendix F. Additionally, 15 taxa were only identified to genus level and 3 to family level only, due to a lack of fertile material available which enables identification to a species level. Although the field survey was conducted outside of the optimal range for the Eremaean botanical province, 81% of all species identified in the field were identified to species level.

A species accumulation curve (Colwell 2013) was used to evaluate the sampling adequacy and is presented in Figure 6. The incidence-based coverage estimator of species richness was 116.18. Based on this value and the total of 94 taxa recorded in this survey, approximately 80.9% of the flora species potentially present within the survey area were recorded.

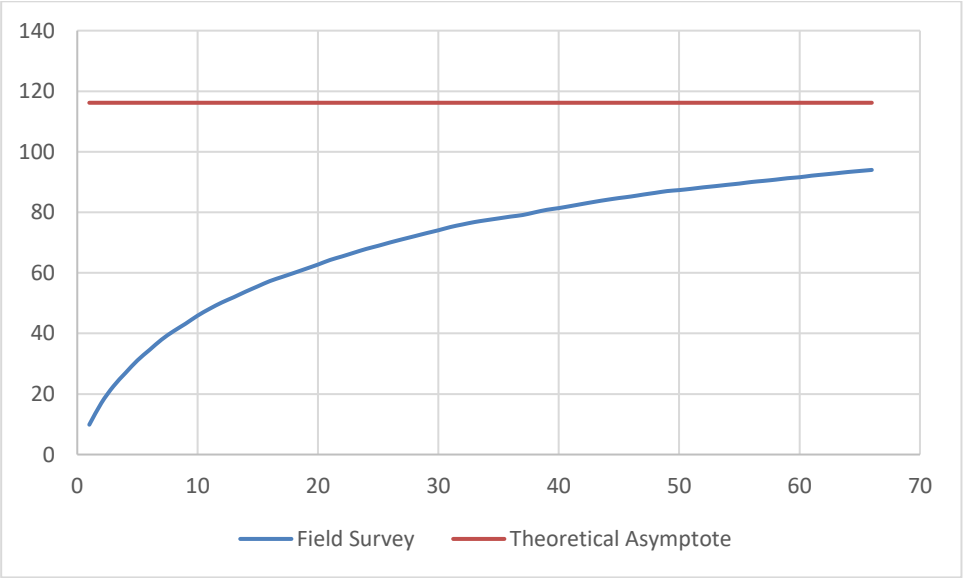
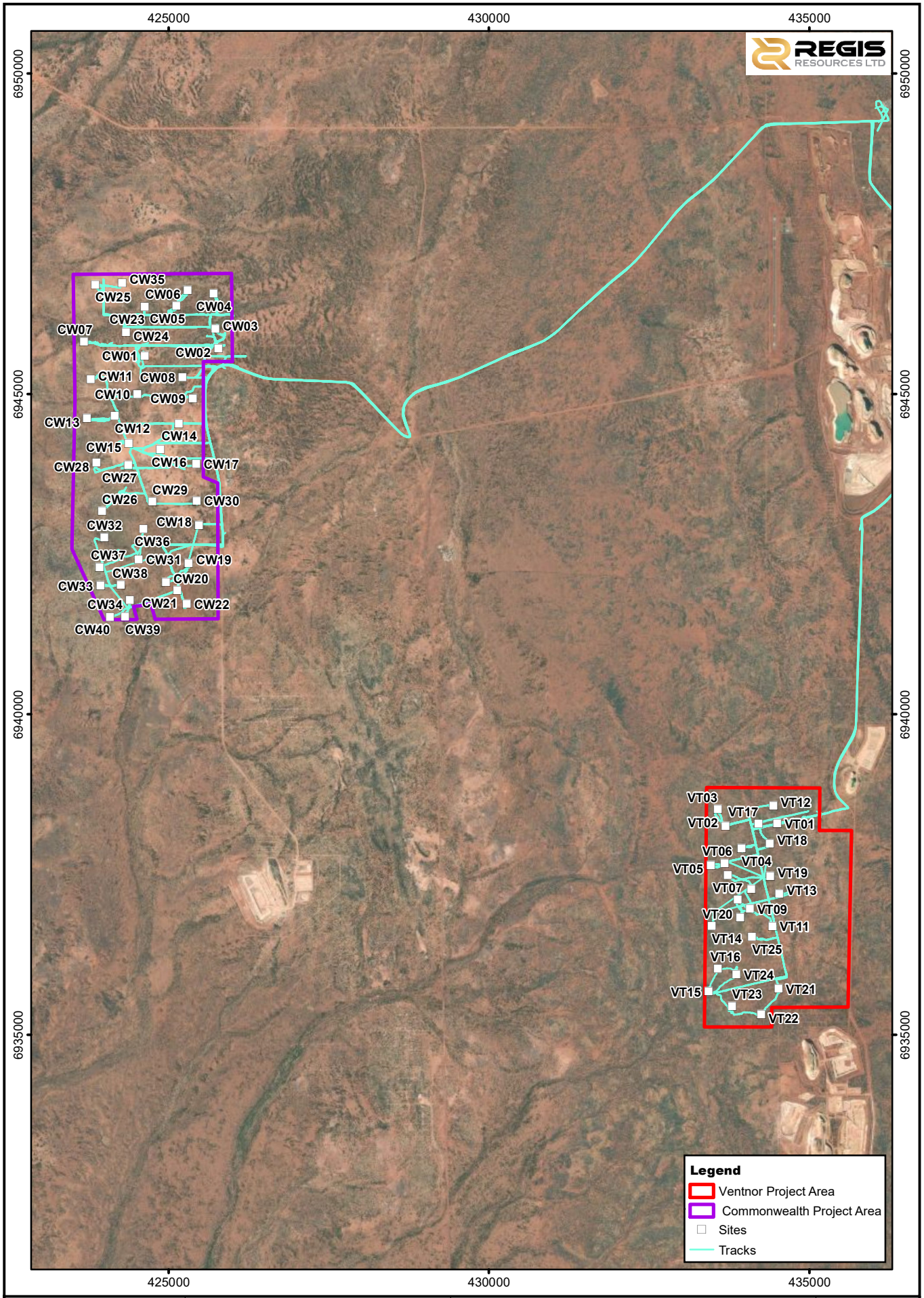


Figure 5: Average randomised species accumulation curve for the Commonwealth and Ventnor 2022 Survey Areas, July 2022



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Scale: 1:80,000
MGA94 (Zone 51)

CAD Ref: a2501_f20_08

Date: September 2022 | Rev: A | A4

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Survey effort within both Commonwealth and Ventnor Survey Areas, July 2022

Figure: 6

3.3.2. Threatened and Priority Flora

No threatened flora species, pursuant to section 179 of the *EPBC Act* and as listed by DCCEEW (2022c) or pursuant to Part 2, Division 1 and Subdivision 2 of the *BC Act* and as listed by DBCA (2022a) were recorded within the Commonwealth and Ventnor survey areas. One priority species as listed by the DBCA (2022b) *Eremophila pungens* (P4) was recorded at 16 locations within the 2022 survey areas. Additionally, a total of 14 historical records of *Eremophila pungens* (P4) were present within the Ventnor Project Area (OES 2007). All records within both project areas account for approximately 302 individual members of this taxon. A description of *Eremophila pungens* (P4) can be found in Appendix C1.

Eremophila pungens (P4) had been identified by the NatureMap (DBCA 2007-) but not PMST (DCCEEW 2022a) desktop surveys. This species has also previously been recorded within the Ventnor Project Area by OES in 2007, and in the adjacent Moolart Well as well as nearby Petra areas surveyed by MCPL (MCPL 2012b; 2015d, and OES 2007). The populations of *Eremophila pungens* (P4) were recorded on red clay flats, gently undulating planes, and minor drainage lines. Several individuals recorded displayed reproductive material including flowers, and it was therefore able to be identified to genus in the field. For confirmation the specimen collected was sent to the state herbarium where it was positively identified as the priority four species.

No Threatened Ecological Communities as listed at Commonwealth (DCCEEW 2022e) or State level (DBCA 2022e) or Priority Ecological Communities listed at State level (DBCA 2022d) were recorded within the 2022 survey areas.

3.3.3. Introduced (Weed) Species and Declared Pest (Plant) Organisms

No Introduced species or Declared Pest species pursuant to section 22 of the BAM Act 2007 according to the Department of Primary Industries and Regional Development [DPIRD] (2022) were recorded within the Commonwealth or Ventnor survey areas in 2022.

3.3.4. Statistical Analysis of Data

Similarity Profile Analysis (SIMPROF) of the 65 survey quadrats indicated there were 5 significantly associated groups of quadrats. Quadrat associations followed landform elements generally, with minor drainage areas being distinct from vegetation associated with hills and flats. Quadrats which represented vegetation associated with flats were grouped based the dominant vegetation being either *Acacia* section *Juliflorae* species, *Acacia*|*Eremophila* species, or chenopod shrubland species. The former, i.e., *Acacia* section *Juliflorae* species, comprised 50 of the 65 surveyed quadrats.

Following a priori analysis of significant groups, vegetation communities were delineated using a combination of the SIMPROF and SIMPER results together with landform, soil data, and associated records of the survey quadrats. Where appropriate outliers and small groupings were merged into broader vegetation units based on species composition and site descriptions. Based on this approach, 5 significantly dissimilar vegetation groups were used to delineate the 5 identified vegetation communities within the survey area. The dendrogram representing the results of the cluster analysis, and the corresponding 5 vegetation communities is illustrated in Figure 7.

3.3.5. Vegetation Communities and Mapping

Based on the statistical analysis (Section 3.3.4), 5 vegetation communities were defined and mapped across the survey area. To provide a holistic view of vegetation values within the Ventnor Project Area, previous mapping by MCPL in the eastern portion was aligned with results from the current survey (MCPL 2012b). These previously mapped communities include communities A2, A6, A7, A8, A12, and C1. In addition to the statistical analysis, survey quadrat physical data and aerial photographic maps were used

to delineate the boundaries of the vegetation communities in the combined survey area. The descriptions of the vegetation communities were based on Aplin's (1979) modification of the vegetation classification system of Specht (1970), to align with the NVIS. Vegetation communities were described at the association level of the NVIS classification framework, as defined by the DCCEEW (2017) (Appendix A5) and are summarised below. The vegetation mapping is presented in Figures 8.1-3. A detailed description of vegetation communities mapped during the 2022 surveys is set out in Appendix G.

Acacia shrublands

A5 Mid-sparse shrubland of *Acacia aptaneura* and *Acacia tetragonophylla* over low sparse shrubland of *Senna artemisioides* on sandy red clay in minor drainage lines

A22 Tall open shrubland of *Acacia* sect. *Juliflorae* (*A. aneura, A. aptaneura,* and *A. fuscaneura*) over mid-sparse shrubland of *A. tetragonophylla, Eremophila pungens* (P4), *and Psydrax suaveolens* over isolated ferns of *Cheilanthes sieberi* subsp. *sieberi* on red clay loam in minor drainage lines

A23 Tall open shrubland of *Acacia* sect. *Juliflorae* (*A. aneura, A. aptaneura, and A. fuscaneura*) over mid-sparse shrubland of *A. tetragonophylla* and *Psydrax suaveolens* over isolated ferns of *Cheilanthes sieberi* subsp*. sieberi* on flats or slopes of red clay with ironstone gravel

A31 Tall sparse shrubland of *Acacia duriuscula* and *Eremophila oppositifolia* subsp. *angustifolia* over mid-sparse shrubland of *Eremophila platycalyx* subsp. *platycalyx,* over low sparse shrubland of *Scaevola spinescens* and *Maireana glomerifolia* on saline red clay flats with quartz pebbles

Chenopod Shrublands

CH1 Mid-isolated shrubs of *Acacia aneura* and *Acacia aptaneura* over low sparse chenopod shrubland of *Sclerolaena cuneata, Sclerolaena eriacantha,* and *Maireana georgei* on red clay flats with quartz pebbles

Previously Mapped Communities (MCPL 2012b)

A2 Tall open shrubland of *Acacia aneura*, *Acacia ayersiana* and *Grevillea berryana* over mid-sparse shrubland of *Acacia ramulosa* var. *ramulosa*, *Acacia tetragonophylla,* and mixed *Eremophila* spp. over low-sparse tussock grassland of *Eragrostis eriopoda*, *Eriachne mucronata*, and *Ptilotus obovatus* on orange sandy clay-loams on flats.

A6 Tall open shrubland of *Acacia aneura*, *A. aptaneura*, and *A. ayersiana* over low-sparse shrubland of *Eremophila punctata*, *Eremophila latrobei* subsp*. latrobei,* and *Eriachne mucronata* on orange sandy-loams with numerous chert outcropping on slopes and ridges.

A7 Tall open shrubland of *Acacia aneura* over mid-sparse shrubland of *Acacia craspedocarpa*, *Acacia tetragonophylla*, and *Santalum spicatum* over low-sparse shrubland of *Sida calyxhymenia*, *Ptilotus obovatus*, and *Eriachne mucronata* on orange sandy loams in minor drainage lines.

A8 Tall open shrubland of *Acacia ayersiana*, *Acacia aneura*, and *Acacia aptaneura* over mid-sparse shrubland of *Acacia tetragonophylla* over *Eremophila latrobei* subsp. *filiformis*, over low-sparse shrubland of *Ptilotus obovatus, Dianella revoluta,* and *Eragrostis eriopoda* on orange sandy-loams on flats

A12 Mid-sparse shrubland of *Acacia incurvaneura*, *Acacia mulganeura* and *Acacia tetragonophylla* over low sparse shrubland of *Ptilotus obovatus*, *Hibiscus burtonii*, and *Solanum lasiophyllum* on flats to lower slopes with red gravely clay soil and quarts pebbles.

C1 Mid-sparse shrubland of *Acacia aneura* and *Hakea preissii* over low-sparse chenopod shrubland of *Maireana pyramidata, Cratystylis subspinescens,* and *Maireana georgei* on orange clay-loam flats.

The areas mapped and percentage cover for each vegetation community delineated in the survey area is set out the Table 5. The most commonly represented vegetation was the A23 community across both the Commonwealth and Ventnor project areas, covering 81.72% and 50.68%, respectively. The most

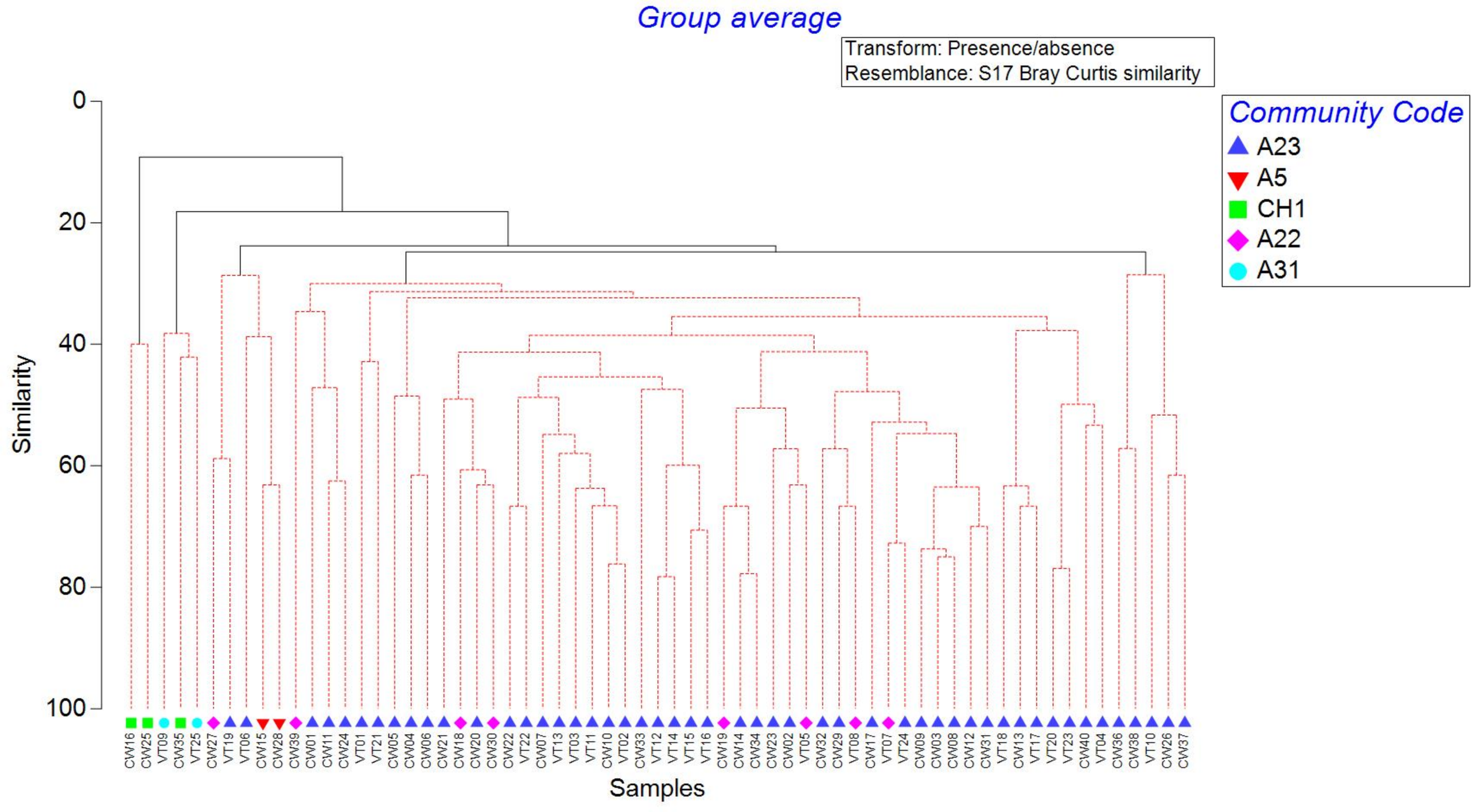
restricted vegetation community found during the July 2022 survey was community A31, represented in only 0.59% of the Ventnor project area.

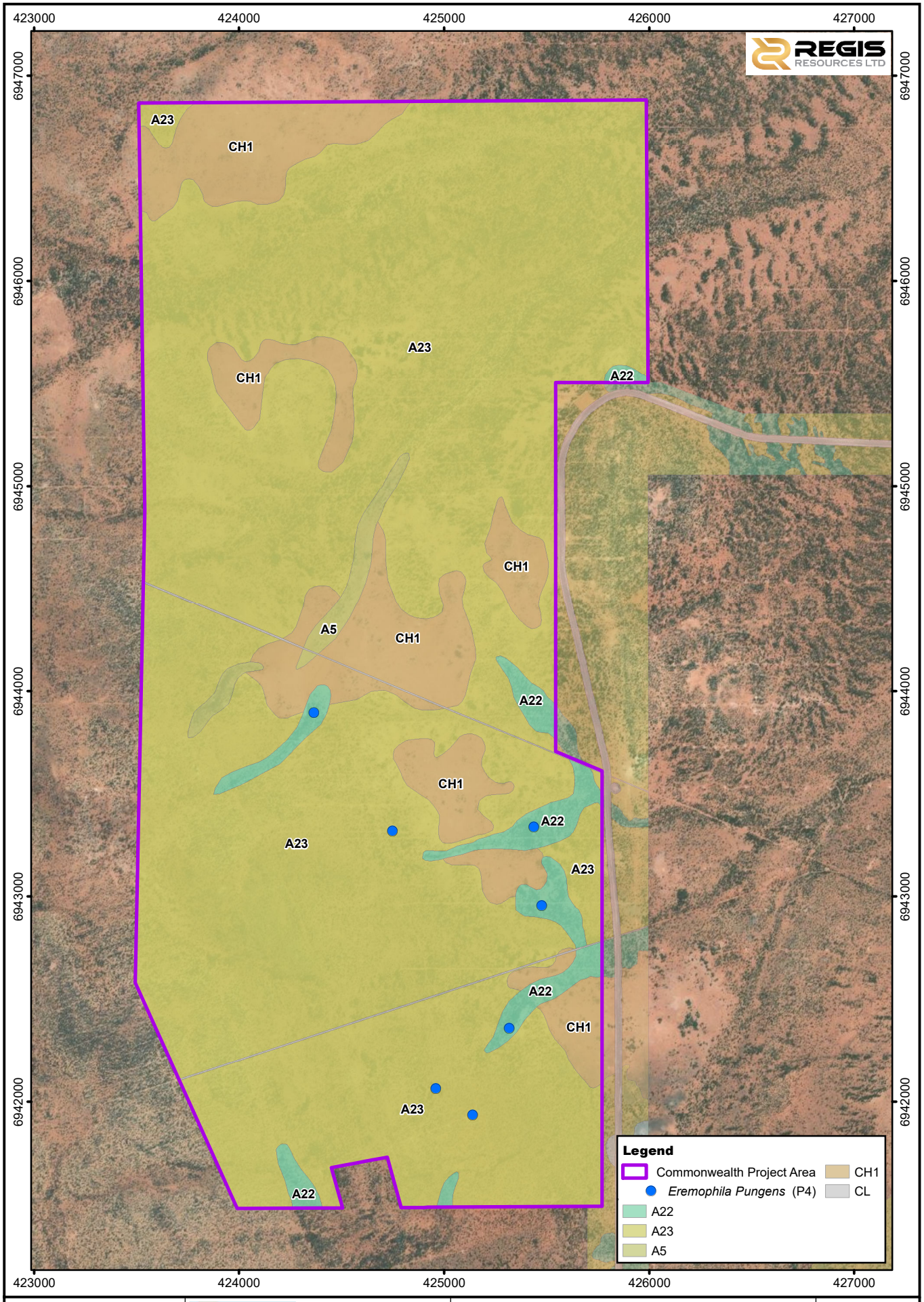
Table 5: Vegetation communities defined in the Commonwealth and Ventnor project areas, July 2022

VEGETATION COMMUNITY	PROJECT AREA	AREA MAPPED (ha)	PROPORTION OF PROJECT AREA (%)	NUMBER OF QUADRATS
A2	Ventnor	215.85	27.99	MCPL 2012b
A5	Commonwealth	12.76	1.09	2
A6	Ventnor	33.96	4.40	MCPL 2012b
A7	Ventnor	60.17	7.80	MCPL 2012b
A8	Ventnor	26.71	3.46	MCPL 2012b
A12	Ventnor	11.65	1.51	MCPL 2012b
A22	Commonwealth	41.09	3.51	5
	Ventnor	13.81	1.79	3
A23	Commonwealth	956.52	81.72	30
	Ventnor	390.77	50.68	20
A31	Ventnor	4.52	0.59	2
C1	Ventnor	13.41	1.74	MCPL 2012b
CH1	Commonwealth	156.84	13.40	3

3.3.6. Vegetation Condition

The condition ratings of the vegetation in the 2022 survey areas is as follows: 28 sites as 'Very Good', 17 sites as 'Good', 12 sites as 'Poor', 6 sites as 'Degraded', and two sites as 'Excellent', based on the Trudgen (1988) scale. Sites were qualified in terms of disturbance by the presence of animal and vehicle tracks and the density of weed species. Field observations suggest that the last fire in the area was potentially greater than 20 prior to the survey. Signs of moderate to heavy levels of grazing and cattle tracks and droppings were evident across many sites across both survey areas. Additionally, evidence of vehicle tracks, drilling waste products, and drill line patterns were present across both survey areas. Vegetation condition ratings for areas previously mapped by MCPL in the Ventnor Project Area were rolled over into present condition mapping (MCPL 2012b). Vegetation condition mapping based on site observations is displayed in Figure 9.1-2.


Group average
Transform: Presence/absence
Resemblance: S17 Bray Curtis similarity
Community Code
A23
A5
CH1
A22
A31
Similarity
0
20
40
60
80
100
Samples
CW16 CW25 VT09 CW35 VT25 CW27 VT19 VT06 CW15 CW28 CW39 CW01 CW11 CW24 VT01 VT21 CW05 CW04 CW06 CW21 CW18 CW20 CW30 CW22 VT22 CW07 VT13 VT03 VT11 CW10 VT02 CW33 VT12 VT14 VT15 VT16 CW19 CW14 CW34 CW23 CW02 VT05 CW32 CW29 VT08 CW17 VT07 VT24 CW09 CW03 CW08 CW12 CW31 VT18 CW13 VT17 VT20 VT23 CW40 VT04 CW36 CW38 VT10 CW26 CW37



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Scale: 1:25,000
MGA94 (Zone 51)

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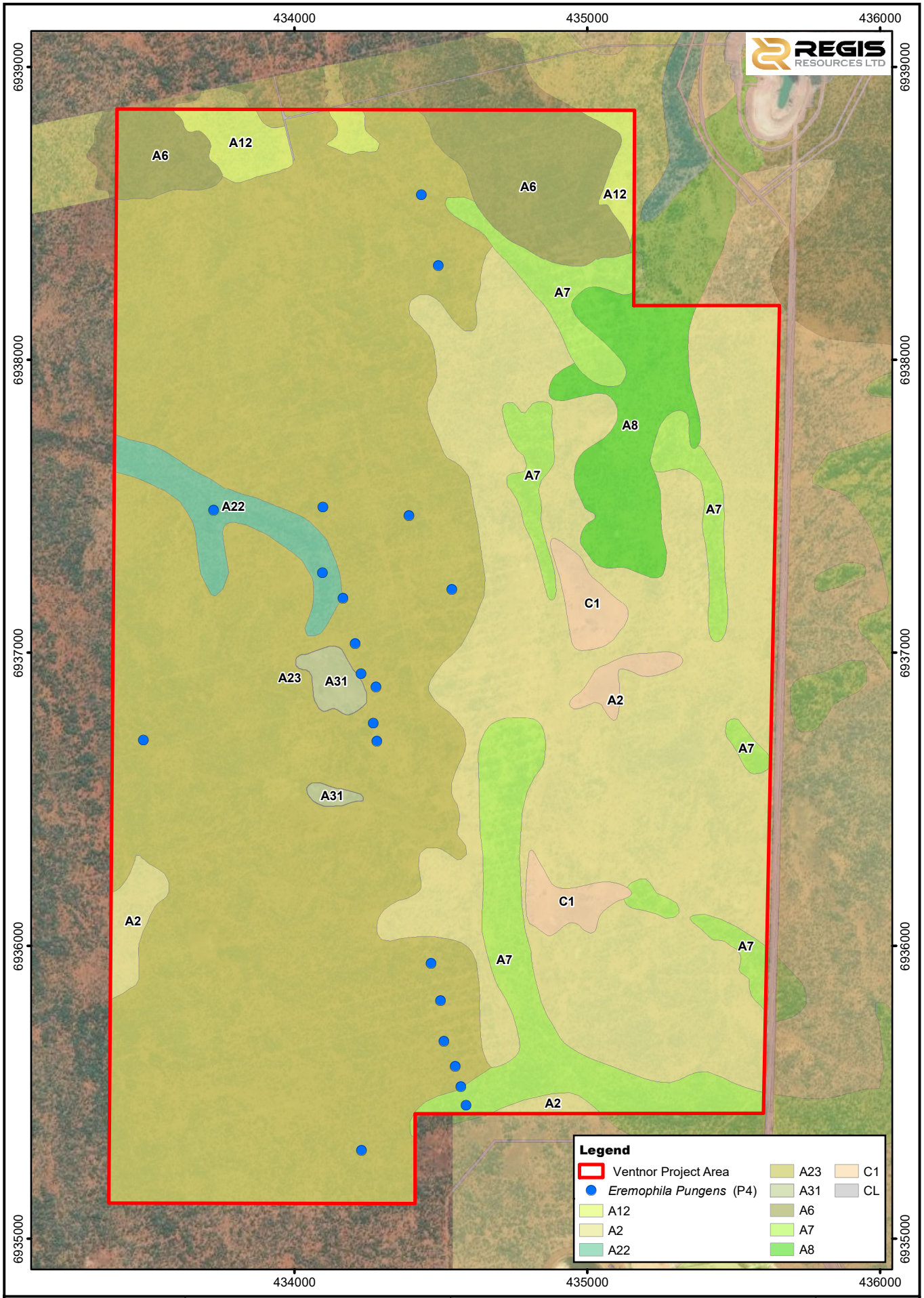
Date: September 2022 | Rev: A | A4

Mattiske Consulting Pty Ltd
28 Central Road, Kalamunda WA 6076 ~ Tel: 9257 1625 ~ Fax: 9257 1640
Author: E M Matttiske | MCPL Ref: RRG2201
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Tel: (08) 9246 3242 ~ Fax (08) 9246 3202

Vegetation mapping within the Commonwealth Project Area

Figure:

8.1



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Scale: 1:17,500
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CAD Ref: a2501_f20_06

Date: September 2022 | Rev: A | A4

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Vegetation mapping within the Ventnor Project Area

Figure:

8.2

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Acacia Shrublands

A2 Tall sparse shrubland of *Acacia incurvaneura*, *Acacia ayersiana*, and *Grevillea berryana* over mid-sparse shrubland of *Acacia tetragonophylla*, and *Eremophila spp.* over low-sparse grassland of *Eriachne mucronata, Eragrostis eriopoda,* and *Ptilotus obovatus* on sandy clay-loam flats

A5 Tall sparse shrubland of *Acacia aptaneura* and *Acacia tetragonophylla* over low sparse shrubland of *Senna artemisioides* on sandy red clay in minor drainage lines

A6 Tall sparse shrubland of *Acacia incurvaneura* over mid-sparse shrubland of *Eremophila spp.* over low-sparse grassland of *Eriachne mucronata,* and *Eragrostis eriopoda* on orange sandy-loam with numerous chert outcroppings on slopes

A7 Tall sparse shrubland of *Acacia* sect. *Juliflorae* (*A. aneura, A. incurvaneura, and A. pteraneura*) over mid-sparse shrubland of *A. craspedocarpa*, *A. tetragonophylla*, and *Santalum spicatum* over low-sparse shrubland of *Sida calyxhymenia*, *Ptilotus obovatus*, and *Eriachne mucronata* on orange sandy-loams in minor drainage lines

A8 Tall open shrubland of Acacia ayersiana, Acacia aneura, and Acacia aptaneura over mid-sparse shrubland of Acacia tetragonophylla over Eremophila latrobei subsp. filiformis, over low-sparse shrubland of Ptilotus obovatus, Dianella revoluta, and Eragrostis eriopoda on orange sandy-loams on flats

A12 Tall sparse shrubland of *Acacia incurvaneura,* and *Acacia mulganeura* over mid-sparse shrubland of *Acacia tetragonophylla* and *Eremophila oldfieldii* over low-sparse shrubland of *Ptilotus obovatus*, *Hibisbus burtonii*, and *Solanum lasiophyllum* on lower slopes of red clay with quartz pebbles

A22 Tall open shrubland of *Acacia* sect. *Juliflorae* (*A. aneura, A. aptaneura,* and *A. fuscaneura*) over mid-sparse shrubland of *A. tetragonophylla, Eremophila pungens* (P4), *and Psydrax suaveolens* over isolated ferns of *Cheilanthes sieberi* subsp. *sieberi* on red clay-loam in minor drainage lines

A23 Tall open shrubland of *Acacia* sect. *Juliflorae* (*A. aneura, A. aptaneura, and A. fuscaneura*) over mid-sparse shrubland of *A. tetragonophylla* and *Psydrax* suaveolens over isolated ferns of *Cheilanthes sieberi* subsp. *sieberi* on flats or slopes of red clay with ironstone gravel

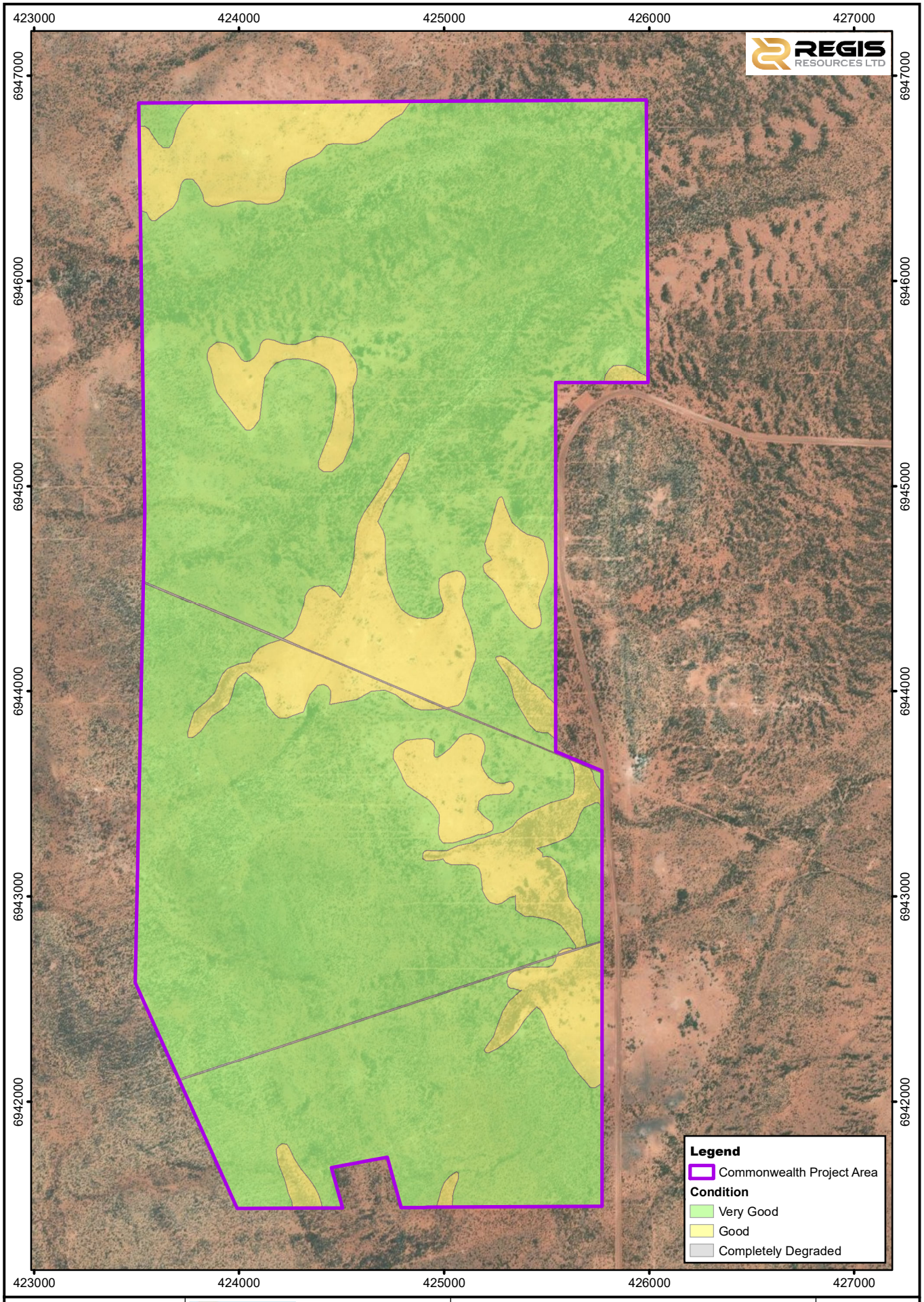
A31 Tall sparse shrubland of *Acacia duriuscula* and *Eremophila oppositifolia* subsp. *angustifolia* over mid-sparse shrubland of *Eremophila platycalyx* subsp. *platycalyx,* over low sparse shrubland of *Scaevola spinescens* and *Maireana glomerifolia* on saline red clay flats with quartz pebbles

Chenopod shrubland

C1 Mid-sparse shrubland of Acacia aneura and Hakea preissii over low-sparse chenopod shrubland of Maireana pyramidata, Cratystylis subspinescens, and Maireana georgei on orange clay-loam flats.

CH1 Mid-isolated shrubs of *Acacia anerua* and *Acacia aptaneura* over low sparse chenopod shrubland of *Sclerolaena cuneata, Sclerolaena eriacantha,* and *Maireana georgei* on red clay flats with quartz pebbles

CAD Ref: a2501_f20_06a	Mattiske Consulting Pty Ltd 28 Central Road, Kalamunda WA 6076 ~ Tel: 9257 1625 ~ Fax: 9257 1640	**Vegetation community mapping Legend**
Date: September 2022 | Rev: A | A4	Author: E M Matttiske | MCPL Ref: RRG2201 Drawn: CAD Resources ~ www.cadresources.com.au Tel: (08) 9246 3242 ~ Fax (08) 9246 3202	Figure: **8.3**



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Scale: 1:25,000
MGA94 (Zone 51)

CAD Ref: a2501_f20_09

Date: September 2022 | Rev: A | A4

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Author: E M Matttiske | MCPL Ref: RRG2201
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Tel: (08) 9246 3242 ~ Fax (08) 9246 3202

Vegetation condition mapping for Commonwealth Project Area

Figure:

9.1



N

0 130 260 m

Scale: 1:17,500
MGA94 (Zone 51)

CAD Ref: a2501_f20_09

Date: September 2022 | Rev: A | A4

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Author: E M Matttiske | MCPL Ref: RRG2201

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Vegetation condition mapping for Ventnor Project Area

Figure:

9.2

4. DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

4.1 Flora

A total of 94 vascular plant taxa, representing 31 genera and 23 families were recorded across 65 quadrats within both the Commonwealth and Ventnor 2022 survey areas. The most common families were Fabaceae, Chenopodiaceae, and Scrophulariaceae (Appendix E). The majority of these taxa were widespread both locally and more broadly within the East Murchison IBRA subregion. The lower number of species recorded within the Commonwealth and Ventnor 2022 survey areas compared with the desktop study appears to be related to the area of the desktop being far more broad (502,655ha) compared with the 2022 survey areas (1,624.86 ha). The larger area of the desktop survey would naturally include a wider range of vegetation communities. A reduction in annual rainfall by 54% in the 12 months preceding the July 2022 survey compared to the long-term average would also contribute to a lower number of taxa found. This would be particularly true for annual species, which require high soil moisture to germinate and grow to maturity.

A species accumulation curve for both the Commonwealth and Ventnor survey areas indicated that 80.9% of species expected were recorded during this 2022 survey, indicating the timing and effort of this project were adequate (Figure 5, Figure 6). A review of potential constraints associated with vegetation surveys (Table 1) determined that only minor limitations existed when considering the timing of the 2022 survey. The July 2022 survey timing was outside of the optimal March-June survey timing for the Eremaean region. While identification of some taxa found during the survey period was problematic, the dominant structural components of vegetation communities were largely identifiable. Additionally, three out of the six priority species potentially found across the Commonwealth and Ventnor survey areas have the potential to flower during this period.

No threatened flora or communities were found during the 2022 field survey. Sixteen records of *Eremophila pungens* (P4) were identified within the 2022 survey areas. Fourteen additional records from historical reports were identified in the Ventnor Project Area (OES 2007). In total these 30 records accounted for approximately 302 individual members of the taxon. A detailed list of coordinates, and site locations can be found in Appendix C2 and Figures 9.1-3. Although this taxon occurred as an occasional species in several of the mapped vegetation communities, it was found to be most associated with minor drainage line community A22. *Eremophila pungens* (P4) is known from 45 records distributed across the Gascoyne, Murchison, and Great Victoria Desert IBRA regions (Plate 1), an area approximately 450km x 300km (WAH 1998-). Records of this taxon exist within several nature reserves, including both De La Poer Nature Reserve, and Wanjarri Nature Reserve. Given the large distribution of *Eremophila pungens* (P4) and its protection in two nature reserves, there are minimal risks to this taxon associated with the proposed development of both Commonwealth and Ventnor Project Areas. No additional priority flora with potential to occur within the 2022 survey areas were found (Appendix E).

No introduced flora species were found during the 2022 Commonwealth and Ventnor field survey. The lack of introduced species is noteworthy as both vehicle tracks and cattle disturbance are widely present within both the Commonwealth and Ventnor Project Areas. These disturbances would typically aid in the spread of introduced flora. The lack of introduced species, particularly the lack of introduced annual species, may be a result of historically low rainfall in the areas of the East Murchison IBRA subregion surrounding Laverton (Figure 3).

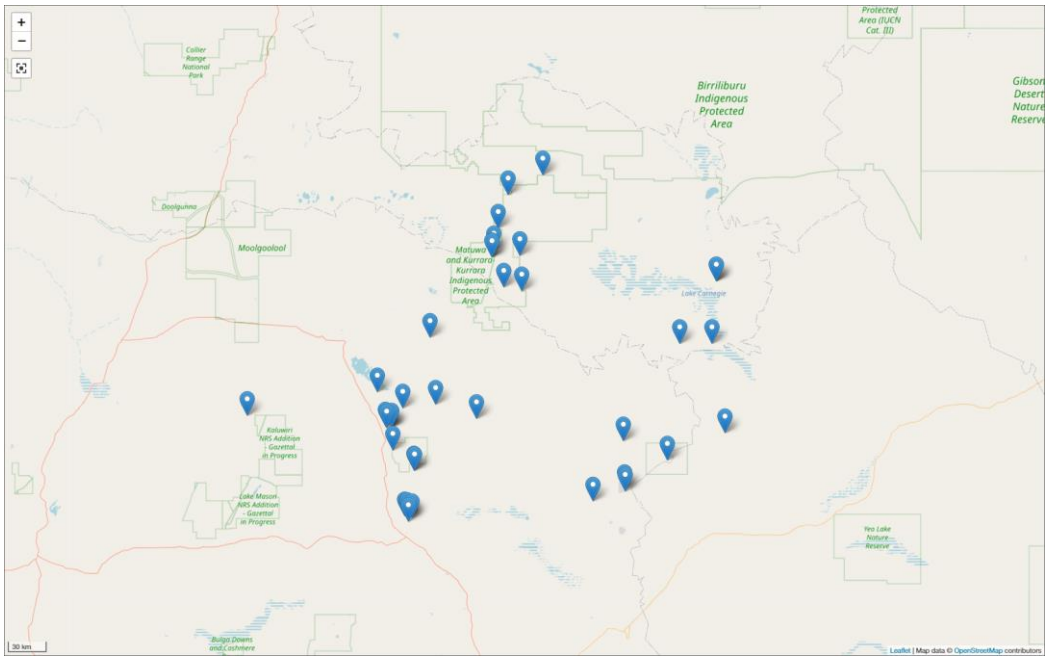


Plate 1: *Eremophila pungens* (P4) distribution (WAH 1998-)

4.2 Vegetation

A total of 11 vegetation communities were defined and mapped over the Commonwealth and Ventnor Project Areas (Figure 8.1-3). Five of these communities were mapped during the July 2022 survey (Appendix G), the other six communities were included from previous MCPL surveys to provide continuity with previous mapping within the Ventnor 2022 survey area (MCPL 2012b). The dominant vegetation community consisted of a tall open shrubland of *Acacia* sect. *Juliflorae* (*A. aneura, A. aptaneura, and A. fuscaneura*), which occurred on the flat to gently undulating clay soils which dominated the July 2022 survey areas. A single chenopod shrubland community was present across a significant portion of the Commonwealth survey area. This chenopod shrubland was dominated by low sparse shrubs of *Sclerolaena cuneata, Sclerolaena eriacantha,* and *Maireana georgeii* on red clay flats with quartz pebble overlay. A saline flat community dominated by a tall sparse shrubland of *Acacia duriscula* and *Eremophila oppositifolia* subsp. *angustifolia* was mapped over a small portion of the Ventnor survey area. Both Commonwealth and Ventnor survey areas were bisected by various minor drainage line communities. These minor drainage lines were generally represented by a dense *Acacia* overstorey and were differentiated based on the presence or absence of various *Senna,* and *Eremophila* species. Two communities were based on statistical associations between only two survey quadrats—A5 and A31. Although EPA technical guidance recommends communities be delineated based on associations between a minimum of three survey areas, community associations were made post-field survey, and additional quadrats could not be incorporated into the data. Additionally, due to the relatively small area of these communities independent replication would have been difficult. Communities A5 and A31, however, are represented within the surrounding area, and more broadly within the Murchison IBRA region (Beard 1974; 1976; 1990). No major drainage channels, or ridgeline communities were identified within either the Commonwealth or Ventnor Project Areas.

The vegetation communities delineated, and the species recorded within both the Commonwealth and Ventnor 2022 survey areas were consistent with previous MCPL, Outback Ecology Services (OES) and Maia Environmental Consultancy (MEC) mapping in surrounding areas (MCPL 2009; 2012a; 2012b; 2013; 2015a; 2015b; 2015c, 2015d; 2016; 2017a; 2017b; 2017c; 2017d; 2018a; 2018b; 2021a; 2021b; 2021c; OES 2007; MEC 2013). Additionally, the dominance of *Acacia* sect. *Juliflorae* shrublands are consistent with Pre-European vegetation structure of the survey areas (Table 3a-b). Whilst some vegetation

communities defined within the Commonwealth and Ventnor 2022 survey areas were restricted in terms of the July 2022 survey areas (e.g. A5, A22, and A31), they are not uncommon at a regional scale (Beard 1974; 1976; 1990).

The vegetation condition of the July 2022 survey areas ranged from 'Degraded' to 'Excellent' based on vegetation condition scale for the Eremaean botanical province (Appendix A6). The vast majority of sites within the Commonwealth and Ventnor survey areas were considered either 'Very Good' or 'Good' with minimal signs of disturbance present. In general, disturbance present across both survey areas was restricted to evidence of recent grazing activity by cattle, and numerous exploration drill pattern tracks. As mentioned above, no introduced flora were identified across the survey areas, meaning most sites could not be considered greatly disturbed based on the current rating system (Trudgen 1998). This may be deceptive, however, as prolonged drought in the region may have reduced the number introduced flora present for identification at the time of survey. In the event of a significant rainfall event, introduced flora in the seedbank may re-emerge, downgrading many of the current ratings associated with this 2022 survey areas.

4.3. Conclusion and Recommendations

This report includes collated findings from an initial desktop report, and from a detailed field survey undertaken by MCPL of both Commonwealth and Ventnor Project Areas in July 2022. Findings from previous MCPL surveys within the broader Ventnor Project Area have been included for continuity with the July 2022 survey in that area. Despite undertaking the present survey outside of the recommended survey period, 80.9% of potential species present within both survey areas were accounted for in the present study. Additionally, 81% of taxa identified during the July 2022 survey were identified to species level.

Sixteen records of *Eremophila pungens* (P4) were recorded across both Commonwealth and Ventnor 2022 survey areas. Additionally, 14 historic records of this taxon were identified within the Ventnor Project Area (OES 2007). Combined, these records account for approximately 302 individuals. While this taxon was represented as an occasional species across multiple communities, it is most associated with minor drainage line community A22. Given the large distribution of this taxon across multiple bioregions, and its protection within two nature reserves, the risks to this taxon associated with the development of both the Commonwealth and Ventnor project areas is considered minimal.

Eleven vegetation communities were present across both the Commonwealth and Ventnor 2022 survey areas. Six of these were included from previous mapping to provide continuity with previous mapping in the Ventnor survey area. Five communities were mapped with data collected during the July 2022 survey. The most common communities across both survey areas were an open shrubland of *Acacia* species across gently undulating plains of red clay soil, minor drainage lines of denser *Acacia* species, and low open chenopod shrublands on red clay flats with quartz pebble overlay. While some drainage and flats communities appear restricted within the July 2022 survey areas, they are commonly represented across previous MCPL, OES, and MEC mapping of nearby areas (MCPL 2009; 2012a; 2012b; 2013; 2015a; 2015b; 2015c, 2015d; 2016; 2017a; 2017b; 2017c; 2017d; 2018a; 2018b; 2021a; 2021b; 2021c; OES 2007; MEC 2013), and regionally (Beard 1974; 1976; 1990).

5. ACKNOWLEDGEMENTS

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6. PERSONNEL

The following MCPL personnel were involved in this project:

NAME	POSITION	PROJECT INVOLVEMENT	FLORA COLLECTION PERMITS
Dr E.M. Mattiske	Managing Director & Principal Ecologist	Planning, managing, reporting	N/A
J.C. Mooney	Botanist	Field work, plant identification, data analysis, report preparation and review	FB62000416
L. Ducki	Ecologist	Field work, plant identification	FB62000394
A. Pereira	Botanist/Ecologist	Planning, field work, plant identification	FB62000145-2
D. Rubick	Botanist/Ecologist	Field work, plant identification	FB62000328
K. Craig	Botanist	Report review	FB62000423
S. Ruoss	Senior Botanist	Report review	FB62000031-4

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APPENDIX A1: THREATENED AND PRIORITY FLORA DEFINITIONS

Under section 179 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), **threatened flora** are categorised as extinct, extinct in the wild, critically endangered, endangered, vulnerable and conservation dependent (Table A1.1).

Table A1.1 Federal definition of threatened flora species

Note: Adapted from section 179 of the EPBC Act.

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

The *Biodiversity Conservation Act 2016* (BC Act) provides for (amongst other things) the protection of flora that is facing an extremely high risk of extinction in the wild in the immediate, near or medium-term future in Western Australia under Part 10 (Division 2).

Threatened flora are listed in the *Wildlife Conservation (Rare Flora) Notice 2018* (under Part 2, Division 1, Subdivision 2 of the BC Act; Department of Biodiversity, Conservation and Attractions (DBCA 2022a) and are categorised under Schedules 1-3**.** A flora species is defined as **threatened** if it is facing an extremely high risk of extinction in the wild in the immediate, near or medium-term future, pursuant to sections 20, 21 and 22 of the BC Act. Threatened species are categorised as critically endangered, endangered, and vulnerable (Table A1.2).

Table A1.2 State definition of threatened flora species

Note: Adapted from DBCA (2022d).

CODE	CATEGORY	DEFINITION
CR	**Critically endangered**	Species considered to be facing an extremely high risk of becoming extinct in the wild (listed under Schedule 1 of the *Wildlife Conservation (Rare Flora) Notice 2018*).
EN	**Endangered**	Species considered to be facing a very high risk of becoming extinct in the wild (listed under Schedule 2 of the *Wildlife Conservation (Rare Flora) Notice 2018*).
VU	**Vulnerable**	Species considered to be facing a high risk of becoming extinct in the wild (listed under Schedule 3 of the *Wildlife Conservation (Rare Flora) Notice 2018*).

Priority flora species are defined as "possibly threatened species that do not meet the survey criteria, or are otherwise data deficient" or species that are "adequately known, are rare but not threatened, meet criteria for near threatened or have recently been removed from the threatened species list" for other than taxonomic reasons" (DBCA 2022d). Priority species are not afforded the same level of protection under state or federal legislation as the listed Threatened species, however are considered significant under the Environmental Protection Authority's *Environmental Factor Guideline: Flora and Vegetation* (Environmental Protection Authority 2016a). The Department of Biodiversity, Conservation and Attractions categorises priority flora into four categories: Priority 1; Priority 2, Priority 3 and Priority 4 (Table A1.3).

Table A1.3: State definition of priority flora species

Note: Adapted from DBCA (2022d).

CODE	CATEGORY	DEFINITION
P1	**Priority 1:** Poorly-known species	Known from one or a few locations (< 5) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation; or are otherwise under threat of habitat destruction or degradation. In urgent need of further survey.
P2	**Priority 2:** Poorly-known species	Known from one or a few locations (< 5). Some occurrences are on lands managed primarily for nature conservation. In urgent need of further survey.
P3	**Priority 3:** Poorly-known species	Known from several locations and the species does not appear to be under imminent threat; or from few but widespread locations with either a large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. In need of further survey.
P4	**Priority 4:** Rare, Near Threatened, and other species in need of monitoring	**a) Rare -** Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These species are usually represented on conservation lands. **b) Near Threatened -** Species that are considered to have been adequately surveyed and that do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable. **c) Other -** Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

APPENDIX A2: THREATENED AND PRIORITY ECOLOGICAL COMMUNITY DEFINITIONS

Under section 181 of the EPBC Act, **threatened ecological communities** are categorised as critically endangered, endangered and vulnerable (Table A2.1).

Table A2.1 Federal definition of threatened ecological communities

Note: Adapted from section 181 and section 182 of the EPBC Act.

CATEGORY	DEFINITION
Critically Endangered	If, at that time, it is facing an extremely high risk of extinction in the wild in the immediate future.
Endangered	If, at that time, it is not critically endangered and is facing a very high risk of extinction in the wild in the near future.
Vulnerable	If, at that time, it is not critically endangered or endangered, and is facing a high risk of extinction in the wild in the medium-term future.

Threatened ecological communities (TECs) are listed in the *List of Threatened Ecological Communities endorsed by the Western Australian Minister for Environment (28 June 2018)* (under Part 2, Division 2, Subdivision 1 of the BC Act; DBCA 2022c). An ecological community is defined as **threatened** if it is facing an extremely high risk of collapse in the immediate, near or medium-term future, pursuant to sections 28, 29 and 30 of the BC Act. Threatened ecological communities are categorised as critically endangered, endangered, and vulnerable (Table A2.2).

Currently there is no Western Australian legislation covering the conservation of state listed **threatened ecological communities** (TECs), however, a non-statutory process is in place, whereby the DBCA (and former equivalent departments) have been identifying and informally listing TECs since 1994. Some of these TECs are also endorsed by the Federal Minister as threatened, and some of these are listed under the EPBC Act and therefore afforded legislative protection at the Commonwealth level.

Table A2.2 State definition of threatened ecological communities

Note: Adapted from DBCA (2022d).

CODE	CATEGORY	DEFINITION
CR	**Critically Endangered**	An ecological community will be listed as CR when it has been adequately surveyed and is found to be facing an extremely high risk of total destruction in the immediate future, meeting **any one or more of** the following criteria: **1.** The estimated geographic range and distribution has been reduced by at least 90% and is either continuing to decline with total destruction imminent, or is unlikely to be substantially rehabilitated in the immediate future due to modification; **2.** The current distribution is limited i.e. highly restricted, having very few small or isolated occurrences, or covering a small area; or **3.** The ecological community is highly modified with potential of being rehabilitated in the immediate future.
EN	**Endangered**	An ecological community will be listed as EN when it has been adequately surveyed and is not CR, but is facing a very high risk of total destruction in the near future. The ecological community must meet **any one or more of** the following criteria: **1.** The estimated geographic range and distribution has been reduced by at least 70% and is either continuing to decline with total destruction imminent in the short term future, or is unlikely to be substantially rehabilitated in the short term future due to modification; **2.** The current distribution is limited i.e. highly restricted, having very few small or isolated occurrences, or covering a small area; or **3.** The ecological community is highly modified with potential of being rehabilitated in the short term future.
VU	**Vulnerable**	An ecological community will be listed as VU when it has been adequately surveyed and is not Critically Endangered or Endangered but is facing high risk of total destruction in the medium to long term future. The ecological community must meet **any one or more of** the following criteria: **1.** The ecological community exists largely as modified occurrences that are likely to be able to be substantially restored or rehabilitated; **2.** The ecological community may already be modified and would be vulnerable to threatening process, and restricted in range or distribution; or **3.** The ecological community may be widespread but has potential to move to a higher threat category due to existing or impending threatening processes.

Priority ecological communities (PECs) are defined as possible threatened ecological communities that do not meet the stringent survey criteria for the assessment of threatened ecological communities, and are listed by the DBCA (2022e) in the *Priority Ecological Communities for Western Australia – Version 33 (1 June 2022)*. Similarly to priority flora, PECs are not afforded legislative protection, however are considered significant under the Environmental Protection Authority's (2016a) *Environmental Factor Guideline: Flora and Vegetation*. The Department of Biodiversity, Conservation and Attractions categorises priority ecological communities into five categories: Priority 1; Priority 2, Priority 3, Priority 4 and Priority 5 (Table A2.3).

Table A2.3 State definition of priority ecological communities

Note: Adapted from DBCA (2022d).

CODE	CATEGORY	DEFINITION
P1	**Priority 1** (Poorly known ecological communities)	Ecological communities that are known from very few, restricted occurrences (generally ≤ 5 occurrences or a total area of ≤ 100 ha). Most of these occurrences are not actively managed for conservation (e.g. located within agricultural or pastoral lands, urban areas, or active mineral leases) and for which immediate threats exist.
P2	**Priority 2** (Poorly known ecological communities)	Communities that are known from few small occurrences (generally ≤ 10 occurrences or a total area of ≤ 200 ha). At least some occurrences are not believed to be under immediate threat of destruction or degradation.
P3	**Priority 3** (Poorly known ecological communities)	**1.** Communities that are known from several to many occurrences, a significant number or area of which are not under threat of habitat destruction or degradation; **2.** Communities known from a few widespread occurrences, which are either large or within significant remaining areas of habitat in which other occurrences may occur, much of it not under imminent threat; or **3.** Communities made up of large, and/or widespread occurrences, that may or not be represented in the reserve system, but are under threat of modification across much of their range from processes such as grazing and inappropriate fire regimes.
P4	**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)	**1.** Rare – Communities known from few occurrences that are considered to have been adequately surveyed, sufficient knowledge is available, and are considered not to be currently threatened. **2.** Near Threatened – Communities considered to have been adequately surveyed and do not qualify for Conservation Dependent, but are close to qualifying for Vulnerable. **3.** Communities that have been removed from the list of threatened communities during the past five years.
P5	**Priority 5** (Conservation Dependent ecological communities)	Ecological communities that are not threatened but are subject to a specific conservation program, the cessation of which would result in the community becoming threatened within five years.

APPENDIX A3: CATEGORIES AND CONTROL MEASURES OF DECLARED PEST (PLANT) ORGANISMS IN WESTERN AUSTRALIA

Section 22 of Western Australia's *Biosecurity and Agriculture Management Act 2007* (BAM Act) makes provision for a plant taxon to be listed as a declared pest organism in respect to parts of, or the entire State. According to the BAM Act, a declared pest is defined as a prohibited organism (section 12), or an organism for which a declaration under section 22 (2) of the Act is in force.

Under the *Biosecurity and Agriculture Management Regulations 2013* (WA), declared pest plants are placed in one of three control categories, C1 (exclusion), C2 (eradication) or C3 (management), which determines the measures of control which apply to the declared pest (Table A4.1). The current listing of declared pest organisms and their control category is through the Western Australian Organism List (Department of Primary Industries and Regional Development 2022).

Table A3.1 Categories and control measures of declared pest (plant) organisms

Note: Adapted from *Biosecurity and Agriculture Management Regulations 2013*.

CONTROL CATEGORY	CONTROL MEASURES
C1 (Exclusion) '(a) Category 1 (C1) — Exclusion: if in the opinion of the Minister introduction of the declared pest into an area or part of an area for which it is declared should be prevented.' Pests will be assigned to this category if they are not established in Western Australia and control measures are to be taken, including border checks, in order to prevent them entering and establishing in the State.	In relation to a category 1 declared pest, the owner or occupier of land in an area for which an organism is a declared pest or a person who is conducting an activity on the land must take such of the control measures specified in subregulation (1) as are reasonable and necessary to destroy, prevent or eradicate the declared pest.
C2 (Eradication) '(b) Category 2 (C2) — Eradication: if in the opinion of the Minister eradication of the declared pest from an area or part of an area for which it is declared is feasible.' Pests will be assigned to this category if they are present in Western Australia in low enough numbers or in sufficiently limited areas that their eradication is still a possibility.	In relation to a category 2 declared pest, the owner or occupier of land in an area for which an organism is a declared pest or a person who is conducting an activity on the land must take such of the control measures specified in subregulation (1) as are reasonable and necessary to destroy, prevent or eradicate the declared pest.
C3 (Management) '(c) Category 3 (C3) — Management: if in the opinion of the Minister eradication of the declared pest from an area or part of an area for which it is declared is not feasible but that it is necessary to: **(i)** alleviate the harmful impact of the declared pest in the area; or **(ii)** reduce the number or distribution of the declared pest in the area; or **(iii)** prevent or contain the spread of the declared pest in the area.' Pests will be assigned to this category if they are established in Western Australia but it is feasible, or desirable, to manage them in order to limit their damage. Control measures can prevent a C3 pest from increasing in population size or density or moving from an area in which it is established into an area which currently is free of that pest.	In relation to a category 3 declared pest, the owner or occupier of land in an area for which an organism is a declared pest or a person who is conducting an activity on the land must take such of the control measures specified in subregulation (1) as are reasonable and necessary to: **(a)** alleviate the harmful impact of the declared pest in the area for which it is declared; or **(b)** reduce the number or distribution of the declared pest in the area for which it is declared; or **(c)** prevent or contain the spread of the declared pest in the area for which it is declared.

APPENDIX A4: OTHER DEFINITIONS

Environmentally sensitive areas

Environmentally sensitive areas are declared by the State Minister under section 51B of the *Environmental Protection Act 1986* (EP Act) and are listed in the *Environmental Protection (Environmentally Sensitive Areas) Notice 2005*, gazetted 8 April 2005. Specific environmentally sensitive areas relevant to this report include: a defined wetland and the area within 50 metres of the wetland; the area covered by vegetation within 50 metres of rare flora; the area covered by a threatened ecological community; a Bush Forever site – further areas and information are described in the *Environmental Protection (Environmentally Sensitive Areas) Notice 2005*.

Conservation significant flora

Under the *Environmental Factor Guideline: Flora and Vegetation* (Environmental Protection Authority 2016a), flora may be considered significant for a range of reasons, including, but not limited to the following:

- 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; or
- relictual status, being representative of taxonomic groups that no longer occur widely in the broader landscape.

Conservation significant vegetation

Under the *Environmental Factor Guideline: Flora and Vegetation* (Environmental Protection Authority 2016a), vegetation may be considered significant for a range of reasons, including, but not limited to the following:

- being identified as threatened or priority ecological communities;
- restricted distribution;
- degree of historical impact from threatening processes;
- a role as a refuge; or
- providing an important function required to maintain ecological integrity of a significant ecosystem.

APPENDIX A5: NVIS STRUCTURAL FORMATION TERMINOLOGY

Note: Adapted from Department of Climate Change, Energy, the Environment and Water (2017).

COVER CHARACTERISTICS							
Foliage cover*	70-100	30-70	10-30	<10	≈0	0-5	unknown
Crown cover**	>80	50-80	20-50	0.25-20	<0.25	0-5	unknown
% cover***	>80	50-80	20-50	0.25-20	<0.25	0-5	unknown
Cover code	d	c	i	r	bi	bc	unknown

GROWTH FORM	HEIGHT RANGES (m)	STRUCTURAL FORMATION CLASSES						
tree, palm	<10, 10-30, >30	closed forest	open forest	woodland	open woodland	isolated trees	isolated clumps of trees	trees
tree mallee	<3, <10, 10-30	closed mallee forest	open mallee forest	mallee woodland	open mallee woodland	isolated mallee trees	isolated clumps of mallee trees	mallee trees
shrub, cycad, grass-tree, tree-fern	<1, 1-2, >2	closed shrubland	shrubland	open shrubland	sparse shrubland	isolated shrubs	isolated clumps of shrubs	shrubs
mallee shrub	<3, <10, 10-30	closed mallee shrubland	mallee shrubland	open mallee shrubland	sparse mallee shrubland	isolated mallee shrubs	isolated clumps of mallee shrubs	mallee shrubs
heath shrub	<1, 1-2, >2	closed heathland	heathland	open heathland	sparse heathland	isolated heath shrubs	isolated clumps of heath shrubs	heath shrubs
chenopod shrub	<1, 1-2, >2	closed chenopod shrubland	chenopod shrubland	open chenopod shrubland	sparse chenopod shrubland	isolated chenopod shrubs	isolated clumps of chenopod shrubs	chenopod shrubs
samphire shrub	<0.5, >0.5	closed samphire shrubland	samphire shrubland	open samphire shrubland	spare samphire shrubland	isolated samphire shrubs	isolated clumps of samphire shrubs	samphire shrubs
hummock grass	<2, >2	closed hummock grassland	hummock grassland	open hummock grassland	sparse hummock grassland	isolated hummock grasses	isolated clumps of hummock grasses	hummock grasses
tussock grass	<0.5, >0.5	closed tussock grassland	tussock grassland	open tussock grassland	sparse tussock grassland	isolated tussock grassland	isolated clumps of tussock grasses	tussock grasses
other grass	<0.5, >0.5	closed grassland	grassland	open grassland	sparse grassland	isolated grasses	isolated clumps of grasses	other grasses
sedge	<0.5, >0.5	closed sedgeland	sedgeland	open sedgeland	sparse sedgeland	isolated sedges	isolated clumps of sedges	sedges
rush	<0.5, >0.5	closed rushland	rushland	open rushland	sparse rushland	isolated rushes	isolated clumps of rushes	rushes
forb	<0.5, >0.5	closed forbland	forbland	open forbland	sparse forbland	isolated forbs	isolated clumps of forbs	forbs
fern	<1, 1-2, >2	closed fernland	fernland	open fernland	sparse fernland	isolated ferns	isolated clumps of ferns	ferns
bryophyte	<0.5	closed bryophytelan d	bryophytelan d	open bryophytela nd	sparse bryophyteland	isolated bryophytes	isolated clumps of bryophytes	bryophytes
lichen	<0.5	closed lichenland	lichenland	open lichenland	sparse lichenland	isolated lichens	isolated clumps of lichens	lichens
vine	<10, 10-30, >30	closed vineland	vineland	open vineland	sparse vineland	isolated vines	isolated clumps of vines	vines
aquatic	0-0.5, <1	closed aquatic bed	aquatic bed	open aquatic bed	sparse aquatics	isolated aquatics	isolated clumps of aquatics	aquatics
seagrass	0-0.5, <1	closed seagrass bed	seagrass bed	open seagrass bed	sparse seagrasses	isolated seagrasses	isolated clumps of seagrasses	seagrasses

APPENDIX A6: DEFINITION OF VEGETATION CONDITION SCALE FOR THE EREMAEAN AND NORTHERN BOTANICAL PROVINCES

Vegetation condition ratings relate to vegetation structure, level of disturbance at each structural layer and the ability of the vegetation unit to regenerate (Table A5.1). Vegetation condition provides complementary information for assessing the significance of potential impacts.

Table A6.1 Definition of Vegetation Condition Categories

Note: Adapted from Trudgen (1998).

CATEGORY	DEFINITION
1 (Excellent)	Pristine or nearly so, no obvious sign of damage caused by human activities since European settlement.
2 (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.
3 (Good)	More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds.
4 (Poor)	Still retains basic vegetation structure or ability to regenerate after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.
5 (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 present including very aggressive species.
6 (Completely Degraded)	Areas that are completely of 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.

APPENDIX B: LOCATION OF SURVEY QUADRATS WITHIN THE COMMONWEALTH AND VENTNOR SURVEY AREAS, JULY 2022

SITE	LOCATION (GDA94 Z50)	
	EASTING (mE)	NORTHING (mN)
CW01	424610	6945593
CW02	425767	6945719
CW03	425743	6946039
CW04	425720	6946588
CW05	425110	6946367
CW06	425299	6946621
CW07	423706	6945819
CW08	425196	6945249
CW09	425381	6944946
CW10	424511	6944998
CW11	423786	6945227
CW12	424164	6944659
CW13	423725	6944623
CW14	425167	6944529
CW15	424364	6944235
CW16	424875	6944135
CW17	425431	6943908
CW18	425477	6942955
CW19	425318	6942357
CW20	424960	6942063
CW21	425141	6941934
CW22	425282	6941718
CW23	424631	6946357
CW24	424323	6945964
CW25	423848	6946712
CW26	423961	6943173
CW27	424366	6943894
CW28	423888	6943953
CW29	424748	6943320
CW30	425438	6943339
CW31	424477	6942449
CW32	424010	6942775
CW33	423937	6942010
CW34	424398	6941787
CW35	424273	6946737
CW36	424604	6942887
CW37	423924	6942295
CW38	424267	6942021
CW39	424319	6941525
CW40	424064	6941508
VT01	434492	6938322
VT02	433690	6938258
VT03	433571	6938512
VT04	433944	6937876
VT05	433466	6937646
VT06	433681	6937692
VT07	433725	6937486
VT08	434098	6937274
VT09	434071	6936969
VT10	433888	6937113
VT11	434423	6936693
VT12	434435	6938563
VT13	434538	6937216
VT14	433486	6936702

APPENDIX B: LOCATION OF SURVEY QUADRATS WITHIN THE COMMONWEALTH AND VENTNOR SURVEY AREAS, JULY 2022

SITE	LOCATION (GDA94 Z50)	
	EASTING (mE)	NORTHING (mN)
VT15	433431	6935676
VT16	433571	6936031
VT17	434200	6938292
VT18	434390	6937978
VT19	434392	6937469
VT20	433943	6936855
VT21	434512	6935674
VT22	434231	6935301
VT23	433785	6935355
VT24	433864	6935940
VT25	434105	6936528

APPENDIX C1: ASSESSMENT OF THREATENED AND PRIORITY FLORA POTENTIALLY PRESENT IN THE COMMONWEALTH AND VENTNOR SURVEY AREAS, JULY 2022

Note: Refer to Appendix A for State (SCC; Department of Biodiversity, Conservation and Attractions 2017a) and Federal (FCC; EPBC Act) conservation code definitions. IBRA Distribution: GAS – Gascoyne; MUR – Murchison; GVD – Great Victoria Desert; COO – Coolgardie; LSD – Little Sandy Desert. Likelihood of occurrence in survey area is based on a Low, Moderate or High ranking.

Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Picture Reference
Einadia nutans subsp. *nutans*	Chenopodiaceae	P3	x	Habit: Scrambling/ low domed perennial, shrub, 0.3-1 m high Flower colour: - Flowering period (indicated in green): J F M A M J J A S O N D Soils: Low stony hills. IBRA Distribution: COO Florabase records: 1 MCPL survey records: 2	**Low** Survey area contains suitable habitat. Only one specimen recorded in WA.	 Don & Betty Wood
Frankenia georgei	Frankeniaceae	P1	x	Habit: Small shrub. Flower colour: Fl. pink Flowering period (indicated in green): J F M A M J J A S O N D Soils: Rocky slopes IBRA Distribution: COO,MUR Florabase records: 7 MCPL survey records: 7	**Moderate** Survey area contains suitable habitat. Recorded in previous surveys.	 Wrigley, J.
Calytrix praecipua	Myrtaceae	P3	x	Habit: Shrub, 0.3-0.7 m high. Flower colour: Pink-white Flowering period (indicated in green): J F M A M J J A S O N D Soils: Skeletal sandy soils over granite or laterite. Breakaways, outcrops. IBRA Distribution: GAS,GVD,LSD,MUR Florabase records: 28 MCPL survey records: 2	**High** Survey area contains suitable habitat. Recorded in previous surveys.	 Kevin Thiele

APPENDIX C1: ASSESSMENT OF THREATENED AND PRIORITY FLORA POTENTIALLY PRESENT IN THE COMMONWEALTH AND VENTNOR SURVEY AREAS, JULY 2022

Note: Refer to Appendix A for State (SCC; Department of Biodiversity, Conservation and Attractions 2017a) and Federal (FCC; EPBC Act) conservation code definitions. IBRA Distribution: GAS – Gascoyne; MUR – Murchison; GVD – Great Victoria Desert; COO – Coolgardie; LSD – Little Sandy Desert. Likelihood of occurrence in survey area is based on a Low, Moderate or High ranking.

Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Picture Reference
Lysiandra baeckeoides	Phyllanthaceae	P3	x	Habit: Shrub, 0.5-1.5 m high. Flower colour: White-yellow/green-yellow Flowering period (indicated in green): J F M A M J **J** **A** **S** O N D Soils: Red lateritic & sandy clay soils. Granite outcrops. IBRA Distribution: GVD, MUR Florabase records: 31 MCPL survey records: 5	**High** Survey area contains suitable habitat. Recorded in previous surveys.	 Francis Jason
Mirbelia stipitata	Fabaceae	P3	x	Habit: Spiny shrub, 0.6 m high. Flower colour: Pink-Purple Flowering period (indicated in green): J F M A M J J **A** S O N D Soils: Red sandy loam. IBRA Distribution: MUR Florabase records: 2 MCPL survey records: 0	**Low** Survey area contains suitable habitat. Not recorded in previous surveys.	 P.G. Wilson
Eremophila pungens	Scrophulariaceae	P4	x	Habit: Erect, viscid shrub, 0.5-1.5 m high. Flower colour: Purple-violet Flowering period (indicated in green): J F M A M **J** **J** **A** S O N D Soils: Sandy loam, clayey sand over laterite. Plains, ridges, breakaways. IBRA Distribution: GAS,MUR,GVD Florabase records: 43 MCPL survey records: 100	**High** Survey area contains suitable habitat. Recorded in previous surveys.	 B Buirchell, M Hancock, K.R. Thiele

APPENDIX C1: ASSESSMENT OF THREATENED AND PRIORITY FLORA POTENTIALLY PRESENT IN THE COMMONWEALTH AND VENTNOR SURVEY AREAS, JULY 2022

Note: Refer to Appendix A for State (SCC; Department of Biodiversity, Conservation and Attractions 2017a) and Federal (FCC; EPBC Act) conservation code definitions. IBRA Distribution: GAS – Gascoyne; MUR – Murchison; GVD – Great Victoria Desert; COO – Coolgardie; LSD – Little Sandy Desert. Likelihood of occurrence in survey area is based on a Low, Moderate or High ranking.



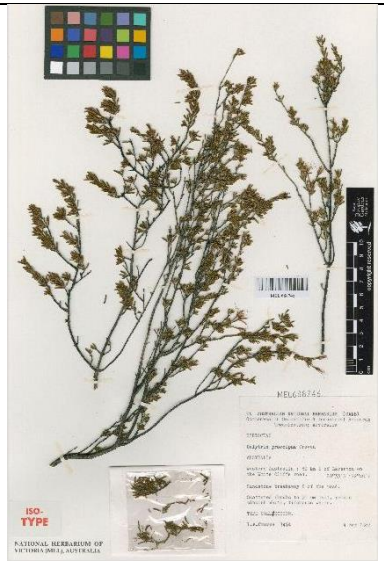
Einadia nutans subsp. nutans (ALA: Aliceh)



Einadia nutans subsp. nutans (ALA : Don & Betty Wood)



Calytrix praecipua (ALA: Kevin Thiele)



Calytrix praecipua (ALA: L.A. Craven)



Einadia nutans subsp. nutans (ALA: Michael Sim)



Eremophila pungens (Florabase)



Eremophila pungens (Field guide to Eremophilas of Western Australia)

APPENDIX C1: ASSESSMENT OF THREATENED AND PRIORITY FLORA POTENTIALLY PRESENT IN THE COMMONWEALTH AND VENTNOR SURVEY AREAS, JULY 2022

Note: Refer to Appendix A for State (SCC; Department of Biodiversity, Conservation and Attractions 2017a) and Federal (FCC; EPBC Act) conservation code definitions. IBRA Distribution: GAS – Gascoyne; MUR – Murchison; GVD – Great Victoria Desert; COO – Coolgardie; LSD – Little Sandy Desert. Likelihood of occurrence in survey area is based on a Low, Moderate or High ranking.



Lysiandra baeckeoides (P3) (Francis Jason)



Lysiandra baeckeoides (P3) (Francis Jason)

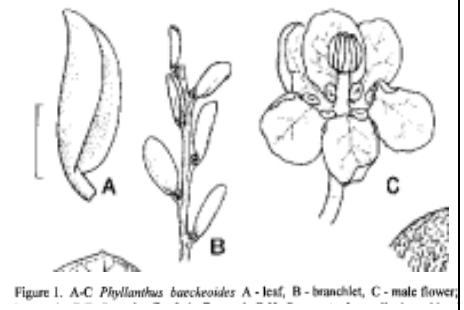
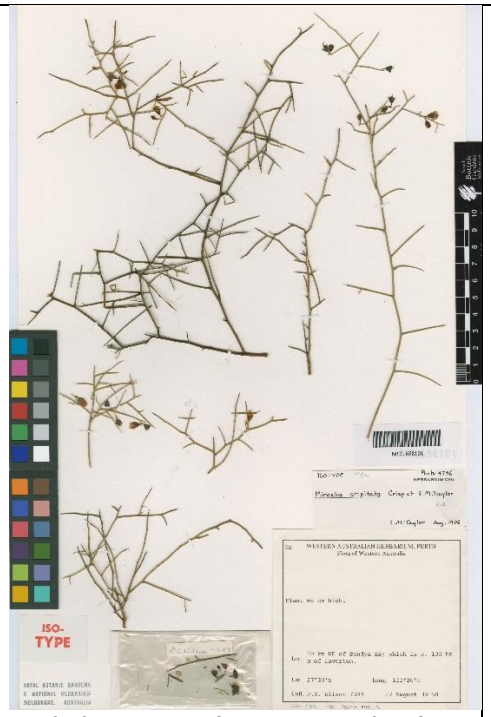


Figure 1. A-C *Phyllanthus baeckeoides* A - leaf, B - branchlet, C - male flower;

Lysiandra baeckeoides (P3) (Nuystia -Hunter 1997)



Frankenia georgei



Mirbelia stipitata (ALA: P.G. Wilson)

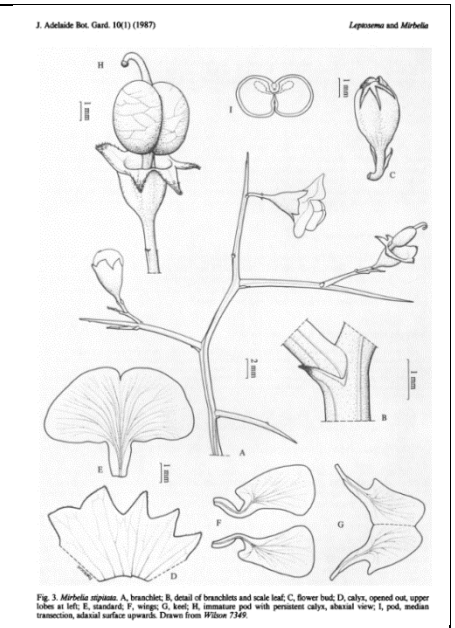


Fig. 3. *Mirbelia stipitata*. A, branchlet; B, detail of branchlets and scale leaf; C, flower bud; D, calyx, opened out, upper lobes at left; E, standard; F, wings; G, keel; H, immature pod with persistent calyx, abaxial view; I, pod, median transection, adaxial surface upwards. Drawn from *Wilson 7349*.

Mirbelia stipitata (Crisp & Taylor 1987)

APPENDIX C2: GEOGRAPHIC LOCATIONS PRIORITY SPECIES *Eremophila pungens* (P4) RECORDED IN COMMONWEALTH AND VENTNOR PROJECT AREAS

Note: P1-P4 denote priority flora (DBCA, 2022), Historical points reference OES 2007

SPECIES	CC	No. INDIVIDUALS	LOCATION (GDA94 Z51J)		SITE
			EASTING (mE)	NORTHING (mN)	
Eremophila pungens	P4	1	424366	6943894	CW27
Eremophila pungens	P4	8	424748	6943320	CW29
Eremophila pungens	P4	7	424960	6942063	CW20
Eremophila pungens	P4	3	425141	6941934	CW21
Eremophila pungens	P4	10	425318	6942357	CW19
Eremophila pungens	P4	3	425438	6943339	CW30
Eremophila pungens	P4	25	425477	6942955	CW18
Eremophila pungens	P4	6	433486	6936702	VT14
Eremophila pungens	P4	2	433725	6937486	VT07
Eremophila pungens	P4	3	434098	6937274	VT08
Eremophila pungens	P4	3	434231	6935301	VT22
Eremophila pungens	P4	4	434392	6937469	VT19
Eremophila pungens	P4	18	434435	6938563	VT12
Eremophila pungens	P4	7	434492	6938322	VT01
Eremophila pungens	P4	3	434512	6935674	VT21
Eremophila pungens	P4	4	434538	6937216	VT13
Eremophila pungens	P4	5	433567	6939660	Historical
Eremophila pungens	P4	5	433633	6939471	Historical
Eremophila pungens	P4	6	434099	6937497	Historical
Eremophila pungens	P4	4	434167	6937186	Historical
Eremophila pungens	P4	7	434208	6937030	Historical
Eremophila pungens	P4	1	434229	6936928	Historical
Eremophila pungens	P4	30	434270	6936760	Historical
Eremophila pungens	P4	1	434283	6936699	Historical
Eremophila pungens	P4	6	434279	6936883	Historical
Eremophila pungens	P4	8	434467	6935939	Historical
Eremophila pungens	P4	100+	434500	6935811	Historical
Eremophila pungens	P4	10	434551	6935588	Historical
Eremophila pungens	P4	8	434569	6935518	Historical
Eremophila pungens	P4	4	434588	6935454	Historical

APPENDIX D: ASSESSMENT OF INTRODUCED (WEED) FLORA POTENTIALLY PRESENT IN THE COMMONWEALTH AND VENTNOR SURVEY AREAS, JULY 2022

Note: WONS = Weeds of National Significance (Department of Agriculture, Water and the Environment 2020e); WAOL = Western Australian Organism List (Department of Primary Industries and Regional Development 2020). IBRA Distribution: AVW – Avon Wheatbelt; CAR – Carnarvon; CEK – Central Kimberley; COO – Coolgardie; DAL – Dampierland; ESP – Esperance Plains; GAS – Gascoyne; GES – Geraldton Sandplains; HAM – Hampton; JAF – Jarrah Forest; MAL – Mallee; NUL – Nullarbor; PIL – Pilbara; SWA – Swan Coastal Plain; VIB – Victoria Bonaparte; WAR - Warren. Likelihood of occurrence in survey area is based on a Low, Moderate or High ranking.

Species	WONS	WAOL legal status	WAOL Control Category	WAOL Keeping Category	Declared areas	Description and Habitat	Likelihood of Occurrence
**Bidens bipinnata*	No	Permitted – s11	-	-	-	Habit: Erect annual, herb, 0.1-0.9(-1.5) m high. Flower colour: Yellow Flowering period (indicated in green): J F M A **M J J A S** O N D Soils: Alluvium, clay, loam over sandstone, limestone. Along rivers & creeks, coastal areas, rocky hillsides. IBRA Distribution: CAR, GAS, LSD, MUR, NOK, OVP, PIL, YAL Florabase records: 34	Moderate
**Cenchrus ciliaris*	No	Permitted – s11	-	-	-	Habit: Tufted or sometimes stoloniferous perennial, grass-like or herb, 0.2-1.5 m high. Flower colour: Purple Flowering period (indicated in green): J **F M A M J J A S O** N D Soils: White, red or brown sand, stony red loam, black cracking clay. IBRA Distribution: AVN, CNV, CK, CR, COO, DAM, GAS, GSP, GD, GSD, LSD, MUR, NULL, OVP, PIL, SCP, TAN, VB, YAL Florabase records: 258	Moderate

APPENDIX D: ASSESSMENT OF INTRODUCED (WEED) FLORA POTENTIALLY PRESENT IN THE COMMONWEALTH AND VENTNOR SURVEY AREAS, JULY 2022

Note: WONS = Weeds of National Significance (Department of Agriculture, Water and the Environment 2020e); WAOL = Western Australian Organism List (Department of Primary Industries and Regional Development 2020). IBRA Distribution: AVW – Avon Wheatbelt; CAR – Carnarvon; CEK – Central Kimberley; COO – Coolgardie; DAL – Dampierland; ESP – Esperance Plains; GAS – Gascoyne; GES – Geraldton Sandplains; HAM – Hampton; JAF – Jarrah Forest; MAL – Mallee; NUL – Nullarbor; PIL – Pilbara; SWA – Swan Coastal Plain; VIB – Victoria Bonaparte; WAR - Warren. Likelihood of occurrence in survey area is based on a Low, Moderate or High ranking.

Species	WONS	WAOL legal status	WAOL Control Category	WAOL Keeping Category	Declared areas	Description and Habitat	Likelihood of Occurrence
**Carrichtera annua*	No	Permitted - s11	-	-	-	Habit: Erect annual, herb, 0.05-0.4 m high. Semi-arid regions. Flower colour: Yellow Flowering period (indicated in green): J F M A M J J A **S O N** D Soils: IBRA Distribution: AVW, CNV, CR, COO, ESP, GVD, HAM, JAF, MAL, MUR, NUL Florabase records: 74	Low
**Chenopodium murale*	No	Permitted - s11	-	-	-	Habit: Erect, much-branched annual, herb, 0.2-1 m high. Flower colour: Green Flowering period (indicated in green): J F M **A M J J A S O N D** Soils: Agricultural weed, cultivated & disturbed areas, coastal sites. IBRA Distribution: AVW, CAR, COO, ESP, GAS, GES, HAM, JAF, MAL, MUR, NUL, PIL, SCP, WAR, YAL Florabase records: 117	Moderate

APPENDIX D: ASSESSMENT OF INTRODUCED (WEED) FLORA POTENTIALLY PRESENT IN THE COMMONWEALTH AND VENTNOR SURVEY AREAS, JULY 2022

Note: WONS = Weeds of National Significance (Department of Agriculture, Water and the Environment 2020e); WAOL = Western Australian Organism List (Department of Primary Industries and Regional Development 2020). IBRA Distribution: AVW – Avon Wheatbelt; CAR – Carnarvon; CEK – Central Kimberley; COO – Coolgardie; DAL – Dampierland; ESP – Esperance Plains; GAS – Gascoyne; GES – Geraldton Sandplains; HAM – Hampton; JAF – Jarrah Forest; MAL – Mallee; NUL – Nullarbor; PIL – Pilbara; SWA – Swan Coastal Plain; VIB – Victoria Bonaparte; WAR - Warren. Likelihood of occurrence in survey area is based on a Low, Moderate or High ranking.

Species	WONS	WAOL legal status	WAOL Control Category	WAOL Keeping Category	Declared areas	Description and Habitat	Likelihood of Occurrence
**Malvastrum americanum*	No	Permitted - s11	-	-	-	Habit: Erect perennial, herb or shrub, 0.5-1.3 m high. Flower colour: Yellow-Orange Flowering period (indicated in green): J F M **A M J J** A S O N D Soils: Orange/red/yellow sands, gritty alluvial sand, black/brown clay, alluvial cracking clays, limestone, calcrete. Stony ridges and hillsides, floodplains, along drainage lines. IBRA Distribution: CAR, CEK, CER, DAL, GAS, GSD, LSD, MUR, NUL, OVP, PIL, VIB. Florabase records: 134	Moderate
**Mesembryanthemum crystallinum*	No	Permitted - s11	-	-	-	Habit: Prostrate, succulent annual or biennial, herb, 0.1-0.15 m high. Flower colour: White Flowering period (indicated in green): J F M A M J J A **S** (Soils: Sand, clay loam. Coastal sand dunes, saline flats, roadsides. IBRA Distribution: AVW, CAR, COO, ESP, GES, HAM, LSD, MAL, MUR, NUL, SCP, YAL. Florabase records: 51	Moderate

APPENDIX D: ASSESSMENT OF INTRODUCED (WEED) FLORA POTENTIALLY PRESENT IN THE COMMONWEALTH AND VENTNOR SURVEY AREAS, JULY 2022

Note: WONS = Weeds of National Significance (Department of Agriculture, Water and the Environment 2020e); WAOL = Western Australian Organism List (Department of Primary Industries and Regional Development 2020). IBRA Distribution: AVW – Avon Wheatbelt; CAR – Carnarvon; CEK – Central Kimberley; COO – Coolgardie; DAL – Dampierland; ESP – Esperance Plains; GAS – Gascoyne; GES – Geraldton Sandplains; HAM – Hampton; JAF – Jarrah Forest; MAL – Mallee; NUL – Nullarbor; PIL – Pilbara; SWA – Swan Coastal Plain; VIB – Victoria Bonaparte; WAR - Warren. Likelihood of occurrence in survey area is based on a Low, Moderate or High ranking.

Species	WONS	WAOL legal status	WAOL Control Category	WAOL Keeping Category	Declared areas	Description and Habitat	Likelihood of Occurrence
** Sagina apetala*	No	Permitted - s11	-	-	-	Habit: Erect or ascending annual, herb, 0.02-0.4 m high Flower colour: Green Flowering period (indicated in green): J F M A M J **J A S O N** D Soils: Sandy soils. IBRA Distribution: AVW, COO, ESP, JAF, MAL, SCP, WAR. Florabase records: 33	Moderate
** Sonchus oleraceus*	No	Permitted - s11	-	-	-	Habit: Erect annual, herb, to 1.5 m high. Flower colour: Yellow Flowering period (indicated in green): **J F M A M J J A S O N D** Soils: Weed of waste places & disturbed ground. IBRA Distribution: AVW, CAR, CER, COO, DAL, ESP, GAS, GES, GVD, HAM, ITI, JAF, LSD, MAL, MUR, NUL, OVP, PIL, SCP, VIB, WAR, YAL. Florabase records: 429	Moderate

APPENDIX D: ASSESSMENT OF INTRODUCED (WEED) FLORA POTENTIALLY PRESENT IN THE COMMONWEALTH AND VENTNOR SURVEY AREAS, JULY 2022

Note: WONS = Weeds of National Significance (Department of Agriculture, Water and the Environment 2020e); WAOL = Western Australian Organism List (Department of Primary Industries and Regional Development 2020). IBRA Distribution: AVW – Avon Wheatbelt; CAR – Carnarvon; CEK – Central Kimberley; COO – Coolgardie; DAL – Dampierland; ESP – Esperance Plains; GAS – Gascoyne; GES – Geraldton Sandplains; HAM – Hampton; JAF – Jarrah Forest; MAL – Mallee; NUL – Nullarbor; PIL – Pilbara; SWA – Swan Coastal Plain; VIB – Victoria Bonaparte; WAR - Warren. Likelihood of occurrence in survey area is based on a Low, Moderate or High ranking.

Species	WONS	WAOL legal status	WAOL Control Category	WAOL Keeping Category	Declared areas	Description and Habitat	Likelihood of Occurrence
* *Tamarix aphylla*	Yes	Declared Pest - s22(2)	-	Exempt	Whole of state	Habit: Tree, to 12 m high. Flower colour: Pink- white Flowering period (indicated in green): J F M A M J J A S O N D Soils: Along river banks. IBRA Distribution: AVW, CNV, CK, GSP, MALL, SCP Florabase records: 16	Low

APPENDIX E: VASCULAR PLANT SPECIES POTENTIALLY AND RECORDED WITHIN THE VENTNOR AND COMMONWEALTH SURVEY AREAS, REGIS RESOURCES, 2022.

Note: * denotes introduced species; T denotes threatened flora and P1-P4 denote priority flora species; A/P denotes annual or perrenial; and lifeforms are described as follows H: Herbs, S: Shrubs, C: Climbers, T: Trees, F: Ferns, AS: Aerial Shrubs and G: Grass; (DBCA 2022d; Western Australian Herbarium, 1998-; see also Appendix A). Feild survey results from Outback Ecology Services [OES], 2007, Maia Ecological Consulting [MEC] 2013, Mattiske Consulting Pty Ltd 2009-2022 (see full reference list).

FAMILY	SPECIES	A/P	LIFEFORM	PRIORITY	OES 2007	MEC 2013	MPCL Field Surveys													
							2009	2010	2012a	2012b	2013	2015	2016	2017	2018a	2018b	2021a	2021b	2021c	2022
AIZOACEAE	* *Carpobrotus aequilaterus*	P	H										X							
	Carpobrotus sp.	P	S									X								
	Disphyma crassifolium	P	S		X															
	Gunniopsis propinqua	A	H										X							
	Gunniopsis quadrifida	P	S									X								
	* *Mesembryanthemum crystallinum*	A	H					X												
	Trianthema triquetrum	A	H										X							
AMARANTHACEAE	*Alternanthera denticulata*	A	H														X			
	Alternanthera nodiflora	A	H					X	X			X					X		X	
	Ptilotus aervoides	A	H		X					X			X	X						
	Ptilotus divaricatus	A	H					X				X								
	Ptilotus drummondii	A	H								X									
	Ptilotus drummondii var. *minor*	P	H						X	X										
	Ptilotus exaltatus	P	S		X								X							
	Ptilotus gaudichaudii	A	H						X				X						X	
	Ptilotus helipteroides	A	H											X		X	X		X	
	Ptilotus nobilis	A	H						X			X		X	X					
	Ptilotus obovatus	P	S		X	X	X	X	X	X	X		X	X	X	X	X	X	X	X
	Ptilotus obovatus var. *obovatus*	P	S									X	X							
	Ptilotus schwartzii	P	S		X	X									X	X	X	X	X	X
	Ptilotus schwartzii var. *georgei*	P	S					X				X	X							
	Ptilotus schwartzii var. *schwartzii*	P	S				X	X		X	X			X							
	Ptilotus sp.	A	H									X								X
	Surreya diandra	P	S		X				X			X	X							
APOCYNACEAE	*Alyxia buxifolia*	P	S									X								
	Leichhardtia australis	P	C		X	X		X	X		X	X	X	X			X			
	Vincetoxicum lineare	P	C									X	X	X	X	X	X		X	
	Apocynaceae sp.	P	S									X								

APPENDIX E: VASCULAR PLANT SPECIES POTENTIALLY AND RECORDED WITHIN THE VENTNOR AND COMMONWEALTH SURVEY AREAS, REGIS RESOURCES, 2022.

Note: * denotes introduced species; T denotes threatened flora and P1-P4 denote priority flora species; A/P denotes annual or perrenial; and lifeforms are described as follows H: Herbs, S: Shrubs, C: Climbers, T: Trees, F: Ferns, AS: Aerial Shrubs and G: Grass; (DBCA 2022d; Western Australian Herbarium, 1998-; see also Appendix A). Feild survey results from Outback Ecology Services [OES], 2007, Maia Ecological Consulting [MEC] 2013, Mattiske Consulting Pty Ltd 2009-2022 (see full reference list).

FAMILY	SPECIES	A/P	LIFEFORM	PRIORITY	OES 2007	MEC 2013	MPCL Field Surveys												
							2009	2010	2012a	2012b	2013	2015	2016	2017	2018a	2018b	2021a	2021b	2021c	2022
ASCLEPIADACEAE	*Leichhardtia australis*	P	C																	X
ASTERACEAE	*Angianthus tomentosus*	A	H					X												
	* *Bidens bipinnata*	A	H									X								
	Brachyscome ciliaris	A	H		X				X			X	X	X						
	Brachyscome sp.	A	H										X							
	Calocephalus knappii	A	H										X							
	Calocephalus multiflorus	A	H										X							
	Calotis hispidula	A	H					X					X	X						
	Centipeda minima	A	H														X			
	Centipeda thespidioides	A	H					X				X	X							
	Centipeda sp.	A	H											X						
	Cephalipterum drummondii	A	H										X							
	Cratystylis subspinescens	P	S		X	X		X				X	X	X			X			
	Erodiophyllum acanthocephalum	P	H			X														
	Erymophyllum ?compactum	A	H									X								
	Erymophyllum ?ramosum	A	H					X												
	Erymophyllum ramosum subsp. *ramosum*	A	H										X							
	Gnephosis arachnoidea	A	H					X				X	X							
	Gnephosis sp.	A	H		X								X							
	Hyalosperma glutinosum subsp. *venustum*	A	H		X															
	Myriocephalus rudallii	A	H										X							
	Olearia calcarea	P	S		X															
	Olearia decurrens	P	S		X															
	Olearia humilis	P	S			X							X							
	Olearia incana	P	S		X															
	Olearia muelleri	P	S									X	X							
	Olearia stuartii	P	S														X			
	Panaetia lessonii	A	H						X											
	Pluchea dentex	P	H		X							X					X		X	

APPENDIX E: VASCULAR PLANT SPECIES POTENTIALLY AND RECORDED WITHIN THE VENTNOR AND COMMONWEALTH SURVEY AREAS, REGIS RESOURCES, 2022.

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FAMILY	SPECIES	A/P	LIFEFORM	PRIORITY	OES 2007	MEC 2013	MPCL Field Surveys												
							2009	2010	2012a	2012b	2013	2015	2016	2017	2018a	2018b	2021a	2021b	2021c	2022
ASTERACEAE	*Pluchea* sp.	A/P	H															X		
(continued)	*Pogonolepis stricta*	A	H									X	X							
	Rhodanthe charsleyae	A	H										X							
	Rhodanthe floribunda	A	H					X												
	Rhodanthe maryonii	A	H					X												
	Rhodanthe propinqua	A	H										X	X						
	Rhodanthe sp.	A	H					X				X								
	Senecio lacustrinus	A	H									X								
	Senecio magnificus	P	H									X								
	Siemssenia capillaris	A	H										X							
	* *Sonchus oleraceus*	A	H									X		X						
	Streptoglossa cylindriceps	A	H									X	X							
	Streptoglossa liatroides	P	H					X				X		X						
	Vittadinia humerata	A	H						X					X						
	Vittadinia sulcata	A	H					X												
	Vittadinia sp.	A	H									X	X							
	Walshia kendallii	A	H									X	X							
	Asteraceae sp.	A	H					X		X	X	X	X							
BORAGINACEAE	*Euploca moorei*	A	H			X											X		X	
	Halgania cyanea	P	S		X															
	Halgania erecta	P	S		X															
	Halgania sp.	A	H									X								
BRASSICACEAE	*Lepidium platypetalum*	P	S						X	X		X	X	X						
	Brassicaceae sp.	A	H									X								
CAMPANULACEAE	*Isotoma petraea*	P	S							X		X					X			
	Wahlenbergia tumidifructa	A	H					X				X		X						
	Wahlenbergia sp.	A	H		X			X					X				X			X

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							2009	2010	2012a	2012b	2013	2015	2016	2017	2018a	2018b	2021a	2021b	2021c	2022
CARYOPHYLLACEAE	* *Sagina apetala*	A	H						X											
CASUARINACEAE	*Allocasuarina huegeliana*	P	T			X														
	Allocasuarina sp.	P	T						X								X			
	Casuarina obesa	P	T									X								
	Casuarina pauper	P	T		X							X	X	X						
CHENOPODIACEAE	*Atriplex bunburyana*	P	S		X	X														
	Atriplex codonocarpa	A/P	H		X	X								X						
	Atriplex ?*nana*	P	S									X								
	Atriplex nummularia	P	S						X	X										
	Atriplex semilunaris	P	H							X										
	Atriplex spongiosa	P	S										X							
	Atriplex vesicaria	P	S					X		X										
	Atriplex sp.	P	S									X	X	X			X		X	
	* *Chenopodium murale*	A	H									X								
	Chenopodium sp.	A	H									X	X							
	Dissocarpus paradoxus	P	S		X	X								X	X	X	X		X	
	Dysphania glandulosa	A	H											X						
	Dysphania kalpari	A	H										X							
	Dysphania melanocarpa	A	H											X						
	Dysphania sp.	A	H									X	X							
	Einadia nutans subsp. *eremaea*	P	H									X								
	Einadia nutans subsp. *nutans*	P	H	P3										X						
	Enchylaena lanata	P	S									X					X		X	X
	Enchylaena tomentosa	P	S										X		X	X				X
	Enchylaena tomentosa var. *tomentosa*	P	S			X	X	X	X	X	X	X	X	X						
	Enchylaena sp.	P	S						X											X
	Eriochiton sclerolaenoides	P	S					X				X								
	Maireana amoena	P	S										X							

APPENDIX E: VASCULAR PLANT SPECIES POTENTIALLY AND RECORDED WITHIN THE VENTNOR AND COMMONWEALTH SURVEY AREAS, REGIS RESOURCES, 2022.

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							2009	2010	2012a	2012b	2013	2015	2016	2017	2018a	2018b	2021a	2021b	2021c	2022
CHENOPODIACEAE (continued)	*Maireana appressa*	P	S									X					X			
	Maireana carnosa	P	H						X	X	X	X	X	X						
	Maireana convexa	P	S		X						X	X	X				X		X	
	Maireana georgei	P	S		X		X	X				X	X							X
	Maireana glomerifolia	P	S									X	X			X	X			X
	Maireana planifolia	P	S					X												
	Maireana platycarpa	P	S										X							
	Maireana pyramidata	P	S		X	X		X	X	X		X	X			X				
	Maireana sedifolia	P	S														X			
	Maireana thesioides	P	S			X														
	Maireana tomentosa	P	S		X															
	Maireana tomentosa subsp. *tomentosa*	P	S			X	X	X					X							
	Maireana trichoptera	P	S									X					X		X	
	Maireana triptera	P	S		X	X	X		X	X		X	X	X		X	X	X	X	
	Maireana villosa	P	S			X			X				X	X			X		X	
	Maireana sp.	P	S					X	X	X		X	X	X			X		X	X
	Rhagodia drummondii	P	S		X	X	X	X	X	X	X	X	X							
	Rhagodia eremaea	P	S		X								X	X	X		X		X	X
	Rhagodia ?spinescens	P	S														X		X	
	Rhagodia sp.	P	S									X	X				X			X
	Roycea divaricata	P	S		X							X					X			
	Salsola australis	P	S		X	X		X	X	X			X	X						
	Sclerolaena bicornis	P	S										X							
	Sclerolaena brevifolia	P	S		X															
	Sclerolaena cuneata	P	H		X	X		X		X		X	X	X						X
	Sclerolaena densiflora	P	H							X			X							
	Sclerolaena diacantha	P	H		X	X			X			X				X				X
	Sclerolaena eriacantha	P	H		X	X		X	X	X				X			X			X
	Sclerolaena eurotioides	P	H		X			X				X	X							
	Sclerolaena fusiformis	P	H						X	X			X	X			X		X	

APPENDIX E: VASCULAR PLANT SPECIES POTENTIALLY AND RECORDED WITHIN THE VENTNOR AND COMMONWEALTH SURVEY AREAS, REGIS RESOURCES, 2022.

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							2009	2010	2012a	2012b	2013	2015	2016	2017	2018a	2018b	2021a	2021b	2021c	2022
CHENOPODIACEAE	*Sclerolaena microcarpa*	P	H										X							
(continued)	*Sclerolaena* sp.	P	H			X						X					X			
	Tecticornia ?*disarticulata*	P	S														X		X	
	Tecticornia doliiformis	P	S		X															
	Tecticornia pergranulata	P	S		X			X	X	X										
	Tecticornia sp.	P	S			X						X	X	X						
	Chenopodiaceae sp.	A	H									X	X	X			X			X
CLEOMACEAE	*Arivela viscosa*	P	S														X			
CONVOLVULACEAE	*Convolvulus angustissimus* subsp. *angustissimus*	P	H			X														
	Duperreya commixta	P	C			X		X		X			X	X			X		X	X
	Duperreya sericea	P	C		X		X													X
	Duperreya sp.	P	C												X					
	Convolvulaceae sp.	A	H									X		X						
CYPERACEAE	*Bulbostylis barbata*	A	G/H		X															
	Cyperus iria	A	H											X						
	Cyperus ?*rigidellus*	A	H					X												
	Cyperus sp.	A	H														X			
	Fimbristylis dichotoma	P	G						X					X	X	X				
	Fimbristylis sp.	P	G		X															
EUPHORBIACEAE	*Euphorbia boophthona*	A/P	H														X		X	
	Euphorbia drummondii	P	H					X	X					X			X		X	
	Euphorbia sp.	A	H			X						X	X							
	Monotaxis luteiflora	P	S					X												

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							2009	2010	2012a	2012b	2013	2015	2016	2017	2018a	2018b	2021a	2021b	2021c	2022
FABACEAE	*Acacia abrupta*	P	S		X															
	Acacia aneura	P	S		X	X	X	X	X	X	X	X	X				X	X	X	X
	Acacia aneura x *craspedocarpa*	P	S/T			X														
	Acacia aptaneura	P	S			X		X					X				X	X	X	X
	Acacia ayersiana	P	T				X	X						X			X	X	X	
	Acacia burkittii	P	S		X	X		X	X	X	X	X	X	X	X	X	X		X	
	Acacia caesaneura	P	S		X	X	X	X		X		X	X	X		X		X	X	X
	Acacia ?caesaneura (narrow phyllode variant)	P	T									X								
	Acacia craspedocarpa	P	S		X	X		X	X	X	X	X	X	X	X		X	X	X	X
	Acacia craspedocarpa (hybrid)	P	T									X								
	Acacia craspedocarpa x *ramulosa*	P	S										X							
	Acacia ?cuthbertsonii	P	S						X											
	Acacia donaldsonii	P	S						X			X								
	Acacia duriuscula	P	S/T																	X
	Acacia ?effusifolia	P	S/T														X			
	Acacia ?erinacea	P	S									X								
	Acacia fuscaneura	P	T			X	X													X
	Acacia incurvaneura	P	S		X	X	X		X	X	X	X	X	X	X	X	X		X	X
	Acacia jennerae	P	T		X															
	Acacia kempeana	P	S		X				X				X				X			
	Acacia ligulata	P	S									X	X			X				
	Acacia macraneura	P	S		X							X		X			X			
	Acacia melleodora	P	S									X								
	Acacia minyura	P	S					X			X	X						X		X
	Acacia mulganeura	P	S			X			X	X		X	X	X	X	X	X	X	X	
	Acacia murrayana	P	T									X								
	Acacia oswaldii	P	S			X		X		X		X	X	X			X			X
	Acacia pachyacra	P	S/T		X															
	Acacia papyrocarpa	P	S/T		X															
	Acacia prainii	P	S/T		X															

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							2009	2010	2012a	2012b	2013	2015	2016	2017	2018a	2018b	2021a	2021b	2021c	2022
FABACEAE (continued)	*Acacia pteraneura*	P	S		X		X	X	X		X	X	X	X	X	X	X	X	X	X
	Acacia quadrimarginea	P	S		X	X		X	X	X		X	X	X		X	X	X	X	X
	Acacia ramulosa	P	S															X		
	Acacia ramulosa var. *linophylla*	P	S		X	X	X	X					X							X
	Acacia ramulosa var. *ramulosa*	P	S			X		X												
	Acacia resinimarginea	P	S												X					X
	Acacia resinosa	P	T						X											
	Acacia rigens	P	S										X	X				X		
	Acacia sibina	P	S											X						
	Acacia sibirica	P	T			X				X										
	Acacia tetragonophylla	P	S		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Acacia victoriae	P	S										X	X						
	Acacia victoriae subsp. *victoriae*	P	S					X	X	X		X								
	Acacia section Juliflorae	P	S									X	X	X	X	X				
	Acacia sp.	P	S		X						X	X	X		X					
	Fimbristylis depauperata	A	G		X															
	Glycine canescens	P	C						X								X	X	X	
	Glycine sp.	P	C														X			
	Indigofera georgei	P	S			X							X	X						
	Indigofera sp.	P	S					X												
	Kennedia prorepens	P	S		X															
	Leptosema chambersii	P	S		X															
	Mirbelia microphylla	P	S			X														
	Mirbelia rhagodioides	P	S		X			X	X				X			X	X			
	Mirbelia sp.	P	S									X							X	
	Senna artemisioides	P	S					X					X		X	X	X	X	X	X
	Senna artemisioides subsp. ×*artemisioides*	P	S		X	X		X	X	X		X	X	X	X					X
	Senna artemisioides subsp. ×*sturtii*	P	S		X					X		X		X				X	X	X	
	Senna artemisioides subsp. *coriacea*	P	S																	X
	Senna artemisioides subsp. *filifolia*	P	S		X	X	X	X	X	X		X	X	X	X	X	X			X	X

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FABACEAE	*Senna artemisioides* subsp. *helmsii* x *oligophylla*	P	S																	X
(continued)	*Senna artemisioides* subsp. *oligophylla*	P	S										X				X			
	Senna artemisioides subsp. *oligophylla* x*helmsii*	P	S			X														
	Senna artemisioides subsp. *petiolaris*	P	S								X			X			X		X	
	Senna ?*artemisioides* subsp. *helmsii*	P	S									X					X			
	Senna cardiosperma	P	S		X	X				X		X					X		X	
	Senna charlesiana	P	S			X		X				X	X	X						
	Senna glaucifolia	P	S		X		X					X	X	X			X			X
	Senna glutinosa subsp. *chatelainiana*	P	S				X													X
	Senna ?*glutinosa* subsp. ×*luerssenii*	P	S									X								
	Senna stowardii	P	S													X		X	X	
	Senna ?*symonii*	P	S									X					X			
	Senna ?sp. Billabong (J.D. Alonzo 721)	P	S												X					
	Senna sp. Meekatharra (E. Bailey 1-26)	P	S		X	X			X	X			X			X	X	X	X	X
	Senna sp.	P	S						X				X	X		X	X	X	X	
	Swainsona kingii	A/P	H											X						
	Templetonia incrassata	P	S									X				X				
	Fabaceae sp.	P	S									X							X	
FRANKENIACEAE	*Frankenia fecunda*	P	S		X	X				X		X	X	X			X			X
	Frankenia georgei	P	S	P1					X											
	Frankenia interioris var. *parviflora*	P	S														X		X	
	Frankenia laxiflora	P	S									X								
	Frankenia pauciflora	P	S		X															
	Frankenia setosa	P	S		X			X		X		X	X						X	
	Frankenia sp.	P	S										X			X				X
GENTIANACEAE	*Schenkia australis*	A	H									X								

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GERANIACEAE	*Erodium cygnorum*	A/P	H				X							X						
	Erodium sp.	A	H										X				X			X
	Geraniaceae sp.	A/P	H															X		
GOODENIACEAE	*Brunonia australis*	P	H						X											
	Goodenia maideniana	A	H						X		X		X							
	Goodenia mimuloides	A	H														X	X		
	Goodenia peacockiana	A	H		X															
	Goodenia pinnatifida	A	H					X												
	Goodenia rosea	A	H														X			
	Goodenia sp.	A	H									X	X	X						
	Scaevola spinescens	P	S		X	X	X				X	X	X	X	X	X	X		X	X
	Goodeniaceae sp.	A	H									X					X		X	
HALORAGACEAE	*Haloragis trigonocarpa*	A	H		X															
HEMEROCALLIDACEAE	*Dianella revoluta*	P	H		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Dianella revoluta var. *divaricata*	P	H			X														
JUNCACEAE	*Juncus aridicola*	P	H									X								
LAMIACEAE	*Hemigenia* sp.	P	S		X															
	* *Microcorys macredieanus*	P	S		X															
	Newcastelia hexarrhena	P	S		X															
	Prostanthera althoferi subsp. *althoferi*	P	S		X	X				X			X		X					
	Prostanthera wilkieana	P	S		X															
	Teucrium teucriiflorum	P	S		X	X	X	X	X	X	X	X	X		X	X	X			X
	Teucrium sp.	P	S														X	X	X	
	Lamiaceae sp.	P	S										X		X					

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FAMILY	SPECIES	A/P	LIFEFORM	PRIORITY	OES 2007	MEC 2013	MPCL Field Surveys												
							2009	2010	2012a	2012b	2013	2015	2016	2017	2018a	2018b	2021a	2021b	2021c	2022
LAURACEAE	*Cassytha* sp.	P	C										X							
LORANTHACEAE	*Amyema fitzgeraldii*	P	AS					X												
	Amyema miquelli	P	AS																	X
	Amyema sp.	P	AS						X		X		X							
	Lysiana casuarinae	P	AS				X	X				X	X	X		X			X	
	Lysiana exocarpi subsp. *exocarpi*	P	S										X							
	Lysiana murrayi	P	AS						X			X								
	Lysiana sp.	P	S										X							
MALVACEAE	*Abutilon cryptopetalum*	P	S		X	X		X	X				X	X			X	X	X	
	Abutilon fraseri	P	S						X					X						
	Abutilon sp.	P	S						X		X	X			X		X		X	
	Alyogyne pinoniana	P	S		X															
	Brachychiton gregorii	P	T		X	X											X			
	Commersonia sp.	P	S		X															
	Corchorus sp.	P	S																	X
	Hibiscus burtonii	P	S			X			X	X			X	X						
	Hibiscus solanifolius	P	S			X														
	Hibiscus sp.	P	S							X		X								
	Lawrencia chrysoderma	P	S									X								
	Lawrencia densiflora	P	H					X									X			
	Lawrencia ?diffusa	P	H										X							
	Lawrencia helmsii	P	S		X															
*	*Malvastrum americanum*	P	H							X				X						
	Sida calyxhymenia	P	S		X		X	X									X	X	X	X
	Sida ectogama	P	S			X					X		X	X					X	
	Sida fibulifera	P	S		X	X			X		X			X						
	Sida sp. dark green fruits (S. van Leeuwen 2260)	P	H			X			X					X						
	Sida sp. Excedentifolia (J.L. Egan 1925)	P	S		X	X						X								

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							2009	2010	2012a	2012b	2013	2015	2016	2017	2018a	2018b	2021a	2021b	2021c	2022
MALVACEAE	*Sida* sp. Golden calyces glabrous (H.N. Foote 32)	P	S			X							X	X						
(continued)	*Sida* sp. tiny glabrous fruit (A.A. Mitchell PRP1152)	P	H														X		X	
	Sida sp.	P	H		X				X	X	X	X	X	X	X	X	X	X	X	X
	Malvaceae sp.	P	S							X		X	X							
MARSILEACEAE	*Marsilea drummondii*	P	H		X			X												
	Marsilea hirsuta	P	F										X				X			
MONTIACEAE	*Calandrinia ?crispisepala*	P	H										X							
	Calandrinia eremaea	A	H		X															
	Calandrinia pumila	A	H					X						X						
	Calandrinia translucens	A/P	H									X	X							
	Calandrinia sp.	A	H									X	X				X			
MYRTACEAE	*Aluta maisonneuvei* subsp. *auriculata*	P	S		X															
	Baeckea sp.	P	S														X			
	Calytrix praecipua	P	S	P3								X					X			
	Calytrix uncinata	P	S										X							
	Enekbatus eremaeus	P	S		X															
	Eucalyptus camaldulensis	P	T														X			
	Eucalyptus clelandiorum	P	T										X							
	Eucalyptus eremicola	P	T		X															
	Eucalyptus gongylocarpa	P	T		X															
	Eucalyptus horistes	P	T					X												
	Eucalyptus kingsmillii	P	T		X													X		
	Eucalyptus lucasii	P	T					X					X							
	Eucalyptus oleosa subsp. *oleosa*	P	T									X								
	Eucalyptus ?platycorys	P	T										X							
	Eucalyptus plumula	P	T		X															

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							2009	2010	2012a	2012b	2013	2015	2016	2017	2018a	2018b	2021a	2021b	2021c	2022
MYRTACEAE	*Hysterobaeckea occlusa*	P	S		X	X		X		X		X						X		X
(continued)	*Melaleuca interioris*	P	S		X															
	Melaleuca leiocarpa	P	S			X		X											X	
	Melaleuca xerophila	P	S/T		X															
	Melaleuca sp.	P	S					X				X								
NYCTAGINACEAE	*Boerhavia coccinea*	A	H									X					X			
OXALIDACEAE	*Oxalis perennans*	P	H												X					
	Oxalis sp.	P	H														X			
PHRYMACEAE	*Peplidium aithocheilum*	A	H		X															
PHYLLANTHACEAE	*Dendrophyllanthus erwinii*	P	H											X			X		X	
	Lysiandra baeckeoides	P	S	P3	X	X						X								
PITTOSPORACEAE	*Pittosporum angustifolium*	P	S/T						X			X	X							
	?*Pittosporum* sp.	P	T									X								
PLANTAGINACEAE	*Plantago debilis*	A	H											X						
	Plantago drummondii	A	H										X							
POACEAE	*Aristida contorta*	A	G		X	X		X	X	X	X	X	X	X	X	X	X		X	
	Aristida holathera	P	G				X		X					X						
	Aristida inaequiglumis	P	G					X				X								
	Aristida obscura	P	G			X						X	X	X	X					
	Aristida sp.	A	G		X								X			X				
	Austrostipa elegantissima	P	G		X			X		X		X	X				X			
	Austrostipa trichophylla	P	G					X	X											
	Austrostipa sp.	P	G		X															

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							2009	2010	2012a	2012b	2013	2015	2016	2017	2018a	2018b	2021a	2021b	2021c	2022
POACEAE (continued)	*Chloris truncata*	P	G											X						
	Cymbopogon ambiguus	P	G			X								X			X			
	Dactyloctenium radulans	A	G		X							X		X			X		X	
	Digitaria ?ammophila	P	G		X															
	Digitaria brownii	P	G			X						X	X	X			X		X	
	Digitaria sp.	P	G															X		
	?*Diplachne fusca*	P	G										X							
	Enneapogon caerulescens	A	G		X	X	X	X	X	X	X	X	X	X		X	X		X	
	Enneapogon polyphyllus	A	G		X					X			X	X			X		X	
	Enteropogon ramosus	P	G		X				X			X	X	X		X	X		X	
	Enneapogon sp.	P	G										X							
	Eragrostis dielsii	A	G		X	X		X		X		X	X	X	X					
	Eragrostis eriopoda	P	G		X	X	X	X	X	X	X	X	X	X			X		X	
	Eragrostis falcata	P	G										X							
	Eragrostis kennedyae	P	G					X				X								
	Eragrostis lacunaria	A	G				X					X		X						
	Eragrostis leptocarpa	P	G			X			X					X					X	
	Eragrostis pergracilis	A	G		X	X		X	X	X		X	X	X						
	Eragrostis setifolia	P	G												X	X				
	Eragrostis tenellula	A	G														X		X	X
	Eragrostis sp.	A	G		X						X		X			X				
	Eriachne aristidea	A	G		X															
	Eriachne flaccida	P	G		X									X	X		X			
	Eriachne helmsii	P	G		X	X				X	X		X							
	Eriachne mucronata	P	G		X	X	X	X	X	X		X	X	X		X	X	X	X	X
	Eriachne pulchella	A/P	G		X								X			X	X			
	Eriachne pulchella subsp. *dominii*	A	G			X														
	Eriachne pulchella subsp. *pulchella*	A	G					X	X	X		X	X	X						
	Eriochloa pseudoacrotricha	P	G		X															
	Eriachne sp.	A	G					X		X	X	X	X		X		X		X	

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							2009	2010	2012a	2012b	2013	2015	2016	2017	2018a	2018b	2021a	2021b	2021c	2022
POACEAE (continued)	*Iseilema eremaeum*	A	G											X			X			
	Iseilema membranaceum	A	G		X															
	Monachather paradoxus	P	G		X	X		X		X		X	X	X	X	X				
	Neurachne minor	P	G		X								X	X	X					
	Neurachne munroi	P	G														X			
	Panicum decompositum	P	G													X				
	Panicum effusum	P	G							X										
	Panicum ?seminudum	A	G		X															
	Panicum sp.	P	G		X											X				
	Paraneurachne muelleri	P	G									X								
	Paspalidium basicladum	A	G											X			X		X	
	Paspalidium sp.	A	G														X		X	
	Perotis rara	A	G											X						
	Rytidosperma caespitosum	P	G			X														
	Sporobolus actinocladus	P	G			X			X			X	X	X						
	Themeda triandra	P	G			X				X							X			
	Thyridolepis mitchelliana	P	G			X								X						
	Thyridolepis multiculmis	P	G		X															
	Thyridolepis ?xerophila	P	G										X							
	Tragus australianus	A	G														X		X	
	Triodia basedowii	P	G		X	X	X			X			X				X	X		
	Triodia melvillei	P	G		X							X								
	Triodia scariosa	P	G					X										X		
	Triodia schinzii	P	G									X								
	Triodia sp.	P	G										X							X
	Tripogonella loliiformis	P	G			X								X						
	Poaceae sp.	A/P	G					X			X	X	X		X		X	X	X	X
POLYGALACEAE	*Duma florulenta*	P	S		X															
	Polygala isingii	A	H						X											

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								2009	2010	2012a	2012b	2013	2015	2016	2017	2018a	2018b	2021a	2021b	2021c	2022
PORTULACACEAE	*	*Portulaca oleracea*	A	H			X			X					X						
		Portulaca sp.	A	H														X		X	
PRIMULACEAE	*	*Lysimachia arvensis*	A	H										X							
PROTEACEAE		*Grevillea acuaria*	P	S									X								
		Grevillea berryana	P	S			X		X	X	X		X	X	X	X	X	X			X
		Grevillea deflexa	P	S						X		X			X	X					
		Grevillea ?*excelsior*	P	S										X							
		Grevillea juncifolia	P	S/T		X															
		Grevillea nematophylla subsp. *supraplana*	P	S		X		X	X										X		
		Grevillea sarissa	P	S		X															
		Grevillea sarissa subsp. *sarissa*	P	S					X									X	X	X	
		Grevillea stenobotrya	P	S/T															X		X
		Grevillea sp.	P	S				X				X						X	X	X	X
		Hakea kippistiana	P	S									X		X			X			
		Hakea leucoptera subsp. *sericipes*	P	S														X			X
		Hakea lorea	P	S				X	X				X								
		Hakea lorea subsp. *lorea*	P	S/T														X	X		
		Hakea loreus subsp. *loreus*	P	S/T		X															
		Hakea minyma	P	S		X															
		Hakea preissii	P	S		X	X		X	X	X		X	X	X		X	X		X	X
		Hakea recurva	P	S		X									X						
		Hakea recurva subsp. *arida*	P	S									X								
		Hakea sp.	P	S									X								
PTERIDACEAE		*Cheilanthes austrotenuifolia*	P	F		X															
		Cheilanthes lasiophylla	P	F					X					X							
		Cheilanthes sieberi	P	F										X		X	X	X	X	X	
		Cheilanthes sieberi subsp. *sieberi*	P	F			X	X	X	X	X	X	X	X	X						X

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RHAMNACEAE	?Rhamnaceae sp.	P	S									X								
RUBIACEAE	*Psydrax attenuata*	P	S					X												
	Psydrax latifolia	P	S		X	X	X	X		X	X	X	X	X	X		X	X		X
	Psydrax rigidula	P	S		X	X	X			X	X	X	X	X	X	X	X	X		
	Psydrax suaveolens	P	S		X	X	X	X	X	X	X	X	X				X	X	X	X
RUTACEAE	?*Phebalium* sp.	P	S									X								
	Philotheca brucei subsp. *brevifolia*	P	S			X														
SANTALACEAE	*Anthobolus leptomerioides*	P	S											X						
	Exocarpos aphyllus	P	S		X				X	X		X	X						X	
	?*Exocarpos* sp.	P	S										X							
	Santalum acuminatum	P	T		X		X	X		X										
	Santalum lanceolatum	P	T			X		X				X					X			
	Santalum spicatum	P	S		X			X	X	X	X	X	X	X		X	X			X
	Santalum sp.	P	T									X					X		X	X
SAPINDACEAE	*Alectryon oleifolius* subsp. *canescens*	P	S									X	X							
	Dodonaea rigida	P	S		X	X	X	X		X		X	X							X
	Dodonaea ?*viscosa*	P	S											X						
	Dodonaea viscosa subsp. *angustissima*	P	S								X									
	Dodonaea viscosa subsp. *mucronata*	P	S														X			
	Dodonaea viscosa subsp. *spatulata*	P	S									X								
	Dodonaea sp.	P	S									X								
SCROPHULARIACEAE	*Eremophila abietina* subsp. *abietina*	P	S							X		X				X				
	Eremophila abietina subsp. *ciliata*	P	S					X												
	Eremophila alternifolia	P	S					X												
	Eremophila clarkei	P	S			X					X									

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							2009	2010	2012a	2012b	2013	2015	2016	2017	2018a	2018b	2021a	2021b	2021c	2022
SCROPHULARIACEAE (continued)	*Eremophila decipiens*	P	S														X		X	
	Eremophila eriocalyx	P	S									X	X							
	Eremophila falcata	P	S		X							X	X	X						
	Eremophila forrestii	P	S		X						X		X	X	X	X	X	X	X	X
	Eremophila forrestii subsp. *forrestii*	P	S		X	X	X	X	X	X	X	X	X							
	Eremophila fraseri subsp. *fraseri*	P	S			X														
	Eremophila galeata	P	S				X	X		X	X	X	X	X	X	X	X	X	X	X
	Eremophila georgei	P	S			X		X				X	X							
	Eremophila glabra	P	S		X									X						
	Eremophila glabra subsp. *glabra*	P	S					X				X								
	Eremophila glutinosa	P	S														X			X
	Eremophila ?granitica	P	S													X				
	Eremophila homoplastica	P	S			X		X				X				X	X		X	
	Eremophila latrobei	P	S			X				X	X		X		X	X	X	X	X	X
	Eremophila latrobei subsp. *filiformis*	P	S					X					X							X
	Eremophila latrobei subsp. *latrobei*	P	S		X	X	X	X	X			X	X	X			X	X		
	Eremophila longifolia	P	S			X														
	Eremophila ?maculata subsp. *brevifolia*	P	S									X								
	Eremophila margarethae	P	S		X	X		X		X			X	X	X	X	X	X	X	
	Eremophila oldfieldii subsp. *angustifolia*	P	S		X				X	X	X	X		X		X				X
	Eremophila oppositifolia	P	S		X															
	Eremophila oppositifolia subsp. *angustifolia*	P	S			X				X		X								X
	Eremophila pantonii	P	S										X			X				
	Eremophila platycalyx	P	S		X							X								
	Eremophila platycalyx subsp. *platycalyx*	P	S			X							X	X			X			X
	Eremophila platythamnos subsp. *platythamnos*	P	S		X															
	Eremophila punctata	P	S		X	X	X	X			X	X	X	X	X	X	X	X		X
	Eremophila pungens	P	S	P4	X			X	X	X		X	X	X	X	X		X	X	X
	Eremophila ramiflora	P	S		X															
	Eremophila scoparia	P	S		X	X		X						X			X			

APPENDIX E: VASCULAR PLANT SPECIES POTENTIALLY AND RECORDED WITHIN THE VENTNOR AND COMMONWEALTH SURVEY AREAS, REGIS RESOURCES, 2022.

Note: * denotes introduced species; T denotes threatened flora and P1-P4 denote priority flora species; A/P denotes annual or perrenial; and lifeforms are described as follows H: Herbs, S: Shrubs, C: Climbers, T: Trees, F: Ferns, AS: Aerial Shrubs and G: Grass; (DBCA 2022d; Western Australian Herbarium, 1998-; see also Appendix A). Feild survey results from Outback Ecology Services [OES], 2007, Maia Ecological Consulting [MEC] 2013, Mattiske Consulting Pty Ltd 2009-2022 (see full reference list).

FAMILY	SPECIES	A/P	LIFEFORM	PRIORITY	OES 2007	MEC 2013	MPCL Field Surveys													
							2009	2010	2012a	2012b	2013	2015	2016	2017	2018a	2018b	2021a	2021b	2021c	2022
SCROPHULARIACEAE	*Eremophila serrulata*	P	S										X							
(continued)	*Eremophila spectabilis*	P	S				X	X				X						X	X	
	Eremophila spectabilis subsp. *brevis*	P	S		X						X		X	X						
	Eremophila ?youngii	P	S									X								
	Eremophila youngii subsp. *youngii*	P	S		X				X	X		X		X						
	Eremophila sp.	P	S		X						X	X	X	X		X		X	X	X
	Scrophulariaceae sp.	P	S									X								
SOLANACEAE	*Nicotiana obliqua*	P	H														X		X	
	Nicotiana occidentalis	A	H										X	X						
	Nicotiana sp.	A	H									X							X	
	Solanum ferocissimum	P	S		X	X	X						X		X					
	Solanum lasiophyllum	P	S		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Solanum orbiculatum	P	S					X												
	Solanum orbiculatum subsp. *orbiculatum*	P	S		X															
	Solanum sp.	P	S										X			X	X			X
THYMELAEACEAE	*Pimelea microcephala* subsp. *microcephala*	P	S					X												
	Pimelea sp.	P	S									X								
ZYGOPHYLLACEAE	*Roepera iodocarpa*	A	H		X			X												X
	Roepera aurantiaca	A	H						X											
	Tribulus astrocarpus	P	H		X							X		X			X	X	X	
	Tribulus ?hirsutus	P	H									X								
	Tribulus macrocarpus	A	H			X														
	Tribulus suberosus	P	S		X															
	Tribulus sp.	P	H						X											
	Zygophyllaceae sp.	A	H									X	X							

APPENDIX F: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT EACH QUADRAT IN COMMONWEALTH AND VENTNOR SURVEY AREAS, JULY 2022

Note: P1, P2, P3 and P4 denote Priority Flora Species (DBCA, 2022)

SPECIES	SITE																																
	CW01	CW02	CW03	CW04	CW05	CW06	CW07	CW08	CW09	CW10	CW11	CW12	CW13	CW14	CW15	CW16	CW17	CW18	CW19	CW20	CW21	CW22	CW23	CW24	CW25	CW26	CW27	CW28	CW29	CW30	CW31	CW32	CW33
Acacia ?aptaneura		X		X	X		X		X	X			X	X	X	X			X	X	X		X				X						X
Acacia ?fuscaneura							X	X	X	X			X									X											
Acacia ?incurvaneura							X																										
Acacia aneura	X	X	X	X		X		X	X	X	X	X	X	X			X	X	X	X	X	X	X	X		X	2	X	X	X	X	X	X
Acacia aptaneura						X																											
Acacia caesaneura		X	X	X	X	X	X		X	X	X							X		X			X	X						X			
Acacia craspedocarpa			X	X	X	X		X	X			X			X		X											X	X		X		
Acacia duriuscula																																	
Acacia fuscaneura			X																												X		X
Acacia incurvaneura					X														X			X											
Acacia minyura				X																												X	
Acacia oswaldii											X																						
Acacia pteraneura														X			X																
Acacia ramulosa var. *linophylla*					X																												
Acacia tetragonophylla	X	X	X		X		X	X	X	X	X	X		X	X		X		X	X		X	X	X			X	X	X	X	X	X	
Acacia craspedocarpa							X			X	X					X				X										X			
Acacia quadrimarginea																											X	X					X
Acacia resinimarginea									X																								
Amyema miquelli																																	
Cheilanthes sieberi subsp. *sieberi*		X	X				X	X	X	X		X	X	X					X							X		X		X	X		X
Chenopodiaceae sp.	X										X																						
Corchorus sp.																											X	X	X	X			X
Dianella revoluta	X	X												X			X		X														X
Dodonaea rigida																										X							
Duperreya commixta	X	X		X								X											X								X	X	X
Duperreya sericea	X																																
Enchylaena sp.																																	
Enchylaena lanata	X	X									X													X									
Enchylaena tomentosa				X										X		X		X						X									
Eragrostis tenellula																																	
Eremophila ?platycalyx subsp. *platycalyx*																																	
Eremophila forrestii	X								X	X								X					X							X		
Eremophila platycalyx subsp. *platycalyx*	X	X					X				X											X											
Eremophila punctata																																	
Eremophila pungens (P4)																		X	X	X	X						X		X	X			

APPENDIX F: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT EACH QUADRAT IN COMMONWEALTH AND VENTNOR SURVEY AREAS, JULY 2022

Note: P1, P2, P3 and P4 denote Priority Flora Species (DBCA, 2022)

SPECIES	SITE																																
	CW01	CW02	CW03	CW04	CW05	CW06	CW07	CW08	CW09	CW10	CW11	CW12	CW13	CW14	CW15	CW16	CW17	CW18	CW19	CW20	CW21	CW22	CW23	CW24	CW25	CW26	CW27	CW28	CW29	CW30	CW31	CW32	CW33
Eremophila sp. 1																																	
Eremophila sp. 2																																	
Eremophila galeata												X		X															X		X	X	
Eremophila glutinosa																										X							
Eremophila latrobei			X		X				X			X					X					X											
Eremophila latrobei subsp. *filiformis*																															X		X
Eremophila oldfieldii subsp. *angustifolia*																																	
Eremophila oppositifolia subsp. *angustifolia*																																	
Eremophila sp. 3			X																														
Eriachne mucronata																																	
Erodium sp.															X	X																	
Frankenia ?fecunda																																	
Frankenia sp.	X														X																		
Grevillea sp.																																	
Grevillea stenobotrya																									X		X						
Grevillea berryana																					X	X											
Hakea leucoptera subsp. *sericipes*											X																						
Hakea preissii																																	
Hysterobaeckea occlusa																																	
Leichhardtia australis											X																					X	
Maireana sp.																									X		X					X	
Maireana georgei															X										X		X	X					
Maireana glomerifolia																																	
Poaceae sp. 1						X									X	X																	
Poaceae sp. 2																																	
Psydrax latifolia																			X								X	X					
Psydrax suaveolens			X	X	X		X	X				X	X	X					X			X	X						X	X	X		
Ptilotus obovatus	X						X	X	X	X	X						X	X		X				X	X					X	X	X	X
Ptilotus schwartzii										X								X		X	X	X				X				X			
Ptilotus sp.														X																			
Rhagodia sp.										X																							
Rhagodia ?eremaea	X																																
Rhagodia eremaea				X			X	X	X						X		X										X	X					
Roepera iodocarpa	X																																
Santalum sp.							X													X											X		
Santalum spicatum	X																										X						
Scaevola spinescens																											X						

APPENDIX F: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT EACH QUADRAT IN COMMONWEALTH AND VENTNOR SURVEY AREAS, JULY 2022

Note: P1, P2, P3 and P4 denote Priority Flora Species (DBCA, 2022)

SPECIES	SITE																																
	CW01	CW02	CW03	CW04	CW05	CW06	CW07	CW08	CW09	CW10	CW11	CW12	CW13	CW14	CW15	CW16	CW17	CW18	CW19	CW20	CW21	CW22	CW23	CW24	CW25	CW26	CW27	CW28	CW29	CW30	CW31	CW32	CW33
Sclerolaena cuneata															X	X									X								
Sclerolaena diacantha																																	
Sclerolaena eriacantha																									X								
Sclerolaena ?eriacantha	X														X	X																	
Senna ?artemisioides																																	
Senna artemisioides ?subsp. *coriacea*																																	
Senna artemisioides ?subsp. *helmsii x oligophylla*																										X		X					
Senna artemisioides subsp. *xartemisioides*										X	X												X								X		
Senna artemisioides subsp. *filifolia*											X																						
Senna ?glaucifolia		X																															
Senna artemisioides subsp. *filifolia*	X						X								X																		
Senna glaucifolia																																	
Senna glutinosa subsp. *chatelainiana*																																	
Senna sp. *Meekatharra*															X																		
Sida ?calyxhymenia																										X							
Sida sp.						X	X	X	X	X		X	X	X			X		X	X													X
Sida calyxhymenia																													X	X	X	X	X
Solanum sp.																																	
Solanum lasiophyllum	X						X																										
Teucrium teucriiflorum																																	X
Triodia sp.										X								X															
Wahlenbergia sp.			X							X																							

APPENDIX F: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT EACH QUADRAT IN COMMONWEALTH AND VENTNOR SURVEY AREAS, JULY 2022

Note: P1, P2, P3 and P4 denote Priority Flora Species (DBCA, 2022)

SPECIES	SITE																																
	CW34	CW35	CW36	CW37	CW38	CW39	CW40	VT01	VT02	VT03	VT04	VT05	VT06	VT07	VT08	VT09	VT10	VT11	VT12	VT13	VT14	VT15	VT16	VT17	VT18	VT19	VT20	VT21	VT22	VT23	VT24	VT25
Acacia ?aptaneura	X						X		X	X		X	X						X	X	X	X	X									
Acacia ?fuscaneura									X	X				X				X	X	X	X											
Acacia ?incurvaneura																																	
Acacia aneura	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Acacia aptaneura																																	
Acacia caesaneura								X				X						X				X	X									X	
Acacia craspedocarpa															X																X		
Acacia duriuscula																X																X	
Acacia fuscaneura																						X	X	X	X				X	X	X		
Acacia incurvaneura			X					X			X							X	X	X	X									X		
Acacia minyura						X																											
Acacia oswaldii																																	
Acacia pteraneura																											X			X			
Acacia ramulosa var. *linophylla*											X								X		X	X	X										
Acacia tetragonophylla	X					X			X	X		X	X	X	X	X		X								X			X		X		
Acacia craspedocarpa								X				X						X															
Acacia quadrimarginea				X						X						X	X	X		X													
Acacia resinimarginea																																	
Amyema miquelli																										X							
Cheilanthes sieberi subsp. *sieberi*	X						X	X	X	X	X	X		X	X		X	X	X	X	X			X	X						X		
Chenopodiaceae sp.		X																															
Corchorus sp.																															X		
Dianella revoluta	X					X																			X						X		
Dodonaea rigida				X													X			X													
Duperreya commixta							X	X																									
Duperreya sericea																																	
Enchylaena sp.		X																														X	
Enchylaena lanata																																	
Enchylaena tomentosa																																	
Eragrostis tenellula																								X									
Eremophila ?platycalyx subsp. *platycalyx*		X																															
Eremophila forrestii												X		X							X	X									X		
Eremophila platycalyx subsp. *platycalyx*								X	X			X				X			X					X				X	X			X	
Eremophila punctata											X																X			X			
Eremophila pungens (P4)								X						X	X				X	X	X					X		X	X				
Eremophila sp. 1											X																						

APPENDIX F: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT EACH QUADRAT IN COMMONWEALTH AND VENTNOR SURVEY AREAS, JULY 2022

Note: P1, P2, P3 and P4 denote Priority Flora Species (DBCA, 2022)

SPECIES	SITE																															
	CW34	CW35	CW36	CW37	CW38	CW39	CW40	VT01	VT02	VT03	VT04	VT05	VT06	VT07	VT08	VT09	VT10	VT11	VT12	VT13	VT14	VT15	VT16	VT17	VT18	VT19	VT20	VT21	VT22	VT23	VT24	VT25
Eremophila sp. 2																							X									
Eremophila galeata	X		X		X							X			X			X		X						X						
Eremophila glutinosa				X																												
Eremophila latrobei										X							X															
Eremophila latrobei subsp. *filiformis*							X												X		X	X	X			X	X		X	X		
Eremophila oldfieldii subsp. *angustifolia*													X																			X
Eremophila oppositifolia subsp. *angustifolia*																X																X
Eremophila sp. 3																					X										X	
Eriachne mucronata																					X										X	
Erodium sp.																																
Frankenia ?fecunda		X														X																
Frankenia sp.																																X
Grevillea sp.		X																														
Grevillea stenobotrya							X																		X	X						
Grevillea berryana								X									X															
Hakea leucoptera subsp. *sericipes*																																X
Hakea preissii		X																														
Hysterobaeckea occlusa																	X															
Leichhardtia australis																																
Maireana sp.																																
Maireana georgei		X																														
Maireana glomerifolia		X														X																X
Poaceae sp. 1											X								X	X			X									
Poaceae sp. 2																X																
Psydrax latifolia																										X						
Psydrax suaveolens	X						X				X									X	X						X	X		X		
Ptilotus obovatus		X							X	X			X	X	X			X		X									X	X	X	X
Ptilotus schwartzii				X	X		X		X	X	X						X	X	X	X	X		X						X	X		
Ptilotus sp.																																
Rhagodia sp.																																
Rhagodia ?eremaea																															X	
Rhagodia eremaea														X		X	X												X			
Roepera iodocarpa																																
Santalum sp.										X			X	X		X															X	
Santalum spicatum																																
Scaevola spinescens				X					X						X	X		X					X			X					X	X
Sclerolaena cuneata																X																
Sclerolaena diacantha			X																													
Sclerolaena eriacantha																																
Sclerolaena ?eriacantha																X																
Senna ?artemisioides													X																			

APPENDIX F: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT EACH QUADRAT IN COMMONWEALTH AND VENTNOR SURVEY AREAS, JULY 2022

Note: P1, P2, P3 and P4 denote Priority Flora Species (DBCA, 2022)

SPECIES	SITE																															
	CW34	CW35	CW36	CW37	CW38	CW39	CW40	VT01	VT02	VT03	VT04	VT05	VT06	VT07	VT08	VT09	VT10	VT11	VT12	VT13	VT14	VT15	VT16	VT17	VT18	VT19	VT20	VT21	VT22	VT23	VT24	VT25
Senna artemisioides ?subsp. *coriacea*		X																														
Senna artemisioides ?subsp. *helmsii x oligophylla*		X																														
Senna artemisioides subsp. *xartemisioides*																				X												X
Senna artemisioides subsp. *filifolia*										X			X																			X
Senna ?glaucifolia																X																
Senna artemisioides subsp. *filifolia*																																
Senna glaucifolia									X																							
Senna glutinosa subsp. *chatelainiana*		X																														
Senna sp. *Meekatharra*																																
Sida ?calyxhymenia																																
Sida sp.								X	X	X		X	X	X	X	X		X		X		X									X	X
Sida calyxhymenia																				X												
Solanum sp.																				X											X	
Solanum lasiophyllum	X																						X									
Teucrium teucriiflorum	X							X													X		X									
Triodia sp.											X																					
Wahlenbergia sp.	X																															

APPENDIX G: SUMMARY OF VEGETATION COMMUNITIES DEFINED IN THE COMMONWEALTH AND VENTNOR SURVEY AREAS, JULY 2022

VEGETATION COMMUNITY DESCRIPTION			
Community Code: A5			
Community Description: Tall sparse shrubland of *Acacia aptaneura* and *Acacia tetragonophylla* over low sparse shrubland of *Senna artemisioides* on sandy red clay in minor drainage lines			
Statistically Associated Species:			
Acacia aptaneura	*Acacia tetragonophylla*	*Senna artemisioides*	
Occasional Species:			
Acacia craspedocarpa	*Acacia tetragonophylla*	*Maireana georgei*	*Rhagodia eremaea*
Soil and Landform:	Sandy red clay	**Surface Rocks:**	Not present
Outcropping:	Not present	**Vegetation Condition:**	Good
Community Area:	12.764 ha	**Proportion of Survey Area:**	1.09%
Total No. Quadrats:	2	**Average Spp. Richness:**	9
REPRESENTATIVE PHOTOGRAPH: [SITE CW15]			



APPENDIX G: SUMMARY OF VEGETATION COMMUNITIES DEFINED IN THE COMMONWEALTH AND VENTNOR SURVEY AREAS, JULY 2022

VEGETATION COMMUNITY DESCRIPTION			
Community Code: A22			
Community Description: Tall open shrubland of *Acacia* sect. *Juliflorae* (*A. aneura, A. aptaneura,* and *A. fuscaneura*) over mid-sparse shrubland of *A. tetragonophylla, Eremophila pungens* (P4), *and Psydrax suaveolens* over isolated ferns of *Cheilanthes sieberi* subsp. *sieberi* on red clay loam in minor drainage lines			
Statistically Associated Species:			
Acacia aneura	*Acacia aptaneura*	*Acacia fuscaneura*	*Acacia tetragonophylla*
Eremophila pungens (P4)	*Psydrax suaveolens*	*Cheilanthes sieberi* subsp. *sieberi*	
Occasional Species:			
Acacia craspedocarpa	*Acacia quadrimarginea*	*Grevillea stenobotrya*	*Dianella revoluta*
Psydrax latifolia	*Psydrax suaveolens*	*Santalum spicatum*	*Sida calyxhymenia*
Soil and Landform:	Red clay loams in minor drainage lines	**Surface Rocks:**	Occasional ironstone pebbles
Outcropping:	Not Present	**Vegetation Condition:**	Good
Community Area:	54.893 ha	**Proportion of Survey Area:**	2.8%
Total No. Quadrats:	8	**Average Spp. Richness:**	3.875
REPRESENTATIVE PHOTOGRAPH: [SITE VT05]			



APPENDIX G: SUMMARY OF VEGETATION COMMUNITIES DEFINED IN THE COMMONWEALTH AND VENTNOR SURVEY AREAS, JULY 2022

VEGETATION COMMUNITY DESCRIPTION			
Community Code: A23			
Community Description: Tall open shrubland of *Acacia* sect. *Juliflorae* (*A. aneura, A. aptaneura, and A. fuscaneura*) over mid-sparse shrubland of *A. tetragonophylla* and *Psydrax* suaveolens over isolated ferns of *Cheilanthes sieberi* subsp*. sieberi* on flats or slopes of red clay with ironstone gravel			
Statistically Associated Species:			
Acacia aneura	*Acacia aptaneura*	*Acacia fuscaneura*	*Acacia tetragonophylla*
Psydrax suaveolens	*Cheilanthes sieberi* subsp. *sieberi*		
Occasional Species/Conservation Significant Species:			
Duperreya commixta	*Eremophila platycalyx* subsp*. platycalyx*	*Acacia craspedocarpa*	
Eremophila pungens (P4)	*Ptilotus obovatus*	*Dianella revoluta*	*Eremophila galeata*
Soil and Landform:	Red clay flats and slopes	**Surface Rocks:**	Occasional ironstone and quartz pebbles
Outcropping:	Not Present	**Vegetation Condition:**	Very Good
Community Area:	1377.579 ha	**Proportion of Survey Area:**	69.39%
Total No. Quadrats:	50	**Average Spp. Richness:**	1.62

REPRESENTATIVE PHOTOGRAPH: [SITE CW02]



APPENDIX G: SUMMARY OF VEGETATION COMMUNITIES DEFINED IN THE COMMONWEALTH AND VENTNOR SURVEY AREAS, JULY 2022

VEGETATION COMMUNITY DESCRIPTION			
Community Code: A31			
Community Description:			
Tall sparse shrubland of *Acacia duriuscula* and *Eremophila oppositifolia* subsp. *angustifolia* over mid-sparse shrubland of *Eremophila platycalyx* subsp. *platycalyx,* over low sparse shrubland of *Scaevola spinescens* and *Maireana glomerifolia* on saline red clay flats with quartz pebbles			
Statistically Associated Species:			
Acacia duriuscula	*Eremophila oppositifolia subsp. angustifolia*	*Eremophila platycalyx subsp. platycalyx*	
Scaevola spinescens	*Maireana glomerifolia*		
Occasional Species:			
Sclerolaena cuneata	*Sclerolaena ?eriacantha*	*Senna ?glaucifolia*	*Frankenia ?fecunda*
Acacia quadrimarginea	*Acacia aneura*		
Soil and Landform:	Saline red clay flats	**Surface Rocks:**	Quartz pebbles
Outcropping:	Occasional laterite outcropping	**Vegetation Condition:**	Very good
Community Area:	4.522 ha	**Proportion of Survey Area:**	0.59%
Total No. Quadrats:	2	**Average Spp. Richness:**	8

REPRESENTATIVE PHOTOGRAPH: [SITE VT09]



APPENDIX G: SUMMARY OF VEGETATION COMMUNITIES DEFINED IN THE COMMONWEALTH AND VENTNOR SURVEY AREAS, JULY 2022

VEGETATION COMMUNITY DESCRIPTION			
Community Code: CH01			
Community Description:			
Mid-isolated shrubs of *Acacia aneura* and *Acacia aptaneura* over low sparse chenopod shrubland of *Sclerolaena cuneata, Sclerolaena eriacantha,* and *Maireana georgei* on red clay flats with quartz pebbles			
Statistically Associated Species:			
Acacia aneura	*Acacia aptaneura*	*Sclerolaena cuneata*	*Sclerolaena eriacantha*
Maireana georgei			
Occasional Species:			
Ptilotus obovatus	*Frankenia ?fecunda*	*Maireana glomerifolia*	*Enchylaena tomentosa*
Hakea preissii			
Soil and Landform:	Red clay flats with quartz pebbles	**Surface Rocks:**	Numerous quartz pebbles
Outcropping:	Not Present	**Vegetation Condition:**	Good
Community Area:	156.840 ha	**Proportion of Survey Area:**	13.40%
Total No. Quadrats:	3	**Average Spp. Richness:**	7.667

REPRESENTATIVE PHOTOGRAPH: [SITE CW35]



APPENDIX 3: BASIC AND DETAILED VERTEBRATE FAUNA SURVEY AND ASSESSMENT – NORTHERN PROJECT AREAS (TERRESTRIAL ECOSYSTEMS 2022)

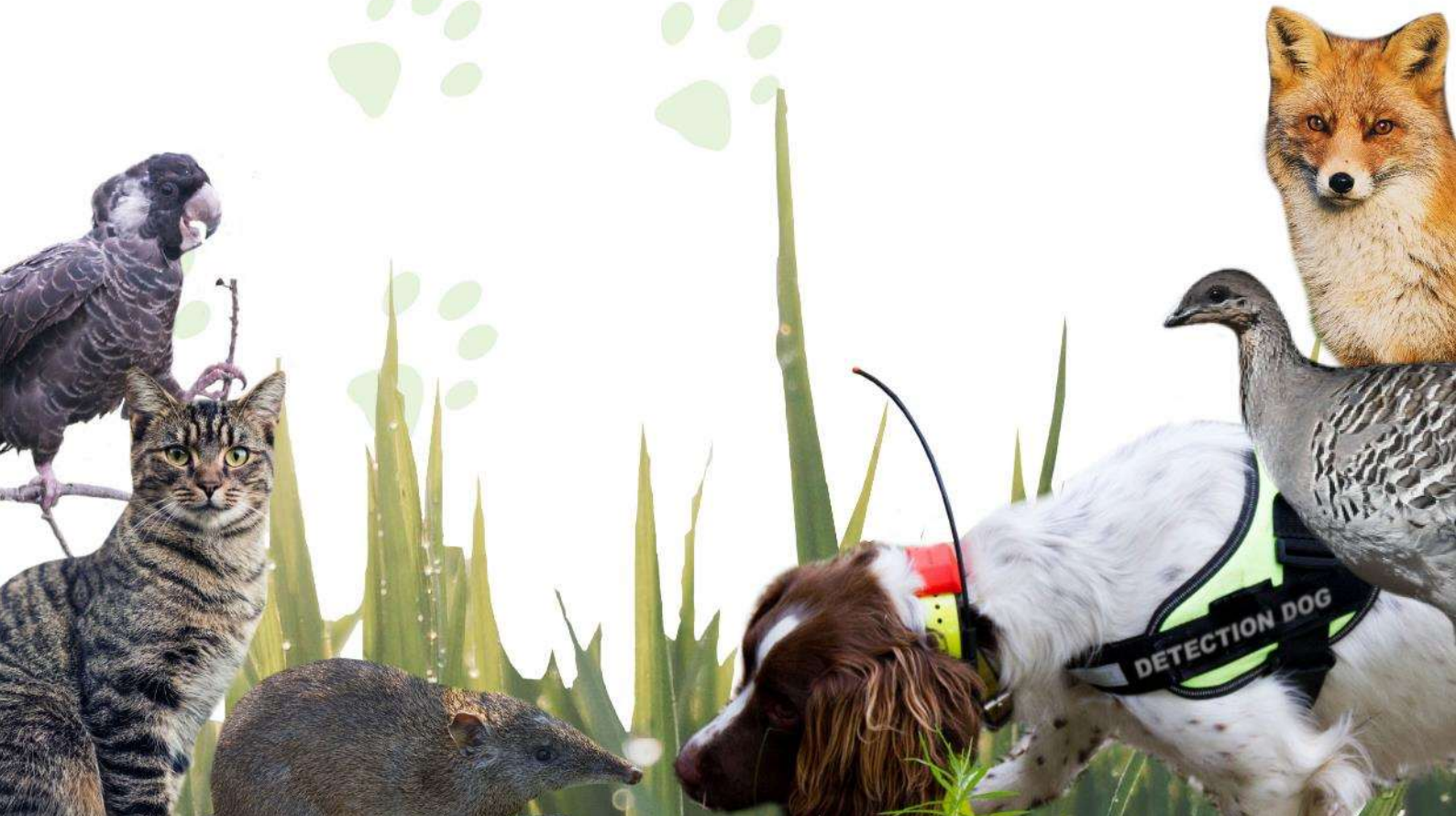
Basic and Detailed Vertebrate Fauna Survey and Assessment

Northern Project Areas

Prepared for: Regis Resources

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EXECUTIVE SUMMARY

Regis Resources Limited (Regis) is proposing to undertake mining activity in five locations in the vicinity of its current Duketon Operations. The combined areas addressed in this report are Commonwealth, Davies Bore, Thompson's Bore, Betelgeuse, King John and associated haul roads (i.e. project area) and they are between 90-120km north of Laverton, Western Australia off the Bandya-Banjawarn Road that runs north from Laverton.

This report provides the interim results of the fauna survey and preliminary risk assessment. A second survey is planned for February/March 2023.

The total assessed area assessed was ~7120ha and has one broad fauna habitat – open mulga woodland. The fauna habitat has been degraded by many years of cattle grazing and to a lesser extent exploration, and feral predators (i.e. feral cat and wild dogs) have had a significant impact on native species abundance. There are numerous pastoral and exploration tracks in the project area, but these are generally narrow and mostly only wheel tracks on a red-clay substrate. Substantial haul roads have been constructed in the general area to facilitate the transport of ore to processing plants at Moolart Well, Rosemont and Garden Well.

When the data from 20 trapping sites were combined, 34 species of reptiles and small mammals were trapped in the project area. Observations while clearing traps indicated that there was a very low abundance of *Varanus giganteus*, *Ctenophorus nuchalis*, *Moloch horridus* and *Antaresia stimsoni* in the project areas, and the addition of these three species to those caught in traps takes the total to 38 species. Forty-two species of birds were recorded at the 55 survey sites and the species accumulation curve modelling indicated there was 54 bird species in the project area. There were no Malleefowl, their tracks or recently active mounds in the project area, and other conservation significant species potentially in the project area would readily move if disturbed and therefore any impacts would be low. Camera traps and observations while undertaking the survey indicated the presence of wild dogs and feral cats in the project area, often around mining camps and waste disposal areas.

Clearing native vegetation in the project area is likely to result in the loss of small vertebrate fauna on-site that are unable to move away during the clearing process, however, this loss is unlikely to be significant when viewed in a bioregional context. The few larger animals, such as kangaroos, large goannas and snakes, and most of the birds will move into adjacent areas once vegetation clearing commences, so potential impacts will be low. There may be an on-going loss of small native fauna due to vehicle strikes on access tracks and haul roads, but overall, this impact will be low. Forced fauna migrants because of vegetation clearing will increase competition for resources in the short term, which may result in the subsequent loss of migrants or local individuals. Individuals shifted out of their established activity areas are also vulnerable to predation until they have become established in their new areas.

Impacts on vertebrate fauna associated with clearing vegetation and subsequent mining activity in the project area in a landscape or bioregional context are likely to be low as there are vast tracts of similar habitat in adjacent areas.

The proposed actions of vegetation clearing, exploration and mining are unlikely to significantly impact on a conservation significant species, so a referral under the *EPBC Act 1999* is not required.

It is recommended that:

- an induction program that includes a component on managing vertebrate fauna is mandatory for staff working in the project area;
- the impact of dust on adjacent vegetation and fauna habitat is managed against appropriate KPIs and in accordance with the clients' Construction Environmental Management Plan;
- management of the mine sites' waste management facility is reviewed and altered so that putrescible waste is not available to native and feral animals;

- the recently implemented feral predator (i.e. feral cat and wild dog) reduction program is implemented in the winter months of each year; and
- a Vertebrate Fauna Management is prepared and implemented for the proposed new mining operations.

1. INTRODUCTION

1.1 BACKGROUND

Regis Resources Limited (Regis) is proposing to undertake mining activity in five locations in the vicinity of its current Duketon Operations. The combined areas addressed in this report are Commonwealth, Davies Bore, Thompson's Bore, Betelgeuse, King John and associated haul roads (i.e. project area) and they are between 90-120km north of Laverton, WA.

Regis requested a vertebrate fauna survey to support the preparation of future environmental approval applications. This is a large project area that is likely to have multiple mining proposals and native vegetation clearing permit applications submitted over numerous years.

This report provides the interim results of the fauna survey and preliminary risk assessment. A second survey is planned for February/March 2023.

1.2 PROJECT OBJECTIVES AND SCOPE OF WORKS

Terrestrial Ecosystems was commissioned by Regis to undertake a Basic and Detailed vertebrate fauna survey and risk for its tenements that include the Commonwealth, Davies Bore, Thompson's Bore, Betelgeuse and King John. The purpose of this vertebrate fauna risk assessment was to provide information to the proponent and eventually the environmental regulators on the potential impacts of vegetation clearing and mining activities on the vertebrate fauna assemblage in the project area to enable a series of proposed mining applications and vegetation clearing permits to be adequately assessed. The methodology broadly follows that described in the Environmental Protection Authority's (2020) *Technical Guidance – Terrestrial vertebrate fauna surveys for environmental impact assessment*.

This Basic and Detailed fauna survey involved a desktop review and site survey. The specific objectives were to:

- provide an indication of the vertebrate fauna assemblage (reptiles, amphibians, mammals and birds) on and near the project area, so that potential impacts on the fauna and fauna assemblage might be adequately assessed;
- identify the presence and/or potential risk of impacts on species of conservation significance that are present or likely to be present in the project area;
- assess the impact and environmental risks associated with the proposed development on the vertebrate fauna assemblage;
- determine if any additional surveys are required to assess the potential impact on the vertebrate fauna assemblage including impacts on species of conservation significance; and
- make recommendations that avoid, mitigate or minimise potential impacts on resident vertebrate fauna.

To achieve these objectives, we:

- reviewed Terrestrial Ecosystems' database [includes Atlas of Living Australia and WA Museum records] to identify potential vertebrate fauna within the area;
- searched the Commonwealth Government's database of fauna of matters national environmental significance (MNES) to identify species potentially occurring within the area that are protected under the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999* or international migratory bird agreements (JAMBA/CAMBA);
- undertook multiple site investigations and a trapping survey;
- reviewed previous fauna surveys conducted in and near the project area;
- undertook an assessment of the potential risks to the fauna associated with clearing additional areas of native vegetation;

- discussed the likelihood of *EPBC Act 1999* and *Biodiversity Conservation (BC) Act 2016* listed species being present in the project area; and
- provided management recommendations to avoid, mitigate and minimise potential impacts on the fauna in the project area.

2. EXISTING ENVIRONMENT

2.1 LOCATION OF PROJECT AREA

The project area is in the Murchison 1 (MUR1 - East Murchison subregion) IBRA bioregion. Cowan (2001) described the subregion as mostly dominated by mulga woodlands that are often rich in ephemerals; hummock grasslands, salt bush shrub lands and haloscarcia shrub lands. Cowan (2001) recorded no threatened ecological communities in the vicinity of the project area. Threatening processes for conservation significant fauna were listed by Cowan (2001) as foxes and feral cats.

2.2 LAND USE HISTORY

The dominant land uses for the bioregion are native pasture to support grazing and crown land reserves, and to a lesser extent mining and exploration. The region surrounding the project area has been disturbed for minerals exploration and there are many operational and non-operational mining projects in the region.

The project area has existing operational mines and is on the Erilstoun and Banjawarn pastoral leases. There are multiple station and exploration tracks in the project area.

2.3 CLIMATE

The project area is characterised as semi-arid. Laverton, 90-120km to the south, has an annual rainfall of approximately 235mm, although this varies considerably from year-to-year. The highest mean maximum and minimum temperatures in Laverton are in January with an average of 35.8°C and 21.1°C, respectively (Bureau of Meteorology, 2020). The lowest mean daily maximum and minimum temperatures occur in July. Average monthly rainfall is heaviest in January - March.

Summer rain is unpredictable and often results from thunderstorms coming from the north and the west or decaying cyclonic activity as low-pressure cells move from the Pilbara through the Goldfields.

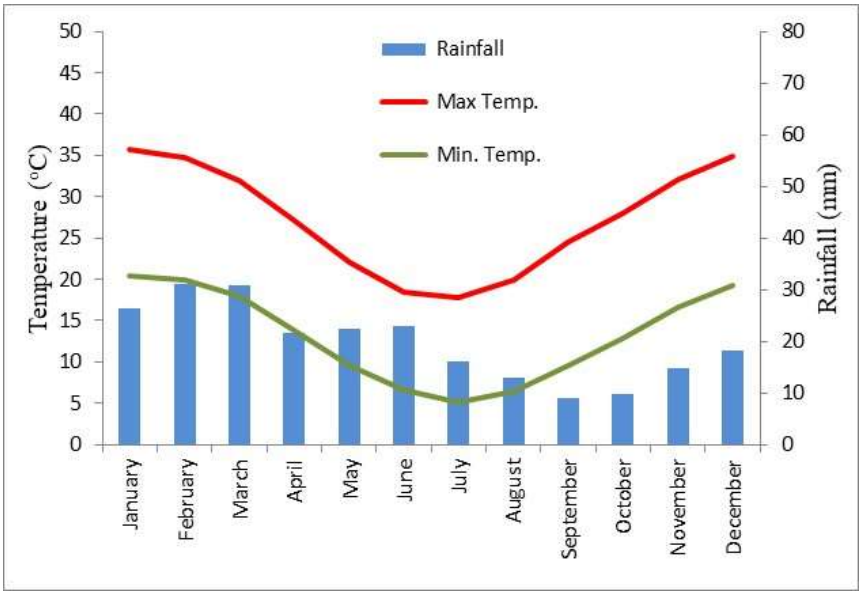


Chart 1. Climatic averages for Laverton

2.4 REGIONAL BIOLOGICAL FAUNA CONTEXT OF PROJECT AREA

The frogs, reptiles, mammals and birds in the vicinity of the project area have been surveyed for other environmental assessments and research purposes and are therefore known. Fauna surveys and assessments undertaken in the vicinity of the project area that have been reviewed for this assessment include:

- Bamford Consulting Ecologists (2007) *Fauna Assessment and Targeted Mulgara Search of the Fish Deposit, Laverton Gold Project*, Perth.
- Bell, D. T., Bell, R. C. and Loneragan, W. A. (2007) Winter bird assemblages across an arid gradient in south-west Western Australia. *Journal of the Royal Society of Western Australia* 90, 219-227.
- Biota Environmental Sciences (2004) *Cosmos Nickel Mine Extension Fauna Survey*. Unpublished report for Sir Samuel Mines NL and URS, Perth.
- Biota Environmental Sciences (2007) *Bannockburn Fauna Habitat and Assemblage Survey*. Unpublished report for Jubilee Mines NL, Perth.
- Coffey Environments (2007) *Level 1 Fauna Assessment, Leinster Nickel Operations*, Perth.
- Coffey Environments (2008) *Level 2 Fauna Assessment for the Duketon Gold Project*. Unpublished report for Regis Resources, Perth.
- Craig, M. D. and Chapman, A. (2003) Effects of short-term drought on the avifauna of Wanjarri Nature Reserve: What do they tell us about drought refugia. *Journal of the Royal Society of Western Australia* 86: 133-137.
- Dell, J. and How, R. A. (1988) Vertebrate fauna. In: The biological survey of the Eastern Goldfields of Western Australia, Part 5, Edjudina - Menzies Study Area. *Records of the Western Australian Museum*, Supplement No 31, 38-77.
- Dell, J., How, R. A. and Milewski, A. V. (1992) The biological survey of the Eastern Goldfields, Part 6, Youanmi-Leonora Study Area. *Records of the Western Australian Museum*, Supplement No 40, 131.
- Donarto Environmental Services (2005) *Leinster Nickel Operations Tailing Storage Facility and Water Storage Areas: Wildlife Interactions and Assessment of Risks*, Perth.
- Dunlop, J. N. (1990) The small vertebrate ground fauna of Mulga habitats near Wiluna, Western Australia. *Mulga Research Centre Journal*, 10, 19-27.
- ENV Australia (2008) *Agnew Prospects Fauna Assessment*. Unpublished report for Agnew Gold Mining Company Pty Limited, Perth.
- Halpern Glick Maunsell (1999) *Rosemont Gold Project Biological Assessment Survey - Phases 1 & 2*. Unpublished report for Johnson's Well Mining NL, Perth.
- Harewood, G. (2011) *Terrestrial Fauna Survey (Level 1) of the West Laverton Area (P38/3717, P38/3718, P38/3491, P38/3492, P38/3314, P38/3490, P38/3315, M38/0046, M38/0049, M38/0040, M38/0358, M38/0048, M38/0101, M38/0364, M38/0342, M38/0345, L38/0179, L38/0177, L38/0178, L38/0153, L38/0092, E38/1930, E38/2347, E38/2084 & E38/1966)*. Unpublished report for Crescent Gold Limited.
- Hart, Simpson and Associates (2000) *Cawse Expansion Project Fauna Survey*. Unpublished report for Anaconda Nickel Ltd, Perth.
- How, R. A. and Dell, J. (1992) Vertebrate fauna. In: The Biological Survey of the Eastern Goldfields of Western Australia Part 7. Duketon - Sir Samuel Study Area. *Records of the Western Australian Museum*; Supplement 40, 90-109.
- MBS Environmental (2004) *Vegetation and Habitat Assessment of the Euro, Sickle and Admiral Hill Project Areas, Laverton*. Unpublished report for Crescent Gold Limited, Perth.
- McKenzie, N. L., Rolfe, J. K. and Youngson, W. K. (1994) Vertebrate fauna. In: The Biological Survey of the Eastern Goldfields of Western Australia Part 10, Sandstone-Sir Samuel and Laverton-Leonora Study Areas. *Records of the Western Australian Museum*, Supplement No 47, pp. 51-85.
- Moriarty; T. K. (1972) Birds of Wanjarri; WA (27°; 25'S; 120° 40'E) *The Emu*, 72, 1-7.
- Murphy, D. (1994) *Vertebrate fauna species of the North-eastern Goldfields*. Report to Western Mining's Leinster Nickel and Mount Keith Operations, Perth.
- Ninox Wildlife Consulting (1998) *A Vertebrate Fauna Survey of the Murrin Expansion Project*. Unpublished report for Anaconda Nickel Ltd, Perth.

- Ninox Wildlife Consulting (2005) *Vertebrate Fauna Habitat Assessment of the Proposed Expansions to the Cosmos Nickel Mine, near Leinster, Western Australia*. Unpublished report for URS Australia Pty Ltd, Perth.
- Ninox Wildlife Consulting (2006) *A Vertebrate Fauna Assessment of the Tarmoola Area*, Unpublished report for St Barbara Ltd, Perth.
- Onus, M. L., Rolfe, J.K., and Algar, D. (2011) *Assessment of feral cat abundance and control options at Barrick, Granny Smith*. Perth.
- Terrestrial Ecosystems (2010) *Level 2 Fauna Risk Assessment for the Garden Well Project Area*. Unpublished report for Regis Resources Ltd, Perth.
- Terrestrial Ecosystems (2011a) *Level 2 Fauna Risk Assessment for Granny Deeps Project Area*. Unpublished report for Barrick Gold Corporation, Perth.
- Terrestrial Ecosystems (2011b) *Targeted Survey for Long-tailed Dunnarts for the Granny Deeps Project Area*. Perth.
- Terrestrial Ecosystems (2012g) *Level 1 Vertebrate Fauna Risk Assessment for the Proposed Exploration Areas around the Granny Open Pit Project Area*. Unpublished report for Granny Smith Mining Pty Ltd, Perth.
- Terrestrial Ecosystems (2012a) *Level 1 Fauna Risk Assessment for the Anchor Project*. Unpublished report for Regis Resources Ltd, Perth.
- Terrestrial Ecosystems (2012b) *Level 1 Fauna Risk Assessment for the Moolart Well to Garden Well Access Road on M38/354, M38/302, M38/303 and L38/216*. Unpublished report for Regis Resources Ltd, Perth.
- Terrestrial Ecosystems (2012c) *Level 1 Fauna Risk Assessment for the Petra Project*. Unpublished report for Regis Resources Ltd, Perth.
- Terrestrial Ecosystems (2012d) *Level 1 Fauna Risk Assessment for the Reichelt Project*. Unpublished report for Regis Resources Ltd, Perth.
- Terrestrial Ecosystems (2012e) *Level 1 Fauna Risk Assessment for the Rosemont Project Area*. Unpublished report for Regis Resources Ltd, Perth.
- Terrestrial Ecosystems (2012f) *Level 1 Fauna Risk Assessment for the Russell Find Project*. Unpublished report for Regis Resources Ltd, Perth.
- Terrestrial Ecosystems (2012h) *Level 1 Vertebrate Fauna Risk Assessment for the Proposed Mining Areas around the Granny Open Pit Project Area*. Unpublished report for Granny Smith Mining Pty Ltd, Perth.
- Terrestrial Ecosystems (2013) *Level 1 Fauna Risk Assessment for Two Waste Dumps either side of the proposed Rosemont Project Area (G38/29, G38/30, G38/31, G38/32) and a Slurry Pipeline from the Rosemont mine to the Garden Well processing plant (L38/219)*. Unpublished report for Regis Resources Ltd, Perth.
- Terrestrial Ecosystems (2014) *Level 1 Fauna Risk Assessment for a proposed power station site*. Unpublished report for Granny Smith Mining Pty Ltd, Perth.
- Terrestrial Ecosystems (2015a) *Fauna risk assessment of the proposed borrow pit expansion*. Unpublished report for Granny Smith Mining Pty Ltd, Perth.
- Terrestrial Ecosystems (2015b) *Level 1 Fauna Risk Assessment for the Gloster Project and haul road*. Unpublished report for Regis Resources Ltd, Perth.
- Terrestrial Ecosystems (2016a) *Level 1 Fauna Risk Assessment for the Anchor Project Area*. Unpublished report for Regis Resources Ltd, Perth.
- Terrestrial Ecosystems (2016b) *Level 1 Fauna Risk Assessment for the Baneygo Project*. Unpublished report for Regis Resources Ltd, Perth.
- Terrestrial Ecosystems (2016c) Level *1 Fauna Risk Assessment for the Dogbolter-Coopers Project Area*. Unpublished report for Regis Resources Ltd, Perth.
- Terrestrial Ecosystems (2016d) *Level 1 Fauna Risk Assessment for the Petra Project Area*. Unpublished report for Regis Resources Ltd, Perth.
- Terrestrial Ecosystems (2016e) *Level 1 Fauna Risk Assessment for the Tooheys Project Area*. Unpublished report for Regis Resources Ltd, Perth.
- Terrestrial Ecosystems (2017a) *Level 1 Fauna Risk Assessment for the proposed Haul Road to the Baneygo Project Area*. Unpublished report for Regis Resources Ltd, Perth.
- Terrestrial Ecosystems (2017b) *Level 1 Fauna Risk Assessment for the proposed Haul Road to the proposed Petra Mining area*. Unpublished report for Regis Resources Ltd, Perth.

- Terrestrial Ecosystems (2018a) *Level 1 Fauna Risk Assessment for the proposed Haul Road to the proposed Petra Mining area*. Unpublished report for Regis Resources Ltd, Perth.
- Terrestrial Ecosystems (2018c) *Vertebrate Fauna Risk Assessment for the Petra Mining Project*, Perth.
- Terrestrial Ecosystems (2018b) *Vertebrate Fauna Risk Assessment for the Granny Smith Solar Power Farm Project*, Unpublished report for Granny Smith Mining Company Pty Ltd, Perth.

In addition, there are individual records for fauna contained in the Atlas of Living Australia that have also been accessed.

Most of these fauna assessments have resulted in a Level 1 risk assessment that have relied upon data collected in previous years.

2.5 FAUNA SPECIES AT RISK

Cowan (2001) reported the fauna species at risk in the East Murchison subregion as Bilby (*Macrotis lagotis*), Marsupial Mole (*Notoryctes typhlops*), Mulgara (*Dasycercus cristicauda / blythi*), Malleefowl (*Leipoa ocellata*), Princess Parrot (*Polytelis alexandrae*), Slender-billed Thornbill (*Acanthiza iredalei iredalei*), Giant Desert Skink (*Liopholis kintorei*) and Peregrine Falcon (*Falco peregrinus*). This report assesses the potential for these species to be found in the project area and the potential impact that a proposed development might have on these species, and other conservation significant fauna. The Cowan (2001) report is now very dated, but the DBCA has not updated the biodiversity audit for Western Australia since that report. Since 2003, the Night Parrot (*Pezoporus occidentalis*) has been rediscovered in Western Australia and is also considered a species at risk in the region.

3. METHODOLOGY

3.1 DETERMINATION OF SURVEY SAMPLING DESIGN AND INTENSITY

Prior to the development of the survey methodology, a review was undertaken of the factors likely to influence the survey including:

- level of existing regional knowledge
- type and comprehensiveness of recent local surveys
- degree of existing disturbance or fragmentation at the regional scale
- extent, distribution and significance of habitats
- significance of species likely to be present
- sensitivity of the environment to the proposed activities
- scale and nature of impact.

It is unlikely that the project areas support conservation significant species (Coffey Environments 2008, Terrestrial Ecosystems 2010, 2011b, a), so a Detailed survey of the project area was deemed appropriate given the vast amount of fauna survey data that are available in Terrestrial Ecosystems fauna survey database of mulga woodland in the northern Goldfields.

3.2 DATABASE SEARCHES

Several databases were consulted in the preparation of the potential list of vertebrate species that could be found in the project area. A search of Terrestrial Ecosystems' fauna survey database was undertaken to develop a list of birds, reptiles, mammals and amphibians that have been recorded in previous surveys in the region. A search of the *EPBC Act 1999* online database was also undertaken to identify species of conservation interest to the Commonwealth Government potentially in the project area (Appendix A).

Other more general texts were also used to provide supplementary information including Tyler *et al*. (2000) for frogs; Storr *et al*. (1983, 1990), Storr et al. (1999), (2002) and Thompson and Thompson (2006) for reptiles; Johnstone and Storr (1998, 2004) for birds, and van Dyck and Strahan (2008) for mammals. In addition, the list of published and unpublished reports on fauna surveys identified above have been used to provide a regional context for the small vertebrate assemblages sampled in the project area.

3.3 FAUNA HABITAT ASSESSMENT

A fauna habitat assessment was undertaken for the project area. This field assessment had three foci:

- assessing fauna habitat types and their condition;
- recording evidence of conservation significant fauna; and
- assessing the possible presence of Malleefowl, Mulgara and Bilbies within the project area, so that mitigation and management strategies might be implemented to reduce potential impacts.

Fauna assessors stopped at multiple locations within the project area (Figure 22) and recorded a suite of data about the fauna habitat and its condition. This information included a description of the habitat structure, habitat condition, landform, soils and vegetation and time since last fire. Table 1 shows the data that were recorded at each location as part of the habitat assessment.

Table 1. Variables assessed during the rapid habitat assessment

Observer's Name:	
Coordinates of the location as UTM (GDA94):	
Fire history – options	
☐ > 5 years	
☐ 1-5 years	
☐ < 1 year	
Landform – options	
☐ Beach	☐ Lower slope
☐ Clay plain	☐ Mid slope
☐ Cliff	☐ Ridge
☐ Creek line	☐ River
☐ Dam	☐ Rocky outcrop / breakaway
☐ Drainage line	☐ Salt lake
☐ Dune crest	☐ Sand dune
☐ Dune slope	☐ Sand plain
☐ Dune swale	☐ Stony plain
☐ Escarpment	☐ Swamp
☐ Flat	☐ Undulating
☐ Gorge	☐ Upper slope
☐ Gully	☐ Wetland
☐ Intertidal / mangrove	☐ Water hole
☐ Lake / lake edge	
Habitat quality – options	
☐ *High quality fauna habitat* – These areas closely approximate the vegetation mix and quality that would have been in the area prior to any disturbance. The habitat has connectivity with other habitats and is likely to contain the most natural vertebrate fauna assemblage.	
☐ *Very good fauna habitat* - These areas show minimal signs of disturbance (e.g. grazing, clearing, fragmentation, weeds) and generally retain many of the characteristics of the habitat if it had not been disturbed. The habitat has connectivity with other habitats and fauna assemblages in these areas are likely to be minimally effected by disturbance.	
☐ *Good fauna habitat* – These areas showed signs of disturbance (e.g. grazing, clearing, fragmentation, weeds) but generally retain many of the characteristics of the habitat if it had not been disturbed. The habitat has connectivity with other habitats and fauna assemblages in these areas are likely to be affected by disturbance.	
☐ *Disturbed fauna habitat*– These areas showed signs of significant disturbance. Many of the trees, shrubs and undergrowth are cleared. These areas may be in the early succession and regeneration stages. Areas may show signs of significant grazing, containing weeds or have been damaged by vehicle or machinery. Habitats are fragmented or have limited connectivity with other fauna habitats. Fauna assemblages in these areas are likely to differ significantly from what might be expected in the area had the disturbance not occurred.	
☐ *Highly degraded fauna habitat* – These areas often have a significant loss of vegetation, an abundance of weeds, and a large number of vehicle tracks or are completely cleared. Limited or no fauna habitat connectivity. Fauna	

	assemblages in these areas are likely to be significantly different to what might have been in the area pre-disturbance.		
Soil Type – options			
☐	Sand	☐	Silty loam
☐	Loamy sand	☐	Sand clay loam
☐	Clayey sand	☐	Clay
☐	Clay loam	☐	Peat / organic
☐	Silty clay loam	☐	Stony
☐	Sandy loam		
Soil colour - options			
☐	Black	☐	Red
☐	Brown	☐	White
☐	Grey	☐	Yellow
☐	Orange		
Surface stones – options			
☐	None	☐	Boulders (>250mm)
☐	Pebbles (0-50mm)	☐	Rocks
☐	Cobbles (51-250)		

3.4 TRAPPING SURVEY

The survey methodology adopted for the vertebrate fauna trapping program was aligned with the Terrestrial Ecosystems' interpretation of EPA's (2020) *Technical Guidance – Terrestrial vertebrate fauna surveys for environmental impact assessment*.

Published literature based on goldfields survey data (Thompson and Thompson 2005) indicate that spring and summer are the optimum time periods for vertebrate fauna surveys in the arid and semi-regions of Western Australia. So, survey sites were established between 10-15 October 2022. All traps remained closed after setup to remove the bias's associated with digging in effects and were opened between 5–12 November 2022. Fauna survey sites were selected so that they sampled a representative set of the fauna habitats in the project area.

Twenty survey sites were established. Five sites were set in each of Commonwealth, Davies Bore, Thompson's Bore and King John study areas (Figure 2a-e). Betelgeuse is mid-way between the other trapping sites and has the same fauna habitats, so the fauna assemblage in this project area will be the same and was therefore not trapped. Each trapping site consisted of four trapping lines. Each trap line consisted of three 20L buckets, three PVC pipes (500mm deep, 150mm wide) and six funnel traps (3 pair) spread along a 30m, 250mm high fly-wire drift fence (Plate 1 and Plate 2).

There were no trappable fauna anticipated to be in the region which will be specifically caught in aluminium box traps or wire cage traps. As these two trap types are unlikely to provide any additional useful information if an adequate number of pit-traps and funnel traps are used (Thompson et al. 2005, Thompson and Thompson 2007b) and to reduce the risks of compromising animal welfare due to heat and ants (which are higher in aluminium box traps and wire cages in arid environments), we didn't use these trapping strategies.



Plate 1. Trap line

All 20L buckets contained pieces of white polystyrene in the bottom to help reduce trap deaths due to heat stress. During thunderstorms or significant rainfall events when the traps are open, the polystyrene will float and provide caught animals a raft if the pit-traps filled with water. Polystyrene was not necessary in the PVC pipes as the sun is only directly overhead for a small time and water drains freely through the fly-wire bottom. All funnel traps were covered with two shade cloth covers to minimise heat stress.

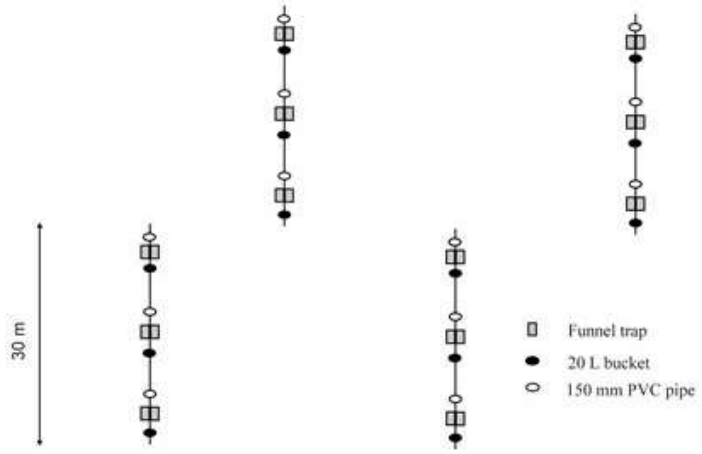


Plate 2. Layout of a single trapping site

A total of 3,360 pit-trap nights and 3,360 funnel trap-nights were used to sample the small vertebrate fauna in November 2022. All traps were cleared within 4 hours of sunrise each day and the coordinates for trapping sites are shown in Appendix B.

3.4.1 Avian surveys

Systematic avifauna surveys were carried out on six mornings between 5-10 November 2022. Areas searched for birds are shown in Figures 4a-d. Twenty minutes was spent searching for birds in 2ha using a wandering transect method (Thompson and Thompson 2010, Douglas et al. 2022). Where the habitat did not allow for a wandering approach around a central point, then a linear 2ha search (400m*50m) was adopted.

3.4.2 Camera traps

Fifty Reconyx 600 camera traps were deployed on 16 October and and retrieved on 8-10 November 2022. All camera traps (Plate 3) had a non-reward bait lure (Plate 4) which consisted of peanut butter, sardines, oats and soaked in fish/whale oil. The location and deployment of camera traps is shown in Figures 4a-d.



Plate 3. Camera trap



Plate 4. Non-reward camera trap lure

3.5 DATA ANALYSIS

The data analysis focussed on characterising the vertebrate fauna assemblage in the project area and indicating similarities and differences among sites.

3.5.1 Defining fauna habitats

Fauna habitats can be determined in multiple ways. Prior to deploying traps in the ground and undertaking avian surveys, it is necessary to assess potential habitat types in the entire project area. This was done by a combination of staff including Dr Scott Thompson, Dr James Barr, Georgia Ford and John Radford with a visual inspection of the project areas on 6-13 April and 6-9 October 2022. Based on the visual assessment, it was determined that there was one major fauna habitat type (i.e. open mulga woodland with varying densities of mulga with sparse mid and understorey of shrubs and grasses in each of the five proposed trapping areas.

A Principal Component Analysis (PCA) was calculated in StatistiXL (www.statistixl.com) based on the vertebrate fauna trapping data. The PCA was performed using the correlation matrix and plotting PC1 against PC2 as these two principal components accounted for the highest percentage of variance. The spread and distribution of these plotted values was then used to interpret if one or more of the survey locations was appreciably different and should be analysed separately to the other sites/locations.

3.5.2 Characterising the vertebrate fauna assemblage

The diversity for the trapped fauna assemblage can be measured in numerous ways (Hayek and Buzas 1997, Magurran 2004). The four most common attributes are species richness, evenness, a single diversity score and relative abundance. These metrics are interrelated and there are a diverse number of analytical tools available to quantify these metrics and similarity among the trapped assemblages for each site.

3.5.2.1 Species richness and relative abundance

The actual number of species caught at each trapping site is one measure of species richness and is directly related to the trapping effort and number of individuals caught. Had the trapping effort been extended and more individuals caught, then it is likely the number of species caught at each site would increase (Colwell and Coddington 1994, Magurran 2004). Species richness and abundance was calculated using Species, Diversity and Richness software IV (www. https://www.pisces-conservation.com).

3.5.2.2 Evenness

Smith and Wilson (1996), supported by Magurran (2004), reported their measure of evenness (Evar) to be the most satisfactory overall. Species, Diversity and Richness software IV software (www. https://www.pisces-conservation.com) was used to calculate the Smith and Wilson method of determining evenness.

3.5.2.3 Diversity

Log series diversity (also known as Fisher's alpha) was used to measure diversity because of its good discriminating ability and low sensitivity to sample size (Kempton and Taylor 1974, Magurran 1988, Hayek and Buzas 1997). Log series diversity, Shannon-Wiener and Simpson's indices were calculated using Species, Diversity and Richness IV software (Pisces Conservation Ltd 2010).

3.5.2.4 Similarity

Having established that there were possible differences among the trapped assemblages at each site, Terrestrial Ecosystems wished to indicate the extent to which these trapped fauna assemblages were similar. The Morisita-Horn similarity index was used to compare similarity between combinations of trapped fauna assemblages at each site. The quantitative Morisita-Horn similarity index was selected because it is not strongly influenced by either species richness or sample size (Wolda 1981) and it was recommended by Magurran (2004). Readers should, however, be aware that it is heavily influenced by the abundance of the most abundant species. The Morisita-Horn similarity index was calculated using Species, Diversity and Richness software (Pisces Conservation Ltd 2010).

3.5.2.5 Species accumulation curves

Species accumulation curves, or collectors' curves, plot the cumulative number of species discovered in a defined sampling area with increasing levels of survey effort (Thompson and Thompson 2007c, Thompson et al. 2007). Species accumulation curves provide a measure of species inventory efficacy and completeness, and can be used to compare survey data based upon standardized sampling protocols (Moreno and Halffter 2000). Soberón and Llorente (1993) suggested that species accumulation curves lend rigour to fauna inventories.

Species accumulation curves were prepared to demonstrate the adequacy of the survey effort. Input data was the number of individuals trapped by species for 7 days and for birds, the number of individuals recorded for each species each day for the 55 survey sites. For the trapping data, captures were randomly allocated across the 7-day trapping period and 10,000 iterations were used to average the curve. Similarly for birds, the number of individuals by species for 7 days across 55 survey sites were randomised using 10,000 iterations to average the curve. Non-linear regression curves were then calculated using the Beta-P model (Thompson et al. 2003) in NLREG software (Sherrod 2001). Species accumulation curves were plotted with the ordinate axis as species richness and the abscissa the number of individuals caught or seen for birds.

3.6 FIELD WORK AND REPORTING STAFF

Dr Scott Thompson was the team leader and coordinated the overall field survey and a team of Terrestrial Ecosystems staff undertook the habitat assessments, set up the trapping sites and undertook the trapping survey (Table 2). The data analysis was undertaken by Dr G Thompson and the report prepared by Drs G. and S. Thompson.

Senior scientists have appropriate relevant post-graduate qualifications, extensive experience in conducting fauna assessments in the Goldfields, have published research articles on biodiversity, fauna assemblages, conservation significant species, trapping techniques and temporal variations in trapped fauna assemblages based on Goldfields surveys and are therefore appropriately trained and experienced to undertake the survey and prepare the assessment.

Dr Scott Thompson is the only environmental practitioner in Western Australia who has independent specialist certification (CEnvP – Ecology Specialist) in combination with post-graduate tertiary qualifications and is a licenced pest management technician (LPMT). This unique set of skills and qualifications ensures Scott undertakes fauna surveys, assessments and control programs to the highest standard and quality assurance. The qualifications and experience of the survey personnel are shown in Table 2.

Table 2. Project personnel and their qualifications

Name	Qualifications	Experience	Role
Dr Scott Thompson	BSc. (Env. Sc.), MSc. (Env. Mngt.), PhD (Env. Sc./Mngt). CEnvP (Ecology Specialist)	> 20 years	Survey coordinator and Principal zoologist
Dr Graham Thompson	Post Grad. Dip. (Zool.), PhD (Zoology)	> 20 years	Principal zoologist
Georgia Ford	BSc., MSc. (Zoology)	> 6 years	Zoologist
Dr James Barr	BSc (Zoology and Biochemistry), Cert IV (Veterinary nursing), PhD (Behavioural ecology)	> 10 years	Zoologist
Joel Wilson	BSc (Zoology)	> 4 years	Zoologist
John Radford	BSc (Sustainable Resource Management)	> 2 years	Zoologist
Brody Altus	BSc (Zoology)	> 1 year	Zoologist
Stelleena Mackay	BSc (Zoology)	> 1 year	Zoologist
Des Hume		> 20 years	Ornithologist and ecologist

All fauna trapping was conducted under a DBCA issued Regulation 28 licence #BA27000738 issued to Dr Scott Thompson.

3.7 ANIMAL ETHICS

The Department of Primary Industry and Regional Development is still in the early stages of operating a Wildlife Animal Ethics Committee (WAEC) for environmental consultants in WA. Terrestrial Ecosystems application has been submitted but is yet to be processed.

To minimise fauna deaths due to heat stress, all funnel traps had two shade covers and all buckets contained two pieces of polystyrene. Polystyrene sheets insulate against heat and float, providing a raft for small individuals when pit-traps filled with water (Thompson and Thompson 2009). Traps were cleared daily

commencing at first light with the last traps cleared within 4 hours of sunrise. Ant powder was placed around and in pit and funnel traps where ants were an obvious problem.

The survey methods utilised by Terrestrial Ecosystems comply with our standard operating procedures (SOP) for animal trapping, handling and management. The EPA (2016, 2020) guidance statements provide a vague indication of what is required for terrestrial fauna surveys and some of the Commonwealth Government guidance statements (Department of the Environment 2010, Department of Sustainability and Environment Water Population and Communities 2011, Department of Sustainability Environment Water Population and Communities 2011b, a, Department of the Environment 2016) and some of the State Government conservation significant species survey guidelines (Department of Parks and Wildlife 2014, Department of Biodiversity Conservation and Attractions 2017a) are often inadequate for the task or simply inappropriate or outdated. In developing our SOP, Terrestrial Ecosystems typically modified and exceeds other survey guidance to provide adequate data to undertake an environmental impact assessment.

Our methods have taken into consideration information in the SOPs developed by DBCA (Department of Parks and Wildlife 2013, Department of Biodiversity Conservation and Attractions 2017b, d, c, 2018a, b, c, d). Many of these DBCA methods are now more than 3 years old, and most of these SOPs were not written to meet the requirements of environmental consultants undertaking field surveys. Although based on DBCA SOPs, we have refined the techniques based on other published SOPs, survey guidelines and published research from other practitioners including ourselves (Ratkowsky and Ratkowsky 1979, Friend and Mitchell 1988, Enge 1997, Christiansen and Vandewalle 2000, Mawson and Orell 2001, Triggs 2004, Bibby 2005, Blackwell et al. 2006, Bibby et al. 2007, Pestell and Petit 2007, Reungsivakul et al. 2007, Thompson and Thompson 2007b, Richter and Freegard 2009, Thompson and Thompson 2009, Davis 2011, Birdlife Australia 2012, Meek et al. 2012, Michael et al. 2012, Pike and Kleindienst 2012, Sharp 2012a, b, Meek and Fleming 2015, Beebe et al. 2016, Griffith University 2016, Queensland Government 2018a, b, c, Watson et al. 2018, Thomas et al. 2020, McCarthy et al. 2021, Bennett et al. 2022, Smith et al. 2022, Waudby et al. 2022, Bower n.d.-b, a). On all occasions the purpose is the humane and lawful capture of fauna.

3.8 TAXONOMY AND NOMENCLATURE

Taxonomy and nomenclature for fauna species used in this report are generally based on the WA Museum species list. Terrestrial Ecosystems has presumed that the identifications referred to in the appendices and in the reports used to provide regional comparative data are correct and we have only corrected obvious records where the nomenclature was known to be incorrect.

3.9 LOCAL WEATHER CONDITIONS

Daily weather information was collected by Regis during the trapping and bird survey period and is provided in Table 3. Weather was suitable for trapping terrestrial fauna and observing birds.

Table 3. Daily weather during the survey period at Garden Well mine site

Date	Minimum (ºC)	Maximum (ºC)	Rainfall (mm)
5-Nov	20	35	0
6-Nov	18	38	0
7-Nov	19	33	0
8-Nov	18	26	0
9-Nov	15	28	0
10-Nov	18	34	0
11-Nov	18	28	0
12-Nov	14	23	0

3.10 LIMITATIONS

This Basic and Detailed fauna risk assessment uses information contained in the Commonwealth Government Matters of National Environmental Significance (MNES) online database and other published and unpublished fauna survey data for the bioregion and site surveys.

The EPA (2020) *Technical Guidance – Terrestrial vertebrate fauna surveys for environmental impact assessment* suggested that fauna surveys may be limited by many variables. Limitations associated with each of these variables are assessed in Table 4.

Table 4. Fauna survey limitations and constraints

Possible limitations	Constraint (yes/no); significant, moderate or negligible	Comment
Availability of data and information	No	Previous surveys were undertaken for the Duketon and Garden Well project areas. More than half of the Duketon survey areas were sparse mulga woodlands and all of the survey sites for Garden Well were mulga woodlands. In addition, there is an earlier survey data for the Rosemont mining area, which was also a mulga woodland, so there is a substantial fauna survey data for the general area.
Competency/experience of the survey team, including experience in the bioregion surveyed	No	Dr Scott Thompson, who was project manager, was involved in the Duketon fauna survey and was the manager of the Garden Well fauna survey. Scott has also undertaken multiple other surveys and assessments in the Goldfields, so he is suitably qualified and experienced for this task. Other staff on the survey had varying levels of experience and qualifications in field surveys and were appropriately supervised during the survey. The authors of this report have appropriate graduate and post-graduate qualifications, undertaken multiple surveys and assessments in the Goldfields, have published a book and multiple refereed journal articles based on fauna surveys in the region and are familiar with the vertebrate fauna in this bioregion.
Scope of the survey, e.g. where faunal groups were excluded from the survey	No	All aspects of the scope have been addressed.
Timing, weather and season	No	The weather was suitable for the field work.
Disturbance that may have affected results, e.g. fire, flood	No	All project areas had been previously disturbed by either exploration, mining activities or the construction of tracks. These disturbances have been factored into this assessment.
The proportion of fauna identified, recorded or collected	No	The species accumulation curves indicated that more than 85% of terrestrial fauna were trapped and the additional observations increase this percentage. The avifauna survey recorded approximately 75% of the bird species likely to be present in the project area.
Adequacy of the survey intensity and proportion of survey achieved, e.g. the extent to which the area was surveyed	No	The survey effort undertaken exceeds that typically undertaken by environmental consultants for a Basic and Detailed survey.
Access problems	No	There were no access problems.
Problems with data and analysis, including sampling biases.	No	There were no problems with the data analysis and no obvious biases that would alter the regulators assessment of potential impacts of vegetation clearing and mining operations.

4. RESULTS

4.1 FAUNA HABITAT

There is one broad fauna habitat in the project area - mulga woodland over sparse shrubs and grasses. Interspersed in this habitat are numerous disturbed areas due to exploration drilling activity and previous mining. Plates 5 – 24 provide an indication of the fauna habitats in the five trapping site locations. Plates 25-28 show disturbance areas that are largely devoid of terrestrial fauna.



Plate 5. Fauna habitat around the trapping sites in the Commonwealth project area



Plate 6. Fauna habitat around the trapping sites in the Commonwealth project area



Plate 7. Fauna habitat around the trapping sites in the Commonwealth project area



Plate 8. Fauna habitat around the trapping sites in the Commonwealth project area



Plate 9. Fauna habitat around the trapping sites in the Davies Bore project area



Plate 10. Fauna habitat around the trapping sites in the Davies Bore project area



Plate 11. Fauna habitat around the trapping sites in the Davies Bore project area



Plate 12. Fauna habitat around the trapping sites in the Davies Bore project area



Plate 13. Fauna habitat around the trapping sites in the King John project area



Plate 14. Fauna habitat around the trapping sites in the King John project area



Plate 15. Fauna habitat around the trapping sites in the King John project area



Plate 16. Fauna habitat around the trapping sites in the King John project area



Plate 17. Fauna habitat around the trapping sites in the Thompson's Bore project area



Plate 18. Fauna habitat around the trapping sites in the Thompson's Bore project area



Plate 19. Fauna habitat around the trapping sites in the Thompson's Bore project area



Plate 20. Fauna habitat around the trapping sites in the Thompson's Bore project area



Plate 21. Fauna habitat in the Betelgeuse project area



Plate 22. Fauna habitat in the Betelgeuse project area



Plate 23. Fauna habitat in the Betelgeuse project area



Plate 24. Fauna habitat in the Betelgeuse project area



Plate 25. Disturbance area



Plate 26. Disturbance area



Plate 27. Disturbance area



Plate 28. Disturbance area

4.1.1 Fauna habitat condition

The habitat condition varied but was generally in good to poor condition as a consequence of long-term cattle grazing (Plate 29), a small population of rabbits (Plate 30), exploration and the dry conditions in recent years. The Commonwealth site has the least amount of vegetation, which would therefore have reduced species richness and relative abundance of terrestrial and avian fauna compared with the other sites.



Plate 29. Cattle



Plate 30. Rabbit scats

The results of the rapid habitat assessment are shown in Appendix F and the location of each of these assessment sites is shown in Figure 22. The density of trees and shrubs varied across the project area but was mostly sparse.

4.2 FAUNA ASSEMBLAGE

4.2.1 Trapped terrestrial vertebrate fauna

The terrestrial vertebrate fauna were trapped at 20 sites using buckets and pipes as pit-traps and funnel traps along fly-wire drift fences. The results of the trapping program are provided by location (Table 5) and trap type (

Table 6). Bucket pit-traps, followed by funnel traps were the most successful method of catching terrestrial fauna.

Table 5. Fauna trapped by location

Taxa	Family	Species	Commonwealth	Davies Bore	King John	Thompson's Bore
Mammal	Dasyuridae	*Antechinomys laniger*	1	1		
		Sminthopsis dolichura	16	23	1	12
		Sminthopsis macroura	20	5	4	8
	Muridae	*Pseudomys hermannsburgensis*	4	2	6	1
Reptile	Agamidae	*Ctenophorus scutulatus*		4		2
		Diporiphora amphiboluroides	2	3	6	5
		Pogona minor			1	
		Tympanocryptis pseudopsephos	1	2	1	
	Carphodactylidae	*Nephrurus vertebralis*		5		1
		Underwoodisaurus milii	3			
	Diplodactylidae	*Diplodactylus conspicillatus*			23	5
		Diplodactylus pulcher	14	10	40	16
		Rhynchoedura ornata	1	5	3	
		Strophurus wellingtonae		8	1	2
	Elapidae	*Brachyurophis semifasciatus*		1		
		Furina ornata		1		
		Parasuta monachus		1		
		Pseudonaja modesta		1	1	2
	Gekkonidae	*Gehyra variegata*	15	10	9	11
		Heteronotia binoei	3	3	4	
	Pygopodidae	*Pygopus nigriceps*			3	1

Taxa	Family	Species	Commonwealth	Davies Bore	King John	Thompson's Bore
	Scincidae	*Ctenotus leonhardii*		3	3	1
		Ctenotus schomburgkii		31		4
		Ctenotus uber	2	20	20	34
		Egernia depressa	2	14	4	6
		Egernia formosa	4	10	15	1
		Eremiascincus richardsonii	4		7	
		Lerista desertorum	1	3	8	4
		Lerista kingi	5	7		19
		Menetia greyii	15	6		7
		Morethia butleri		1	10	2
	Typhlopidae	*Anilios hamatus*	1	4	5	1
	Varanidae	*Varanus caudolineatus*	3	1	6	6
		Varanus panoptes	1	2	1	

In addition, *Varanus giganteus*, *Ctenophorus nuchalis*, *Moloch horridus* and *Antaresia stimsoni* were opportunistically recorded but not caught in traps. Mammals *Osphranter rufus*, *Osphranter robustus*, *Canis lupus* (Plate 31), *Bos taurus, Oryctolagus cuniculus* and *Felis catus* (Plate 32) were also recorded in the project areas.



Plate 31. Wild dogs



Plate 32. Feral cat

Table 6. Fauna trapped by trap type

Taxa	Family	Species	Bucket	Funnel	Pipe
Mammal	Dasyuridae	*Antechinomys laniger*			2
		Sminthopsis dolichura	23		29
		Sminthopsis macroura	12		25
	Muridae	*Pseudomys hermannsburgensis*	6		7
Reptiles	Agamidae	*Ctenophorus scutulatus*	3	1	2
		Diporiphora amphiboluroides	13		3
		Pogona minor		1	
		Tympanocryptis pseudopsephos	3		1
	Carphodactylidae	*Nephrurus vertebralis*	2		4
		Underwoodisaurus milii	2	1	
	Diplodactylidae	*Diplodactylus conspicillatus*	20	5	3
		Diplodactylus pulcher	54	8	18
		Rhynchoedura ornata	6		3
		Strophurus wellingtonae	8	2	1
	Elapidae	*Brachyurophis semifasciatus*	1		
		Furina ornata		1	
		Parasuta monachus		1	
		Pseudonaja modesta	2	1	1
	Gekkonidae	*Gehyra variegata*	24	16	5
		Heteronotia binoei	3	6	1
	Pygopodidae	*Pygopus nigriceps*		4	
	Scincidae	*Ctenotus leonhardii*	3	4	
		Ctenotus schomburgkii	15	16	4
		Ctenotus uber	31	33	12
		Egernia depressa	16	5	5
		Egernia formosa	10	16	4
		Eremiascincus richardsonii	4	3	4
		Lerista desertorum	6	1	9
		Lerista kingi	11	6	14
		Menetia greyii	19	5	4

Taxa	Family	Species	Bucket	Funnel	Pipe
		Morethia butleri	1	9	3
	Typhlopidae	*Anilios hamatus*	7	4	
	Varanidae	*Varanus caudolineatus*	6	9	1
		Varanus panoptes	1	3	

4.2.2 Trap type

Three trap types were deployed in this detailed trapping survey. Different trap types sample the small vertebrate assemblages differently (Thompson et al. 2005, Thompson and Thompson 2007b). Small mammals were only caught in pit-traps. Funnel traps were particularly useful in catching ctenotus skinks and varanids, and pit-traps in catching geckos. Interestingly, *Diporiphora amphiboluroides, Egernia depressa* and *Menetia greyii* were mostly caught in bucket pit-traps but not pipe pit-traps.

4.2.3 Avifauna

Bird species recorded in the four trapping locations are shown in Table 7. Avifauna were in very low abundance with a very large number of singletons and doubletons being recorded. This almost certainly was due to the spareness of the vegetation and dry conditions (Craig and Chapman 2003) .

Table 7. Bird species observed at the three locations

Species	Commonwealth	Davies Bore	King John	Thompson's Bore
Acanthiza apicalis	5	1	4	3
Acanthiza uropygialis	7	7	18	6
Accipiter cirrocephalus				1
Aegotheles cristatus	1	1	1	
Aquila audax			1	
Artamus cinereus		2		1
Barnardius zonarius	2	1		
Certhionyx variegatus			3	
Chlamydera guttata		1		
Cinclosoma clarum			2	
Climacteris affinis	1	3		1
Colluricincla harmonica	2	5	1	4
Coracina novaehollandiae		1		
Corvus coronoides	3			
Corvus orru			2	
Daphoenositta chrysoptera	3			
Dicaeum hirundinaceum		1		

Species	Commonwealth	Davies Bore	King John	Thompson's Bore
Eolophus roseicapilla	10			
Gavicalis virescens	11	14	9	11
Grallina cyanoleuca		1		
Gymnorhina tibicen	2			
Lichenostomus virescens	8	3	16	3
Lichmera indistincta			1	
Malurus assimilis				2
Malurus splendens	4	2	2	
Manorina flavigula	1	1		
Melanodryas cucullata	2	2		
Melopsittacus undulatus			1	
Neopsephotus bourkii				1
Ocyphaps lophotes	1			
Oreoica gutturalis	12	15	15	14
Pachycephala rufiventris	15	13	12	2
Petroica goodenovii	7	6	6	6
Phaps chalcoptera			1	
Pomatostomus superciliosus	1	6		
Pyrrholaemus brunneus	5		1	
Rhipidura leucophrys	4	1		2

4.2.4 Camera trapping

Camera trap results are provided in a matrix in Appendix C. The camera trap yielded no additional species to those caught in pit and funnel traps or observed during the avifauna survey or opportunistic observations while undertaking other survey activities or habitat assessments. Plate 33 shows a Western Grey Kangaroo caught on a camera trap.



Plate 33. Western Grey Kangaroo

4.3 FAUNA ASSEMBLAGE STRUCTURE

4.3.1 Fauna assemblages determining fauna habitats

PCA calculated for the trapping data indicated four of the five King John sites separated from the other locations in PC1, and the Thompson's Bore sites separate from most of the other sites on the second PCA. The fauna assemblages at the Commonwealth and Davies Bore sites were similar (Chart 2). These differences in the fauna assemblages among locations was not considered to be significant enough to warrant an analysis of the four trapping site locations separately, so all the trapping data has been grouped and analysed together.

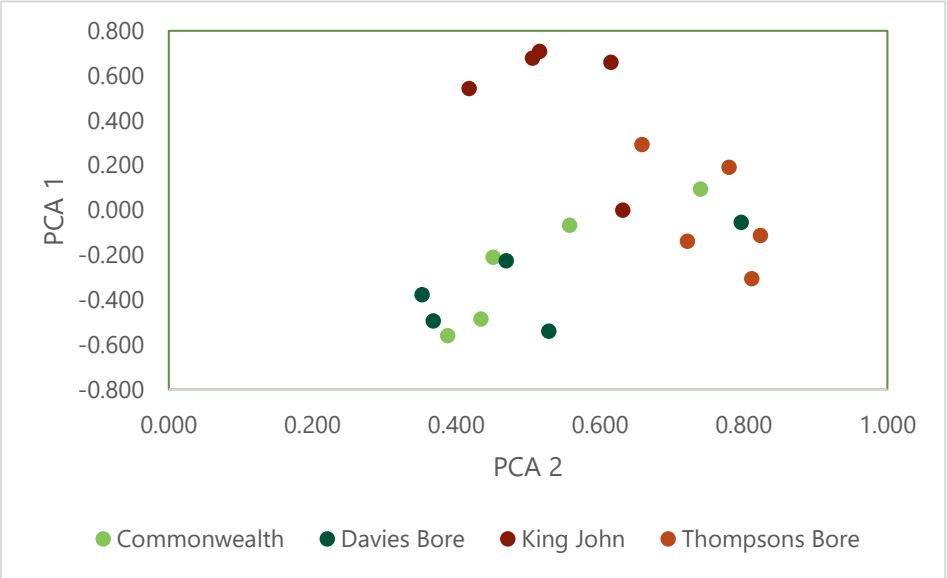


Chart 2. PCA based on trapping data for the four locations

4.3.2 Species accumulation curves

Species accumulation curves plot the cumulative number of species recorded in a defined sampling area with increasing levels of survey effort (Thompson and Withers 2003, Thompson and Thompson 2007c, Thompson et al. 2007). They can provide a measure of species inventory efficacy and completeness, can be used to

compare surveys based upon standardized sampling protocols (Moreno and Halffter 2000) and can provide information about the assemblage structure (Thompson and Withers 2003).

When the data from all trapping sites were combined, 34 species of reptiles and small mammals (i.e. 30 reptiles and 4 mammals) were trapped in the project area. Species accumulation curves were calculated for the entire dataset and this modelling predicted that 37 species would be caught if 2,500 individuals had been caught (Chart 3). Observations while clearing traps indicated that there was a very low abundance of *Varanus giganteus*, *Ctenophorus nuchalis*, *Moloch horridus* and *Antaresia stimsoni* in the project areas, and the addition of these species takes the total to 38 species. These data indicate that adequate sampling effort was undertaken for the project area.

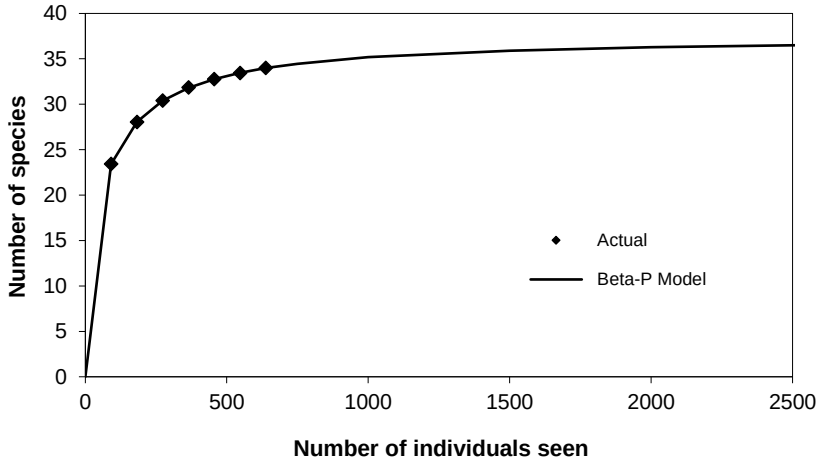


Chart 3. Species accumulation curve for the trapped data

The species accumulation curve for avifauna recorded at the 55 surveys sites is shown in Chart 4. The observed species richness across all locations was 42 species, and had 2,500 birds been recorded, then the estimated number of species recorded would have been 54 species.

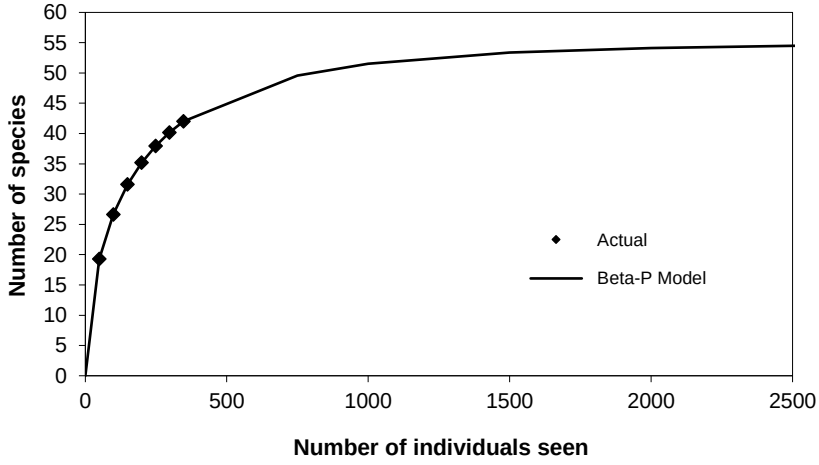


Chart 4. Species accumulation curve for all bird observations at the 55 sites

4.3.3 Diversity and evenness

Diversity scores for the trapping data indicated a relatively high level of similarity among locations, with Davies Bore having a higher species richness and this would have contributed to the slightly higher diversity and evenness scores (Table 8).

Table 8. Diversity and evenness indices and species richness for vertebrate fauna captures for trapping sites

Trapping locations	Fisher's Alpha	Shannon-Weiner Index (H)	Simpson's Index	Evenness	Species richness
Commonwealth	7.4	2.6	10.6	0.48	21
Davies Bore	9.6	2.9	14.0	0.49	29
King John	7.4	2.7	10.7	0.46	24
Thompson's Bore	7.6	2.6	10.4	0.46	23
All Sample Index	7.7	3.0	16.4	0.37	34

4.3.4 Similarity

A similarity score of 1.0 (range 0.0–1.0) indicates that the two sites being compared have identical fauna assemblages, whereas a low score indicates that the fauna assemblages differ appreciably. The fauna assemblages were not similar among locations, and this would have been partially contributed to by the low number of individuals caught for many species (Table 9). This low species abundance is typical of sparse mulga woodlands with very little leaf-litter and shelter for small terrestrial animals.

Table 9. Similarity in the trapped fauna assemblage among each of the survey sites

	Commonwealth	Davies Bore	King John
Davies Bore	0.52		
King John	0.47	0.43	
Thompson's Bore	0.58	0.68	0.64

4.4 BIOREGIONAL VERTEBRATE FAUNA ASSEMBLAGE

Appendix D provides a summary of the fauna survey data that are available near the project area. There are appreciable differences in the recorded fauna assemblages within and among fauna surveys shown in Appendix D. These differences are partially due to the low survey effort deployed by some of the surveys and they also reflect variations in soils and vegetation as well as temporal variations in the fauna assemblages.

Tables 10-13 provide a list of vertebrate species potentially found near the project area that have been compiled based on the fauna survey report results shown in Appendix D.

Table 10. Birds potentially found near the project area

Family	Species	Common Name
Casuariidae	*Dromaius novaehollandiae*	Emu
Anatidae	*Cygnus atratus*	Black Swan
	Tadorna tadornoides	Australian Shelduck
Anatidae	*Chenonetta jubata*	Australian Wood Duck
	Anas superciliosa	Pacific Black Duck
	Anas gracilis	Grey Teal
	Malacorhynchus membranaceus	Pink-eared Duck
	Aythya australis	Hardhead
	Biziura lobata	Musk Duck
Megapodiidae	*Leipoa ocellata*	Malleefowl
Podicipedidae	*Tachybaptus novaehollandiae*	Australasian Grebe
	Poliocephalus poliocephalus	Hoary-headed Grebe
Columbidae	*Phaps chalcoptera*	Common Bronzewing
	Ocyphaps lophotes	Crested Pigeon
	Geophaps plumifera	Spinifex Pigeon
	Geopelia cuneata	Diamond Dove
Cuculidae	*Chrysococcyx basalis*	Horsfield's Bronze-Cuckoo
	Chrysococcyx osculans	Black-eared Cuckoo
Aegothelidae	*Aegotheles cristatus*	Australian Owlet-nightjar
Podargidae	*Podargus strigoides*	Tawny Frogmouth
Caprimulgidae	*Eurostopodus argus*	Spotted Nightjar
	Apus pacificus	Pacific Swift
Rallidae	*Tribonyx ventralis*	Black-tailed Nativehen
	Fulica atra	Eurasian Coot
Recurvirostridae	*Himantopus himantopus*	Black-winged Stilt
	Himantopus leucocephalus	Pied Stilt
	Cladorhynchus leucocephalus	Banded Stilt
Recurvirostridae	*Recurvirostra novaehollandiae*	Red-necked Avocet
Charadriidae	*Vanellus tricolor*	Banded Lapwing
	Charadrius ruficapillus	Red-capped Plover
	Erythrogonys cinctus	Red-kneed Dotterel
	Elseyornis melanops	Black-fronted Dotterel
Scolopacidae	*Actitis hypoleucos*	Common Sandpiper
Turnicidae	*Turnix velox*	Little Buttonquail
Laridae	*Chlidonias hybrida*	Whiskered Tern
Otididae	*Ardeotis australis*	Australian Bustard
Ardeidae	*Ardea pacifica*	White-necked Heron
	Egretta novaehollandiae	White-faced Heron
Anhingidae	*Anhinga melanogaster*	Australasian Darter
Phalacrocoracidae	*Microcarbo melanoleucos*	Little Pied Cormorant
Accipitridae	*Hamirostra melanosternon*	Black-breasted Buzzard
	Hieraaetus morphnoides	Little Eagle
	Aquila audax	Wedge-tailed Eagle
	Circus assimilis	Spotted Harrier
	Accipiter fasciatus	Brown Goshawk
	Accipiter cirrocephalus	Collared Sparrowhawk
	Milvus migrans	Black Kite
	Haliastur sphenurus	Whistling Kite
Cuculidae	*Heteroscenes pallidus*	Pallid Cuckoo
Strigidae	*Ninox boobook*	Southern Boobook

Family	Species	Common Name
Alcedinidae	*Todiramphus pyrrhopygius*	Red-backed Kingfisher
Meropidae	*Merops ornatus*	Rainbow Bee-eater
Falconidae	*Falco cenchroides*	Nankeen Kestrel
	Falco longipennis	Australian Hobby
	Falco berigora	Brown Falcon
	Falco peregrinus	Peregrine Falcon
Megaluridae	*Poodytes carteri*	Spinifexbird
Cacatuidae	*Eolophus roseicapilla*	Galah
	Cacatua sanguinea	Little Corella
	Nymphicus hollandicus	Cockatiel
Psittaculidae	*Neopsephotus bourkii*	Bourke's Parrot
	Barnardius zonarius	Australian Ringneck
	Psephotus varius	Mulga Parrot
	Melopsittacus undulatus	Budgerigar
Ptilonorhynchidae	*Chlamydera guttata*	Western Bowerbird
	Ptilonorhynchus maculata	Spotted Bowerbird
Climacteridae	*Climacteris affinis*	White-browed Treecreeper
	Climacteris rufus	Rufous Treecreeper
Maluridae	*Amytornis striatus*	Striated Grasswren
	Stipiturus ruficeps	Rufous-crowned Emuwren
	Malurus assimilis	Purple-backed Fairywren
	Malurus lamberti	Variegated Fairywren
	Malurus splendens	Splendid Fairywren
	Malurus leucopterus	White-winged Fairywren
Meliphagidae	*Certhionyx variegatus*	Pied Honeyeater
	Purnella albifrons	White-fronted Honeyeater
	Manorina flavigula	Yellow-throated Miner
	Acanthagenys rufogularis	Spiny-cheeked Honeyeater
	Anthochaera carunculata	Red Wattlebird
	Gavicalis virescens	Singing Honeyeater
	Ptilotula penicillata	White-plumed Honeyeater (Western)
	Ptilotula keartlandi	Grey-headed Honeyeater
	Ptilotula plumula	Grey-fronted Honeyeater
	Epthianura tricolor	Crimson Chat
	Epthianura aurifrons	Orange Chat
	Sugomel nigrum	Black Honeyeater
Meliphagidae	*Lichmera indistincta*	Brown Honeyeater
	Nesoptilotis flavicollis	Yellow-throated Honeyeater
Pardalotidae	*Pardalotus rubricatus*	Red-browed Pardalote
	Pardalotus striatus	Striated Pardalote
Acanthizidae	*Pyrrholaemus brunneus*	Redthroat
	Acanthiza apicalis	Inland Thornbill
	Acanthiza chrysorrhoa	Yellow-rumped Thornbill
	Acanthiza uropygialis	Chestnut-rumped Thornbill
	Acanthiza robustirostris	Slaty-backed Thornbill
	Smicrornis brevirostris	Weebill
	Gerygone fusca	Western Gerygone
	Aphelocephala leucopsis	Southern Whiteface
	Aphelocephala nigricincta	Banded Whiteface
Pomatostomidae	*Pomatostomus temporalis*	Grey-crowned Babbler
	Pomatostomus superciliosus	White-browed Babbler
Cinclosomatidae	*Cinclosoma castaneothorax*	Chestnut-breasted Quail-thrush
Cinclosoma	*Cincolsoma cinnamomeum*	Cinnamon Quail-thrush
Campephagidae	*Coracina maxima*	Ground Cuckooshrike
	Coracina novaehollandiae	Black-faced Cuckooshrike
	Lalage tricolor	White-winged Triller
Neosittidae	*Daphoenositta chrysoptera*	Varied Sittella
Oreoicidae	*Oreoica gutturalis*	Crested Bellbird
Pachycephalidae	*Colluricincla harmonica*	Grey Shrikethrush
Pachycephalidae	*Pachycephala rufiventris*	Rufous Whistler
Artamidae	*Artamus personatus*	Masked Woodswallow

Family	Species	Common Name
	Artamus superciliosus	White-browed Woodswallow
	Artamus cinereus	Black-faced Woodswallow
	Artamus cyanopterus	Dusky Woodswallow
	Artamus minor	Little Woodswallow
Artamidae	*Cracticus torquatus*	Grey Butcherbird
	Cracticus nigrogularis	Pied Butcherbird
	Gymnorhina tibicen	Australian Magpie
	Strepera versicolor	Grey Currawong
Rhipiduridae	*Rhipidura leucophrys*	Willie Wagtail
	Rhipidura albiscapa	Grey Fantail
Monarchidae	*Grallina cyanoleuca*	Magpie-lark
Corvidae	*Corvus orru*	Torresian Crow
	Corvus bennetti	Little Crow
Petroicidae	*Microeca fascinans*	Jacky Winter
	Petroica goodenovii	Red-capped Robin
	Melanodryas cucullata	Hooded Robin
Alaudidae	*Mirafra javanica*	Australasian Bushlark
Locustellidae	*Cincloramphus cruralis*	Brown Songlark
Hirundinidae	*Hirundo rustica*	Barn Swallow
	Hirundo neoxena	Welcome Swallow
	Petrochelidon ariel	Fairy Martin
	Petrochelidon nigricans	Tree Martin
	Cheramoeca leucosterna	White-backed Swallow
Dicaeidae	*Dicaeum hirundinaceum*	Mistletoebird
Estrildidae	*Emblema pictum*	Painted Finch
	Taeniopygia guttata	Zebra Finch
Motacillidae	*Anthus novaeseelandiae*	Australasian Pipit

Table 11. Amphibians potentially found near the project area

Family	Species	Common Name
Limnodynastidae	*Neobatrachus kunapalari*	Wheatbelt Frog
	Neobatrachus sudelli	Sudell's Frog
	Neobatrachus sutor	Shoemaker Frog
	Neobatrachus wilsmorei	Plonking Frog
	Notaden nichollsi	Desert Spadefoot
	Platyplectrum spenceri	Spencer's Burrowing Frog
Myobatrachidae	*Pseudophryne occidentalis*	Western Toadlet
Pelodryadidae	*Cyclorana cultripes*	Knife-footed Frog
	Cyclorana maini	Main's Frog
	Cyclorana occidentalis	Western Water-holding Frog
	Litoria rubella	Desert Tree Frog

Table 12. Mammals potentially found near the project area

Family	Species	Common Name
Tachyglossidae	*Tachyglossus aculeatus*	Short-beaked Echidna
Bovidae	*Bos taurus*	Cow
	Capra hircus	Goat
Camelidae	*Camelus dromedarius*	Dromedary
	Canis lupus	Dingo
	Vulpes vulpes	Red Fox
Felidae	*Felis catus*	Cat
Emballonuridae	*Saccolaimus flaviventris*	Yellow-bellied Sheath-tail Bat
Molossidae	*Austronomus australis*	White-striped Freetail Bat
Molossidae	*Mormopterus planiceps*	Southern Free-tail Bat
Pteropodidae	*Syconycteris australis*	Common Blossom-bat
Vespertilionidae	*Nyctophilus sp.*	Long-eared Bat sp.
	Chalinolobus gouldii	Gould's Wattled Bat
	Chalinolobus morio	Chocolate Wattled Bat

Family	Species	Common Name
	Mormopterus sp.	Free-tail Bat sp.
	Nyctophilus geoffroyi	Lesser Long-eared Bat
	Scotorepens balstoni	Inland Broad-nosed Bat
	Vespadelus finlaysoni	Finlayson's Cave Bat
Dasyuridae	*Planigale sp.*	Planigale sp.
	Antechinomys laniger	Kultarr
	Dasycercus blythi	Brush-tailed Mulgara
	Dasykaluta rosamondae	Kaluta
	Ningaui ridei	Wongai Ningaui
	Ningaui yvonneae	Mallee Ningaui
	Pseudantechinus macdonnellensis	Fat-tailed False Antechinus
	Pseudantechinus woolleyae	Woolley's False Antechinus

Family	Species	Common Name
	Sminthopsis crassicaudata	Fat-tailed Dunnart
	Sminthopsis dolichura	Little Long-tailed Dunnart
	Sminthopsis hirtipes	Hairy-footed Dunnart
	Sminthopsis longicaudata	Long-tailed Dunnart
	Sminthopsis macroura	Stripe-faced Dunnart
	Sminthopsis ooldea	Ooldea Dunnart
	Sminthopsis youngsoni	Lesser Hairy-footed Dunnart
Macropodidae	*Macropus fuliginosus*	Western Grey Kangaroo
	Osphranter robustus	Euro
	Osphranter rufus	Red Kangaroo
Leporidae	*Oryctolagus cuniculus*	Rabbit
Equidae	*Equus asinus*	Donkey

Table 13. Reptiles potentially found near the project area

Family	Species	Common Name
Agamidae	*Ctenophorus caudicinctus*	Ring-tailed Dragon
	Ctenophorus clayi	Black-collared Dragon
	Ctenophorus fordi	Mallee Dragon
	Ctenophorus inermis	Military Dragon
	Ctenophorus isolepis	Central Military Dragon
	Ctenophorus maculatus	Spotted Dragon
	Ctenophorus nuchalis	Central Netted Dragon
	Ctenophorus reticulatus	Western Netted Dragon
	Ctenophorus salinarum	Saltpan Dragon
	Ctenophorus scutulatus	Lozenge-marked Dragon
	Diporiphora amphiboluroides	Mulga Dragon
	Diporiphora valens	Southern Pilbara Tree Dragon
	Gowidon longirostris	Long-nosed Dragon
	Moloch horridus	Thorny Devil
	Pogona minor	Western Bearded Dragon

Family	Species	Common Name
	Tympanocryptis pseudospephos	Pebble Dragon
Carphodactylidae	*Nephrurus laevissimus*	Smooth Knob-tail
	Nephrurus levis	Three-lined Knob-tail
	Nephrurus vertebralis	Midline Knob-tail
	Underwoodisaurus milii	Barking Gecko
Diplodactylidae	*Diplodactylus conspicillatus*	Fat-tailed Gecko
	Diplodactylus granariensis	Wheatbelt Stone Gecko
	Diplodactylus pulcher	Beautiful Gecko
	Lucasium bungabinna	Southern Sandplain Gecko
	Lucasium damaeum	Beaded Gecko
	Lucasium squarrosum	Mottled Ground Gecko
	Lucasium stenodactylum	Crowned Gecko
	Rhynchoedura ornata	Beaked Gecko
	Strophurus assimilis	Goldfields Spiny-tailed Gecko
	Strophurus ciliaris	Spiny-tailed Gecko

Family	Species	Common Name
	Strophurus elderi	Jewelled Gecko
	Strophurus spinigerus	South-western Spiny-tailed Gecko
	Strophurus strophurus	Western Spiny-tailed Gecko
	Strophurus wellingtonae	Western Shield Spiny-tailed Gecko
Elapidae	*Brachyurophis fasciolatus*	Narrow-banded Burrowing Snake
	Brachyurophis semifasciata	Half-girdled Snake
	Demansia psammophis	Yellow-faced Whipsnake
	Demansia rufescens	Rufous Whipsnake
	Furina ornata	Orange-naped Snake
	Suta monachus	Hooded Snake
	Pseudechis australis	Mulga Snake
	Pseudechis butleri	Spotted Mulga Snake
	Pseudonaja mengdeni	Western Brown Snake
	Pseudonaja modesta	Ringed Brown Snake
	Simoselaps anomalus	Desert Banded Snake
	Simoselaps bertholdi	Jan's Banded Snake
	Suta fasciata	Rosen's Snake
Gekkonidae	*Christinus marmoratus*	Marbled Gecko
	Gehyra punctata	Spotted Dtella
	Gehyra purpurascens	Purplish Dtella
	Gehyra variegata	Variegated Gehyra
	Heteronotia binoei	Bynoe's Gecko
	Gehyra xenopus	Crocodile-faced Dtella
Pygopodidae	*Delma butleri*	Unbanded Delma
	Delma fraseri	Fraser's Delma
	Delma nasuta	Sharp-snouted Delma
	Delma pax	Peace Delma
	Lialis burtonis	Burton's Legless Lizard
	Pygopus nigriceps	Western Hooded Scaly-foot
Pythonidae	*Antaresia stimsoni*	Stimson's Python

Family	Species	Common Name
Scincidae	*Carlia triacantha*	Desert Rainbow-skink
	Cryptoblepharus australis	Inland Snake-eyed Skink
	Cryptoblepharus buchananii	Buchanan's Snake-eyed Skink
	Ctenotus ariadnae	Ariadna's Ctenotus
	Ctenotus atlas	Southern Mallee Ctenotus
	Ctenotus brooksi	Wedgsnout Ctenotus
	Ctenotus calurus	Blue-tailed Finesnout Ctenotus
	Ctenotus colletti	Buff-tailed Finesnout Ctenotus
	Ctenotus dux	Fine Side-lined Ctenotus
	Ctenotus grandis	Grand Ctenotus
	Ctenotus greeri	Spotted-necked Ctenotus
	Ctenotus hanloni	Nimbel Ctenotus
	Ctenotus helenae	Clay-soil Ctenotus
	Ctenotus leae	Orange-tailed Finesnout Ctenotus
	Ctenotus leonhardii	Leonhardi's Ctenotus
	Ctenotus nasutus	Nasute Finsnout Ctenotus
	Ctenotus pantherinus	Leopard Ctenotus
	Ctenotus piankai	Coarse Sands Ctenotus
	Ctenotus quattuordecimlineatus	Fourteen-lined Ctenotus
	Ctenotus schomburgkii	Barred Wedgesnout Ctenotus
	Ctenotus severus	Stern Ctenotus
	Ctenotus uber	Spotted Ctenotus
	Egernia depressa	Southern Pygmy Spiny-tailed Skink
	Egernia formosa	Goldfields Crevice Skink
	Eremiascincus fasciolatus	Narrow-banded Sand Swimmer
	Eremiascincus richardsonii	Broad-banded Sand-swimmer
	Lerista amicorum	Fortescue Slider

Family	Species	Common Name
	Lerista bipes	North-western Sandslider
	Lerista desertorum	Central Desert Robust Slider
	Lerista distinguenda	South-western Orange-tailed Slider
	Lerista ips	Robust Duneslider
	Lerista kingi	King's Slider
	Lerista macropisthopus	Unpatterned Robust Slider
	Lerista muelleri	Wood Mulch-slider
	Lerista neander	Pilbara Robust Slider
	Lerista sp.	
	Lerista timida	Timid Slider
	Lerista vermicularis	Slender Duneslider
	Liopholis inornata	Desert Skink
	Liopholis kintorei	Great Desert Skink
	Liopholis striata	Nocturnal Desert Skink
	Menetia greyii	Common Dwarf Skink
	Morethia butleri	Woodland Morethia Skink
	Morethia ruficauda	Lined Fire-tailed Skink

Family	Species	Common Name
	Proablepharus reginae	Western Soil-crevice Skink
	Tiliqua multifasciata	Central Blue-tongue
	Tiliqua occipitalis	Western Blue-tongued Lizard
Typhlopidae	*Anilios australis*	Austral Blind Snake
	Anilios bicolor	Dark-spined Blind Snake
	Anilios grypus	Long-beaked Blind Snake
	Anilios hamatus	Pale-headed Blind Snake
	Anilios waitii	Waite's Blind Snake
Varanidae	*Varanus acanthurus*	Spiny-tailed Monitor
	Varanus brevicauda	Short-tailed Pygmy Monitor
	Varanus caudolineatus	Stripe-tailed Monitor
	Varanus eremius	Pygmy Desert Monitor
	Varanus giganteus	Perentie
	Varanus gilleni	Pygmy Mulga Monitor
	Varanus gouldii	Gould's Goanna
	Varanus panoptes	Yellow-spotted Monitor
	Varanus tristis	Black-headed Monitor
Chelidae	*Chelodina steindachneri*	Flat-shelled Turtle

Because some of the habitat in the surveys shown in Appendix D from which the above lists were derived, contained spinifex on red sandy plain, the species lists include species typically only found in this habitat, a habitat that is not present in the project area.





Plate 34. *Diplodactylus pulcher* **Plate 35. *Tympanocryptis pseudospephos***

4.5 CONSERVATION SIGNIFICANT FAUNA

Conservation significant fauna are protected by the Commonwealth *EPBC Act 1999*, and this list includes species covered by international treaties such as the Japan-Australia Migratory Bird Agreement (JAMBA) and China-Australia Migratory Bird Agreement (CAMBA) and the *BC Act 2016*. The *BC Act 2016* provides for the publishing of the *Wildlife Conservation (Specially Protected Fauna) Notice* that lists species under multiple categories. In addition, the DBCA maintains a list of fauna that require monitoring under four priorities based on the current knowledge of their distribution, abundance and threatening processes. The *EPBC Act 1999* and *BC Act 2016* imply legislative requirements for the management of anthropogenic impacts to minimise the effects of disturbances on species and their habitats. Priority species have no statutory protection, although, the DBCA wishes to monitor potential impacts on these species. Environmental consultants and proponents of developments are encouraged to avoid and minimise impacts on these species. Definitions of the significant fauna under the *BC Act 2016* are provided in Appendix E.

Wetland, wetland migratory birds and shorebirds have been excluded from the following list and assessments, as there is no suitable habitat for these species in the project area. One threatened species of fauna and one migratory/marine species of bird identified under the *EPBC Act 1999* potentially occur in the project area. An additional species listed under the *BC Act 2016* may be recorded in the project area. The following is an assessment of the likelihood of each of the species listed in Table 14 being found in the project area.

Table 14. Assessment of the potential presence and impact on a species of conservation significance

Species	DBCA Schedule / Priority	Status under Commonwealth *EPBC Act 1999*	Comment on the potential presence of a species and potential impact from development
Night Parrot *Pezoporus occidentalis*	Critically Endangered	Endangered	Highly unlikely to be in the project area, due to a lack of suitable habitat. The potential for impacting on this species is therefore very low.
Sandhill Dunnart *Sminthopsis psammophila*	Endangered	Endangered	Highly unlikely to be recorded in the project area due to a lack of suitable habitat, lack of nearby records and abundance of predators.
Malleefowl *Leipoa ocellata*	Vulnerable	Vulnerable	Highly unlikely to be in the project area due to a lack of suitable habitat, lack of regional records and high density of feral fauna. The potential for impacting on this species is therefore very low.
Bilby *Macrotis lagotis*	Vulnerable	Vulnerable	Highly unlikely to be recorded in the project area due to a lack of suitable habitat, lack of regional records and abundance of predators.
Great Desert Skink *Liopholis kintorei*	Vulnerable	Vulnerable	Highly unlikely to be recorded in the project area due to a lack of suitable habitat, lack of recent records and abundance of predators.
Grey Falcon *Falco hypoleucos*	Vulnerable	Vulnerable	Highly unlikely to occur in the project area. The potential for impacting on this species is therefore very low.
Chuditch *Dasyurus geoffroii*	Vulnerable	Vulnerable	Locally extinct
Princess Parrot *Polytelis alexandrae*	Priority 4	Vulnerable	May infrequently be seen in the region, however, clearing vegetation or mining activity is unlikely to impact on this species.

Species	DBCA Schedule / Priority	Status under Commonwealth *EPBC Act 1999*	Comment on the potential presence of a species and potential impact from development
Mulgara *Dasycercus blythi*	Priority 4		Highly unlikely to be in the project area due to a lack of suitable habitat. The potential for impacting on this species is therefore very low.
Long-tailed Dunnart *Sminthopsis longicaudata*	Priority 4		Unlikely to be in the project area due to a lack of typical habitat, lack of nearby records and high density of feral fauna. The potential for impacting on this species is therefore low.
Peregrine Falcon *Falco peregrinus*	OS		May infrequently be seen in the region, however, clearing vegetation is unlikely to impact on this species.
Oriental Plover *Charadrius veredus*	Migratory	Migratory	Highly unlikely to be recorded in the project area due to a lack of suitable habitat and abundance of predators.
Fork-tailed Swift *Apus pacificus*	Migratory	Migratory	May very infrequently be seen in the region, however, clearing vegetation is unlikely to impact on this aerial species.
Grey Wagtail *Motacilla cinereal*	Migratory	Migratory	Highly unlikely to be present in the project area. The potential for impacting on this species is therefore low.
Yellow Wagtail *Motacilla flava*	Migratory	Migratory	Highly unlikely to be present in the project area. The potential for impacting on this species is therefore low.

Night Parrot (*Pezoporus occidentalis*) - Critically Endangered under the *BC Act 2016* and Endangered under the *EPBC Act 1999*

The Night Parrot is a small, arid-adapted, nocturnal, ground-feeding parrot (Johnstone and Storr 1998, Threatened Species Scientific Committee 2016). Its length is 22-25cm with a body mass of approximately 104g (Threatened Species Scientific Committee 2016), although it was suggested that they were semi-nomadic, the Night Parrots in south-western Queensland appear to be sedentary (Murphy 2015).

The Night Parrot was probably originally distributed over much of semi-arid and arid Australia (Garnett *et al*. 1993, Threatened Species Scientific Committee 2016). Records in north-west and western Queensland in the early 1990-2000s were in a broad cross section of the habitats available (Garnett *et al*. 1993, Cupitt and Cupitt 2008, Boles *et al*. 2016). There have been recent sightings in the Pilbara in 1980, 2005 and 2017, central WA in 1979, north-eastern South Australia in 1979, western Queensland (including Pullen-Pullen-Mt Windsor-Diamantina population) in 1980, 1990, 1993, 2006 and 2013-17 (Davis and Metcalf 2008, Garnett *et al*. 2011, Charalambous 2016, Pickrell 2016, AG staff 2017, Palaszxzuk and Miles 2017, Rykers 2017, AG staff 2018), Pilbara in 2017 (Jones 2017) and the northern Goldfields (Jackett *et al*. 2017). Garnett *et al*. (2011) suggested that there were between 50-250 mature individuals in less than 5% of its previous range.

Wilson's (1937) summary of observations provided information on the early records of Night Parrots' preferred habitat and breeding sites. Recent information indicates its preferred habitat appears to be in Triodia grasslands, chenopod shrublands, shrubby samphire and floristically diverse habitats dominated by large-seeded species (Threatened Species Scientific Committee 2016, McCarthy 2017, Murphy *et al*. 2017b). At Pullen Pullen Reserve it nests in large, more or less ring-shaped Triodia, and the nest consists of a tunnel (25-30o and 0o to the ground; 20-33cm long) through an apron of dead spinifex leaves that leads to a chamber under a live hummock, with a shallow depression (3-4cm) excavated into the gravelly/sandy soil (Murphy *et al*. 2017a). In the northern Goldfields the nest was again in a spinifex hummock, it was circular, with an excavated depression (~1.5-2.0cm) in sandy substrate (Hamilton *et al*. 2017, Jackett *et al*. 2017). The entrance tunnel was 62cm long, and was downward sloping (27º) with the entrance 28cm above the ground (Hamilton *et al*. 2017). It has clutches of two to four sub-elliptical, white eggs with a lustrous appearance (Murphy *et al*. 2017a). Breeding followed significant rains in March for the observations in Pullen-Pullen Reserve and in April in the

northern Goldfields (Hamilton *et al*. 2017, Murphy *et al*. 2017a), but it is thought that breeding generally occurs between April and October (Murphy *et al*. 2017a).

Murphy *et al*. (2017b) placed a GPS tag on Night Parrots and reported that the two birds called at dusk from their diurnal roosts among spinifex hummocks and then flew to more floristically diverse habitats dominated by large-seeded, prolifically seeding species to feed.

There are no mature spinifex hummocks in the project area and numerous feral fauna. As the preferred roosting and nesting habitats for Night Parrots are not present and there is a significant threatening process for the species in the area (i.e. feral cats), it is Terrestrial Ecosystems' assessment that Night Parrots are not present in the project area and will therefore not be impacted by any proposed development.

Sandhill Dunnart (*Sminthopsis psammophila*) - Endangered under the *BC Act 2016* and *EPBC Act 1999*

The Sandhill Dunnart is a small (30-45g) arid adapted dasyurid that is found in the eastern part of the Western Australian section of the Great Victoria Desert and the western and southern parts of South Australia. Recent surveys undertaken for the Great Victoria Desert Trust have increased their geographic range in the Great Victoria Desert and eastern parts of the northern Goldfields.

The preferred habitat for the Sandhill Dunnart is not present in the project area and there is a significant threatening process for the species in the area (i.e. feral cats). It is Terrestrial Ecosystems' assessment that Sandhill Dunnarts will not be impacted by any proposed development.

Malleefowl (*Leipoa ocellata*) - Vulnerable under the *BC Act 2016* and *EPBC Act 1999*

Malleefowl are large, ground-dwelling birds that rarely fly unless alarmed or are perching for the night. Historically, Malleefowl have been found in mallee regions of southern Australia from approximately the 26th parallel of latitude southwards. Prior to vegetation clearing for agriculture, Malleefowl were abundant in the WA Wheatbelt. Vegetation clearing for agriculture also opened adjacent bushland to predators, and in the south-west of WA, Malleefowl often only persist in isolated remnant patches of native vegetation. Sheep and other herbivores (e.g. goats, kangaroos) grazing in remnant vegetation removes or thins the undergrowth, and they also compete with Malleefowl for herbaceous foods and can cause changes to the structure and floristic diversity of foraging habitats (Benshemesh 2007).

Malleefowl and their eggs are vulnerable to predation by foxes, and newly hatched chicks are vulnerable to foxes, cats and raptors (Priddel and Wheeler 1990, Benshemesh and Burton 1999, Benshemesh 2007, Lewis and Hines 2014). Their abundance in the Goldfields is low and they are sparsely distributed, favouring those areas that are more densely vegetated. Malleefowl build distinctive nests that comprise a large mound of soil/rock covering a central core of leaf litter. These nest mounds range in diameter but can span more than five metres and may be up to one metre high. Malleefowl are generally monogamous and once breeding commences, and they typically pair for life. The presence of nest mounds provides an indication of the presence of Malleefowl in the area.

Malleefowl have been observed in the bioregion, however, there are no recent records of active breeding mounds in the vicinity of the project area. No Malleefowl mounds, tracks or scats were recorded, and the sparely vegetated and open fauna habitat and the presence of feral and pest species significantly reduce the probability of Malleefowl utilising the project area. Terrestrial Ecosystems' assessment is that Malleefowl are not present, but if they were transient individuals in the area, disturbances associated with exploration or mining are unlikely to have any significant impact on this species.

Bilby (*Macrotis lagotis*) - Vulnerable under the *EPBC Act 1999* and *BC Act 2016*

This nocturnal, medium sized, omnivorous, burrow dwelling marsupial was once widespread in Australian arid and semi-arid areas. Its geographical distribution has now contracted to a few small populations in southern Northern Territory, south-eastern Queensland, sandy deserts of Western Australia and the Pilbara. Bilby distribution is now largely restricted to the inland sandy deserts in two broad habitat types; mulga woodlands with lateritic red earth and spinifex grasslands with high fire frequency, again with the red earth (Johnson 1989, Southgate 1990). Its distribution appears limited by access to suitable burrowing habitat and areas of high plant and food production. Southgate *et al*. (2007) reported that the distribution of Bilbies in the Tanami Desert was related to substrate type, which is probably also true for around the project area in the Little Sandy Desert.

Males can grow to 2.5kg, but females are smaller with a maximum weight of around 1.1kg (Johnson 2008). They have a diet of insects, seeds, bulbs, fruit and fungi and often leave a characteristic excavation of up to 10cm deep with the soil scattered in all directions or a 'pot-hole' in the ground (Thompson and Thompson 2008b).

In captivity, adults reach sexual maturity at about six months but continue to grow until about 18 months of age. Females continue to breed beyond the age of four years (Southgate *et al*. 2000). Females are polyoestrous, have an oestrus of 12–37 days and a gestation period of 14 days (McCracken 1990, Southgate and Possingham 1995). Litters range from one to three and young exit the pouch at 70–75 days. Young then remain in the burrow and are weaned a couple of weeks later.

Bilbies typically can use two to three burrows each night (Lavery and Kirkpatrick 1997) and are solitary or live in small groups of two to four individuals. Bilbies dig a burrow system that may be up to 3m long and 2m deep. Burrows can have single or multiple entrances and can be located at the base of vegetation, termite mounds or rocks (Thompson and Thompson 2008b). They shelter in a burrow during the day and emerge well after dark to forage. In the Channel Country of Queensland, Lavery and Kirkpatrick (1997) reported that fewer than half of the burrows located were in frequent use, and daily burrow use in a typical burrow aggregation ranged from one-third to two-thirds over a 45-day observation period. A new burrow was dug in each aggregation within 10 months.

Southgate *et al*. (2007) reported Bilbies as having low site fidelity and being highly mobile in the sandy deserts. Mature females moved up to 1.5km in a night and males used burrows 2.6km apart around the Granites (Southgate *et al*. 2007). Southgate and Possingham (1995) reported Bilbies in the Watarrka National Park moving 15km in a few weeks, with males regularly moving 2-3km and up to 5km between burrows on consecutive days. In contrast, Thompson and Thompson (2008b) reported Bilbies intensively foraging in an area of about 10ha around multiple burrows in the Pilbara. They will shift burrows and foraging areas when food resources are depleted.

In the Pilbara, most burrows and diggings are located on red sandy soils in a spinifex meadow with occasional trees; however, they have also been recorded in open burnt habitat (Thompson and Thompson 2008b). They are susceptible, particularly juveniles, to predation in disturbed environments, and vulnerable to vehicle collisions at night. Because they live in small groups and their population is highly fragmented and dispersed, the loss of a few individuals is of conservation significance.

There has been no evidence of Bilbies in sparely vegetated open mulga woodland in the northern Goldfields for many years, and none have been recorded in the vicinity of the project area.

Great Desert Skink (*Liopholis kintorei*) - Vulnerable under the *EPBC Act 1999* and *BC Act 2016*

Liopholis kintorei is a large skink found in the sandy desert regions of Western Australia, Northern Territory and South Australia. It is found on sandflats and clay-based or loamy soils vegetated with spinifex. It lives in a multi-entranced communal burrow system and uses shared defecation sites. Storr et al. (1999) recorded them as being in the Wanjarri area of the Great Victoria Desert, and the DBCA Threatened species database records them in Laverton in 1967.

The Giant Desert Skink prefers sandy soils vegetated with spinifex. This habitat is not present in the project area and there is an abundance of feral fauna which would predate on this large skink. Terrestrial Ecosystems' assessment is that *Liopholis kintorei* is very unlikely be found in the project area due to a lack of suitable habitat and presence of a threatening process for this species.

Grey Falcon (*Falco hypoleucos*) - Vulnerable under the *EPBC Act 1999* and *BC Act 2016*

The Grey Falcon is a moderately large raptor that is found mostly in the northern half of Western Australia, mostly in lightly wooded, coastal or riverine areas.

There are multiple records of the Grey Falcon in the Pilbara but very few in the northern Goldfields. Vegetation clearing for the construction of a mines and haul roads and the subsequent mining operations are unlikely to impact on this species, as they will readily move to more suitable habitat.

Chuditch (*Dasyurus geoffroii*) – Vulnerable under the *BC Act 2016* and *EPBC Act 1999*

The Chuditch is the largest extant carnivorous marsupial in WA. It is usually active from dusk to dawn. Formally known from over 70% of Australia, the Chuditch now has a patchy distribution throughout the Jarrah forest and mixed Karri/Marri/Jarrah forest of south-west WA and other isolated areas. Chuditch are solitary animals for most of their life and den in hollow logs, burrows, culverts, etc. and have also been recorded in tree hollows and rock cavities. Chuditch are opportunistic feeders, and forage primarily on the ground at night. Their diet can include other mammals, birds, lizards, bird and reptile eggs but the majority is a mixture of large invertebrates (e.g. spiders, scorpions and crickets).

How *et al*. (1988) reported Chuditch being found near the Norseman-Lake King Road and near Mount Holland. DBCA records show that one specimen was recorded in 1974 in Kambalda East. There are multiple records south of Southern Cross and Marvel Loch and there have been other reported sightings east of Kambalda and near Norseman, but Terrestrial Ecosystems can find none north of Kalgoorlie. It is therefore highly unlikely that the Chuditch will be found as far north at Leonora and Laverton and in atypical habitat.

As the project area is a long way north-east of the known distribution it is unlikely that the Chuditch would be found in the project area. Therefore, Terrestrial Ecosystems' assessment is that any development is highly unlikely to have a significant impact on this species.

Princess Parrot (*Polytelis alexandrae*) - Vulnerable under the *EPBC Act 1999* and a Priority 4 species with DBCA

The Princess Parrot is found mostly in the inland arid areas of Australia, and in Western Australia in the Gibson, Little Sandy and Great Victoria Deserts (Johnstone and Storr 1998, Pavey *et al*. 2014). They are also occasionally found in lightly wooded areas adjacent to the sandy deserts (Moriarty 1972).

Very little is known about the Princess Parrot, even the exact extent of its geographical distribution. It is thought to be nomadic within the central desert regions of Australia, occupying arid shrub lands, particularly those dominated by Mulga, Desert Oak and spinifex. Due to the paucity of information on the species, accurate estimates of its conservation significance are difficult to make, however, this species is probably threatened by habitat loss to agricultural practices and changes in fire regimes.

Dr S. Thompson sighted this parrot in a survey near the Wanjarri Nature Reserve in 2006 and Moriarty (1972) also reported it in the same area, so it may occasionally be seen in the region. If it was present any proposed development is unlikely to significantly impact on this species as it will move away to other areas if it is disturbed.

Brush-tailed Mulgara (*Dasycercus blythi*) - Priority 4 with the DBCA

Woolley (2005) recognises two species of 'Mulgara'; *Dasycercus blythi* and *D. cristicauda*. *Dasycercus blythi* has a non-crested tail, two upper premolars and six nipples; *D. cristicauda* has a crested tail, three upper premolars and eight nipples. Both species potentially have overlapping distributions in arid Australia, but it is thought that *D. cristicauda* does not currently exist in Western Australia, although there are old records indicating its presence. Woolley (2005) suggested the common names for these two species be Brush-tailed Mulgara for *D. blythi* and Crest-tailed Mulgara for *D. cristicauda*. These two species can be sympatric in places, but probably utilise different parts of the habitat on a local scale when they are recorded in the same area. Currently, there are insufficient data to separate the spatial ecology, burrows and reproductive biology of these two species. Information that follows is based on what is known for 'Mulgara' without distinguishing between the species.

The reported distribution of Mulgara includes much of the inland spinifex covered sandy desert and spinifex vegetated areas in the Pilbara and northern goldfields. Within these areas their distribution is patchy and it is most frequently confined to mature spinifex dominated habitat (Gibson and Cole 1992, Masters 1998, Masters *et al*. 2003, Thompson and Thompson 2008a). In some areas, their relative abundance is positively associated with rainfall in the previous 12 to 24 months (Gibson and Cole 1992, Masters 1998, Dickman *et al*. 2001, Letnic and Dickman 2005) and recent burning of the spinifex does not seem to be sufficient to shift Mulgara out of an area (Thompson and Thompson 2007a). Mulgara are generally sedentary in contrast with some other small dasyurids and have high site fidelity and a low propensity for dispersal once a home range has been established (Masters 1998, Dickman *et al*. 2001).

Fauna habitat in the project area is not suitable for Mulgara. It is therefore Terrestrial Ecosystems' assessment that they are unlikely of be found in the project area.

Long-tailed Dunnart (Sminthopsis longicaudata) - Priority 4 species with DBCA.

Burbidge *et al*. (2008) summarised the Long-tailed Dunnart geographic distribution as widely scattered in arid zone where it inhabits rugged rocky areas. They went on to suggest that its striated footpads, long tail and behaviour in captivity indicated that it was an active and capable climber. Specimens have been recorded in several rocky ranges in the Gibson Desert, West MacDonnell National Park, Murchison, Carnarvon Basin and the Pilbara. All previous capture sites for Long-tailed Dunnarts are within rugged rocky landscapes that support a low open woodland or shrubland of Acacias (especially mulga) with an understorey of spinifex hummocks, and (occasionally) also perennial grasses and cassias.

Three adult Long-tailed Dunnarts were caught in the Granny Smith Level 2 fauna survey (Terrestrial Ecosystems 2011a) and a single individual was caught in the follow up targeted survey (Terrestrial Ecosystems 2011b). Subsequently, Long-tailed Dunnarts have been caught at Mt Ida and Bottle Creek, which area west of Leonora. This dunnart is unlikely to be recorded in the project area due to a lack of suitable habitat and the high density of feral cats.

Oriental Plover (*Charadrius veredus*) Migratory species under the *EPBC Act 1999* and *BC Act 2016*

A migrant species with patchy distribution in Australia, the Oriental Plover is sparsely distributed across arid and semi-arid Australia, but avoids truly desert regions. Its preferred habitat is dry plains. It was not recorded in other fauna surveys undertaken near the project area. The species is under threat because of habitat reduction due to agriculture and changing fire regimes. This plover has not been recorded in the general area in any of the other regional surveys.

Terrestrial Ecosystems' assessment is that the Oriental Plover is unlikely to be seen in the project area and therefore unlikely to be impacted.

Fork-tailed Swift (*Apus pacificus*) - Migratory species under the *EPBC Act 1999* and *BC Act 2016*

This species breeds in the northeast and mid-east Asia and winters in Australia and southern New Guinea. It is a visitor to most parts of Western Australia, beginning to arrive in the Kimberley in late September, in the

Pilbara in November and in the southwest land division in mid-December, and leaving by late April. The Fork-tailed swift is an almost exclusively an aerial species, foraging and sleeping on the wing. It rarely comes to earth, usually only for breeding. It is common in the Kimberley, uncommon to moderately common near northwest, west and southeast coasts and rare to scarce elsewhere. It is rarely seen in the Goldfields (Plate 36).

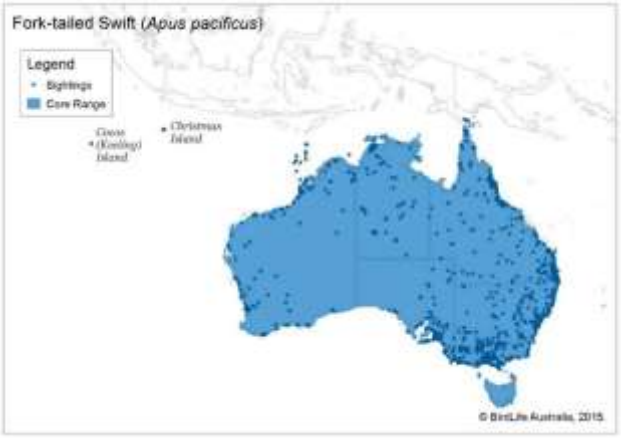


Plate 36. Range and actual reported sightings of the Fork-tailed Swift

(taken from http://www.environment.gov.au/biodiversity/threatened/publications/epbc-act-referral-guidelines-migratory-birds)

Terrestrial Ecosystems' assessment is that the Fork-tailed Swift may infrequently be seen in the region, however, any proposed vegetation clearing, or development is unlikely to significantly impact on this species as it is an aerial species and will move away to other areas if it is disturbed.

Grey Wagtail (*Motacilla cinerea*) - Migratory under the *EPBC Act 1999* and *BC Act 2016*

The Grey Wagtail is a small yellow breasted bird with a grey back and head. Johnstone and Storr (2004) reported this migratory species as breeding in Palearctic from western Europe and north-west Africa to eastern Asia and wintering in Africa, south-east Asia, Indonesia, the Philippines, New Guinea and Australia. Its preferred habitat in Australia is banks and rocks in fast-running fresh water including rivers, streams and creeks where it feeds on insects.

The Atlas of Living Australia records two sightings on the south-coast of Western Australia and none around the project area (Plate 37). It is highly unlikely to be seen in the project area due to a lack of records and suitable habitat.

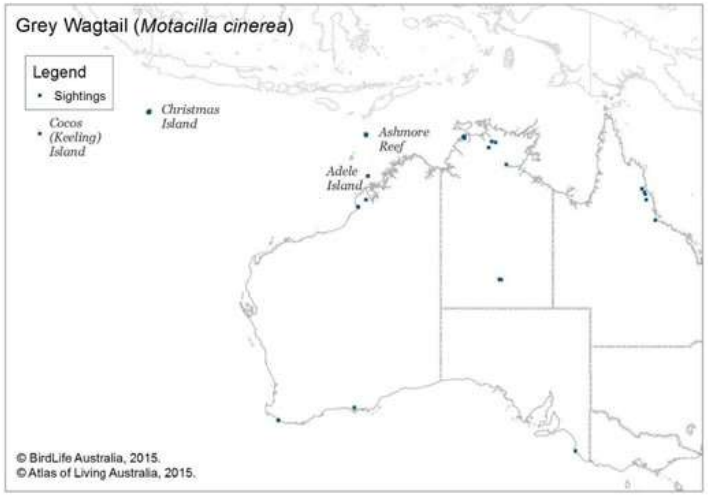


Plate 37. Reported sightings of the Grey Wagtail

(taken from http://www.environment.gov.au/biodiversity/threatened/publications/epbc-act-referral-guidelines-migratory-birds)

Yellow Wagtail (*Motacilla flava*) - Migratory under the *EPBC Act 1999* and *BC Act 2016*

The Yellow Wagtail is found in the millions in the northern hemisphere and the Atlas of Living Australia records multiple records of this bird in Australia in the coastal areas. There are no records for this species in inland Western Australia near the project area (Plate 38), therefore it is highly unlikely to be impacted by the proposed development.

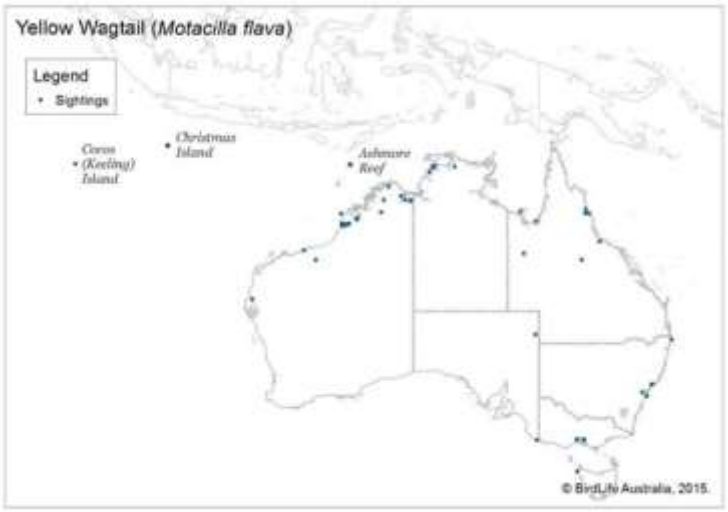


Plate 38. Reported sightings of the Yellow Wagtail

(taken from http://www.environment.gov.au/biodiversity/threatened/publications/epbc-act-referral-guidelines-migratory-birds)

Peregrine Falcon (*Falco peregrinus*) - Otherwise specially protected under the BC Act 2016

The Peregrine Falcon is uncommon, although widespread throughout much of Australia excluding the extremely dry areas and has a wide and patchy distribution. It shows habitat preference for areas near cliffs along coastlines, rivers and ranges and within woodlands along watercourses and around lakes. Nesting sites include ledges along cliffs, granite outcrops and quarries, hollow trees near wetlands and old nests of other large bird species. There is no evidence to suggest any change in status in the last 50 years. The Peregrine

Falcon has been seen in the Wanjarri Nature Reserve (Moriarty 1972, Ninox Wildlife Consulting 1994), at Honeymoon Well (Ninox Wildlife Consulting 1994) and Mileura (Tingay and Tingay 1977), but they have not been recorded in previous surveys near the project area, so they could infrequently be seen in the general area.

Terrestrial Ecosystems' assessment is that the Peregrine Falcon may infrequently be seen in the project area, however, development is unlikely to have a significant impact on this species as it will readily move away from disturbance and there are abundant areas of similar habitat in the region.

5. DISCUSSION

5.1 ADEQUACY OF THE FAUNA SURVEY DATA FOR FAUNA HABITATS REPRESENTED IN THE PROJECT AREA

The EPA's (2020) *Technical Guidance – Terrestrial vertebrate fauna surveys for environmental impact assessment* indicated that the level of survey effort should be determined after consideration of the following:

- level of existing regional knowledge
- type and comprehensiveness of recent local surveys
- degree of existing disturbance or fragmentation at the regional scale
- extent, distribution and significance of habitats
- significance of species likely to be present
- sensitivity of the environment to the proposed activities
- scale and nature of impact.

Coffey Environments (2008) and Terrestrial Ecosystems (2010) surveyed the Duketon and Garden Well mining areas respectively, and when these data taken are considered with the survey data collected in 2022 this provides a comprehensive list of vertebrate fauna species likely to be found in the project area (Table 15).

After completion of the February/March 2023 survey, no additional surveys will be required to inform the environmental regulators of what vertebrate fauna species are likely to be impacted by additional vegetation clearing and mining activity.

Table 15. Comparison of vertebrate fauna species recorded in the Duketon and Garden Well project areas and the current survey in open mulga woodland habitats.

Species	Common name	Duketon	Garden Well	2022
Reptiles				
Ctenophorus scutulatus	Lozenge-marked Dragon	y		y
Diporiphora amphiboluroides	Mulga Dragon	y	y	y
Moloch horridus	Thorny Devil			y
Pogona minor	Western Bearded Dragon	y	y	y
Tympanocryptis pseudopsephos	Goldfields Pebble-mimic Dragon			y
Nephrurus vertebralis	Midline Knob-tail			y
Underwoodisaurus milii	Barking Gecko		y	y
Diplodactylus conspicillatus	Fat-tailed Gecko			y
Diplodactylus pulcher	Beautiful Gecko	y	y	y
Rhynchoedura ornata	Beaked Gecko	y		y
Strophurus wellingtonae	Western Shield Spiny-tailed Gecko	y	y	y
Brachyurophis semifasciata	Half-girdled Snake		y	y
Furina ornata	Orange-naped Snake	y		y
Suta monachus	Hooded Snake	y	y	
Pseudonaja modesta	Ringed Brown Snake	y		y

Species	Common name	Duketon	Garden Well	2022
Gehyra variegata	Variegated Gehyra	y	y	y
Heteronotia binoei	Bynoe's Gecko	y	y	y
Delma butleri	Unbanded Delma	y		
Pygopus nigriceps	Western Hooded Scaly foot		y	y
Cryptoblepharus buchanani	Buchanan's Snake-eyed Skink		y	
Ctenotus leonhardii	Leonhardi's Ctenotus	y		y
Ctenotus quattuordecimlineatus	Fourteen-lined Ctenotus	y		
Ctenotus schomburgkii	Barred Wedgesnout Ctenotus	y	y	y
Ctenotus uber	Spotted Ctenotus	y	y	y
Egernia depressa	Southern Pygmy Spiny-tailed Skink	y	y	y
Egernia formosa	Goldfields Crevice Skink	y	y	y
Eremiascincus richardsonii	Broad-banded Sand-swimmer	y	y	y
Lerista desertorum	Central Desert Robust Slider	y	y	y
Lerista kingi	Wood Mulch-slider	y	y	y
Menetia greyii	Common Dwarf Skink	y	y	y
Morethia butleri	Woodland Morethia Skink	y	y	y
Anilios hamatus	Pale-headed Blind Snake		y	y
Anilios bicolor	Dark-spined Blind Snake	y		
Varanus caudolineatus	Stripe-tailed Monitor	y	y	y
Varanus gouldii	Gould's Goanna	y		
Varanus panoptes	Yellow-spotted Monitor	y	y	y
Varanus giganteus	Perentie			y
Antaresia stimsoni	Stimson's Python			y
Birds				
Acanthagenys rufogularis	Spiny-cheeked Honeyeater		y	
Acanthiza apicalis	Inland Thornbill	y	y	y
Acanthiza chrysorrhoa	Yellow-rumped Thornbill	y	y	
Acanthiza robustirostris	Slaty-backed Thornbill	y	y	
Acanthiza uropygialis	Chestnut-rumped Thornbill	y	y	y
Accipiter cirrocephalus	Collared Sparrowhawk			y
Aegotheles cristatus	Australian Owlet-nightjar	y		y
Anthus novaeseelandiae	Australasian Pipit	y	y	
Aphelocephala leucopsis	Southern Whiteface	y	y	
Apus pacificus	Pacific Swift	y		

Species	Common name	Duketon	Garden Well	2022
Aquila audax	Wedge-tailed Eagle	y		y
Ardeotis australis	Australian Bustard	y		
Artamus cinereus	Black-faced Woodswallow	y	y	y
Barnardius zonarius	Australian Ringneck	y	y	y
Certhionyx variegatus	Pied Honeyeater			y
Chlamydera guttata	Western Bowerbird	y	y	y
Cinclosoma castaneothorax	Chestnut-breasted Quail-thrush	y		
Cinclosoma clarum	Copperback Quail-thrush			y
Climacteris affinis	White-browed Treecreeper		y	y
Colluricincla harmonica	Grey Shrikethrush		y	y
Coracina novaehollandiae	Black-faced Cuckooshrike		y	y
Corvus bennetti	Little Crow		y	
Corvus coronoides	Australian Raven			y
Corvus orru	Torresian Crow		y	y
Cracticus nigrogularis	Pied Butcherbird	y	y	
Cracticus torquatus	Grey Butcherbird	y		
Daphoenositta chrysoptera	Varied Sittella			y
Dicaeum hirundinaceum	Mistletoebird		y	y
Dromaius novaehollandiae	Emu	y	y	
Elseyornis melanops	Black-fronted Dotterel	y		
Eolophus roseicapilla	Galah	y	y	y
Eurostopodus argus	Spotted Nightjar	y		
Falco cenchroides	Nankeen Kestrel	y	y	
Gavicalis virescens	Singing Honeyeater	y	y	y
Gerygone fusca	Western Gerygone	y		
Grallina cyanoleuca	Magpie-lark	y	y	y
Gymnorhina tibicen	Australian Magpie	y		y
Lichmera indistincta	Brown Honeyeater			y
Malurus assimilis	Purple-backed Fairywren			y
Malurus leucopterus	White-winged Fairywren		y	
Malurus splendens	Splendid Fairywren	y	y	y
Manorina flavigula	Yellow-throated Miner	y	y	y
Melanodryas cucullata	Hooded Robin	y	y	y
Melopsittacus undulatus	Budgerigar			y

Species	Common name	Duketon	Garden Well	2022
Merops ornatus	Rainbow Bee-eater	y		
Microeca fascinans	Jacky Winter		y	
Neopsephotus bourkii	Bourke's Parrot			y
Ocyphaps lophotes	Crested Pigeon	y	y	y
Oreoica gutturalis	Crested Bellbird	y	y	y
Pachycephala rufiventris	Rufous Whistler	y	y	y
Petroica goodenovii	Red-capped Robin		y	y
Phaps chalcoptera	Common Bronzewing		y	y
Pomatostomus superciliosus	White-browed Babbler	y	y	y
Psephotus varius	Mulga Parrot	y	y	
Pyrrholaemus brunneus	Redthroat	y		y
Rhipidura albiscapa	Grey Fantail	y		
Rhipidura leucophrys	Willie Wagtail	y	y	y
Smicrornis brevirostris	Weebill	y	y	
Mammals				
Sminthopsis dolichura	Little Long-tailed Dunnart	y	y	y
Sminthopsis macroura	Stripe-faced Dunnart	y	y	y
Notomys alexis	Spinifex Hopping Mouse	y		
Pseudomys desertor	Desert Mouse	y		
Pseudomys hermannsburgensis	Sandy Inland Mouse	y	y	y



Plate 39. *Ctenotus uber*



Plate 40. *Underwoodisaurus milii*

5.1.1 Amphibians

Frogs are normally only detected immediately after rainfall or around semi-permanent pools. The ephemeral creeks would form pools after heavy rainfall events, and it would be expected that numerous frog species would be recorded surface activity after these events. *Neobatrachus sutor*, *Cyclorana occidentalis, Litoria rubella, Neobatrachus kunapalari*, *Neobatrachus wilsmorei*, *Cyclorana maini* and *Platyplectrum spenceri* could be found in the general area based on the available regional data. All amphibian species likely to be caught in the project area have a wide-spread geographic distribution and are abundant. Clearing of vegetation and mining activities are likely to result in a loss of individuals within the disturbance areas, however, this disturbance is unlikely to have a significant impact on these species when assessed in a bioregional context.

5.1.2 Reptiles

Typically, between 30 and 40 species of reptiles are caught in open mulga woodland (Coffey Environments 2008, Terrestrial Ecosystems 2010, 2011a, 2020). The regional reptile data provided in Appendix B provides an indication of the diversity of herpetofauna in the Goldfields, however, these lists include species that are found in semi-arid sandplains vegetated with spinifex, which is not present in the project area, but has a high abundance of reptiles (Pianka 1986, 1989, 1992).

None of the species likely to be in the project area are of conservation significance. There were no characteristics of the reptile assemblage surveyed in earlier Level 2 surveys in adjacent areas or this survey that indicated the fauna habitat present in the project area is of conservation significance or differ from that in the neighbouring areas, and given that there were large expanses of similar habitat in adjacent areas, vegetation clearing and mining activities in the project area are unlikely to have significant impact on reptiles when assessed in a regional context.

Terrestrial Ecosystems' view is that the development of the project area is unlikely to significantly impact on the reptile fauna of the bioregion.



Plate 41. *Eremiascincus richardsonii*



Plate 42. *Varanus giganteus*

5.1.3 Birds

The number of birds and bird species in the northern Goldfields fluctuates based on seasons and recent rainfall (Craig and Chapman 2003), and this is likely to be one of the factors that accounts for the variation in avifauna species recorded in the Duketon, Garden Well and the current surveys. Semi-arid and arid areas of inland Australia support a diverse range of transient and nomadic species that move through large areas in search of available resources. Heavy rain that is followed by flowering and seeding of many plant species is often sufficient to draw many these nomadic species to the general area. These species move on to other areas once the resource is depleted or better resources are available in adjacent areas.

The project area is likely to support a similar assemblage to that present in the adjacent areas. There are no bird species of conservation significance likely to be dependent on the project area to survive, however, some may infrequently be observed in the region. Malleefowl are not present in the project area. The Princess Parrot is nomadic and moves around the arid interior often in search of water and resources and may very infrequently be seen in the general area. The Peregrine Falcon will normally have a very large home range, and if it was present is unlikely to be significantly impact as it will readily move to other areas if disturbed. Development of a portion of the project area, particularly when similar habitat exists in the adjacent areas, is unlikely to significantly impact on any conservation significant species of bird. All birds will readily shift to other areas when there is a disturbance.

5.1.4 Mammals

The diversity of small terrestrial mammals potentially caught in the project area was low due the sparsely vegetated and degraded habitat and presence of feral and pest fauna. All the mammals potentially in the survey area, would be present in the many hectares of similar habitat in adjacent areas. The only mammal species of conservation significance potentially in the region is the Long-tailed Dunnart, which would be found on the rocky outcrops. There are no rocky outcrops in the project area so it is unlikely to be impacted during development.

Terrestrial Ecosystems' view is that the development of the project area is unlikely to significantly impact on the mammal fauna of the bioregion.



Plate 43. *Sminthopsis macroura*



Plate 44. *Antechinomys laniger*

5.1.5 Bats

All of the bats likely to be recorded in the project area are common throughout the Goldfields and many other parts of semi-arid Western Australia and none are of conservation significance. Clearing of vegetation, development activities and mining operations will not significantly impact on the bat fauna when considered in a bioregional context.

5.2 BIODIVERSITY VALUE

An ecological assessment of a site should consider its biodiversity value at the genetic, species and ecosystem levels, and its ecological functional value at the ecosystem level. There are inadequate data to assess the ecological value at the genetic level.

The major fauna habitat present in the project area (i.e. open mulga woodland) is abundant and in similar condition in adjacent areas. Therefore, the fauna assemblage that is present in the project area will also be present and abundant in the adjacent areas. The available fauna survey data (Appendix D) provides a good indication of the vertebrate fauna that are potentially in the project area.

5.2.1 Ecological functional value at the ecosystem level

Large sections of the project area have been disturbed by exploration and previous mining activity, with the consequence that these areas and surrounds will have a depleted vertebrate fauna assemblage. The project area is also on a pastoral station that has grazed cattle for many years, with the consequence that many of the emerging vegetation after periods of heavy rain have been foraged and often have not survived to become mature plants. Another significant impact on vertebrate fauna in the project area and surrounds has been feral cats and wild dogs. Historically, goats would have heavily grazed the region which impacted the vertebrate fauna assemblages, but the recent increase in the wild dog population has reduced the abundance of feral goats.

Station owners in the region endeavour to manage the wild dog population by shooting animals when they are seen, however, there is no systematic control or management program.

The project area doesn't support conservation significant fauna or a conservation significant ecosystem.

5.2.2 Maintenance of threatened ecological communities

No threatened ecological communities were identified in the project area.

5.2.3 Condition of fauna habitat

Some of the project area has been disturbed due to historical exploration and mining, cattle grazing and anthropogenic activity. The uncleared fauna habitat present in the project area is similar to many square kilometres of adjacent habitat; so the proposed vegetation clearing, and mining activity is therefore unlikely to have a significant impact on the vertebrate fauna when considered in a bioregional context.

5.2.4 Ecological linkages

The project area does not provide an important ecological linkage or fauna movement corridors.

5.2.5 Size and scale of the proposed disturbance

The project area (~7120ha) is large, when compared with other vertebrate fauna surveys, but it represents a small proportion of similar fauna habitat found in the adjacent area and the region. Given the available fauna survey data for these habitat types, no additional surveys are warranted.

5.2.6 Abundance and distribution of similar habitat in the adjacent areas

Fauna habitats present in the project area are abundant in adjacent areas. It is therefore likely that the fauna assemblage in the project area is similar to the many square kilometres of similar habitat in adjacent areas and the bioregion.

5.2.7 Potential impacts on ecosystem function

Clearing native vegetation and mining activity is likely to result in the loss of small vertebrate fauna on-site that are unable to move away during the clearing process. The few larger animals, such as kangaroos and large goannas, and most of the birds will move into adjacent areas once vegetation clearing commences. Shifting animals into adjacent areas will increase the pressure on resources in those areas and it is likely that there will be some disruption to the ecosystems in these areas for a short period until a balance is restored.

Impacts on the vertebrate fauna associated with clearing vegetation and mining activity in the project area when considered in a bioregional context are likely to be low, as the proposed disturbance areas are small relative to the quantity of similar habitat in the bioregion.

It is possible that the impact of feral and pest fauna which are present in the project area will be greater of the longer term than the combined impacts of vegetation clearing and mining activity in the project area.

6. POTENTIAL ENVIRONMENTAL IMPACTS

It is not intended that the entire assessed project area is cleared, but a larger than necessary area has been assessed to accommodate mine planning.

Development of the project area will potentially affect vertebrate fauna in numerous ways, including death/injury of fauna during vegetation clearing, impacts with vehicles and the loss of habitat.

Although there are anticipated short term impacts on fauna, they are unlikely to result in significant impacts on fauna habitat and fauna assemblages in the long term.

6.1 DIRECT IMPACTS

6.1.1 Animal deaths during the clearing process and displacement of fauna

Clearing vegetation and activities associated with the development will result in the loss of some small fauna that retreat to burrows, live under rocks or in the leaf litter, such as reptiles and mammals. Nocturnal species are unlikely to be active when most of the land clearing and construction work is taking place which may result in these individuals being adversely impacted when they attempt to escape. This loss of fauna habitat is unlikely to have a significant impact when considered in a bioregional context. Larger terrestrial animals and avian species will most often move to adjacent areas. These species will be required to establish new activity areas and home ranges, and this could result in the temporary displacement of resident species.

Clearing large areas increases fauna habitat edges. Small mammals can respond both positively and negatively to edges depending on their ecological traits (Laurance 1991, 1994, Goosem and Marsh 1997, Goosem 2000). Edge and disturbance effects can lead to altered and most often higher levels of predation, restricting or increasing fauna movements and altering assemblage structure (Oxley et al. 1974, Paton 1994, Baker et al. 1998, Temple 1998, Luck et al. 1999, Goosem et al. 2001). Goldingay and Whelan (1997) and Clarke and Oldland (2007) reported that edge effects can extend up to 150-200m from the edge for some species, meaning the impact area on vertebrate fauna is likely to be larger than the cleared footprint.

Edge effects result in the disruption of ecological processes such as predation and dispersal, altered animal movements and can change assemblage structure. The consequence is that the impact area will always be much larger than the cleared area. Because of the sparseness of the vegetation, edge effects are unlikely to be a significant issue in vegetation clearing in the project area.

6.1.2 Reduction or loss of activity areas and closure of burrows

Clearing vegetation and associated mining activities are likely to destroy reptile and mammal burrows or foraging habitat that are currently in use or could be used again. Clearing vegetation that forms part of the activity area of individuals has the potential to force these animals into adjacent areas. These areas may offer fewer resources placing individuals under survival pressure. It could also cause individuals to move into the territories of other individuals increasing competition for resources. Forced relocations could increase the possibility of predation.

Although vegetation clearing seldom results in the death of adult avian species, clearing of vegetation reduces and alters their foraging areas. The loss of foraging areas shifts individuals into adjacent areas and increases completion for resources, with the inevitable result that some of the migrants and some of the residents fail to thrive in the altered environment and some could be lost.

6.2 INDIRECT IMPACTS

6.2.1 Habitat fragmentation

In addition to direct impacts of vegetation clearing, infrastructure including tracks and haul roads, has the potential to fragment habitat. Long, cleared linear tracks of land are 'unnatural' in much of the habitat. These linear structures that partition existing activity areas, isolate sections of established communities and may alter long and medium-term patterns of movement around established home ranges particularly for mammals and reptiles. A reduction in the population because of this development would be difficult to detect given our current knowledge of the spatial ecology for most of the small mammals known to be in the area. The project area contains sparse vegetation and existing vehicle tracks, so the impacts of habitat fragmentation due to additional vehicle tracks and haul roads would therefore be quite low.

6.2.2 Introduced fauna and weeds

Increased habitat fragmentation and human activity often results in an increase in the abundance of introduced species such as the house mouse (*Mus musculus*), feral cat (*Felis catus*) and wild dogs (*Canis lupus*). This increase may be due to a decline in habitat health, increased road kills, poor disposal of waste and easier access to areas via tracks.

House mice, cats and wild dogs are known to be established in the area. In many situations they have become a 'naturalised' species in the Australian bush. Increases in dog or cat numbers can have a detrimental impact on native fauna because they predate on and compete with native species, severely disrupting the natural balance. The feral cat is a particularly damaging predator on native fauna and any increase in their numbers could have a detrimental effect on local native fauna (Kinnear 1993, Bamford 1995, Woinarski et al. 2017, Woinarski et al. 2018, Murphy et al. 2019); hence it is important to ensure that populations of the feral predators, such as cats are under control.

Infrastructure known to support feral species, such as poorly managed waste disposal sites and bins and permanent water, should be managed to minimise increases in these populations.

Introduced plant species can successfully and rapidly invade areas of cleared native vegetation or otherwise disturbed by humans. Introduced plant species may replace native species that provide shelter or foraging areas for native fauna. Major changes to the structure of vegetation will alter the fauna habitat and consequently may influence fauna species composition. Preparing and implementing a weed management plan will largely reduce their threat to native fauna species.

6.2.3 Road fauna deaths

An increase in road fauna deaths is likely to occur where new haul roads / tracks are constructed or upgraded, in particular, affecting kangaroos, nocturnal birds and ground dwelling large carnivorous predators. Species such as goannas and raptors are attracted to carrion on road verges and therefore, there is an increased propensity for these species to be killed by vehicles. Given the size of the project area, the impacts of road fauna deaths is likely to be low.

6.2.4 Fire

Increased human activity is often associated with an altered fire regime which can lead to a degradation of natural ecosystems. Fire has been identified as one of the threatening processes for some conservation significant species as numerous small mammal and bird species rely on long unburnt vegetation.

Large and widespread fires are unlikely to be a significant threat to native fauna species in and adjacent to the project area due to the sparseness of the vegetation.

6.2.5 Anthropogenic activity

Unnatural noises, vibrations, artificial light sources, and vehicle and human movement in an area may be sufficient to force individuals or fauna species to move from adjacent areas or alter their activity periods. This form of disturbance is likely to occur during the initial vegetation clearing and when mining activity commences. The overall impact is likely to be confined to a relatively small area and is unlikely to be a significant impact.

6.2.6 Dust

Dust generated from shifting topsoil and increased vehicle traffic can potentially degrade surrounding vegetation, reducing its ability to absorb sunlight, and influencing photosynthetic rates. Degradation of these areas may potentially render habitat unsuitable for fauna. Dust suppression and management programs are an essential component of minimising impacts on fauna in areas adjacent to the mine.

6.2.7 Risk assessment

Fauna surveys to support Environmental Impact Assessments (EIA) are part of the environmental risk assessment undertaken to consider what potential impacts a development might have on the biodiversity on a particular area and region. Potential impacts on fauna from the proposed development are identified and briefly described above. Tables 16, 17 and 18 provide a summary of the risk assessment associated with this project.

Any risk assessment is a product of the likelihood of an impact occurring and the consequences of that impact. Likelihood and consequences are categorised and described below. The assessed risk level (likelihood x consequences) is then calculated as the overall risk for the development. This is followed by an assessment of the acceptability of the risk associated with each of the impacts. Disturbances and vegetation clearing have an impact on the fauna at multiple scales – site, local, landscape and regional. Each of these is considered in the risk assessment. This assessment should be considered in the context of the summary in Table 18.

Table 16. Fauna impact risk assessment descriptors

Likelihood		
Level	Description	Criteria
A	Rare	The environmental event may occur, or one or more conservation significant species may be present in exceptional circumstances.
B	Unlikely	The environmental event could occur, or one or more conservation significant species could be present at some time.
C	Moderate	The environmental event should occur, or one or more conservation significant species should be present at some time.
D	Likely	The environmental event will probably occur, or one or more conservation significant species will be present in most circumstances.
E	Almost certain	The environmental event is expected to occur, or one or more conservation significant species is expected be present in most circumstances.
Consequences		
Level	Description	Criteria
1	Insignificant	Insignificant impact on fauna of conservation significance or regional biodiversity, and the loss of individuals will be insignificant in the context of the availability of similar fauna or fauna assemblages in the area.
2	Minor	Impact on fauna localised and no significant impact on species of conservation significance in the project area. Loss of species at the local scale.
3	Moderate	An appreciable loss of fauna in a regional context or a limited impact on species of conservation significance in the project area.
4	Major	Significant impact on conservation significant fauna or their habitat in the project area and/or regional biodiversity and/or a significant loss in the biodiversity at the landscape scale.
5	Catastrophic	Loss of species at the regional scale and/or a significant loss of species categorised as 'vulnerable' or 'endangered' under the EPBC Act (1999) at a regional scale.
Acceptability of Risk		
Level of risk	Management Action Required	
Low	No action required.	
Moderate	Avoid if possible, routine management with internal audit and review of monitoring results annually.	
High	Externally approved management plan to reduce risks, monitor major risks annually with external audit and review of management plan outcomes annually. May a referral to the Commonwealth under the EPBC Act 1999.	
Extreme	Unacceptable, project should be redesigned or not proceed.	

Table 17. Levels of acceptable risk

		Likelihood				
		Rare or very low (A)	Unlikely or low (B)	Moderate (C)	Likely (D)	Almost certain (E)
Consequence	Insignificant (1)	Low	Low	Low	Low	Low
	Minor (2)	Low	Low	Low	Moderate	Moderate
	Moderate (3)	Low	Moderate	Moderate	High	High
	Major (4)	Moderate	Moderate	High	High	Extreme
	Catastrophic (5)	Moderate	High	High	Extreme	Extreme

Table 18. A risk assessment of the impact of ground disturbance activity on fauna

			Before management				With management		
	Potential impacts		Inherent risk			Risk controls	Residual risk		
Factor			Likelihood	Consequence	Significance		Likelihood	Consequence	Significance
Fauna survey data	Inadequate survey data to adequately assess the risks	Unknown loss of fauna, fauna of conservation significance, and fauna assemblages, and an incomplete fauna assessment.	A	1	Low				
	Inadequacy of comparative data	Limits on the availability of comparative data reduced the capacity to assess the uniqueness of the fauna assemblages in the project area.	A	1	Low				
Clearing vegetation	Loss of fauna habitat – local scale	Loss of terrestrial fauna in the project area.	E	2	Mod.				
	Loss of fauna habitat – landscape scale	Loss of some fauna during vegetation clearing.	B	1	Low				
	Loss of fauna habitat – regional scale	Small loss of some fauna from the region.	B	1	Low				
	Loss of a threatened ecological fauna community	Loss of an undetected threatened ecological fauna community.	A	3	Low				
	Habitat fragmentation	Fauna movement restricted resulting in the death of fauna and a loss of biodiversity.	A	2	Low				
Death or loss of conservation significant fauna	Loss of a unique terrestrial fauna ecosystem	Loss of an ecosystem containing fauna with high species richness, high abundance and numerous top of the food chain predators.	A	2	Low				
	Night Parrot	Loss of a Night Parrot, or a reduction in a Night Parrot flock.	A	2	Low				
	Sandhill Dunnart	Loss of a Sandhill Dunnart, or a reduction in the local Sandhill Dunnart population	A	2	Low				
	Malleefowl	Loss of a Malleefowl, or a reduction in the local Malleefowl population.	A	2	Low				

			Before management				With management		
	Bilby	Loss of a Bilby, or a reduction in the local Bilby population.	A	2	Low				
	Giant Desert Skink	Loss of a Giant Desert Skink, or a reduction in the local Giant Desert Skink population	A	2	Low				
	Princess Parrot	Loss of a Princess Parrot, or a reduction in the local Princess Parrot population	A	2	Low				
	Mulgara	Loss of a Mulgara, or a reduction in the local Mulgara population	A	2	Low				
	Oriental Plover	Loss of a Oriental Plover, or a reduction in the local Oriental Plover population	A	2	Low				
	Fork-tailed Swift	Loss of a Fork-tailed Swift, or a reduction in the local Fork-tailed Swift population	A	2	Low				
	Grey Wagtail	Loss of a Grey Wagtail, or a reduction in the local Grey Wagtail population	A	2	Low				
	Yellow Wagtail	Loss of Yellow Wagtail, or a reduction in the local Yellow Wagtail population	A	2	Low				
	Peregrine Falcon	Loss of a Peregrine Falcon, or a reduction in the local Peregrine Falcon population	A	2	Low				
	Long-tailed Dunnart	Loss of a Long-tailed Dunnart, or a reduction in the local Long-tailed Dunnart population	A	2	Low				
	Increase or spread of weeds	Changed vegetation and a resulting loss of fauna habitat.	E	2	Mod.	Implementation of Feral Animal and Noxious Weed Procedure.	D	2	Low
Human impacts	Road kills	Animals being killed by vehicles as they cross roads	E	1	Low	Limiting speeds	E	1	Low
	Increase in feral mammals, specifically the dog and cat	Increased predation on the native fauna	C	3	Mod.	Implementation of Feral Animal and Noxious Weed Procedure. Undertake an active feral and pest management program for feral cats and wild dogs.	C	2	Low

6.3 NATIVE VEGETATION CLEARING PRINCIPLES AS THEY PERTAIN TO VERTEBRATE FAUNA

The Environmental Protection Act (1986) outlines 10 principles that are to be used in the assessment of native vegetation clearing permit applications which are also applicable for other assessments and approvals (Table 19). Where possible, native vegetation should not be cleared if any of the following principles are comprised.

Table 19. Assessment of impact using the native vegetation clearing principles

Principle	Response
It comprises a high level of biological diversity.	Vegetation clearing and mining activity will impact on the native fauna assemblage, but this impact is not considered significant in a bioregional context nor is the project area an area of high vertebrate fauna diversity. Clearing vegetation will not comprise a high level of biodiversity. No conservation significant species are likely to be impacted.
It comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.	Fauna habitat in the project area is like that in adjacent areas, so clearing the vegetation and mining activity will not result in the loss of significant habitat for indigenous fauna.
It includes, or is necessary for the continued existence or, rare flora.	N/A
It comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community.	The area does not contain a threatened ecological fauna community.
It is significant as a remnant of native vegetation in an area that has been extensively cleared.	The area is not a remnant.
It is growing in, or in association with, an environment associated with a watercourses or wetland.	The area does not contain a natural wetland although there are ephemeral drainage lines in the project area.
The clearing of the vegetation is likely to cause appreciable land degradation.	N/A
The clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.	Clearing of vegetation is unlikely to impact on the environmental values of the bioregion.
The clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.	N/A
The clearing of the vegetation is likely to cause, or exacerbate the incidence of flooding.	N/A

6.4 REFERRAL UNDER THE EPBC ACT

The proposed disturbance will not significantly impact on a conservation significant vertebrate fauna species, so a referral under the *EPBC Act 1999* is not required.

7. SUMMARY

The total assessed area is ~7120ha and is made up of five locations for which Regis has plans for mining activity. There is one broad fauna habitat in the project area – open mulga woodland, with the density of vegetation varying often due to the proximity to ephemeral creek lines.

The fauna habitat has been degraded by many years of cattle grazing and to a lesser extent exploration and mining, and feral predators (i.e. feral cat and wild dogs) have had a significant impact on both native species and relative abundance of the vertebrate fauna. There are numerous pastoral and exploration tracks in the project area, but these are generally narrow and mostly only wheel tracks on a red-clay substrate. Camera traps and observations indicated the presence of wild dogs and feral cats in the project area, often around mining camps and waste disposal areas.

When the data from all trapping sites were combined, 34 species of reptiles (30 species) and small mammals (four species) were trapped in the project area. Observations while clearing traps indicated that there was a very low abundance of *Varanus giganteus*, *Ctenophorus nuchalis*, *Moloch horridus* and *Antaresia stimsoni* in the project area, and the addition of these three species takes the total to 38 species. Forty-two species of birds were recorded from a total of 55 survey sites and the species accumulation curve modelling indicated there was 54 species in the project area. There were no Malleefowl, their tracks or recently active mounds in the project area, and other conservation significant species potentially in the project area would readily move if disturbed and therefore any impacts would be low.

Clearing native vegetation in the project area is likely to result in the loss of small vertebrate fauna on-site that are unable to move away during the disturbance, however, this loss is not likely to be significant when viewed in a bioregional context. The few larger animals, such as kangaroos, large goannas and snakes, and most of the birds will move into adjacent areas once vegetation clearing commences, so potential impacts will be low. There may be an on-going loss of small native fauna to vehicle strikes on access tracks and haul roads, but overall, this impact will be very low. Forced fauna migrants because of vegetation clearing will increase competition for resources in the short term, which may result in the subsequent loss of migrants or local individuals. Individuals shifted out of their established activity areas are also vulnerable to predation until they have become established in their new areas.

There are feral cats and wild dogs in the project area, with higher level of activity around the camps and waste disposal facilities. These feral predators, along with cattle grazing over many years are likely to be having a greater impact on the native fauna than the proposed vegetation clearing and mining operations.

Impacts on vertebrate fauna associated with clearing vegetation in the project area in a bioregional context are likely to be low as there are vast tracts of similar habitat in adjacent areas.

The proposed project is unlikely to significantly impact on a conservation significant species, so a referral under the *EPBC Act 1999* is not required.

8. MANAGEMENT STRATEGIES

The purpose of this section is to identify generic management and mitigation strategies to address the potential impacts of development in the project area. Specific management and mitigation strategies to address potential impacts should be addressed in the recommended Vertebrate Fauna Management Plan and Construction Environmental Management Plan.

8.1 INDUCTION AND AWARENESS

All contractors and staff involved in vegetation clearing, development and ongoing mining operations in the project area should be made aware of the possible presence and issues associated with terrestrial fauna in the area through the induction process.

Recommendation 1: An induction program that includes a component on managing vertebrate fauna is mandatory for staff working in the project area.

8.2 DUST

Dust generated from the vegetation clearing and mining operations could potentially degrade surrounding vegetation, reducing its ability to absorb sunlight and influencing photosynthetic rates. Degradation of these areas will potentially render habitat unsuitable for fauna. Dust suppression and management programs are an essential component of minimising mining impacts on fauna during the construction program.

Recommendation 2: The impact of dust on adjacent vegetation and fauna habitat is managed against appropriate KPIs and in accordance with the clients' Construction Environmental Management Plan.

8.3 MINIMISING SECONDARY IMPACTS TO FAUNA AND FAUNA HABITAT

A vertebrate fauna management plan should be prepared for the operations which includes vegetation clearing and mine operations. This plan should be implemented and regularly updated (i.e. at least annually) based on the best available information. The vertebrate fauna management plan will cover the entire operations and will describe the management practices associated with vegetation clearing and infrastructure development, and ongoing project operations.

This plan will have specific and measurable objectives, triggers for specific actions and the specific actions that will be implemented as and when required. The plan will also detail an annual vertebrate feral and pest reduction program and a monitoring program to measure the health and relative abundance of conservation significant vertebrate fauna species that a likely to be present. This management plan will detail the adaptive management processes to be implemented by the project's management.

Beyond the immediate impact of vegetation clearing, the most significant threats to vertebrate fauna in and around the project area and potential mining developments is the abundance of large feral herbivores, feral cats and wild dogs. Pets should not be permitted on site and feral and pest fauna numbers monitored and controlled. To be effective, management of feral and pest species needs to be undertaken in collaboration with the pastoralist.

Putrescible waste likely to attract feral animals should be suitably contained and disposed of so as not to encourage the feeding of fauna around the site. This requires review of waste management at landfills to prevent access by feral animals.

Increased activity will result in increased traffic and a consequential increase in the fauna deaths on tracks. Limiting vehicle speed on mine roads can reduce collisions with fauna, particularly larger animals such as

kangaroos and emus. Dead animals on the road also have the propensity to attract raptors, goannas and even cattle, which are then killed.

Other general management recommendations for the project area to reduce potential impacts to fauna and fauna habitat include:

- Any disturbance and areas for clearing are minimised to reduce the loss of habitat and individual fauna;
- Potential impacts of the proposed clearing are minimised by implementing Regis Resources' clearing management procedures to ensure compliance with any clearing permit requirements;
- Weed control measures are implemented during and post construction activities;
- All staff are educated on the importance of fire prevention, and equipment is provided in the event of a fire;
- Control and reduction methods are implemented for feral and pest fauna;
- Pets are not allowed on site; and
- Driving restrictions are imposed on site to reduce vehicle speeds and reduce off-road driving.

Recommendation 3: Management of the mine sites' waste management facility is reviewed and altered so that putrescible waste is not available to pest animals and birds.

Recommendation 4: The recently implemented feral predator (i.e. feral cat and wild dog) reduction program implemented in the winter months of each year.

Recommendation 5: Prepare and implement a vertebrate fauna management plan for the operations which includes a component on managing feral and pest vertebrate fauna.

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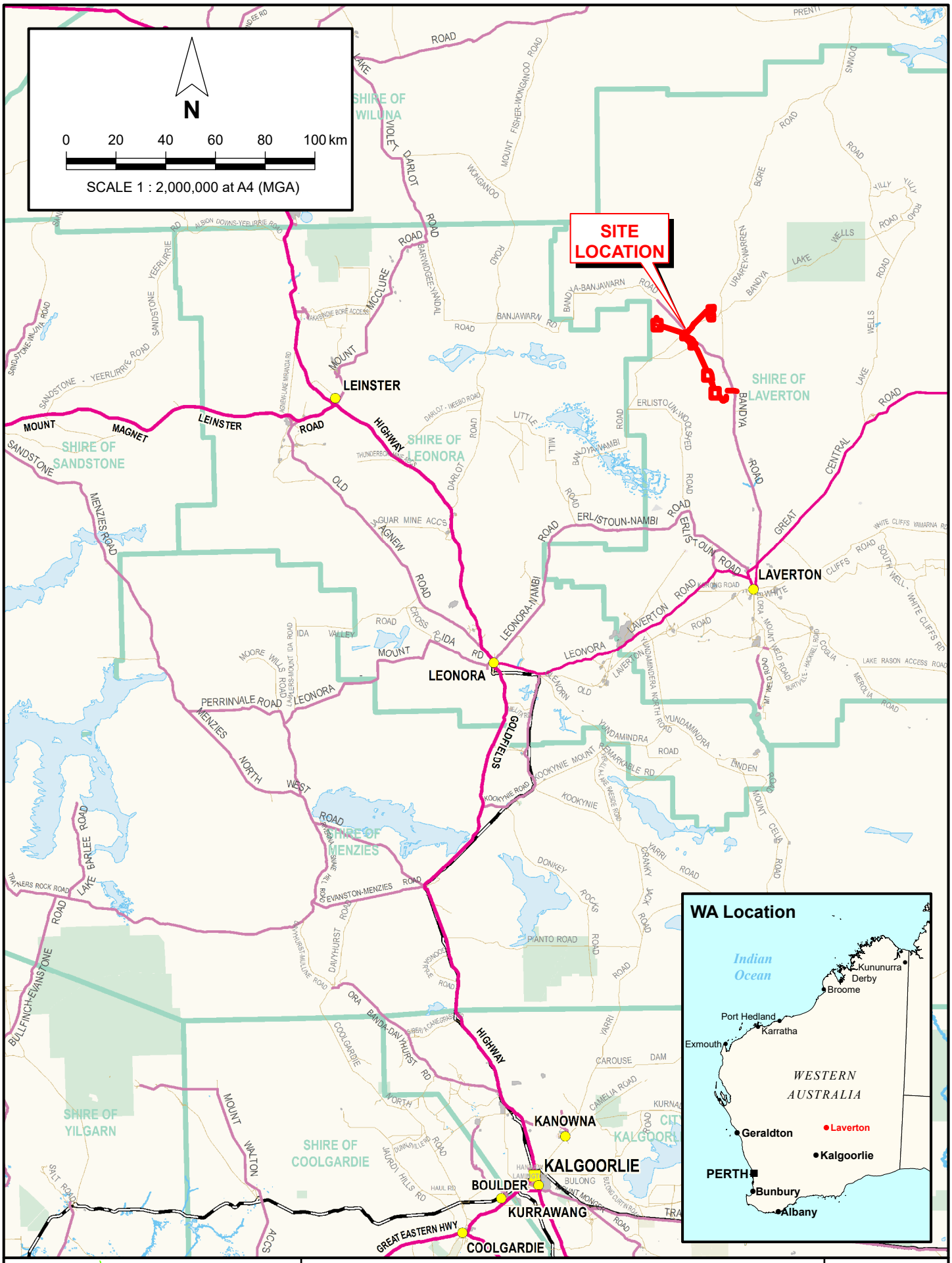
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Figures

Basic and Detailed Vertebrate Fauna Survey and Assessment
Northern Project Areas





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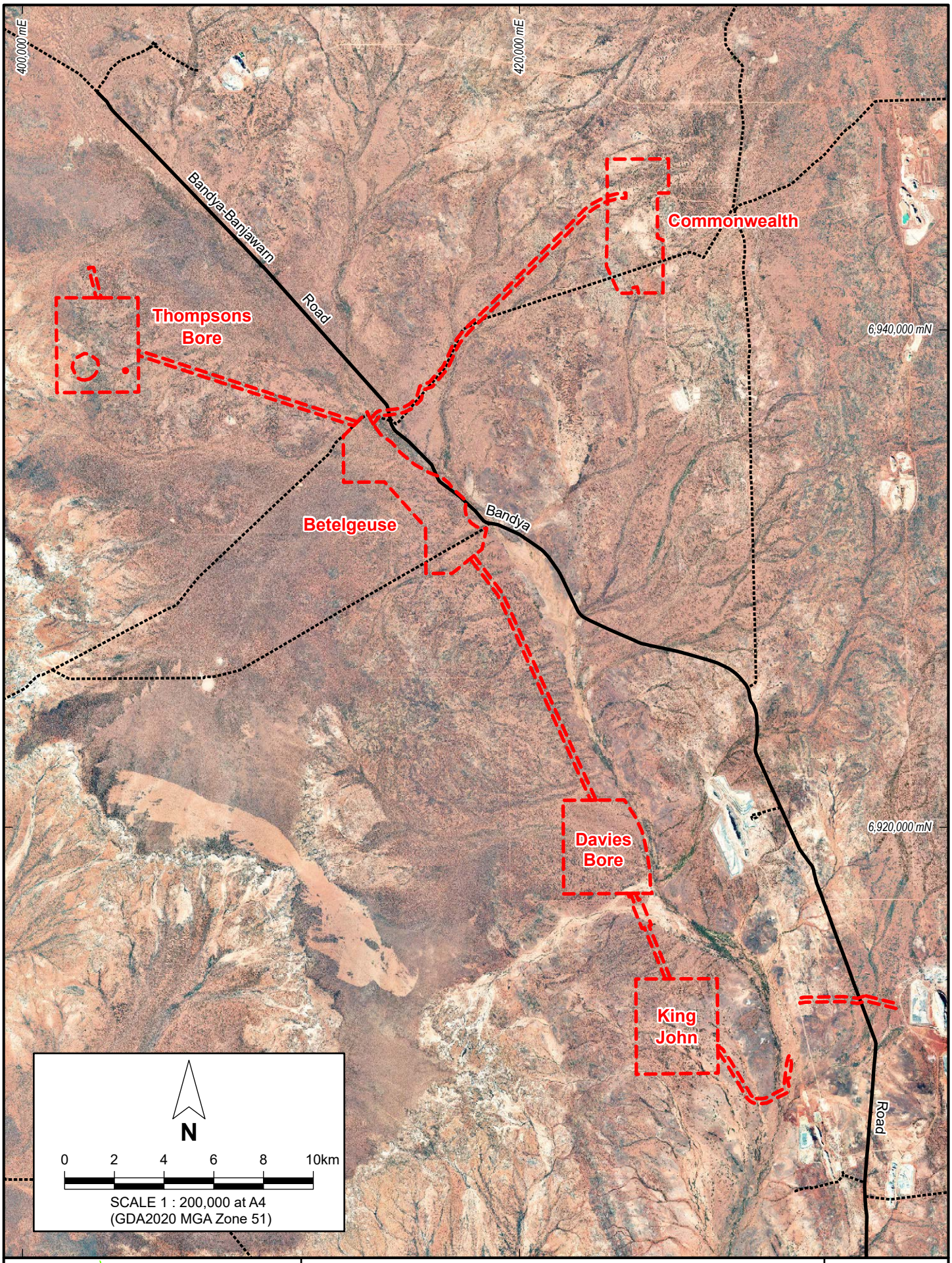
TERRESTRIAL ECOSYSTEMS

Regis Resources Ltd
BASIC AND DETAILED FAUNA SURVEY AND ASSESSMENT
NORTHERN PROJECT AREAS

Figure 1

REGIONAL LOCATION

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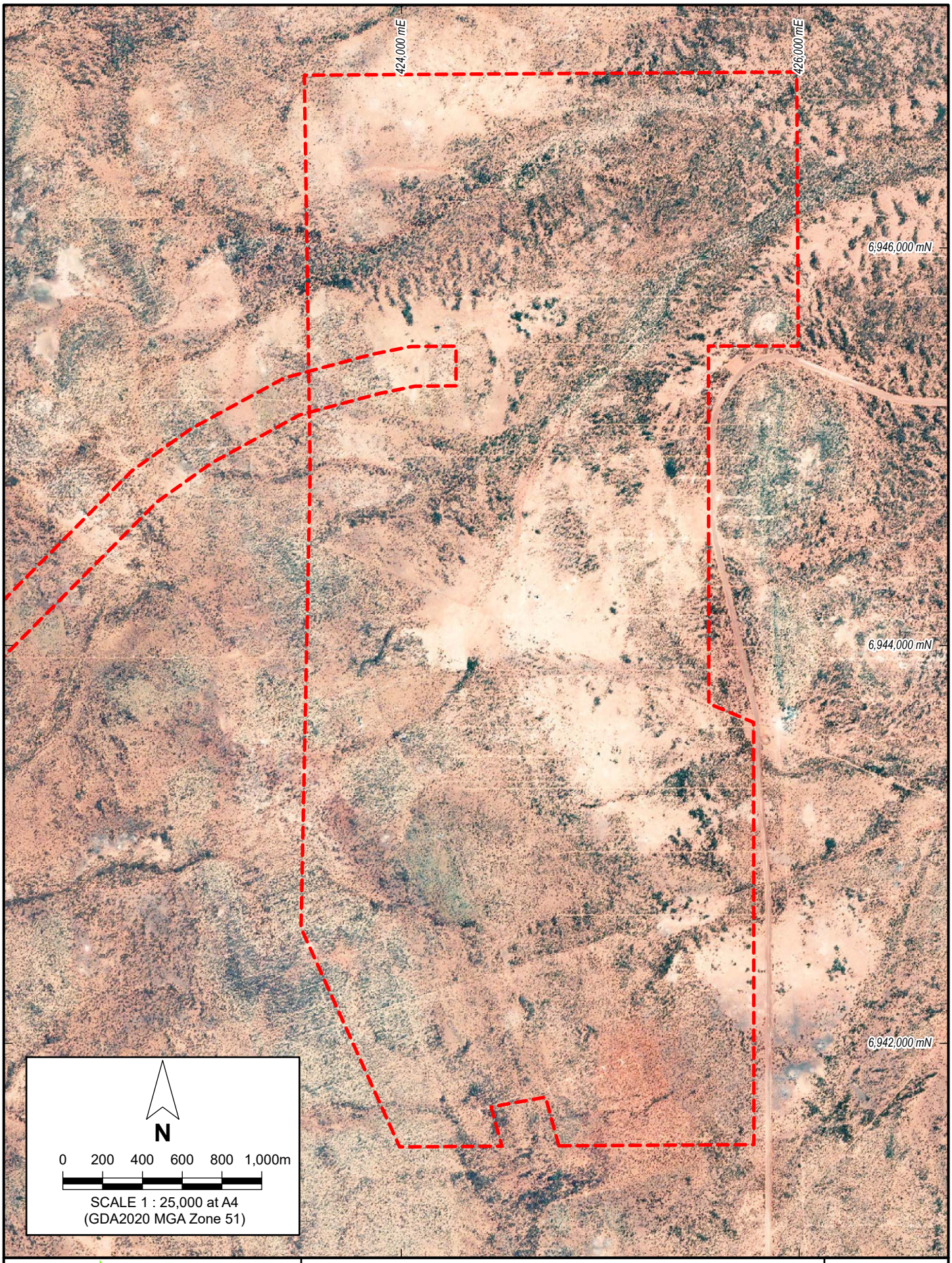
TERRESTRIAL ECOSYSTEMS

Regis Resources Ltd
BASIC AND DETAILED FAUNA SURVEY AND ASSESSMENT
NORTHERN PROJECT AREAS

Figure 2

PROJECT AREA

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2022-0042-f02.mxd

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TERRESTRIAL ECOSYSTEMS

Regis Resources Ltd
BASIC AND DETAILED FAUNA SURVEY AND ASSESSMENT
NORTHERN PROJECT AREAS

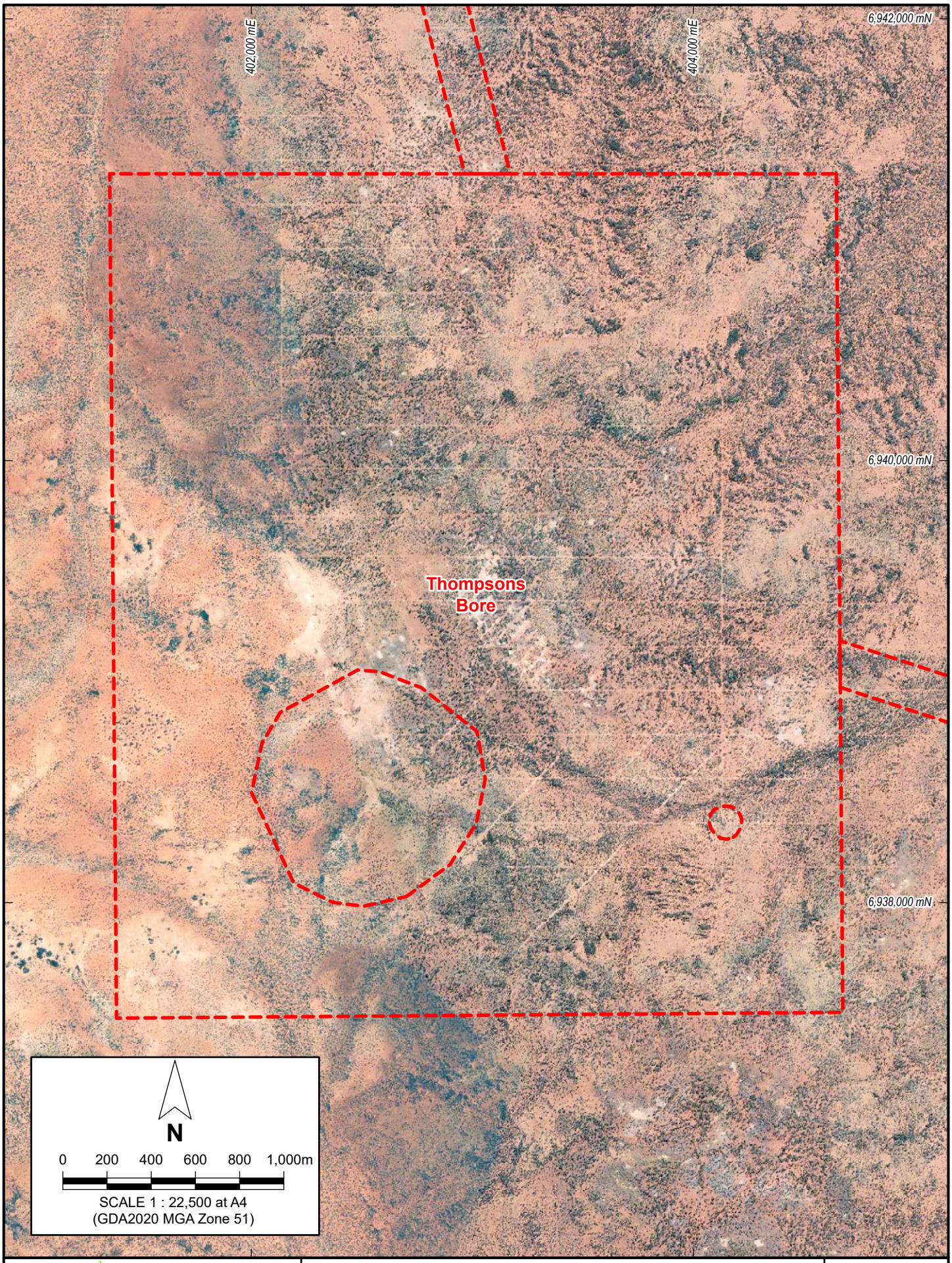
Figure 2a

COMMONWEALTH PROJECT AREA

Drawn: S. Thompson

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Job: 2022-0042



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TERRESTRIAL ECOSYSTEMS

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BASIC AND DETAILED FAUNA SURVEY AND ASSESSMENT
NORTHERN PROJECT AREAS

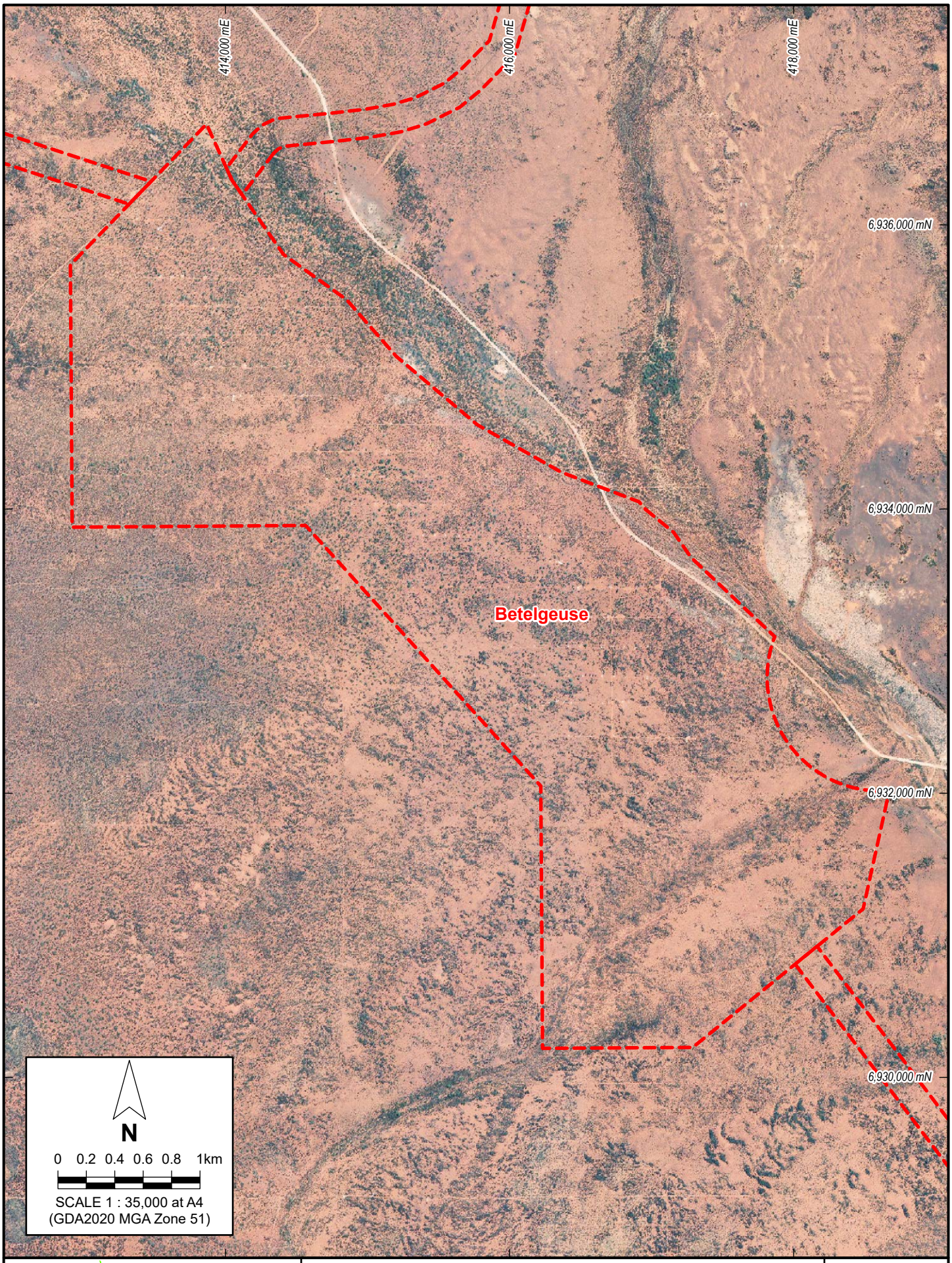
Figure 2b

THOMPSONS BORE PROJECT AREA

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Date: 4 Jan 2023

Job: 2022-0042



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TERRESTRIAL ECOSYSTEMS

Regis Resources Ltd
BASIC AND DETAILED FAUNA SURVEY AND ASSESSMENT
NORTHERN PROJECT AREAS

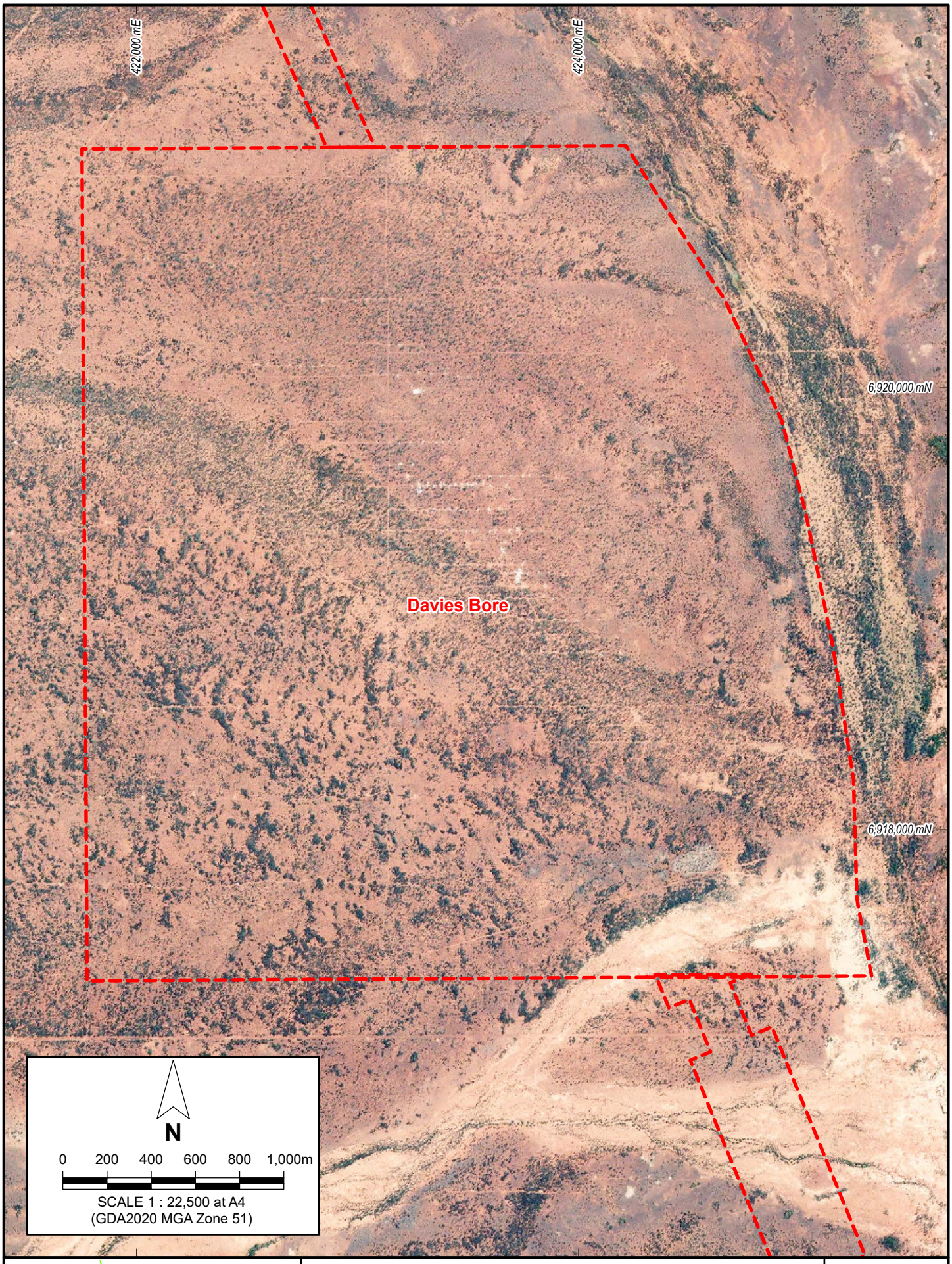
Figure 2c

BETELGEUSE PROJECT AREA

Drawn: S. Thompson

Date: 4 Jan 2023

Job: 2022-0042



2022-0042-f02.mxd

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TERRESTRIAL ECOSYSTEMS

Regis Resources Ltd
BASIC AND DETAILED FAUNA SURVEY AND ASSESSMENT
NORTHERN PROJECT AREAS

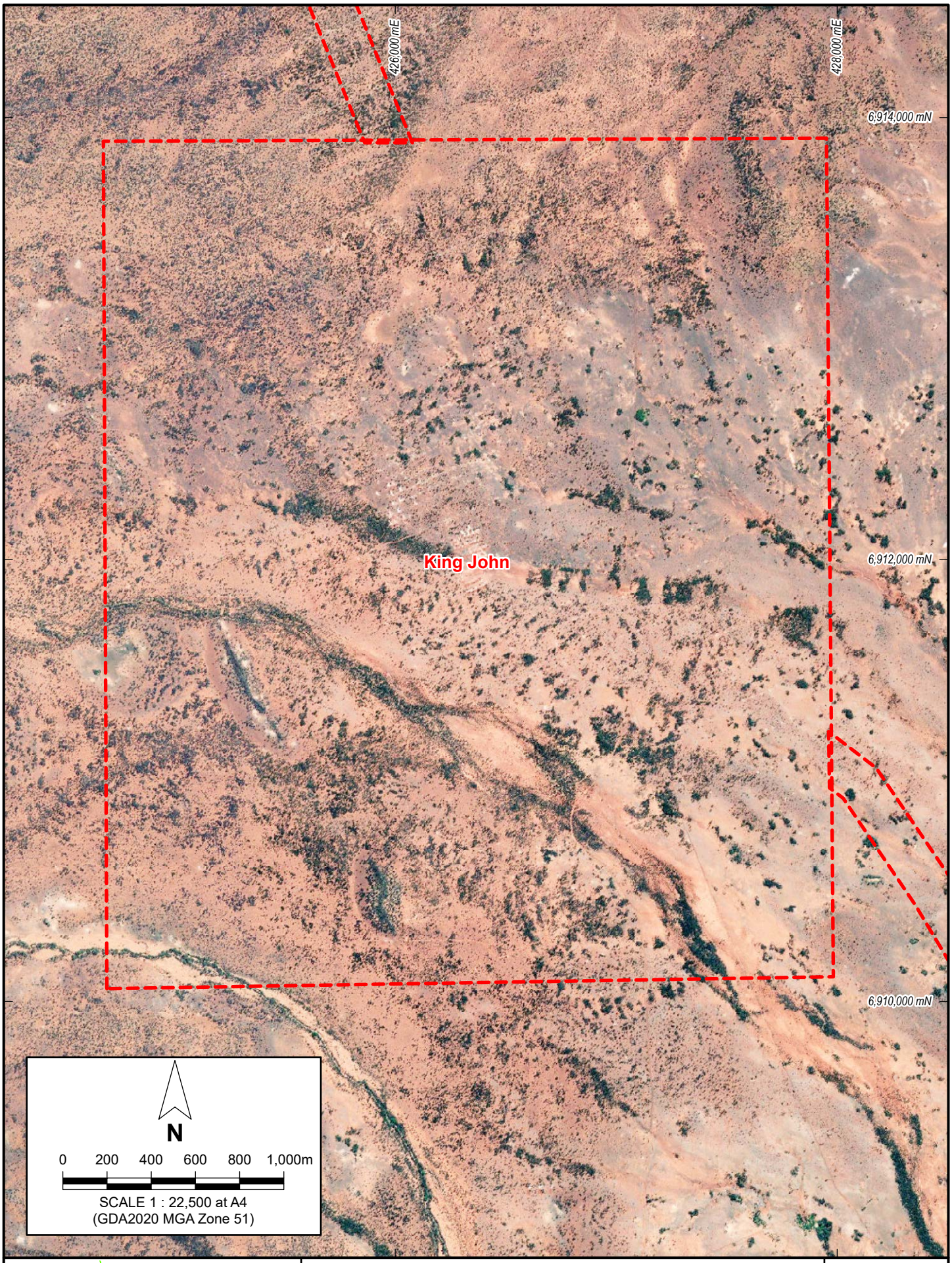
Figure 2d

DAVIES BORE PROJECT AREA

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Job: 2022-0042



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TERRESTRIAL ECOSYSTEMS

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BASIC AND DETAILED FAUNA SURVEY AND ASSESSMENT
NORTHERN PROJECT AREAS

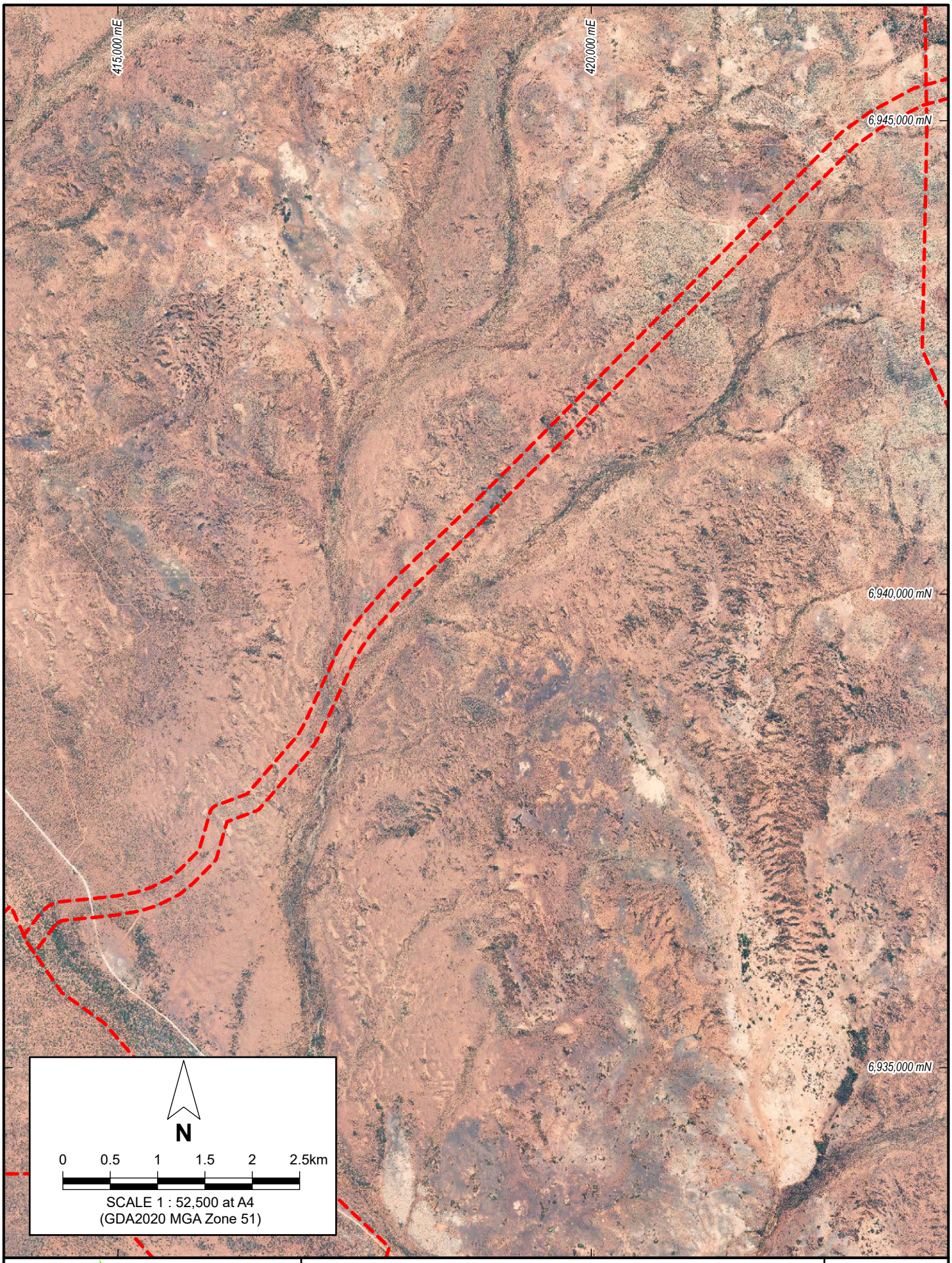
Figure 2e

KING JOHN PROJECT AREA

Drawn: S. Thompson

Date: 4 Jan 2023

Job: 2022-0042



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TERRESTRIAL ECOSYSTEMS

Regis Resources Ltd
BASIC AND DETAILED FAUNA SURVEY AND ASSESSMENT
NORTHERN PROJECT AREAS

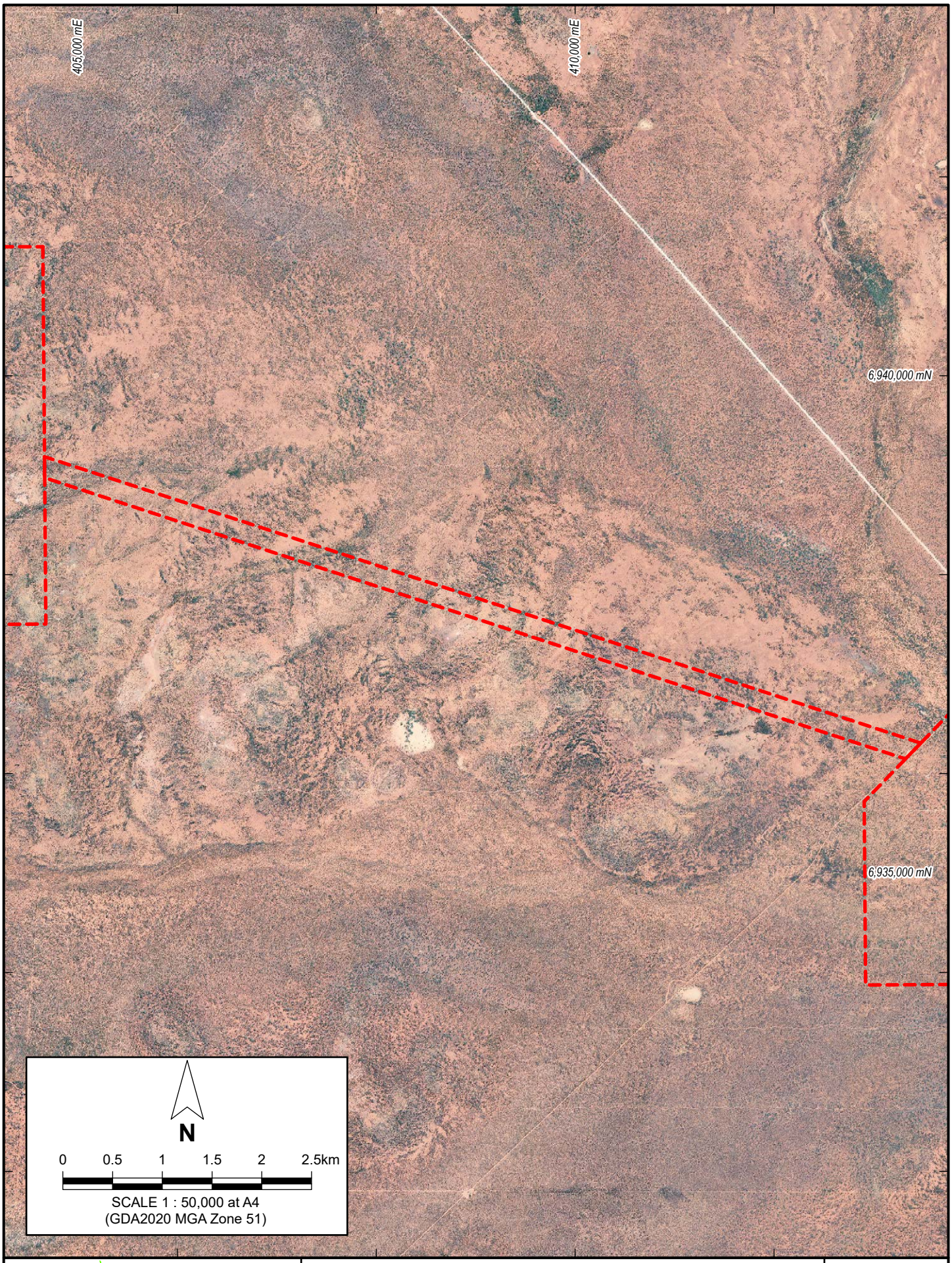
Figure 2f

COMMONWEALTH TO BETELGEUSE HAUL ROAD

Drawn: S. Thompson

Date: 4 Jan 2023

Job: 2022-0042



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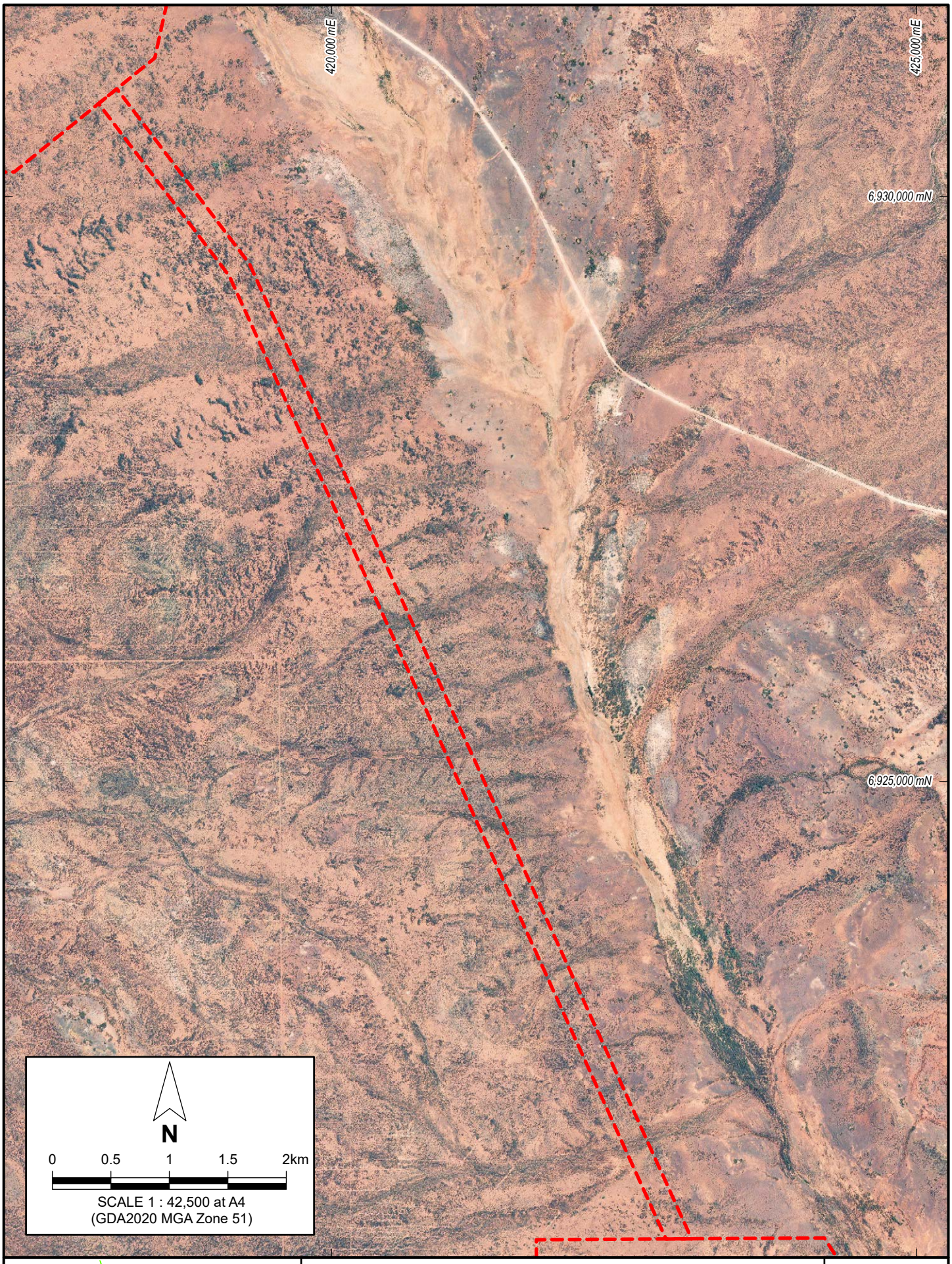
TERRESTRIAL ECOSYSTEMS

Regis Resources Ltd
BASIC AND DETAILED FAUNA SURVEY AND ASSESSMENT
NORTHERN PROJECT AREAS

Figure 2g

THOMPSONS BORE TO BETELGEUSE HAUL ROAD

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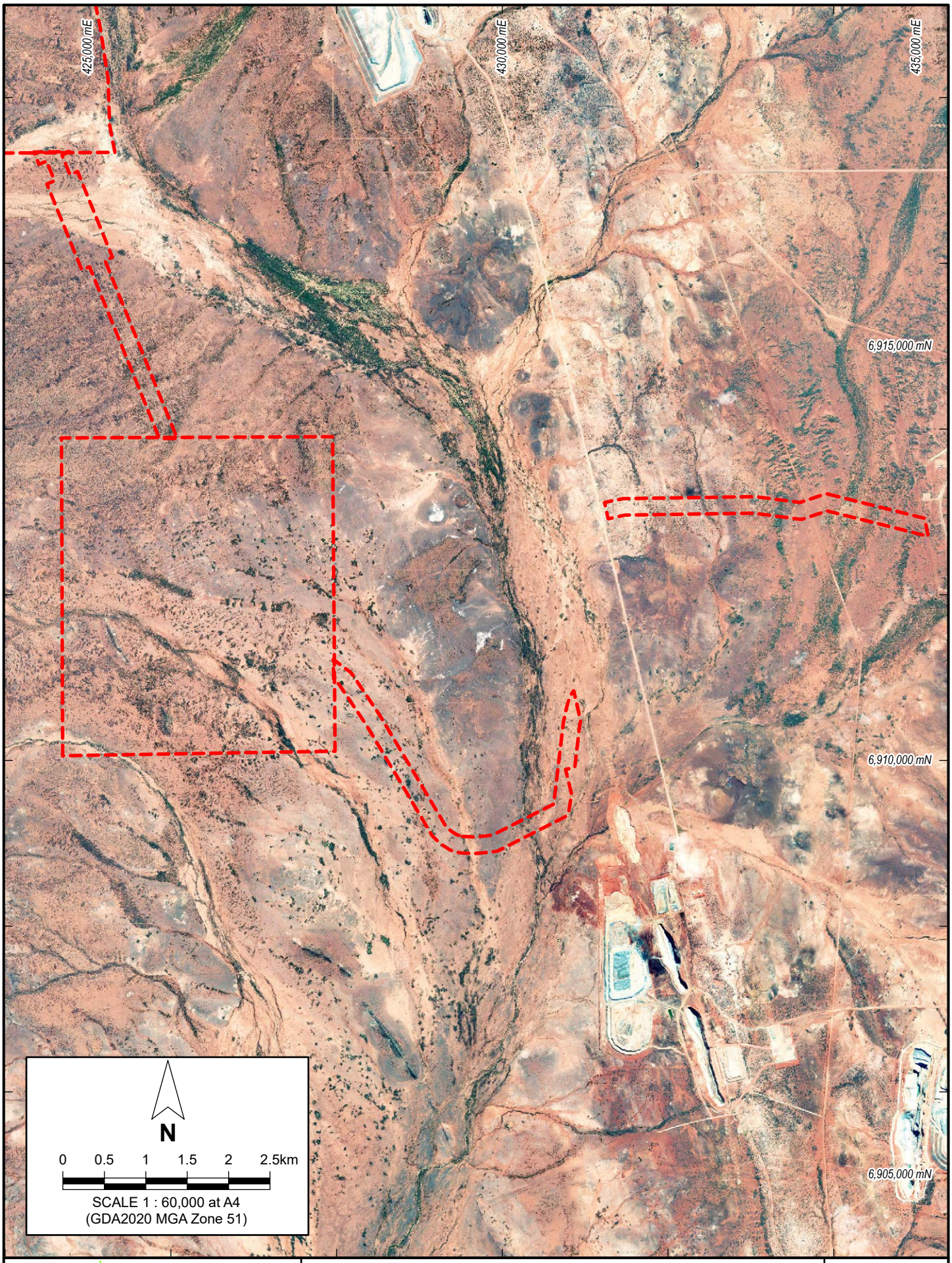
TERRESTRIAL ECOSYSTEMS

Regis Resources Ltd
BASIC AND DETAILED FAUNA SURVEY AND ASSESSMENT
NORTHERN PROJECT AREAS

Figure 2h

BETELGEUSE TO DAVIES BORE HAUL ROAD

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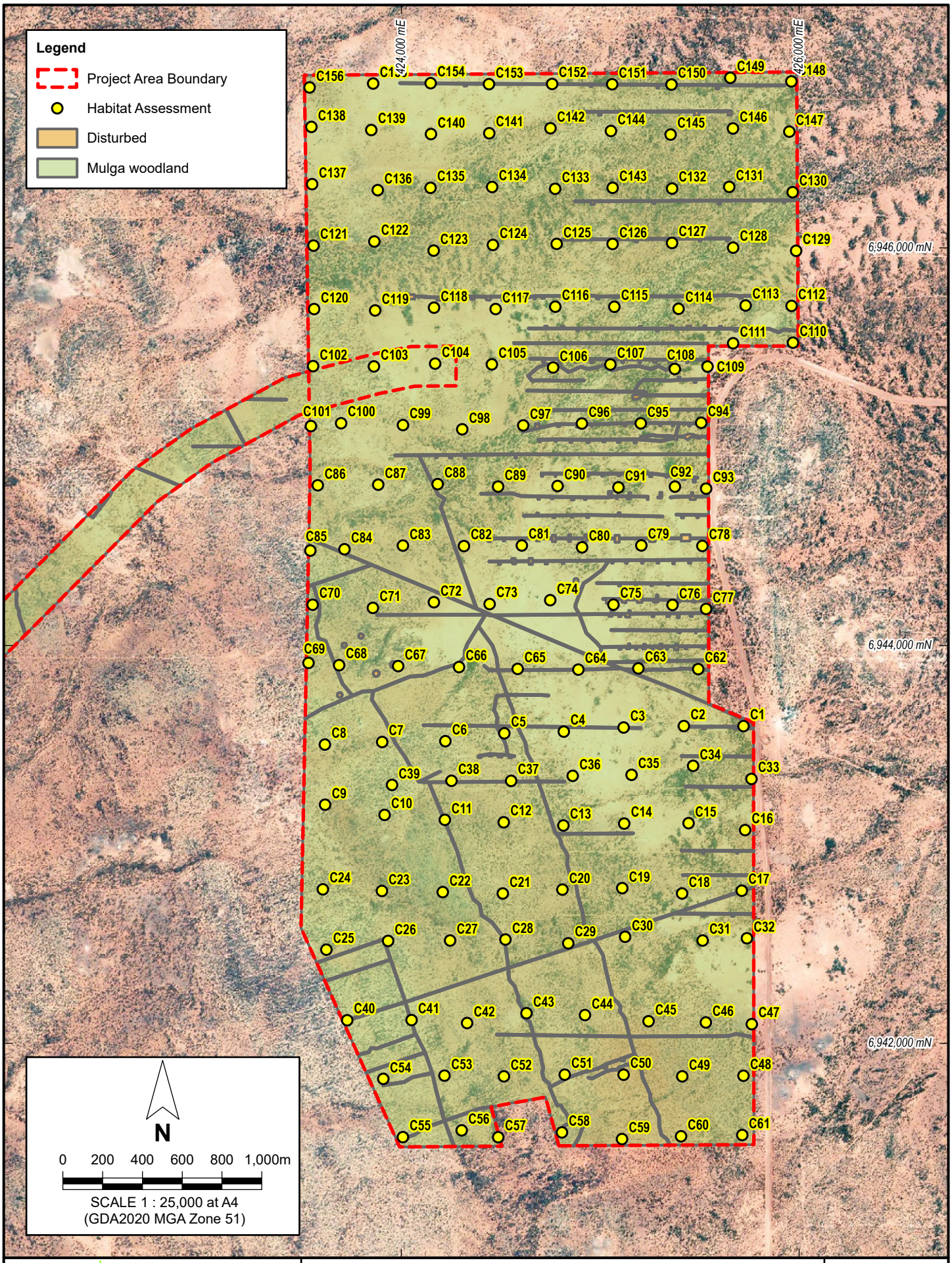
TERRESTRIAL ECOSYSTEMS

Regis Resources Ltd
BASIC AND DETAILED FAUNA SURVEY AND ASSESSMENT
NORTHERN PROJECT AREAS

Figure 2i

KING JOHN HAUL ROADS

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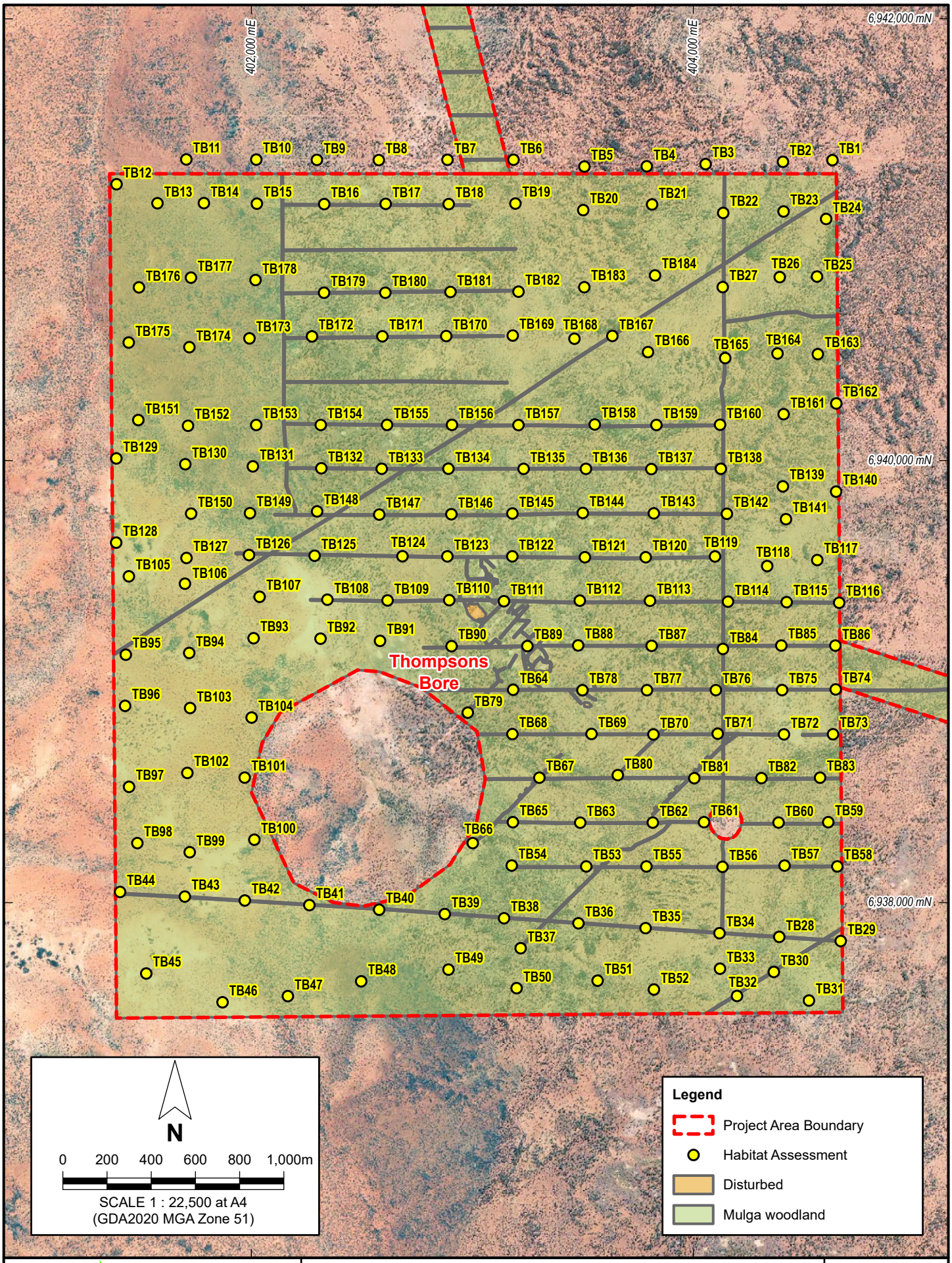
TERRESTRIAL ECOSYSTEMS

Regis Resources Ltd
BASIC AND DETAILED FAUNA SURVEY AND ASSESSMENT
NORTHERN PROJECT AREAS

Figure 3a

COMMONWEALTH PROJECT AREA HABITAT ASSESSMENTS

Drawn: S. Thompson | Date: 4 Jan 2023 | Job: 2022-0042



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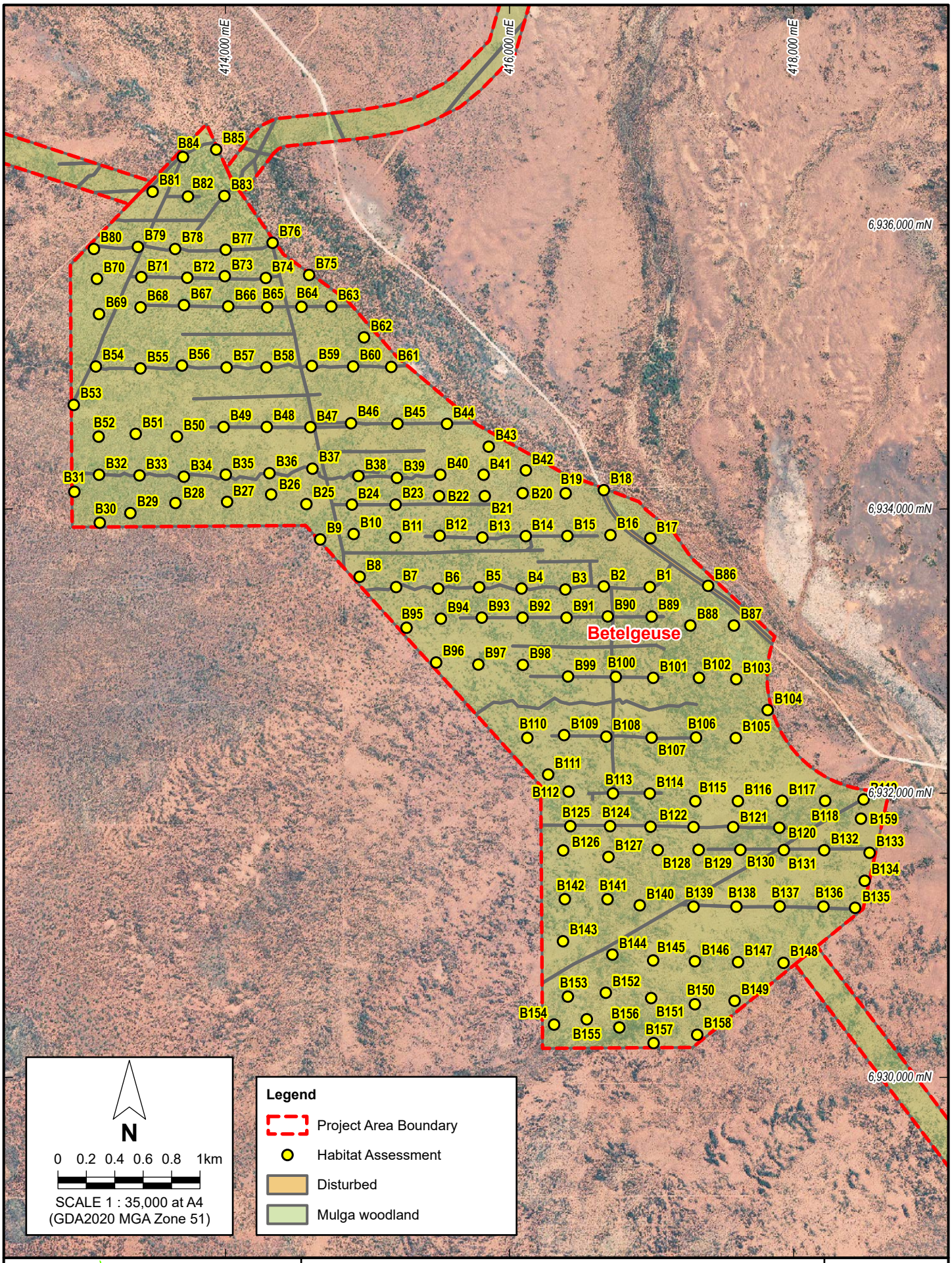
TERRESTRIAL ECOSYSTEMS

Regis Resources Ltd
BASIC AND DETAILED FAUNA SURVEY AND ASSESSMENT
NORTHERN PROJECT AREAS

Figure 3b

THOMPSONS BORE PROJECT AREA HABITAT ASSESSMENT

Drawn: S. Thompson | Date: 4 Jan 2023 | Job: 2022-0042



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TERRESTRIAL ECOSYSTEMS

Regis Resources Ltd
BASIC AND DETAILED FAUNA SURVEY AND ASSESSMENT
NORTHERN PROJECT AREAS

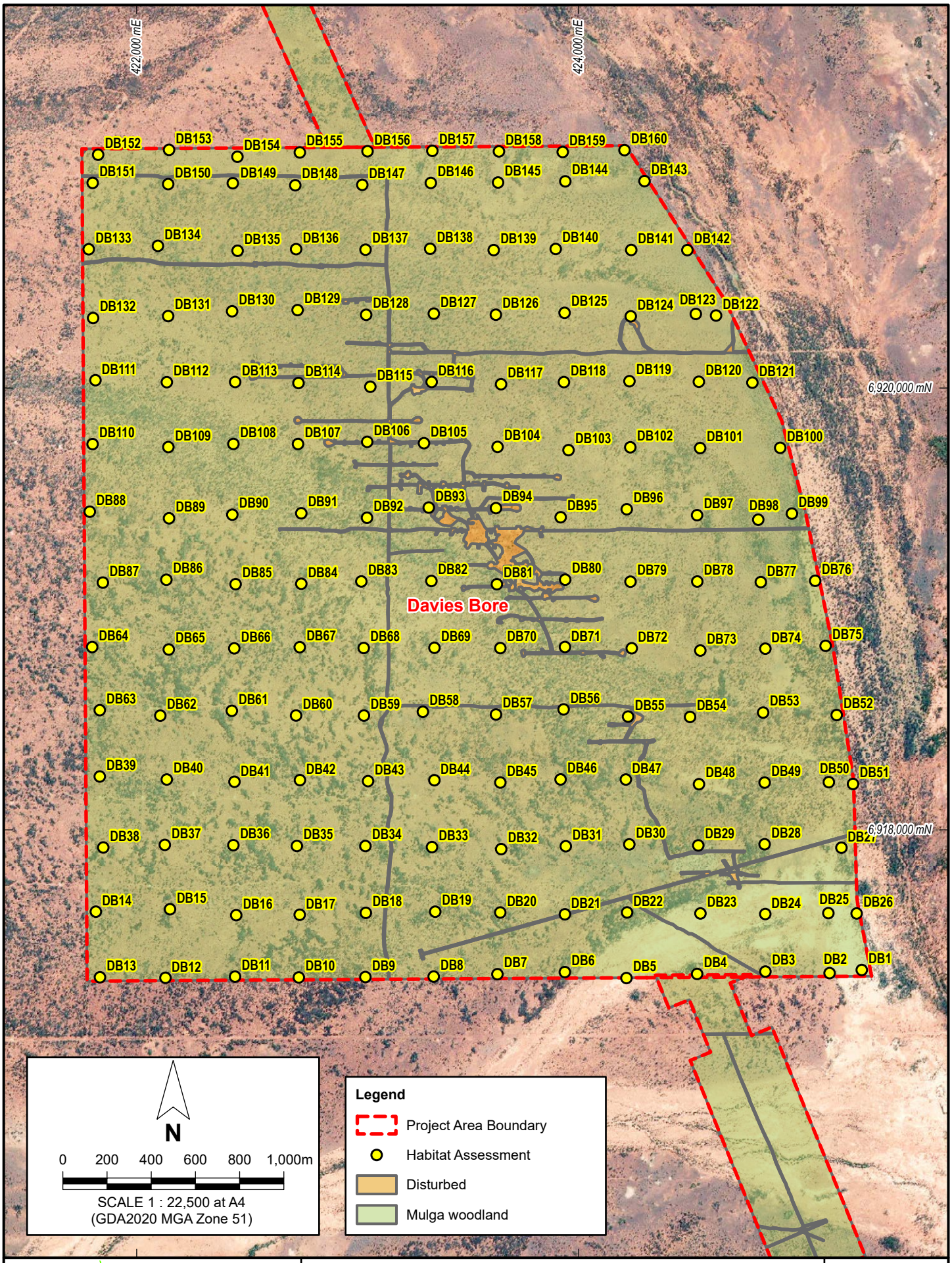
Figure 3c

BETELGEUSE PROJECT AREA HABITAT ASSESSMENT

Drawn: S. Thompson

Date: 4 Jan 2023

Job: 2022-0042



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TERRESTRIAL ECOSYSTEMS

Drawn: S. Thompson

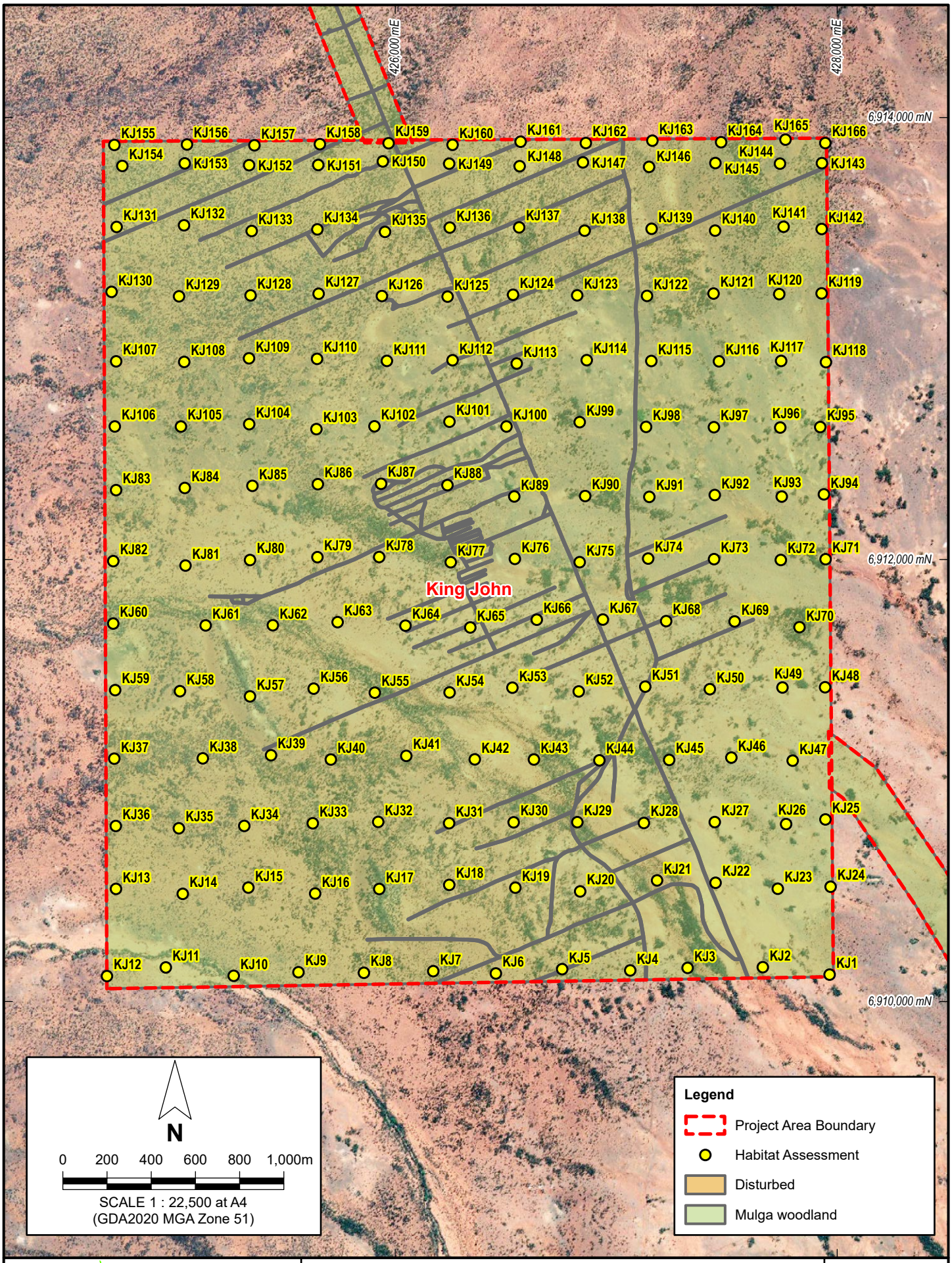
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Regis Resources Ltd
BASIC AND DETAILED FAUNA SURVEY AND ASSESSMENT
NORTHERN PROJECT AREAS

DAVIES BORE PROJECT AREA HABITAT ASSESSMENT

Figure 3d

Job: 2022-0042



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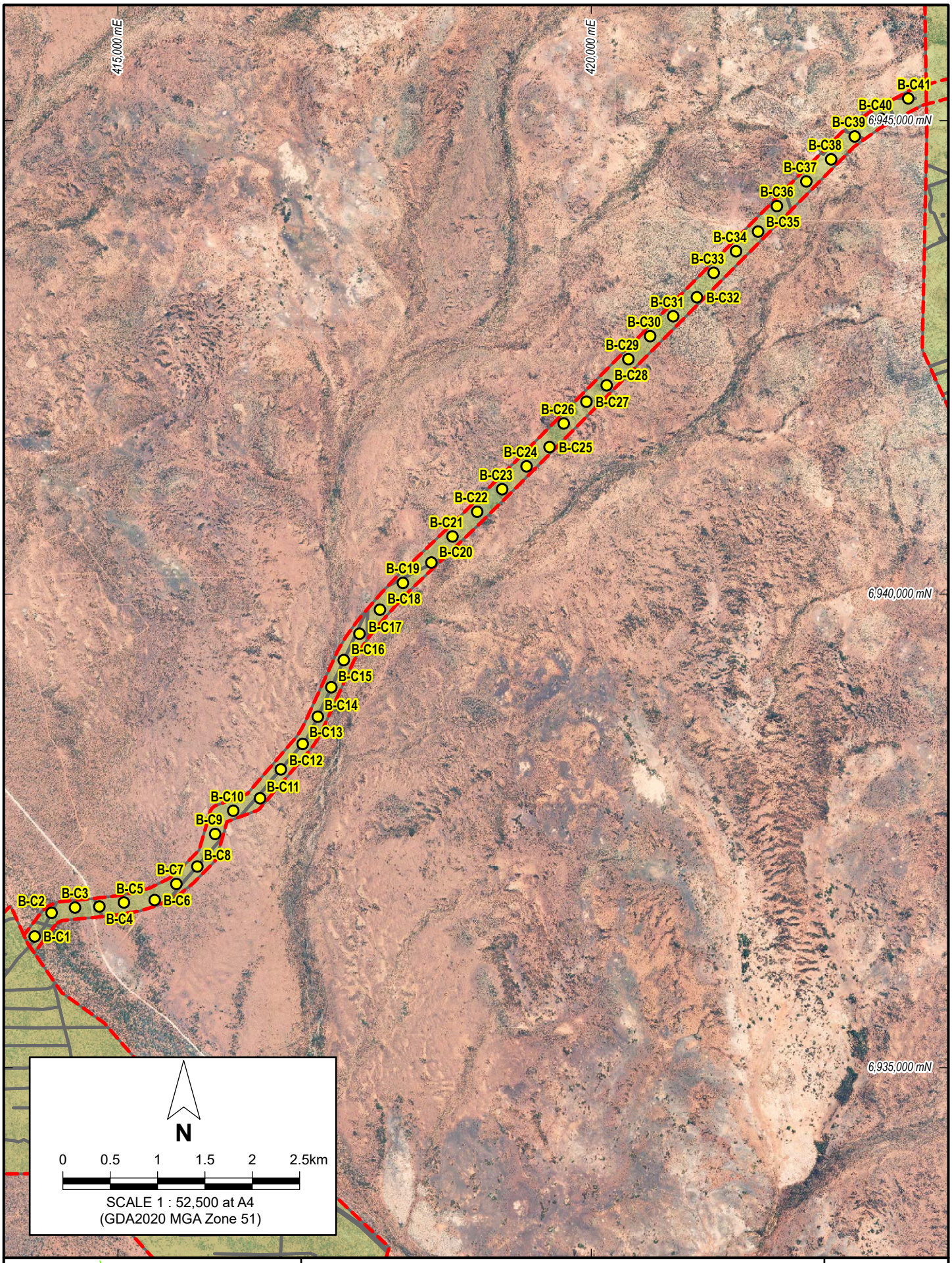
TERRESTRIAL ECOSYSTEMS

Regis Resources Ltd
BASIC AND DETAILED FAUNA SURVEY AND ASSESSMENT
NORTHERN PROJECT AREAS

Figure 3e

KING JOHN PROJECT AREA HABITAT ASSESSMENT

Drawn: S. Thompson | Date: 4 Jan 2023 | Job: 2022-0042



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TERRESTRIAL ECOSYSTEMS

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BASIC AND DETAILED FAUNA SURVEY AND ASSESSMENT
NORTHERN PROJECT AREAS

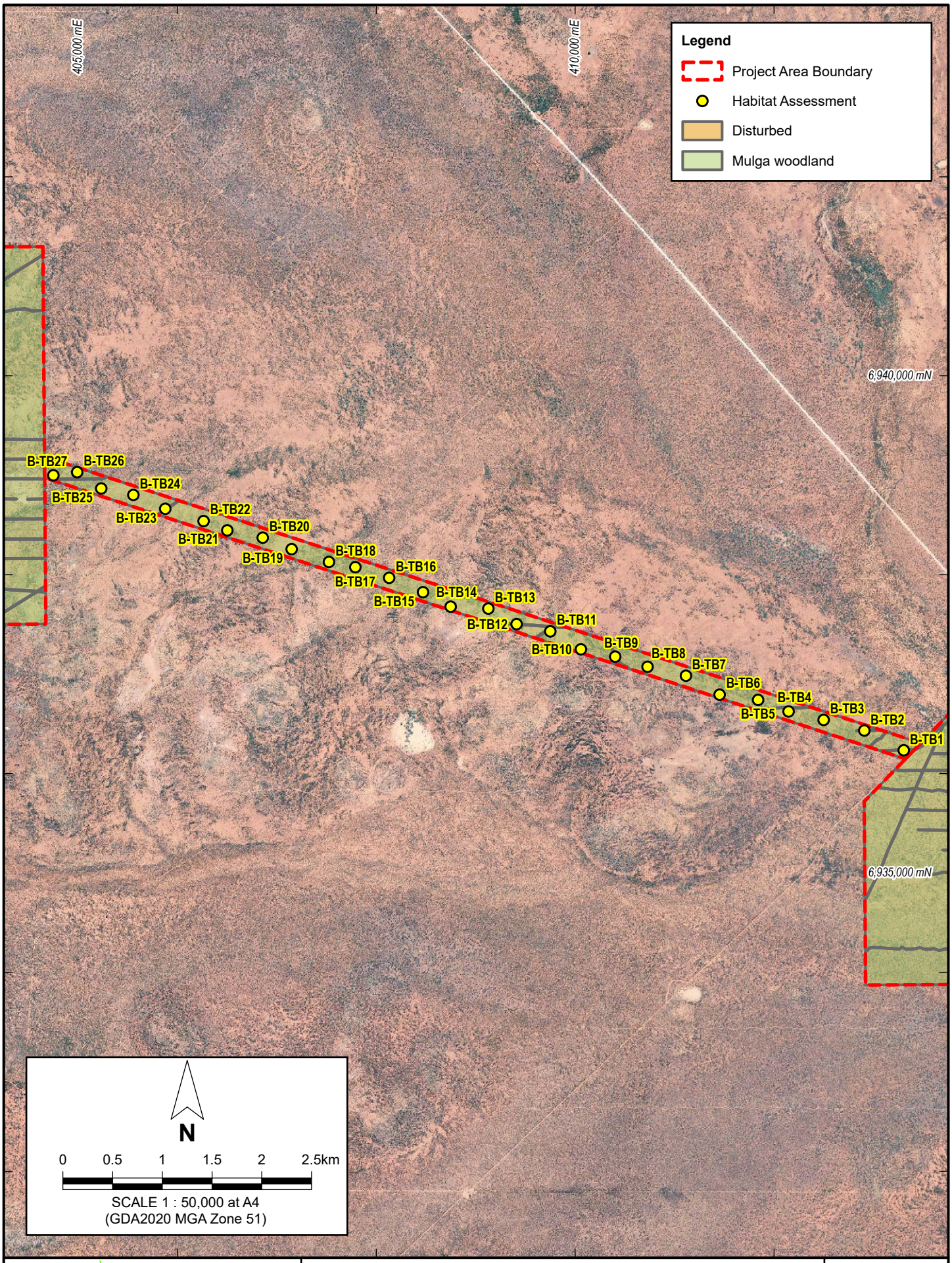
Figure 3f

COMMONWEALTH TO BETELGEUSE HAUL ROAD - HABITAT ASSESSMENT

Drawn: S. Thompson

Date: 4 Jan 2023

Job: 2022-0042



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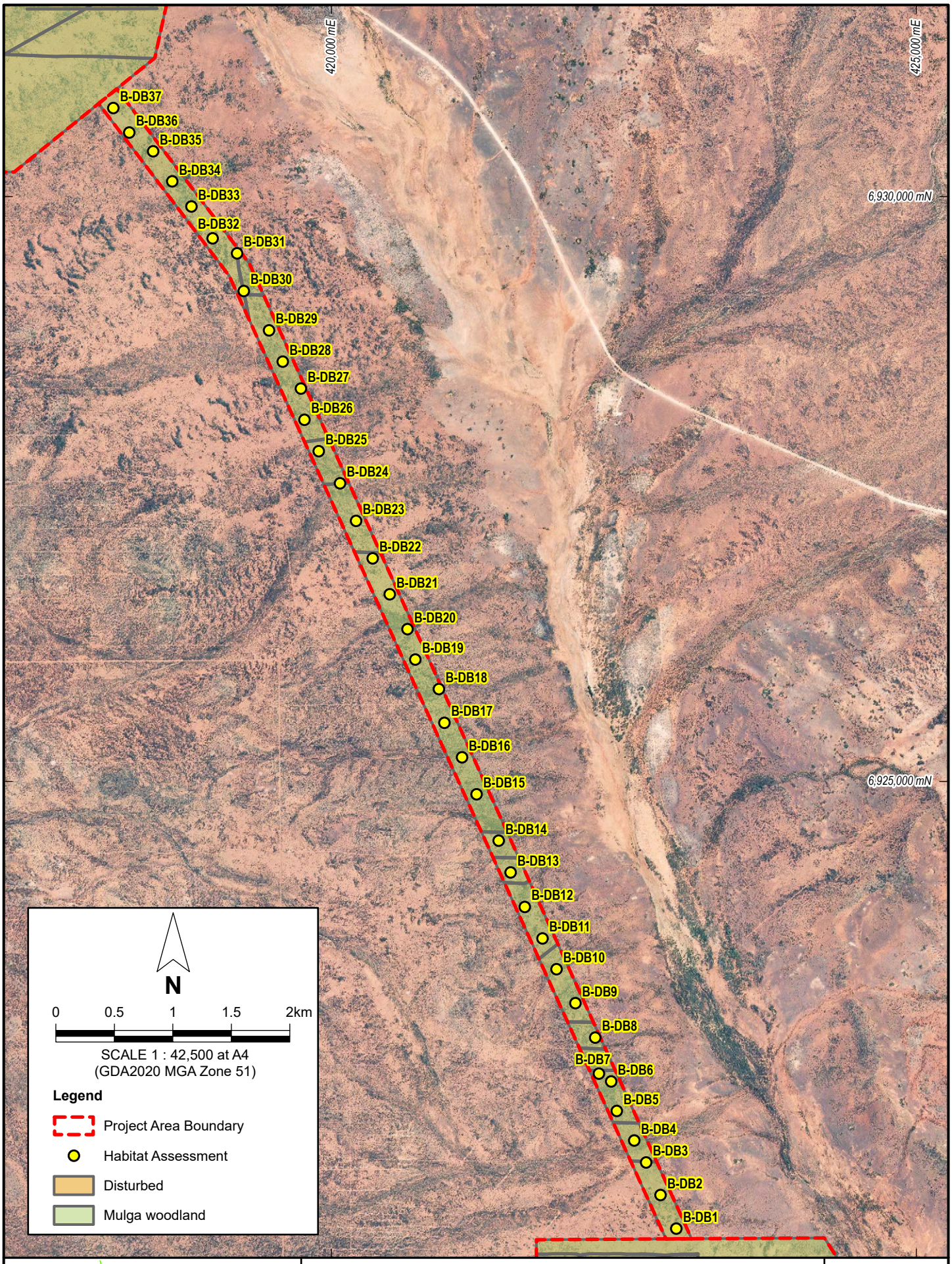
TERRESTRIAL ECOSYSTEMS

Regis Resources Ltd
BASIC AND DETAILED FAUNA SURVEY AND ASSESSMENT
NORTHERN PROJECT AREAS

THOMPSONS BORE TO BETELGEUSE HAUL ROAD - HABITAT ASSESSMENT

Figure 3g

Drawn: S. Thompson | Date: 4 Jan 2023 | Job: 2022-0042



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TERRESTRIAL ECOSYSTEMS

Drawn: S. Thompson

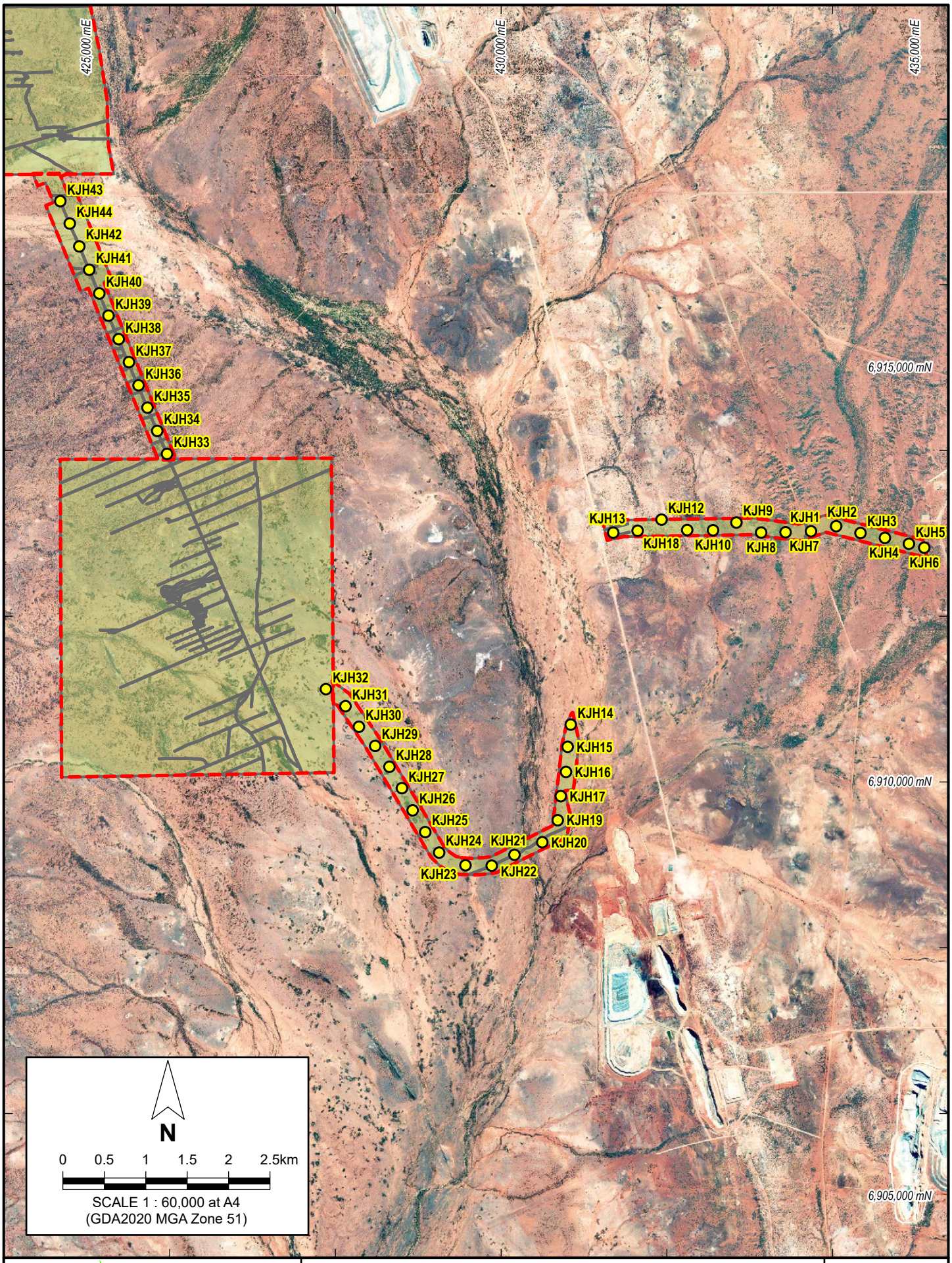
Date: 4 Jan 2023

Regis Resources Ltd
BASIC AND DETAILED FAUNA SURVEY AND ASSESSMENT
NORTHERN PROJECT AREAS

BETELGEUSE TO DAVIES BORE HAUL ROAD HABITAT ASSESSMENT

Figure 3h

Job: 2022-0042



2022-0042-f03.mxd

PINPOINT CARTOGRAPHICS (08) 9562 7136

TERRESTRIAL ECOSYSTEMS

Regis Resources Ltd
BASIC AND DETAILED FAUNA SURVEY AND ASSESSMENT
NORTHERN PROJECT AREAS

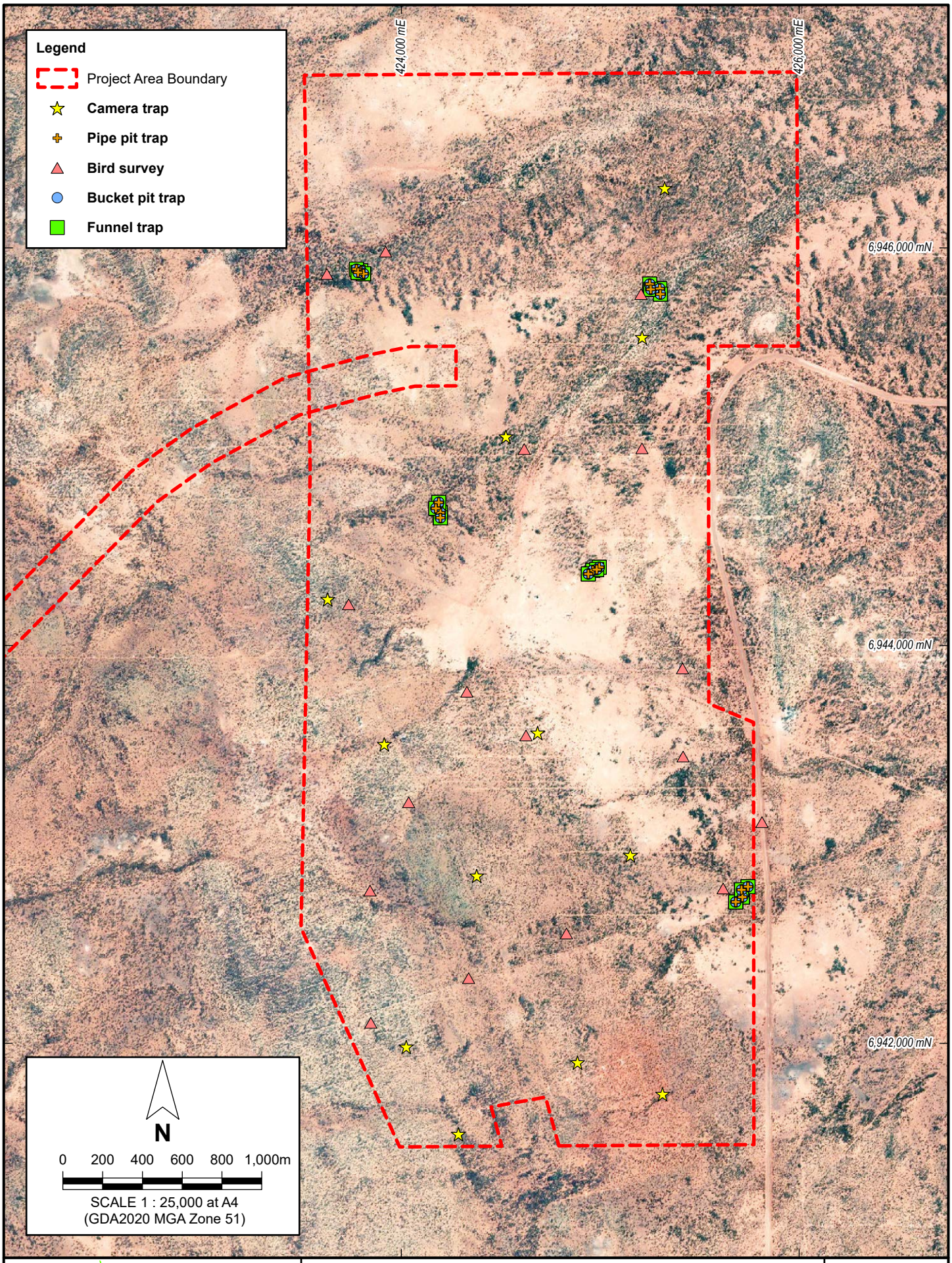
KING JOHN HAUL ROADS HABITAT ASSESSMENT

Figure 3i

Drawn: S. Thompson

Date: 4 Jan 2023

Job: 2022-0042



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TERRESTRIAL ECOSYSTEMS

Regis Resources Ltd
BASIC AND DETAILED FAUNA SURVEY AND ASSESSMENT
NORTHERN PROJECT AREAS

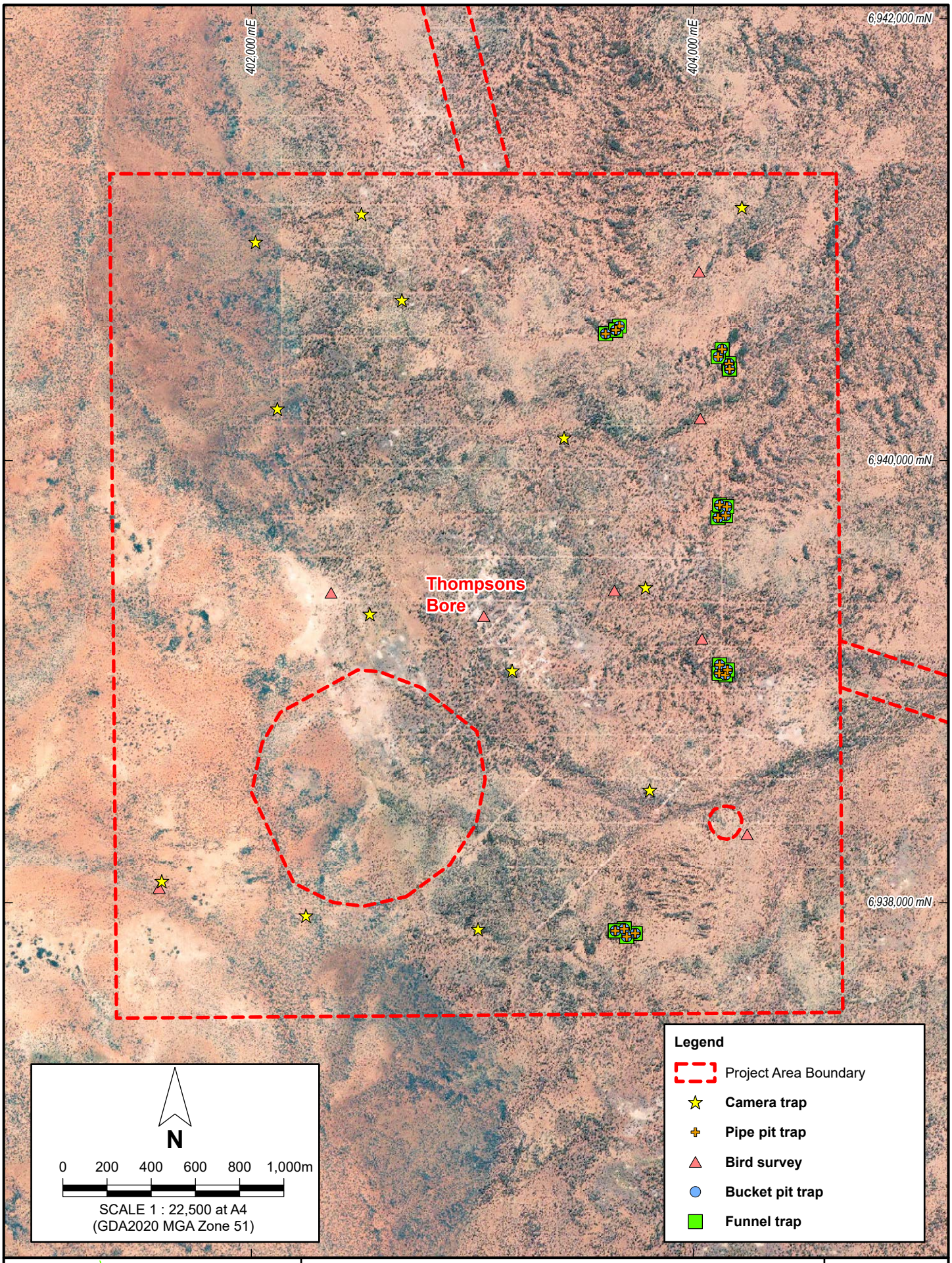
Figure 4a

COMMONWEALTH PROJECT AREA TRAPPING LOCATIONS

Drawn: S. Thompson

Date: 4 Jan 2023

Job: 2022-0042



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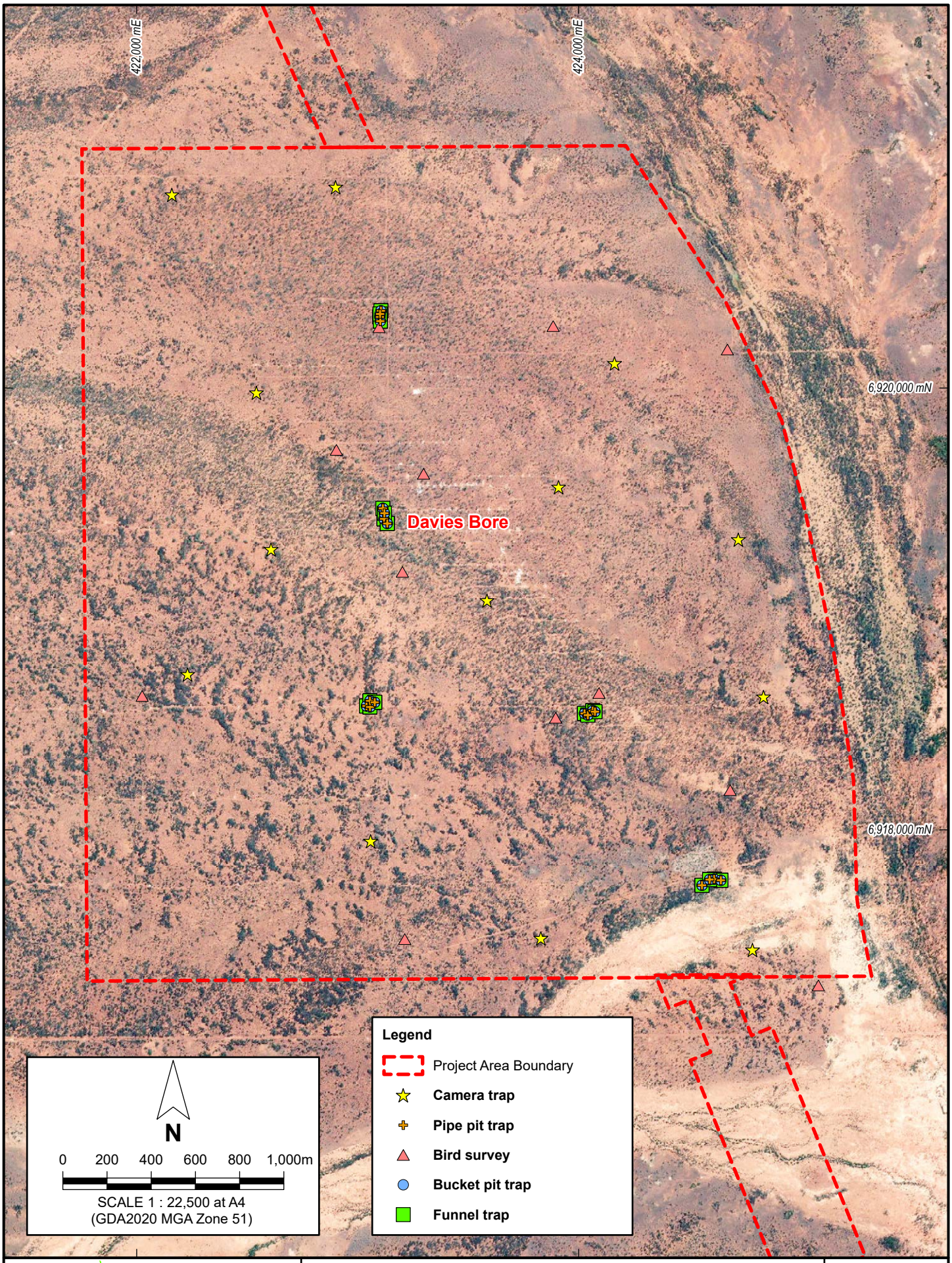
TERRESTRIAL ECOSYSTEMS

Regis Resources Ltd
BASIC AND DETAILED FAUNA SURVEY AND ASSESSMENT
NORTHERN PROJECT AREAS

Figure 4b

THOMPSONS BORE PROJECT AREA TRAPPING LOCATIONS

Drawn: S. Thompson | Date: 4 Jan 2023 | Job: 2022-0042



2022-0042-f04.mxd

PINPOINT CARTOGRAPHICS (08) 9562 7136

TERRESTRIAL ECOSYSTEMS

Regis Resources Ltd
BASIC AND DETAILED FAUNA SURVEY AND ASSESSMENT
NORTHERN PROJECT AREAS

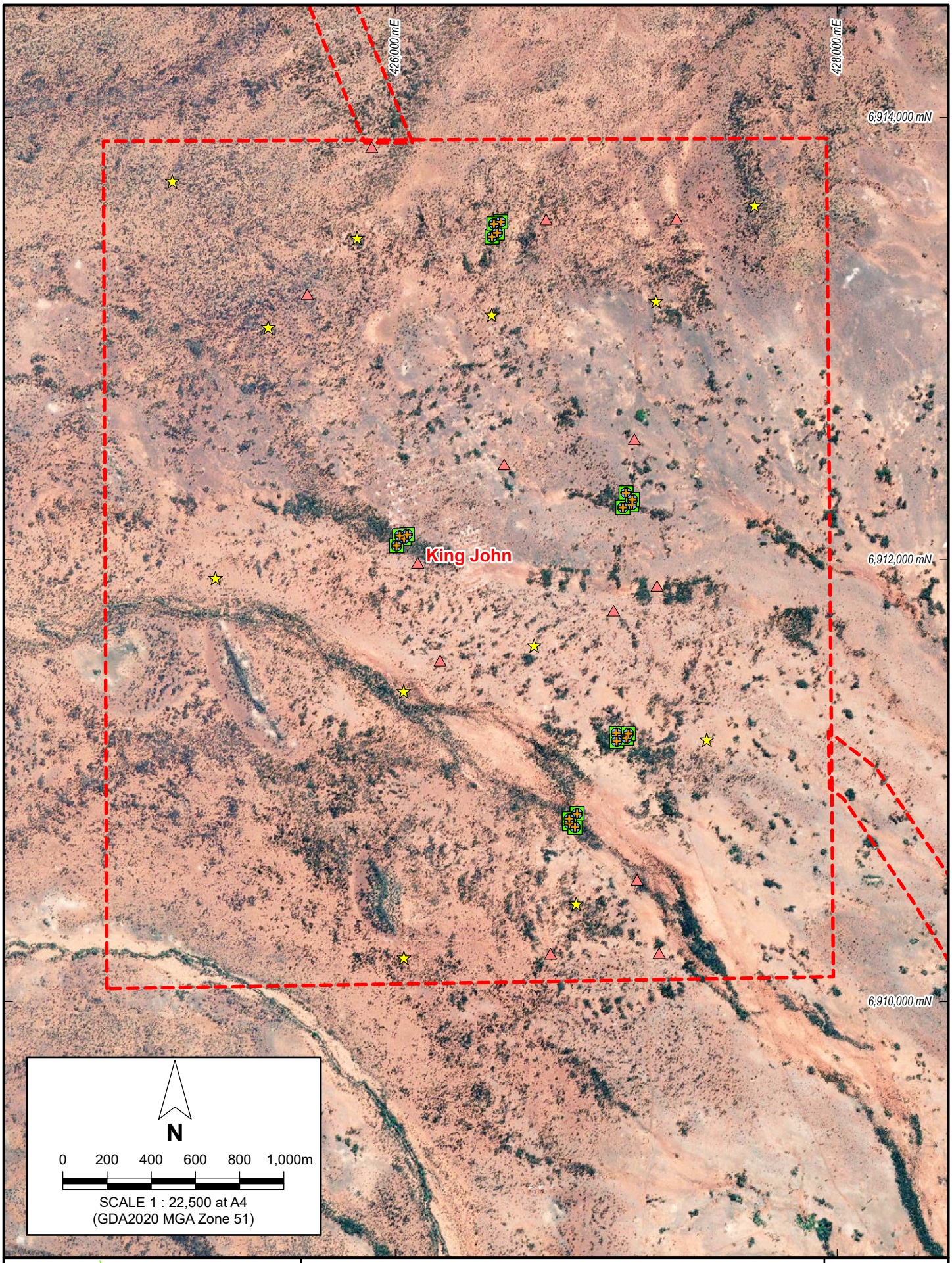
Figure 4c

DAVIES BORE PROJECT AREA TRAPPING LOCATIONS

Drawn: S. Thompson

Date: 4 Jan 2023

Job: 2022-0042



2022-0042-f04.mxd

PINPOINT CARTOGRAPHICS (08) 9562 7136

TERRESTRIAL ECOSYSTEMS

Regis Resources Ltd
BASIC AND DETAILED FAUNA SURVEY AND ASSESSMENT
NORTHERN PROJECT AREAS

KING JOHN PROJECT AREA
TRAPPING LOCATIONS

Figure 4d

Drawn: S. Thompson

Date: 4 Jan 2023

Job: 2022-0042

Appendix A.

Results of the *EPBC Act* Protected Matters Search

Basic and Detailed Vertebrate Fauna Survey and Assessment
Northern Project Areas



EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 14-Nov-2022

Summary
Details
- Matters of NES
- Other Matters Protected by the EPBC Act
- Extra Information

Caveat
Acknowledgements

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	7
Listed Migratory Species:	8

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	2
Commonwealth Heritage Places:	None
Listed Marine Species:	11
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	1
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	1
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Listed Threatened Species		[Resource Information]
Status of Conservation Dependent and Extinct are not MNES under the EPBC Act. Number is the current name ID.		
Scientific Name	Threatened Category	Presence Text
BIRD		
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area
Pezoporus occidentalis Night Parrot [59350]	Endangered	Species or species habitat likely to occur within area
Polytelis alexandrae Princess Parrot, Alexandra's Parrot [758]	Vulnerable	Species or species habitat may occur within area
MAMMAL		
Macrotis lagotis Greater Bilby [282]	Vulnerable	Species or species habitat may occur within area
Sminthopsis psammophila Sandhill Dunnart [291]	Endangered	Species or species habitat known to occur within area
REPTILE		
Liopholis kintorei Great Desert Skink, Tjakura, Warrarna, Mulyamiji [83160]	Vulnerable	Species or species habitat known to occur within area

Listed Migratory Species		[Resource Information]
Scientific Name	Threatened Category	Presence Text
Migratory Marine Birds		

Scientific Name	Threatened Category	Presence Text
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Migratory Terrestrial Species		
Motacilla cinerea		
Grey Wagtail [642]		Species or species habitat may occur within area
Motacilla flava		
Yellow Wagtail [644]		Species or species habitat may occur within area
Migratory Wetlands Species		
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat may occur within area
Calidris acuminata		
Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris melanotos		
Pectoral Sandpiper [858]		Species or species habitat may occur within area
Charadrius veredus		
Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area
Tringa nebularia		
Common Greenshank, Greenshank [832]		Species or species habitat may occur within area

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State
Defence	
Defence - JINDALEE STATION [50257]	WA
Defence - JINDALEE STATION [50256]	WA

Listed Marine Species		[Resource Information]
Scientific Name	Threatened Category	Presence Text
Bird		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat known to occur within area overfly marine area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area overfly marine area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Thinornis cucullatus as Thinornis rubricollis		
Hooded Plover, Hooded Dotterel [87735]		Species or species habitat may occur within area overfly marine area
Tringa nebularia		
Common Greenshank, Greenshank [832]		Species or species habitat may occur within area overfly marine area

Extra Information

State and Territory Reserves		[Resource Information]
Protected Area Name	Reserve Type	State
De La Poer Range	Nature Reserve	WA

EPBC Act Referrals			[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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Appendix B.
Trap sites, avifauna survey sites and camera trap locations

Basic and Detailed Vertebrate Fauna Survey and Assessment
Northern Project Areas



B.1 TRAP SITES, AVIFAUNA SURVEY SITES AND CAMERA TRAP LOCATIONS

Trapping site coordinates

Location	Site #	Zone	Easting	Northing
Commonwealth	1	51	423773	6945891
Commonwealth	2	51	425248	6945816
Commonwealth	3	51	424187	6944718
Commonwealth	4	51	424994	6944392
Commonwealth	5	51	425742	6942786
Davies Bore	6	51	423104	6920348
Davies Bore	7	51	423113	6919454
Davies Bore	8	51	423054	6918582
Davies Bore	9	51	424063	6918538
Davies Bore	10	51	424557	6917748
King John	11	51	426476	6913527
King John	12	51	427044	6912300
King John	13	51	426053	6912112
King John	14	51	427045	6911190
King John	15	51	426822	6910849
Thompson's Bore	16	51	403665	6940607
Thompson's Bore	17	51	404129	6940503
Thompson's Bore	18	51	404118	6939798
Thompson's Bore	19	51	404118	6939075
Thompson's Bore	20	51	423773	6945891

Bird survey sites

Site #	Zone	Easting	Northing
B1	51	426701	6910217
B2	51	427193	6910220
B3	51	427093	6910552
B4	51	426201	6911544
B5	51	426987	6911770
B6	51	427183	6911882
B7	51	426100	6911986
B8	51	426491	6912432
B9	51	427081	6912546
B10	51	425601	6913202
B11	51	426681	6913541
B12	51	427272	6913544
B13	51	425892	6913868
B14	51	427750	6915874
B15	51	429317	6917212
B16	51	425083	6917298
B17	51	427249	6917311
B18	51	423211	6917507
B19	51	429804	6918101
B20	51	424684	6918181
B21	51	423894	6918509
B22	51	422023	6918608
B23	51	424090	6918621
B24	51	423201	6919169
B25	51	423296	6919613
B26	51	423095	6920276
B27	51	423883	6920281
B28	51	401581	6938068
B29	51	404242	6938311
B30	51	404037	6939195
B31	51	403050	6939298
B32	51	402359	6939403

Site #	Zone	Easting	Northing
B33	51	403641	6939414
B34	51	404030	6940192
B35	51	404024	6940857
B36	51	423845	6942105
B37	51	424336	6942329
B38	51	424828	6942554
B39	51	423840	6942769
B40	51	425616	6942780
B41	51	425811	6943114
B42	51	424035	6943214
B43	51	404104	6943295
B44	51	425415	6943444
B45	51	424625	6943550
B46	51	424327	6943769
B47	51	425412	6943887
B48	51	423733	6944209
B49	51	424616	6944990
B50	51	425208	6944993
B51	51	425203	6945769
B52	51	423624	6945870
B53	51	423919	6945983
B54	51	424671	6920175
B55	51	422902	6919721

Camera trap #	Zone	Easting	Northing
C1	51	429133	6921149
C2	51	429142	6921135
C3	51	429169	6921115
C4	51	429149	6921084
C5	51	429126	6921092
C6	51	429415	6921069
C7	51	429413	6921061
C8	51	429391	6921036
C9	51	429398	6921016
C10	51	429409	6921002
C11	51	429456	6920953
C12	51	429450	6920938
C13	51	429465	6920850
C14	51	429429	6920842
C15	51	429406	6920837
C16	51	436174	6949564
C17	51	436209	6949584
C18	51	436233	6949596
C19	51	436263	6949613
C20	51	436285	6949623
C21	51	436235	6949437
C22	51	436274	6949460
C23	51	436297	6949469
C24	51	436327	6949487
C25	51	436358	6949523
C26	51	436204	6949454
C27	51	436190	6949473
C28	51	436211	6949434
C29	51	436278	6949366
C30	51	436272	6949371
C31	51	436695	6945114
C32	51	436731	6945105
C33	51	436723	6945079

C34	51	436719	6945066
C35	51	436738	6945110
C36	51	436089	6913802
C37	51	436115	6913831
C38	51	436081	6913834
C39	51	436059	6913820
C40	51	436092	6913853
C41	51	436158	6913869
C42	51	436134	6913884
C43	51	436114	6913902
C44	51	436203	6913823
C45	51	436245	6913797
C46	51	436277	6913768
C47	51	436309	6913748
C48	51	436340	6913722
C49	51	436382	6913687
C50	51	436413	6913658
C51	51	437281	6914171
C52	51	437281	6914184
C53	51	437212	6914278
C54	51	437230	6914286
C55	51	437289	6914293
C56	51	437236	6916926
C57	51	437238	6916946
C58	51	437239	6916967
C59	51	437237	6916986
C60	51	437237	6917009
C61	51	437237	6917030
C62	51	437238	6917049
C63	51	437368	6917052
C64	51	437367	6917033
C65	51	437368	6917014
C66	51	437370	6916992
C67	51	437372	6916966

C68	51	437370	6916947
C69	51	437371	6916928
C70	51	437347	6917084
C71	51	437330	6917081
C72	51	437324	6917087
C73	51	437410	6917045
C74	51	437437	6917048
C75	51	437429	6917061

Appendix C.
Camera trapping results

Basic and Detailed Vertebrate Fauna Survey and Assessment
Northern Project Areas



Common name	Species	Camera Number	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	DB1	DB2	DB3	DB4	DB5	DB6	DB7	DB8	DB9	DB1	DB1	DB1	DB1	KJ1	KJ2	KJ3	KJ4	KJ5	KJ6	KJ7	KJ8	KJ9	KJ10	KJ11	KJ12	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13
Emu	*Dromaius novaehollandiae*											2																																						
Cat	*Felis catus*																																															1			
Common Bronzewing	*Phaps chalcoptera*																																	1													1+				
Cow	*Bos taurus*					1						1			1						3					2		3	1	5+		3+	2	1+		3	2	1														
Australian Raven	*Corvus coronoides*														1												1+	1+	1+	1	2+	2+	1+	1+	1+	1		2+	1+	1+		2+	1+	2+	1	1	2+	1		2+
Dingo	*Canis lupus*												1																		1																				
Euro	*Osphranter robustus*		1																																															
European Rabbit	*Oryctolagus cuniculus*							1+					1								1+																								1	1+		1		1		
Lozenge-marked Dragon	*Ctenophorus scutulatus*																			1							1																1									
Mouse	*Pseudomys hermannsburgensis*																			2																																
Red Kangaroo	*Osphranter rufus*																	1									1+	1					2							1												
Willie Wagtail	*Rhipidura leucophrys*																			1																																
Black-faced Woodswallow	*Artamus cinereus*															1																												2								
Yellow-spotted Monitor	*Varanus panoptes*	1													1+	1			1+	1			1		1		1+	1												1												

	Camera Number	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	DB1	DB2	DB3	DB4	DB5	DB6	DB7	DB8	DB9	DB1	DB1	DB1	DB1	KJ1	KJ2	KJ3	KJ4	KJ5	KJ6	KJ7	KJ8	KJ9	KJ10	KJ11	KJ12	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13
Crested Bellbird	*Oreoica gutturalis*																1																		1+	1						1										
Chestnut Quail-thrush	*Cinclosoma castanotum*																											1														1			1						
Australian pipit	*Anthus novaeseelandiae*																																									1									
Unidentified bird		1																1																									1	1									

Appendix D.

Vertebrate Fauna Recorded in Biological Surveys in the Region

Basic and Detailed Vertebrate Fauna Survey and Assessment
Northern Project Areas



D.1 VERTEBRATE FAUNA ASSESSMENTS

		Surveys	A	B									C										D									
Family	Species	Common name		Site 1E	Site LL4	Site LL5	Site LL3	Site LL6	Site LL1	Site LL2	Site 7	Site 8	Site 18	Site 10	Site 21	Site 21a	Wells	Pundin	Site 2	Site 9	Site 17	Opportunistic	TM1	JS2	WM2	WS2	WM1	WS1	JS3	JS1	JS4	HB1
Amphibians																																
Limnodynastidae	*Neobatrachus aquilonius*	Northern Trilling Frog	X																													
	Neobatrachus kunapalari	Wheatbelt Frog	X	6	1	2							1																			
	Neobatrachus sudelli	Sudell's Frog	X																													
	Neobatrachus sutor	Shoemaker Frog	X																													
	Neobatrachus wilsmorei	Plonking Frog	X										5	1	8	2							3	1								
	Platyplectrum spenceri	Spencer's Burrowing Frog	X											6			3															
	Pseudophryne occidentalis	Western Toadlet	X																													
Pelodryadidae	*Cyclorana cultripes*	Knife-footed Frog	X																													
	Cyclorana maini	Main's Frog	X	4										1	2		2	1	4													
	Cyclorana occidentalis	Western Water-holding Frog	X	2																												
Reptiles																																
Agamidae	*Ctenophorus caudicinctus*	Ring-tailed Dragon																8														
	Ctenophorus clayi	Black-collared Dragon	X																													
	Ctenophorus fordi	Mallee Dragon	X	5										14						19												
	Ctenophorus inermis	Military Dragon		2			1							2		2	5		1						1							
	Ctenophorus infans	Ring-tailed Dragon	X																													
	Ctenophorus isolepis	Central Military Dragon	X	7	4			1					4								1											
	Ctenophorus maculatus	Spotted Dragon																								2						
	Ctenophorus nuchalis	Central Netted Dragon	X																													
	Ctenophorus reticulatus	Western Netted Dragon	X	2																							1					
	Ctenophorus salinarum	Saltpan Dragon	X	3					1	5								1		6						2		1				
	Ctenophorus scutulatus	Lozenge-marked Dragon	X	1			1																									
	Diporiphora amphiboluroides	Mulga Dragon	X																													
	Moloch horridus	Thorny Devil	X	3									2	1	1	1																
	Pogona minor	Western Bearded Dragon	X	2	2	1	1							1					2				1		2				2	1	1	
	Tympanocryptis pseudopsephos	Pebble Dragon	X																													
Carphodactylidae	*Nephrurus laevissimus*	Smooth Knob-tail	X																													
	Nephrurus levis	Three-lined Knob-tail	X																													
	Nephrurus vertebralis	Midline Knob-tail	X																1								1		1			
	Nephrurus wheeleri	Banded Knob-tail	X																													
	Underwoodisaurus milii	Barking Gecko	X	1																												
Diplodactylidae	*Diplodactylus conspicillatus*	Fat-tailed Gecko	X																													
	Diplodactylus pulcher	Beautiful Gecko	X															2														
	Lucasium bungabinna	Southern Sandplain Gecko	X																													

		Surveys	A	B									C										D										
Family	Species	Common name		Site 1E	Site LL4	Site LL5	Site LL3	Site LL6	Site LL1	Site LL2	Site 7	Site 8	Site 18	Site 10	Site 21	Site 21a	Wells	Pundin	Site 2	Site 9	Site 17	Opportunistic	TM1	JS2	WM2	WS2	WM1	WS1	JS3	JS1	JS4	HB1
	Lucasium damaeum	Beaded Gecko	X																														
	Lucasium squarrosum	Mottled Ground Gecko	X	1					1											18			2	1	5	2	1					2
	Rhynchoedura ornata	Beaked Gecko	X	2									3	2	6				2		1											
	Strophurus assimilis	Goldfields Spiny-tailed Gecko	X																													
	Strophurus elderi	Jewelled Gecko	X				1						1			10								1					1	2		
	Strophurus spinigerus	South-western Spiny-tailed Gecko	X																													
	Strophurus strophurus	Western Spiny-tailed Gecko	X	1																												
	Strophurus wellingtonae	Western Shield Spiny-tailed Gecko	X	1																												
Elapidae	*Brachyurophis fasciolatus*	Narrow-banded Burrowing Snake	X																													
	Brachyurophis semifasciata	Half-girdled Snake	X												1				1													
	Demansia psammophis	Yellow-faced Whipsnake	X																													
	Furina ornata	Orange-naped Snake	X	2																												
	Suta monachus	Hooded Snake	X																													
	Pseudechis australis	Mulga Snake	X	1																												
	Pseudechis butleri	Spotted Mulga Snake	X																													
	Pseudonaja mengdeni	Western Brown Snake	X												1																	
	Pseudonaja modesta	Ringed Brown Snake	X													1																
	Simoselaps bertholdi	Jan's Banded Snake	X	1																			1									
	Suta fasciata	Rosen's Snake	X																													
Gekkonidae	*Gehyra purpurascens*	Purplish Dtella	X	1		1											10				3											
	Gehyra variegata	Variegated Gehyra	X	25		1	1		1				2		3	1	7	5	3	3	1											
	Heteronotia binoei	Bynoe's Gecko	X	5									1				3		1				1				2				2	3
	Gehyra xenopus	Crocodile-faced Dtella																						1			1			1	1	
Pygopodidae	*Aprasia picturata*	Black-headed Worm-lizard	X																													
	Delma butleri	Unbanded Delma	X		1								1			1																
	Delma fraseri	Fraser's Delma																														
	Delma nasuta	Sharp-snouted Delma	X		1		1	3																							1	
	Lialis burtonis	Burton's Legless Lizard	X	1									2		1	1					1										1	
	Pygopus nigriceps	Western Hooded Scaly-foot	X										1																		1	
Pythonidae	*Antaresia stimsoni*	Stimson's Python	X																													
Scincidae	*Cryptoblepharus australis*	Inland Snake-eyed Skink	X																													
	Cryptoblepharus buchananii	Buchanan's Snake-eyed Skink	X	3					1																							
	Ctenotus ariadnae	Ariadna's Ctenotus	X																													
	Ctenotus atlas	Southern Mallee Ctenotus	X											1																		
	Ctenotus calurus	Blue-tailed Finesnout Ctenotus	X																													
	Ctenotus colletti	Buff-tailed Finesnout Ctenotus	X																													
	Ctenotus dux	Fine Side-lined Ctenotus	X																													

		Surveys	A	B									C										D									
Family	Species	Common name		Site 1E	Site LL4	Site LL5	Site LL3	Site LL6	Site LL1	Site LL2	Site 7	Site 8	Site 18	Site 10	Site 21	Site 21a	Wells	Pundin	Site 2	Site 9	Site 17	Opportunistic	TM1	JS2	WM2	WS2	WM1	WS1	JS3	JS1	JS4	HB1
	Ctenotus grandis	Grand Ctenotus	X										1								1											
	Ctenotus greeri	Spotted-necked Ctenotus	X		2																											
	Ctenotus hanloni	Nimbel Ctenotus	X																													
	Ctenotus helenae	Clay-soil Ctenotus	X	3	3								4	6		1								2					2	1		
	Ctenotus leonhardii	Leonhardi's Ctenotus	X										1	5	16	1		2	1	2			6	3	3	6	7				2	4
	Ctenotus nasutus	Nasute Finsnout Ctenotus	X																													
	Ctenotus pantherinus	Leopard Ctenotus	X		6		1																									
	Ctenotus piankai	Coarse Sands Ctenotus	X																													
	Ctenotus quattuordecimlineatus	Fourteen-lined Ctenotus	X										5	1																		
	Ctenotus schomburgkii	Barred Wedgesnout Ctenotus	X		3										3																	
	Ctenotus severus	Stern Ctenotus	X																													
	Ctenotus uber	Spotted Ctenotus	X																													
	Egernia depressa	Southern Pygmy Spiny-tailed Skink	X		3												2															
	Egernia formosa	Goldfields Crevice Skink	X																													
	Eremiascincus richardsonii	Broad-banded Sand-swimmer	X																													
	Lerista bipes	North-western Sandslider	X																													
	Lerista desertorum	Central Desert Robust Slider	X	1		1	1		1							2	4		2		5		4	1	1				1	2	1	
	Lerista kingi	King's Slider	X																								1					
	Lerista muelleri	Wood Mulch-slider	X																													
	Lerista timida	Timid Slider	X																													
	Liopholis inornata	Desert Skink	X										1		1																	
	Liopholis kintorei	Great Desert Skink	X																													
	Liopholis striata	Nocturnal Desert Skink	X												1																	
	Menetia greyii	Common Dwarf Skink	X	2			1		1							1										1	1					
	Morethia butleri	Woodland Morethia Skink	X	2																												
	Morethia ruficauda	Lined Fire-tailed Skink	X																													
	Proablepharus reginae	Western Soil-crevice Skink	X																													
	Tiliqua multifasciata	Central Blue-tongue	X																													
	Tiliqua occipitalis	Western Blue-tongued Lizard	X	2																												
Typhlopidae	*Anilios australis*	Austral Blind Snake	X																													
	Anilios hamatus	Pale-headed Blind Snake					1						1	1	1	1				2							1				1	
	Anilios waitii	Waite's Blind Snake												2																		
Varanidae	*Varanus brevicauda*	Short-tailed Pygmy Monitor	X		1					1																						
	Varanus caudolineatus	Stripe-tailed Monitor	X	1		1									2	1									1							
	Varanus eremius	Pygmy Desert Monitor	X										4																			
	Varanus giganteus	Perentie	X														1															
	Varanus gouldii	Gould's Goanna	X	1										1	1												1		1			
	Varanus panoptes	Yellow-spotted Monitor	X														1															

		Surveys	A	B									C										D										
Family	Species	Common name		Site 1E	Site LL4	Site LL5	Site LL3	Site LL6	Site LL1	Site LL2	Site 7	Site 8	Site 18	Site 10	Site 21	Site 21a	Wells	Pundin	Site 2	Site 9	Site 17	Opportunistic	TM1	JS2	WM2	WS2	WM1	WS1	JS3	JS1	JS4	HB1
	Varanus tristis	Black-headed Monitor	X																1														
Birds																																	
Casuariidae	*Dromaius novaehollandiae*	Emu					2			1												1											
Anatidae	*Cygnus atratus*	Black Swan																															
	Tadorna tadornoides	Australian Shelduck		1										1					1	7													
	Chenonetta jubata	Australian Wood Duck		1															37														
	Anas superciliosa	Pacific Black Duck		1																													
	Anas gracilis	Grey Teal		1															41														
	Malacorhynchus membranaceus	Pink-eared Duck		1																													
Podicipedidae	*Poliocephalus poliocephalus*	Hoary-headed Grebe		1															2														
Columbidae	*Phaps chalcoptera*	Common Bronzewing				4							4									54											
	Phaps histrionica	Flock Bronzewing											21		38				22		33	1											
	Ocyphaps lophotes	Crested Pigeon			5	4			2																								
	Geopelia cuneata	Diamond Dove				8																											
Cuculidae	*Chrysococcyx basalis*	Horsfield's Bronze-Cuckoo				1							1	5					1	5		1											
Aegothelidae	*Aegotheles cristatus*	Australian Owlet-nightjar		1									2		7						1	1											
Podargidae	*Podargus strigoides*	Tawny Frogmouth		1											2																		
Caprimulgidae	*Eurostopodus argus*	Spotted Nightjar												1	2																		
Rallidae	*Tribonyx ventralis*	Black-tailed Nativehen		1																													
	Fulica atra	Eurasian Coot		1																													
Recurvirostridae	*Himantopus leucocephalus*	Pied Stilt		1																													
Charadriidae	*Vanellus tricolor*	Banded Lapwing		1															1			1											
	Charadrius ruficapillus	Red-capped Plover		1																													
	Elseyornis melanops	Black-fronted Dotterel		1																													
Scolopacidae	*Actitis hypoleucos*	Common Sandpiper		1																													
Turnicidae	*Turnix velox*	Little Buttonquail											1							1													
Otididae	*Ardeotis australis*	Australian Bustard		1																													
Ardeidae	*Ardea pacifica*	White-necked Heron		1																		1											
	Egretta novaehollandiae	White-faced Heron		1															1			1											
Phalacrocoracidae	*Microcarbo melanoleucos*	Little Pied Cormorant		1																													
Accipitridae	*Hieraaetus morphnoides*	Little Eagle		1															3														
	Aquila audax	Wedge-tailed Eagle					4		8	3			1						1			1											
	Circus assimilis	Spotted Harrier		1																													
	Accipiter cirrocephalus	Collared Sparrowhawk																	5														
	Haliastur sphenurus	Whistling Kite												1					6														
Cuculidae	*Heteroscenes pallidus*	Pallid Cuckoo		1											3				1			2											
Strigidae	*Ninox boobook*	Southern Boobook																															
Alcedinidae	*Todiramphus pyrrhopygius*	Red-backed Kingfisher		1																		1											

		Surveys	A	B									C									D										
Family	Species	Common name		Site 1E	Site LL4	Site LL5	Site LL3	Site LL6	Site LL1	Site LL2	Site 7	Site 8	Site 18	Site 10	Site 21	Site 21a	Wells	Pundin	Site 2	Site 9	Site 17	Opportunistic	TM1	JS2	WM2	WS2	WM1	WS1	JS3	JS1	JS4	HB1
Falconidae	*Falco cenchroides*	Nankeen Kestrel				1			1	2				1						1	1												
	Falco longipennis	Australian Hobby		1															2														
	Falco berigora	Brown Falcon					1													1													
	Falco peregrinus	Peregrine Falcon																	1														
Cacatuidae	*Eolophus roseicapilla*	Galah			26	4			10				9	1					1		1	1											
	Nymphicus hollandicus	Cockatiel			15	12			20				1	1	1				9	1		1											
Psittaculidae	*Neopsephotus bourkii*	Bourke's Parrot				6									9							1											
	Barnardius zonarius	Australian Ringneck			3	4	3		2				13		7				115		1	1											
	Psephotus varius	Mulga Parrot				9																1											
	Melopsittacus undulatus	Budgerigar			6	9	6		5	8			1	1	1	1			1	1	1	1											
Ptilonorhynchidae	*Ptilonorhynchus maculata*	Spotted Bowerbird													4						4	1											
Climacteridae	*Climacteris affinis*	White-browed Treecreeper		1									13		3						2												
Maluridae	*Malurus lamberti*	Variegated Fairywren				2																											
	Malurus leucopterus	White-winged Fairywren					69			57				143						142		1											
Meliphagidae	*Certhionyx variegatus*	Pied Honeyeater			2	4							7		23						20	1											
	Purnella albifrons	White-fronted Honeyeater			33	17	40		81	99			3	1	3						2												
	Manorina flavigula	Yellow-throated Miner											17		9				216		32	1											
	Acanthagenys rufogularis	Spiny-cheeked Honeyeater			5	32	12						8		24				1		23												
	Anthochaera carunculata	Red Wattlebird	X																														
	Gavicalis virescens	Singing Honeyeater	X			20	1						2	1					1		6	1											
	Ptilotula penicillata	White-plumed Honeyeater	X																														
	Epthianura tricolor	Crimson Chat	X			11	43		20				4	1	47					44	1	1											
	Epthianura aurifrons	Orange Chat	X											8						14													
	Epthianura albifrons	White-fronted Chat	X																														
	Sugomel nigrum	Black Honeyeater	X	1																													
	Lichmera indistincta	Brown Honeyeater	X			1																											
Pardalotidae	*Pardalotus striatus*	Striated Pardalote	X						2				1						188		4												
Acanthizidae	*Pyrrholaemus brunneus*	Redthroat	X																														
	Calamanthus fuliginosus	Striated Fieldwren																		3													
	Acanthiza iredalei	Slender-billed Thornbill	X																														
	Acanthiza apicalis	Inland Thornbill	X			8									2																		
	Acanthiza chrysorrhoa	Yellow-rumped Thornbill	X			3							1		2				30			1											
	Acanthiza uropygialis	Chestnut-rumped Thornbill	X		3	20	3								37						2	1											
	Acanthiza robustirostris	Slaty-backed Thornbill	X																														
	Smicrornis brevirostris	Weebill	X		8	6							5						350		71												
	Gerygone fusca	Western Gerygone	X																17		1												
	Aphelocephala leucopsis	Southern Whiteface	X			9																											
Pomatostomidae	*Pomatostomus superciliosus*	White-browed Babbler	X			22									4																		

		Surveys	A	B									C									D										
Family	Species	Common name		Site 1E	Site LL4	Site LL5	Site LL3	Site LL6	Site LL1	Site LL2	Site 7	Site 8	Site 18	Site 10	Site 21	Site 21a	Wells	Pundin	Site 2	Site 9	Site 17	Opportunistic	TM1	JS2	WM2	WS2	WM1	WS1	JS3	JS1	JS4	HB1
Cinclosomatidae	*Cinclosoma castaneothorax*	Chestnut-breasted Quail-thrush	X																													
Campephagidae	*Coracina maxima*	Ground Cuckooshrike	X							3												1											
	Coracina novaehollandiae	Black-faced Cuckooshrike	X				1		2	2			1		12				20		9	1											
	Lalage tricolor	White-winged Triller	X			1	11																										
Psophodidae	*Psophodes occidentalis*	Chiming Wedgebill	X																														
Oreoicidae	*Oreoica gutturalis*	Crested Bellbird	X		2	18	17						6		15						7												
Pachycephalidae	*Colluricincla harmonica*	Grey Shrikethrush	X			1																											
	Pachycephala rufiventris	Rufous Whistler	X		1	18							2		12	2			7		6												
Artamidae	*Artamus personatus*	Masked Woodswallow	X			1								1	2					20	10												
	Artamus cinereus	Black-faced Woodswallow	X		1	1	23		43	1			27	8	37				1	5	18	1											
	Artamus cyanopterus	Dusky Woodswallow	X																														
	Artamus minor	Little Woodswallow	X																														
	Cracticus torquatus	Grey Butcherbird	X		1								6		1				2	2	1	1											
	Cracticus nigrogularis	Pied Butcherbird	X		1	3	15		5	2			2	1					55	3	28	1											
	Gymnorhina tibicen	Australian Magpie	X	1															31			1											
	Strepera versicolor	Grey Currawong	X	1																													
Rhipiduridae	*Rhipidura leucophrys*	Willie Wagtail	X		1	7	3		2				2		5	2					2	1											
Monarchidae	*Grallina cyanoleuca*	Magpie-lark	X	1															17			1											
Corvidae	*Corvus orru*	Torresian Crow	X										1						1	1													
	Corvus bennetti	Little Crow	X							10			14	15	48				231	34	46	1											
	Corvus coronoides	Australian Raven	X																														
Petroicidae	*Microeca fascinans*	Jacky Winter				3	1																										
	Petroica goodenovii	Red-capped Robin	X			33	12						7	4	22				4	1	4												
	Melanodryas cucullata	Hooded Robin	X			5	3							1	7						4												
Locustellidae	*Cincloramphus cruralis*	Brown Songlark	X	1										23						18		1											
	Cincloramphus mathewsi	Rufous Songlark	X	1																													
Hirundinidae	*Hirundo neoxena*	Welcome Swallow	X																														
	Petrochelidon nigricans	Tree Martin	X	1																		1											
	Cheramoeca leucosterna	White-backed Swallow	X	1																													
Dicaeidae	*Dicaeum hirundinaceum*	Mistletoebird	X		4	7							4		1				1		1												
Estrildidae	*Taeniopygia guttata*	Zebra Finch	X			22							8		16				27	8	6	1											
Motacillidae	*Anthus novaeseelandiae*	Australasian Pipit	X			2	5			4				9						43		1											
Mammals																																	
Tachyglossidae	*Tachyglossus aculeatus*	Short-beaked Echidna		1																													
Bovidae	*Bos taurus*	Cow															1			1													
	Capra hircus	Goat											1	1	1	1	1	1	1	1													
	Ovis aries	Sheep											1	1	1	1	1	1	1	1	1												
Camelidae	*Camelus dromedarius*	Dromedary		1					1																								

		Surveys	A	B									C										D										
Family	Species	Common name		Site 1E	Site LL4	Site LL5	Site LL3	Site LL6	Site LL1	Site LL2	Site 7	Site 8	Site 18	Site 10	Site 21	Site 21a	Wells	Pundin	Site 2	Site 9	Site 17	Opportunistic	TM1	JS2	WM2	WS2	WM1	WS1	JS3	JS1	JS4	HB1
Suidae	*Sus scrofa*	Pig	X																														
Canidae	*Canis lupus*	Dingo	X																														
	Vulpes vulpes	Red Fox		1																													
Felidae	*Felis catus*	Cat		2									1							1													
Dasyuridae	*Sminthopsis griseoventer*	Grey-bellied Dunnart	X																														
Molossidae	*Austronomus australis*	White-striped Freetail Bat	X								1	1																					
Molossidae	*Mormopterus planiceps*	Southern Free-tail Bat	X	2							1																						
Pteropodidae	*Syconycteris australis*	Common Blossom-bat		2																													
Vespertilionidae	*Chalinolobus gouldii*	Gould's Wattled Bat	X	5								1		5				2															
	Nyctophilus geoffroyi	Lesser Long-eared Bat	X	5		4						1		4				28															
	Scotorepens balstoni	Inland Broad-nosed Bat	X	6								1																					
	Scotorepens greyii	Little Broad-nosed Bat																10															
	Vespadelus regulus	Southern Forest Bat																2															
Dasyuridae	*Antechinomys laniger*	Kultarr	X																														
	Ningaui ridei	Wongai Ningaui	X		5			1					8	7	2	2				4									1				
	Ningaui yvonneae	Mallee Ningaui	X																														
	Pseudantechinus woolleyae	Woolley's False Antechinus	X																														
	Sminthopsis crassicaudata	Fat-tailed Dunnart	X				1		4	7				3																			
	Sminthopsis dolichura	Little Long-tailed Dunnart	X										1						1														
	Sminthopsis hirtipes	Hairy-footed Dunnart	X					2						1		1																	
	Sminthopsis longicaudata	Long-tailed Dunnart																															
	Sminthopsis macroura	Stripe-faced Dunnart	X			3	2			1					2					1													
	Sminthopsis ooldea	Ooldea Dunnart	X		2		1		1						2				1														
Myrmecobiidae	*Myrmecobius fasciatus*	Numbat	X																														
Macropodidae	*Macropus fuliginosus*	Western Grey Kangaroo																															
	Osphranter robustus	Euro	X	3									1		1		1	1		1													
	Osphranter rufus	Red Kangaroo	X	38		1	2		4				1		1		1	1		1	1												
Phalangeridae	*Trichosurus vulpecula*	Common Brushtail Possum	X																														
Leporidae	*Oryctolagus cuniculus*	Rabbit		3					1										1														
Peramelidae	*Perameles bougainville*	Western Barred Bandicoot	X																														
Thylacomyidae	*Macrotis lagotis*	Bilby	X																														
Equidae	*Equus caballus*	Horse	X																														
Muridae	*Mus musculus*	House Mouse	X		2	3	3		3	8				3					2	2													
	Notomys alexis	Spinifex Hopping Mouse	X					1					1		1														1				
	Pseudomys desertor	Desert Mouse	X																														
	Pseudomys hermannsburgensis	Sandy Inland Mouse	X	1	8	1	6	1	1					7	3	3					7												

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		Surveys	A															B										C							
Family	Species	Common name	Site 9	Site 10	Site 2	Site 3	Site 12	Site 4	Site 5	Site 1	Site 8	Site 11	Site 13	Site 6	Site 7	Opportunistic	Granny Deep	MME1	MME2	Opportunistic	MME3	MME5	MME7	MME8	MME9	MME6	MME4	Site 1	Site 2	Site 5	Site 6	Site 7	Site 3	Site 4
Amphibians																																			
Limnodynastidae	*Neobatrachus kunapalari*	Wheatbelt Frog	1																																
	Neobatrachus sutor	Shoemaker Frog	13	2	2	5	1	3	1	8	1							1	1																
Pelodryadidae	*Cyclorana maini*	Main's Frog	11	5	1							1								1															
	Cyclorana occidentalis	Western Water-holding Frog	5	2	1	1	1						1																						
Reptiles																																			
Agamidae	*Ctenophorus isolepis*	Central Military Dragon																1																	
	Ctenophorus reticulatus	Western Netted Dragon																	1	1	1	1	3	1				1							
	Diporiphora amphiboluroides	Mulga Dragon						2	1					1																					
	Pogona minor	Western Bearded Dragon																							1				1						
	Tympanocryptis pseudopsephos	Pebble Dragon						2	3		1			1																					
Carphodactylidae	*Underwoodisaurus milii*	Barking Gecko																								2			1						
Diplodactylidae	*Diplodactylus granariensis*	Wheatbelt Stone Gecko		1																															
	Diplodactylus pulcher	Beautiful Gecko		2				1	4	2		1	1	3	1											1				1					
	Rhynchoedura ornata	Beaked Gecko	1							3				2																					
	Strophurus assimilis	Goldfields Spiny-tailed Gecko																											1						
	Strophurus wellingtonae	Western Shield Spiny-tailed Gecko			2					4			1						1																
Elapidae	*Suta monachus*	Hooded Snake									1			1						1															
	Pseudechis butleri	Spotted Mulga Snake																		1															
Gekkonidae	*Gehyra variegata*	Variegated Gehyra		2	3	2	2	4			3	1		1				3	9	1	3	3	2		3	9	16	1	1						
	Heteronotia binoei	Bynoe's Gecko		1			1		1	2		2	5						3	1							1	1			1				
Pythonidae	*Antaresia stimsoni*	Stimson's Python																													1				
Scincidae	*Cryptoblepharus buchananii*	Buchanan's Snake-eyed Skink																	2	1									1						
	Ctenotus leonhardii	Leonhardi's Ctenotus	5	9	2		16			2		7	27		1						1														
	Ctenotus schomburgkii	Barred Wedgesnout Ctenotus																1		1					2										
	Ctenotus uber	Spotted Ctenotus																												1					
	Egernia depressa	Southern Pygmy Spiny-tailed Skink		1	1	1		2	2		6			3	9											1					1	1	1	1	
	Egernia formosa	Goldfields Crevice Skink																														1			
	Eremiascincus richardsonii	Broad-banded Sand-swimmer						2					1															1	1						
	Lerista desertorum	Central Desert Robust Slider											2							1					1	1			1						
	Lerista distinguenda	South-western Orange-tailed Slider											1																						
	Lerista sp.																			1					1	2				1	1			1	
	Liopholis striata	Nocturnal Desert Skink																													1				
	Menetia greyii	Common Dwarf Skink										1						4		1					1			1	1	1					
	Morethia butleri	Woodland Morethia Skink	6	1	1		3	1						2					2	1		2	1	1	1	3	4							
	Tiliqua multifasciata	Central Blue-tongue								1																									
Typhlopidae	*Anilios australis*	Austral Blind Snake	1								1																								

		Surveys	A															B										C						
Family	Species	Common name	Site 9	Site 10	Site 2	Site 3	Site 12	Site 4	Site 5	Site 1	Site 8	Site 11	Site 13	Site 6	Site 7	Opportunistic	Granny Deep	MME1	MME2	Opportunistic	MME3	MME5	MME7	MME8	MME9	MME6	MME4	Site 1	Site 2	Site 5	Site 6	Site 7	Site 3	Site 4
	Anilios bicolor	Dark-spined Blind Snake				1																												
Varanidae	*Varanus caudolineatus*	Stripe-tailed Monitor		1	2		2	1	3					1	1				1							1			1					
	Varanus panoptes	Yellow-spotted Monitor		4		7			3	4		2	6	2	2					1					1	1								
	Varanus panoptes	Yellow-spotted Monitor																										1	1	1	1	1	1	1
Birds																																		
Casuariidae	*Dromaius novaehollandiae*	Emu														3	1	1	1	1				1	1	1		1	1	1	1	1	1	1
Anatidae	*Cygnus atratus*	Black Swan																		1														
	Tadorna tadornoides	Australian Shelduck																		1														
	Chenonetta jubata	Australian Wood Duck														77	2																	
	Anas superciliosa	Pacific Black Duck														13				1														
	Anas gracilis	Grey Teal														74				1														
	Malacorhynchus membranaceus	Pink-eared Duck														5				1														
	Aythya australis	Hardhead														2																		
	Biziura lobata	Musk Duck														2																		
Megapodiidae	*Leipoa ocellata*	Malleefowl																		1														
Podicipedidae	*Poliocephalus poliocephalus*	Hoary-headed Grebe														30																		
Columbidae	*Phaps chalcoptera*	Common Bronzewing															5			1								1	1	1	1			1
	Ocyphaps lophotes	Crested Pigeon															12	2		1					3	2		1	1	1	1	1	1	
Cuculidae	*Chrysococcyx basalis*	Horsfield's Bronze-Cuckoo																										1	1		1			1
Cuculidae	*Chrysococcyx osculans*	Black-eared Cuckoo																											1		1			
Aegothelidae	*Aegotheles cristatus*	Australian Owlet-nightjar																															1	
Podargidae	*Podargus strigoides*	Tawny Frogmouth																							2									
Rallidae	*Tribonyx ventralis*	Black-tailed Nativehen																		1														
	Fulica atra	Eurasian Coot														21																		
Recurvirostridae	*Himantopus leucocephalus*	Pied Stilt														5				1														
	Cladorhynchus leucocephalus	Banded Stilt														14																		
	Recurvirostra novaehollandiae	Red-necked Avocet																		1														
Charadriidae	*Vanellus tricolor*	Banded Lapwing																													1			
	Charadrius ruficapillus	Red-capped Plover																		1														
	Elseyornis melanops	Black-fronted Dotterel														1	1			1								1						
Turnicidae	*Turnix velox*	Little Buttonquail																																1
Otididae	*Ardeotis australis*	Australian Bustard																											1					
Ardeidae	*Ardea pacifica*	White-necked Heron																		1														
	Egretta novaehollandiae	White-faced Heron														2				1														
Accipitridae	*Haliaeetus albicilla*																	1		1	2	1		1		1	1							
	Hieraaetus morphnoides	Little Eagle																	1										1					
	Aquila audax	Wedge-tailed Eagle														2	1														1			
	Accipiter fasciatus	Brown Goshawk																										1						

		Surveys	A															B										C						
Family	Species	Common name	Site 9	Site 10	Site 2	Site 3	Site 12	Site 4	Site 5	Site 1	Site 8	Site 11	Site 13	Site 6	Site 7	Opportunistic	Granny Deep	MME1	MME2	Opportunistic	MME3	MME5	MME7	MME8	MME9	MME6	MME4	Site 1	Site 2	Site 5	Site 6	Site 7	Site 3	Site 4
Cuculidae	*Heteroscenes pallidus*	Pallid Cuckoo														2	1			1								1					1	1
Alcedinidae	*Todiramphus pyrrhopygius*	Red-backed Kingfisher															1												1				1	1
Meropidae	*Merops ornatus*	Rainbow Bee-eater																										1					1	
Falconidae	*Falco cenchroides*	Nankeen Kestrel														2									1				1	1		1	1	1
	Falco longipennis	Australian Hobby																			1				1									
	Falco berigora	Brown Falcon														1									1			1	1		1			
	Falco peregrinus	Peregrine Falcon																	1															
Cacatuidae	*Eolophus roseicapilla*	Galah																		1		15						1	1	1	1	1	1	
Psittaculidae	*Neopsephotus bourkii*	Bourke's Parrot																		1										1	1			
	Barnardius zonarius	Australian Ringneck															1		1	1		4	2		2	3		1		1	1		1	
	Psephotus varius	Mulga Parrot														8	3			1	1		5			5		1		1	1			
	Melopsittacus undulatus	Budgerigar																										1	1	1	1		1	1
Ptilonorhynchidae	*Chlamydera guttata*	Western Bowerbird														2	5																	
	Ptilonorhynchus maculata	Spotted Bowerbird																										1					1	
Climacteridae	*Climacteris affinis*	White-browed Treecreeper																		1			2							1	1		1	1
Maluridae	*Malurus lamberti*	Variegated Fairywren																										1	1		1			
	Malurus splendens	Splendid Fairywren															4			1			9					1	1		1			
	Malurus leucopterus	White-winged Fairywren														1	1	3							8				1				1	
Meliphagidae	*Certhionyx variegatus*	Pied Honeyeater															1											1	1	1				1
	Purnella albifrons	White-fronted Honeyeater																80	100	1	12	8	10	6	6	1	40	1	1					1
	Manorina flavigula	Yellow-throated Miner														3	13	10	5	1	7	2		2	2	10		1	1	1	1	1	1	1
	Acanthagenys rufogularis	Spiny-cheeked Honeyeater															22	25	20	1		6	1	1	2	2	1	1	1	1	1		1	1
	Anthochaera carunculata	Red Wattlebird																							3									
	Gavicalis virescens	Singing Honeyeater															40		4	1	2	1	1	1	1	1		1	1	1	1	1	1	1
	Ptilotula plumula	Grey-fronted Honeyeater																				7												
	Epthianura tricolor	Crimson Chat															2												1	1	1		1	1
	Sugomel nigrum	Black Honeyeater																																1
	Lichmera indistincta	Brown Honeyeater																											1					
Pardalotidae	*Pardalotus striatus*	Striated Pardalote															1			1		3												
Acanthizidae	*Pyrrholaemus brunneus*	Redthroat																		1							1		1					
	Acanthiza apicalis	Inland Thornbill															7	2		1			6			2		1	1			1	1	1
	Acanthiza chrysorrhoa	Yellow-rumped Thornbill															1	5	6	1		17	4			2	6	1		1	1	1	1	1
	Acanthiza uropygialis	Chestnut-rumped Thornbill																8	30	1	2	14	50			15	10	1		1	1	1	1	1
	Acanthiza robustirostris	Slaty-backed Thornbill															18			1			2					1		1	1	1	1	1
	Smicrornis brevirostris	Weebill																		1		10							1					
	Gerygone fusca	Western Gerygone																										1	1					
	Aphelocephala leucopsis	Southern Whiteface															7			1			20			6	4	1	1	1	1	1	1	
Pomatostomidae	*Pomatostomus superciliosus*	White-browed Babbler															4			1								1			1			

		Surveys	A															B										C						
Family	Species	Common name	Site 9	Site 10	Site 2	Site 3	Site 12	Site 4	Site 5	Site 1	Site 8	Site 11	Site 13	Site 6	Site 7	Opportunistic	Granny Deep	MME1	MME2	Opportunistic	MME3	MME5	MME7	MME8	MME9	MME6	MME4	Site 1	Site 2	Site 5	Site 6	Site 7	Site 3	Site 4
Cinclosomatidae	*Cinclosoma castaneothorax*	Chestnut-breasted Quail-thrush																												1	1		1	1
Campephagidae	*Coracina maxima*	Ground Cuckooshrike														2	4											1	1				1	
	Coracina novaehollandiae	Black-faced Cuckooshrike															6		2	1						1		1	1	1			1	1
	Lalage tricolor	White-winged Triller														4													1		1			
Neosittidae	*Daphoenositta chrysoptera*	Varied Sittella																														1		
Oreoicidae	*Oreoica gutturalis*	Crested Bellbird														1	45	1	3	1	1	1	2			1	2	1	1	1	1	1	1	1
Pachycephalidae	*Colluricincla harmonica*	Grey Shrikethrush															3			1			2			1		1	1	1	1	1	1	1
	Pachycephala rufiventris	Rufous Whistler															18			1		1	1	1		1		1	1	1	1	1	1	1
Artamidae	*Artamus personatus*	Masked Woodswallow														4	7																	
	Artamus superciliosus	White-browed Woodswallow																		1	4	1				1								
	Artamus cinereus	Black-faced Woodswallow															2											1	1	1			1	1
	Artamus minor	Little Woodswallow															1																	
	Cracticus torquatus	Grey Butcherbird														4	4	1	1	1	1	2	1		2	1		1	1	1	1	1	1	1
	Cracticus nigrogularis	Pied Butcherbird														2	3	2	1	1	1				1			1	1	1	1	1	1	1
	Gymnorhina tibicen	Australian Magpie														1		3		1					3			1			1	1		
	Strepera versicolor	Grey Currawong																			1							1						
Rhipiduridae	*Rhipidura leucophrys*	Willie Wagtail														5	5	1		1								1	1		1			1
	Rhipidura albiscapa	Grey Fantail																					1											
Monarchidae	*Grallina cyanoleuca*	Magpie-lark														6	4		1	1	2				2	2		1	1					
Corvidae	*Corvus orru*	Torresian Crow															1		1	1	2	1		2		1		1	1		1	1	1	1
	Corvus bennetti	Little Crow														4	1		2	1		6	1							1	1	1		1
Petroicidae	*Petroica goodenovii*	Red-capped Robin															8	1	2	1			6			2	1	1	1	1	1	1	1	1
	Melanodryas cucullata	Hooded Robin															3			1	3							1	1		1	1	1	1
Locustellidae	*Cincloramphus mathewsi*	Rufous Songlark																											1			1		
Hirundinidae	*Hirundo rustica*	Barn Swallow																								5								
	Hirundo neoxena	Welcome Swallow														2	4											1			1		1	1
	Petrochelidon ariel	Fairy Martin																																1
	Petrochelidon nigricans	Tree Martin														1	2																1	1
	Cheramoeca leucosterna	White-backed Swallow														4	1			1	2													
Dicaeidae	*Dicaeum hirundinaceum*	Mistletoebird														2	2																	
Estrildidae	*Taeniopygia guttata*	Zebra Finch (Australian)														2				1								1	1	1		1	1	1
Motacillidae	*Anthus novaeseelandiae*	Australasian Pipit														6	1			1	4								1				1	
Mammals																																		
Tachyglossidae	*Tachyglossus aculeatus*	Short-beaked Echidna																	1	1												1		
Bovidae	*Bos taurus*	Cow																										1	1	1	1	1	1	1
	Capra hircus	Goat																		1								1	1					
Canidae	*Canis lupus*	Dingo																		1								1						
	Vulpes vulpes	Red Fox																		1								1						

		Surveys	A														B										C						
Family	Species	Common name	Site 9	Site 10	Site 2	Site 3	Site 12	Site 4	Site 5	Site 1	Site 8	Site 11	Site 13	Site 6	Site 7	Opportunistic	Granny Deep	MME1	MME2	Opportunistic	MME3	MME5	MME7	MME8	MME9	MME6	MME4	Site 1	Site 2	Site 5	Site 6	Site 7	Site 3	Site 4
Felidae	*Felis catus*	Cat																										1	1					
Dasyuridae	*Antechinomys laniger*	Kultarr		2	1				3	2	2		1	3	3																			
	Sminthopsis crassicaudata	Fat-tailed Dunnart																1			1								1					
	Sminthopsis dolichura	Little Long-tailed Dunnart	5	3	1	3	1	7	5	1	3		1	4	13																			
	Sminthopsis hirtipes	Hairy-footed Dunnart						1																										
	Sminthopsis longicaudata	Long-tailed Dunnart							1				1	1																				
	Sminthopsis macroura	Stripe-faced Dunnart	1	5	3		3	2	1	2	1	5	2	1	1															1				
Macropodidae	*Macropus fuliginosus*	Western Grey Kangaroo																		1														
	Osphranter robustus	Euro																		1							1				1			
	Osphranter rufus	Red Kangaroo																		1	5				6			1	1			1		
Leporidae	*Oryctolagus cuniculus*	Rabbit																		1							1	1		1				
Equidae	*Equus asinus*	Donkey																		1														
	Equus caballus	Horse																											1			1		
Muridae	*Mus musculus*	House Mouse										5		1				1	2		2	2				2	1	1	1	1			1	1
	Notomys alexis	Spinifex Hopping Mouse								3								7					2											
	Pseudomys hermannsburgensis	Sandy Inland Mouse	1	2	1	1	5	3		1		2	6												4	1			1	1		1	1

A Terrestrial Ecosystems (2011a) *Level 2 Fauna Risk Assessment for the Granny Deeps Project Area*, Unpublished report for Barrick Gold Corporation, Perth.

B Ninox Wildlife Consulting (1998) *A Vertebrate Fauna Survey of the Murrin Murrin Expansion Project*. Unpublished report for Anaconda Nickel Ltd, Perth.

C Halpern Glick Maunsell (1999) *Rosemont Gold Project Biological Assessment Survey - Phases 1 & 2*. Unpublished report for Johnson's Well Mining NL, Perth.

		Survey	A																													
Family	Species	Common name	REG Open spinifex 1	REG Open spinifex 2	REG Open spinifex 3	REG Open spinifex 4	REG Shrubs over spinifex 1	REG Shrubs over spinifex 2	REG Shrubs over spinifex 3	REG Shrubs over spinifex 4	REG Dogbolter 2	REG Mulga woodland 1	REG Mulga woodland 4	REG Eucalypt over spinifex 2	REG Eucalypt over spinifex 4	REG Eucalypt over spinifex 1	REG Dogbolter 1	REG Dogbolter 3	REG Dogbolter 4	REG Eucalypt over spinifex 3	REG Mulga woodland 2	REG Mulga woodland 3	REG Opportunistic	REG Open spinifex	REG Mulga woodland	REG Shrubs over spinifex	REG Eucalypt over spinifex	REG Mulga thicket 1	REG Mulga thicket 2	REG Turkeys nest near Moolart Well	REG Dogbolter
Reptiles																																
Agamidae	*Ctenophorus isolepis*	Central Military Dragon	1	10	8	2	3	5	1	1																						
	Ctenophorus nuchalis	Central Netted Dragon			1	1																										
	Ctenophorus scutulatus	Lozenge-marked Dragon									2	1	1																			
	Diporiphora amphiboluroides	Mulga Dragon										3	1																			
	Moloch horridus	Thorny Devil							1																							
	Pogona minor	Western Bearded Dragon											1	3	1																	
Carphodactylidae	*Nephrurus laevissimus*	Smooth Knob-tail					2		1																							
	Nephrurus vertebralis	Midline Knob-tail												1		1																
Diplodactylidae	*Diplodactylus pulcher*	Beautiful Gecko										1	3				1															
	Lucasium squarrosum	Mottled Ground Gecko					2	1	7	2																						
	Rhynchoedura ornata	Beaked Gecko											1	1			7	4														
	Strophurus elderi	Jewelled Gecko	2	7						1																						
	Strophurus strophurus	Western Spiny-tailed Gecko					2	1	2	1																						
	Strophurus wellingtonae	Western Shield Spiny-tailed Gecko										3	9	1		1	7	3	1	1	4	2										
Elapidae	*Brachyurophis semifasciata*	Half-girdled Snake			1					2				3	6	3																
	Furina ornata	Orange-naped Snake								1		1																				
	Suta monachus	Hooded Snake				1			1		2		1		1							1										
	Pseudechis australis	Mulga Snake														2																
	Pseudonaja mengdeni	Western Brown Snake		2																												
	Pseudonaja modesta	Ringed Brown Snake																1														
	Simoselaps bertholdi	Jan's Banded Snake							1																							
Gekkonidae	*Gehyra purpurascens*	Purplish Dtella		1						2					1																
	Gehyra variegata	Variegated Gehyra	2			1			1	2					1	1	2		1	3	1	10										
	Heteronotia binoei	Bynoe's Gecko						2							1		1				1	3										
Pygopodidae	*Delma butleri*	Unbanded Delma	1	2	2	1	2	1	3	1		1								1												
	Lialis burtonis	Burton's Legless Lizard												1	2																	
	Pygopus nigriceps	Western Hooded Scaly-foot					1	1							1	3																
Scincidae	*Ctenotus ariadnae*	Ariadna's Ctenotus	1		4	3	7	4	6	8					2					4												

		Survey	A																															
Family	Species	Common name	REG Open spinifex 1	REG Open spinifex 2	REG Open spinifex 3	REG Open spinifex 4	REG Shrubs over spinifex 1	REG Shrubs over spinifex 2	REG Shrubs over spinifex 3	REG Shrubs over spinifex 4	REG Dogbolter 2	REG Mulga woodland 1	REG Mulga woodland 4	REG Eucalypt over spinifex 2	REG Eucalypt over spinifex 4	REG Eucalypt over spinifex 1	REG Dogbolter 1	REG Dogbolter 3	REG Dogbolter 4	REG Eucalypt over spinifex 3	REG Mulga woodland 2	REG Mulga woodland 3	REG Opportunistic	REG Open spinifex	REG Mulga woodland	REG Shrubs over spinifex	REG Eucalypt over spinifex	REG Mulga thicket 1	REG Mulga thicket 2	REG Turkeys nest near Moolart Well	REG Dogbolter
	Ctenotus dux	Fine Side-lined Ctenotus		2	2		6	2	13	2				4		14				4												
	Ctenotus grandis	Grand Ctenotus	6	8	9	14	1	3	3	4				4	1																	
	Ctenotus greeri	Spotted-necked Ctenotus												9	7	8				6												
	Ctenotus helenae	Clay-soil Ctenotus	1	2			20	23	13	10				20	14	15				26												
	Ctenotus leonhardii	Leonhardi's Ctenotus	1		4	6					11	6	7	37	16	15	11	20	16	25	6	2									
	Ctenotus pantherinus	Leopard Ctenotus	9		6	3	12	11	1	1				9	3	1				13												
	Ctenotus piankai	Coarse Sands Ctenotus	1	4	3	2		1	1	1																						
	Ctenotus quattuordecimlineatus	Fourteen-lined Ctenotus	4	12	3	2	19	16	9	5	4			2	3		1		1	9												
	Ctenotus schomburgkii	Barred Wedgesnout Ctenotus				1					7		3				8	16			1											
	Ctenotus uber	Spotted Ctenotus									2	7	18				1	10	7		8											
	Egernia depressa	Southern Pygmy Spiny-tailed Skink											1	1					1		4	1										
	Egernia formosa	Goldfields Crevice Skink											1	1		1	1					2										
	Eremiascincus richardsonii	Broad-banded Sand-swimmer												2	1							1										
	Lerista bipes	North-western Sandslider	35	37	10	17	5	11	48	56																						
	Lerista desertorum	Central Desert Robust Slider	1	2		1		1		1	1	1	1		3	1				3												
	Lerista muelleri	Wood Mulch-slider										2		1		1		1			1											
	Liopholis inornata	Desert Skink					2	10	14	5																						
	Liopholis striata	Nocturnal Desert Skink	2	2	5	4																										
	Menetia greyii	Common Dwarf Skink	2	4	12	8						2				1		1		2	1											
	Tiliqua multifasciata	Central Blue-tongue		1	1	1		4																								
Typhlopidae	*Anilios bicolor*	Dark-spined Blind Snake			3					1			1	1	2					1												
	Anilios hamatus	Pale-headed Blind Snake	1	1		2	1		2	1					1	1				2												
	Anilios waitii	Waite's Blind Snake				1		1	1							1				1												
Varanidae	*Varanus brevicauda*	Short-tailed Pygmy Monitor	1	2	3	3		1							1					1												
	Varanus caudolineatus	Stripe-tailed Monitor									2	5		3	1	1	3	7	2		4	9										
	Varanus eremius	Pygmy Desert Monitor	2		6	2		2																								
	Varanus gouldii	Gould's Goanna	6	8	3	1	15	15	12	8		1	1	2	2	1																
	Varanus panoptes	Yellow-spotted Monitor															4			2		1										
	Varanus tristis	Black-headed Monitor												2																		
Birds																																
Casuariidae	*Dromaius novaehollandiae*	Emu																					5	3								

		Survey	A																												
Family	Species	Common name	REG Open spinifex 1	REG Open spinifex 2	REG Open spinifex 3	REG Open spinifex 4	REG Shrubs over spinifex 1	REG Shrubs over spinifex 2	REG Shrubs over spinifex 3	REG Shrubs over spinifex 4	REG Dogbolter 2	REG Mulga woodland 1	REG Mulga woodland 4	REG Eucalypt over spinifex 2	REG Eucalypt over spinifex 4	REG Eucalypt over spinifex 1	REG Dogbolter 1	REG Dogbolter 3	REG Dogbolter 4	REG Eucalypt over spinifex 3	REG Mulga woodland 2	REG Mulga woodland 3	REG Opportunistic	REG Open spinifex	REG Mulga woodland	REG Shrubs over spinifex	REG Eucalypt over spinifex	REG Mulga thicket 1	REG Mulga thicket 2	REG Turkeys nest near Moolart Well	REG Dogbolter
Columbidae	*Ocyphaps lophotes*	Crested Pigeon																					1		2						
Aegothelidae	*Aegotheles cristatus*	Australian Owlet-nightjar																					1								
Caprimulgidae	*Eurostopodus argus*	Spotted Nightjar																					1								
Apodidae	*Apus pacificus*	Pacific Swift																							2						
Charadriidae	*Elseyornis melanops*	Black-fronted Dotterel																					2								
Otididae	*Ardeotis australis*	Australian Bustard																					2								
Accipitridae	*Aquila audax*	Wedge-tailed Eagle																					3	1							
Meropidae	*Merops ornatus*	Rainbow Bee-eater																					1								
Falconidae	*Falco cenchroides*	Nankeen Kestrel																					2	1							
	Falco berigora	Brown Falcon																						2							
Cacatuidae	*Eolophus roseicapilla*	Galah																					2								
Psittaculidae	*Barnardius zonarius*	Australian Ringneck																					10			5	2				
	Psephotus varius	Mulga Parrot																					5								
Ptilonorhynchidae	*Chlamydera guttata*	Western Bowerbird																					3								
Maluridae	*Malurus lamberti*	Variegated Fairywren																								4					
	Malurus splendens	Splendid Fairywren																					4	2	8		13	5	5	10	
Meliphagidae	*Manorina flavigula*	Yellow-throated Miner																					3	12	5	8	5	7	7	3	
	Gavicalis virescens	Singing Honeyeater																					1	2	3	1	5	2	2	2	1
Acanthizidae	*Pyrrholaemus brunneus*	Redthroat																							1						
	Acanthiza apicalis	Inland Thornbill																							8	1		6	6		4
	Acanthiza chrysorrhoa	Yellow-rumped Thornbill																							2					1	6
	Acanthiza uropygialis	Chestnut-rumped Thornbill																					1		7	3	5			3	8
	Acanthiza robustirostris	Slaty-backed Thornbill																							4					2	6
	Smicrornis brevirostris	Weebill																					3			5	13				
	Gerygone fusca	Western Gerygone																													1
	Aphelocephala leucopsis	Southern Whiteface																							3			2	2	1	2
Pomatostomidae	*Pomatostomus superciliosus*	White-browed Babbler																					3							2	
Cinclosomatidae	*Cinclosoma castaneothorax*	Chestnut-breasted Quail-thrush																										1	1		
Campephagidae	*Coracina novaehollandiae*	Black-faced Cuckooshrike																						2			3			2	
Oreoicidae	*Oreoica gutturalis*	Crested Bellbird																						3	3	4	5	1	1	1	3
Pachycephalidae	*Colluricincla harmonica*	Grey Shrikethrush																								1	1				

		Survey	A																												
Family	Species	Common name	REG Open spinifex 1	REG Open spinifex 2	REG Open spinifex 3	REG Open spinifex 4	REG Shrubs over spinifex 1	REG Shrubs over spinifex 2	REG Shrubs over spinifex 3	REG Shrubs over spinifex 4	REG Dogbolter 2	REG Mulga woodland 1	REG Mulga woodland 4	REG Eucalypt over spinifex 2	REG Eucalypt over spinifex 4	REG Eucalypt over spinifex 1	REG Dogbolter 1	REG Dogbolter 3	REG Dogbolter 4	REG Eucalypt over spinifex 3	REG Mulga woodland 2	REG Mulga woodland 3	REG Opportunistic	REG Open spinifex	REG Mulga woodland	REG Shrubs over spinifex	REG Eucalypt over spinifex	REG Mulga thicket 1	REG Mulga thicket 2	REG Turkeys nest near Moolart Well	REG Dogbolter
	Pachycephala rufiventris	Rufous Whistler																						4		3	3	3		2
Artamidae	*Artamus cinereus*	Black-faced Woodswallow																				3								
	Cracticus torquatus	Grey Butcherbird																				3	3	1	2	2	2	2		
	Cracticus nigrogularis	Pied Butcherbird																				2	4	2	4	2	1	1		2
	Gymnorhina tibicen	Australian Magpie																				2	3	2						
	Strepera versicolor	Grey Currawong																							2	1				
Rhipiduridae	*Rhipidura leucophrys*	Willie Wagtail																				3				4				
Monarchidae	*Grallina cyanoleuca*	Magpie-lark																				7		4			3	3		
Corvidae	*Corvus orru*	Torresian Crow																								3				
Petroicidae	*Microeca fascinans*	Jacky Winter																							1	1				
	Petroica goodenovii	Red-capped Robin																							1					
	Melanodryas cucullata	Hooded Robin																							1					1
Motacillidae	*Anthus novaeseelandiae*	Australasian Pipit																												1
Mammals																														
Emballonuridae	*Saccolaimus flaviventris*	Yellow-bellied Sheath-tail Bat				1																								
Vespertilionidae	*Nyctophilus sp.*	Long-eared Bat Sp.								1	1		1		1															
	Chalinolobus gouldii	Gould's Wattled Bat								1			1		1															
	Chalinolobus morio	Chocolate Wattled Bat				1							1																	
	Mormopterus sp.	Free-tail Bat Sp.				1				1			1		1															
	Scotorepens balstoni	Inland Broad-nosed Bat				1				1			1				1													
Dasyuridae	*Dasycercus cristicauda*	Crest-tailed Mulgara		1																										
	Ningaui ridei	Wongai Ningaui	2	3	1	2	1	3	5	1	2				6	2	1		1	2										
	Sminthopsis dolichura	Little Long-tailed Dunnart	1			2						1	1	2	1	5	5	3	3	4	2	3								
	Sminthopsis macroura	Stripe-faced Dunnart		1								2	1					1												
Muridae	*Mus musculus*	House Mouse	7	1	3		2	1		1																				
	Notomys alexis	Spinifex Hopping Mouse		1			1		4				1																	
	Pseudomys desertor	Desert Mouse	1				1	3		1								1	1	1										
	Pseudomys hermannsburgensis	Sandy Inland Mouse	1		2						1				2						2									

A Coffey Environments (2008) *Level 2 Fauna Assessment for Duketon Gold Project*. Unpublished report for Regis Resources, Ltd, Perth.

		Surveys	A																	B
Family	Species	Common name	Site 14	Site 15	Site 7	Site 4	Site 3	Site 8	Site 11	Site 1	Site 5	Site 6	Site 2	Site 10	Site 13	Site 12	Site 9	Opportunitsic	Garden Well birds	Leinster
Reptiles																				
Agamidae	*Diporiphora amphiboluroides*	Mulga Dragon	1	1	1	2	1	1												
	Pogona minor	Western Bearded Dragon							1											
	Tympanocryptis pseudopsephos	Pebble Dragon				2				2	1									
Carphodactylidae	*Underwoodisaurus milii*	Barking Gecko										1								
Diplodactylidae	*Diplodactylus pulcher*	Beautiful Gecko	3	3	5	3	1	3	7				1	3	6	4	2			
	Strophurus wellingtonae	Western Shield Spiny-tailed Gecko	4	1		3		3	1	1	1		2	5	2		4			
Elapidae	*Brachyurophis semifasciata*	Half-girdled Snake							1											
	Suta monachus	Hooded Snake							1											
Gekkonidae	*Gehyra variegata*	Variegated Gehyra	4	1	5			2	1	1	2			5	5	3	5			
	Heteronotia binoei	Bynoe's Gecko	1	1	1			1	7		1	7	1	3	7					
Pygopodidae	*Pygopus nigriceps*	Western Hooded Scaly-foot											1							
Scincidae	*Cryptoblepharus plagiocephalus*	Peron's Snake-eyed Skink	3											3						
	Ctenotus schomburgkii	Barred Wedgesnout Ctenotus					1													
	Ctenotus uber	Spotted Ctenotus	2	2	2	8			1	3	4		1		1					
	Egernia depressa	Southern Pygmy Spiny-tailed Skink		3		1		1							1	1				
	Egernia formosa	Goldfields Crevice Skink	1				1	2		1			1	4			2			
	Eremiascincus richardsonii	Broad-banded Sand-swimmer	1		1		2													
	Lerista desertorum	Central Desert Robust Slider	2		1				5					2	1		6			
	Lerista muelleri	Wood Mulch-slider	5	4	5				1	2						1				
	Menetia greyii	Common Dwarf Skink	1		1															
	Morethia butleri	Woodland Morethia Skink	1	1				2	2	1					1	1	2			
Typhlopidae	*Anilios australis*	Austral Blind Snake		1																
Varanidae	*Varanus caudolineatus*	Stripe-tailed Monitor	1				3	2	1	4	3			1						
	Varanus panoptes	Yellow-spotted Monitor	1					1				1								
Birds																				
Casuariidae	*Dromaius novaehollandiae*	Emu																1		
Columbidae	*Phaps chalcoptera*	Common Bronzewing																1		
	Ocyphaps lophotes	Crested Pigeon																1		1
Accipitridae	*Aquila audax*	Wedge-tailed Eagle																		1
Alcedinidae	*Todiramphus pyrrhopygius*	Red-backed Kingfisher																		1
Falconidae	*Falco cenchroides*	Nankeen Kestrel																1		1
Cacatuidae	*Eolophus roseicapilla*	Galah																1	1	1
Psittaculidae	*Barnardius zonarius*	Australian Ringneck																	3	1
	Psephotus varius	Mulga Parrot																1	1	1

		Surveys	A																	B
Family	Species	Common name	Site 14	Site 15	Site 7	Site 4	Site 3	Site 8	Site 11	Site 1	Site 5	Site 6	Site 2	Site 10	Site 13	Site 12	Site 9	Opportunitsic	Garden Well birds	Leinster
Ptilonorhynchidae	*Chlamydera guttata*	Western Bowerbird																1	3	1
Climacteridae	*Climacteris affinis*	White-browed Treecreeper																1	1	
Maluridae	*Malurus splendens*	Splendid Fairywren																	7	
	Malurus leucopterus	White-winged Fairywren																	1	
Meliphagidae	*Purnella albifrons*	White-fronted Honeyeater																		1
	Manorina flavigula	Yellow-throated Miner																1	5	1
	Acanthagenys rufogularis	Spiny-cheeked Honeyeater																	8	1
	Gavicalis virescens	Singing Honeyeater																	15	1
	Lichmera indistincta	Brown Honeyeater																		1
Acanthizidae	*Acanthiza apicalis*	Inland Thornbill																	9	1
	Acanthiza chrysorrhoa	Yellow-rumped Thornbill																	1	1
	Acanthiza uropygialis	Chestnut-rumped Thornbill																	3	1
	Acanthiza robustirostris	Slaty-backed Thornbill																	9	
	Smicrornis brevirostris	Weebill																	2	1
	Aphelocephala leucopsis	Southern Whiteface																	3	
Pomatostomidae	*Pomatostomus superciliosus*	White-browed Babbler																1	2	
Campephagidae	*Coracina novaehollandiae*	Black-faced Cuckooshrike																	2	
Oreoicidae	*Oreoica gutturalis*	Crested Bellbird																	38	1
Pachycephalidae	*Colluricincla harmonica*	Grey Shrikethrush																	11	
	Pachycephala rufiventris	Rufous Whistler																	18	
Artamidae	*Artamus cinereus*	Black-faced Woodswallow																2	3	
	Cracticus torquatus	Grey Butcherbird																		1
	Cracticus nigrogularis	Pied Butcherbird																1	2	1
	Gymnorhina tibicen	Australian Magpie																		1
Rhipiduridae	*Rhipidura leucophrys*	Willie Wagtail																	1	1
Monarchidae	*Grallina cyanoleuca*	Magpie-lark																1		1
Corvidae	*Corvus orru*	Torresian Crow																1		
	Corvus bennetti	Little Crow																	8	1
	Corvus coronoides	Australian Raven																		1
Petroicidae	*Microeca fascinans*	Jacky Winter																	2	
	Petroica goodenovii	Red-capped Robin																	8	1
Petroicidae	*Melanodryas cucullata*	Hooded Robin																	2	
Dicaeidae	*Dicaeum hirundinaceum*	Mistletoebird																	2	
Motacillidae	*Anthus novaeseelandiae*	Australasian Pipit																1		
Mammals																				
Vespertilionidae	*Nyctophilus geoffroyi*	Lesser Long-eared Bat	4																	

		Surveys	A																		B
Family	Species	Common name	Site 14	Site 15	Site 7	Site 4	Site 3	Site 8	Site 11	Site 1	Site 5	Site 6	Site 2	Site 10	Site 13	Site 12	Site 9	Opportunitsic	Garden Well birds	Leinster
Dasyuridae	*Sminthopsis dolichura*	Little Long-tailed Dunnart	3	2	2	1				1	4	4	5	1	1	1				
	Sminthopsis macroura	Stripe-faced Dunnart			3		1	1				1	1	1						
Muridae	*Pseudomys hermannsburgensis*	Sandy Inland Mouse			1						1									

A Terrestrial Ecosystems (2010) *Level 2 Fauna Risk Assessment for the Garden Well Project Area*. Unpublished report for Regis Resources; Perth.

B Bell, D.T., Bell, R.C. and Loneragan, W.A. (2007) Winter bird assemblages across an arid gradient in south-west Western Australia. *Journal of the Royal Society of Western Australia* 90, 219-227.

Appendix E.

Definitions of Significant Fauna under the WA *Biodiversity Conservation Act 2016* and Priority Species

Basic and Detailed Vertebrate Fauna Survey and Assessment
Northern Project Areas



ATTACHMENT C
DEFINITIONS OF SIGNIFICANT FAUNA UNDER THE WA BIODIVERSITY CONSERVATION ACT 2016

Threatened, Extinct and Specially Protected fauna or flora[1] are species[2] which have been adequately searched for and are deemed to be, in the wild, threatened, extinct or in need of special protection, and have been gazetted as such. The *Wildlife Conservation (Specially Protected Fauna) Notice 2018* and the *Wildlife Conservation (Rare Flora) Notice 2018* have been transitioned under regulations 170, 171 and 172 of the *Biodiversity Conservation Regulations 2018* to be the lists of Threatened, Extinct and Specially Protected species under Part 2 of the *Biodiversity Conservation Act 2016*. Categories of Threatened, Extinct and Specially Protected fauna and flora are:

T Threatened Species

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

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

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

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

CR Critically endangered species

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

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

[1] The definition of flora includes algae, fungi and lichens

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

EN Endangered species

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

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

VU Vulnerable species

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

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

Extinct Species

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

EX Extinct species

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

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

EW Extinct in the wild species

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

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

Specially Protected Species

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

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

MI Migratory birds protected under an international agreement

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

Includes birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and fauna subject to the *Convention on the Conservation of Migratory Species of Wild Animals* (Bonn Convention), an environmental treaty under the United Nations Environment Program. Migratory species listed under the BC Act are a subset of the migratory animals, that are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species.

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

CD Species of special conservation interest (conservation dependant fauna)

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

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

OS Other specially protected species

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

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

P Priority species

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

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

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

P1 Priority 1: Poorly-known species

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

P2 Priority 2: Poorly-known species

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

P3 Priority 3: Poorly-known species

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

P4 Priority 4: Rare, Near Threatened and other species in need of monitoring

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

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

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

Appendix F.
Rapid habitat assessment results

Basic and Detailed Vertebrate Fauna Survey and Assessment
Northern Project Areas



Date: 5/10/2022 Habitat Assessment #: B1 Observer: ST and JB

Zone: 51 Easting: 416986 mE Northing: 6933449 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B2 Observer: ST and JB

Zone: 51 Easting: 416663 mE Northing: 6933454 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B3 Observer: ST and JB

Zone: 51 Easting: 416392 mE Northing: 6933432 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B4 Observer: ST and JB

Zone: 51 Easting: 416083 mE Northing: 6933439 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B5 Observer: ST and JB

Zone: 51 Easting: 415786 mE Northing: 6933448 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B6 Observer: ST and JB

Zone: 51 Easting: 415497 mE Northing: 6933438 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B7 Observer: ST and JB

Zone: 51 Easting: 415201 mE Northing: 6933449 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B8 Observer: ST and JB

Zone: 51 Easting: 414944 mE Northing: 6933522 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B9 Observer: ST and JB

Zone: 51 Easting: 414666 mE Northing: 6933785 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B10 Observer: ST and JB

Zone: 51 Easting: 414902 mE Northing: 6933823 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B11 Observer: ST and JB

Zone: 51 Easting: 415196 mE Northing: 6933798 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B12 Observer: ST and JB

Zone: 51 Easting: 415507 mE Northing: 6933810 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B13 Observer: ST and JB

Zone: 51 Easting: 415808 mE Northing: 6933798 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B14 Observer: ST and JB

Zone: 51 Easting: 416113 mE Northing: 6933808 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B15 Observer: ST and JB

Zone: 51 Easting: 416406 mE Northing: 6933809 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B16 Observer: ST and JB

Zone: 51 Easting: 416710 mE Northing: 6933815 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B17 Observer: ST and JB

Zone: 51 Easting: 416991 mE Northing: 6933793 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B18 Observer: ST and JB

Zone: 51 Easting: 416663 mE Northing: 6934132 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B19 Observer: ST and JB

Zone: 51 Easting: 416394 mE Northing: 6934109 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B20 Observer: ST and JB

Zone: 51 Easting: 416092 mE Northing: 6934110 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B21 Observer: ST and JB

Zone: 51 Easting: 415825 mE Northing: 6934089 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B22 Observer: ST and JB

Zone: 51 Easting: 415503 mE Northing: 6934089 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B23 Observer: ST and JB

Zone: 51 Easting: 415197 mE Northing: 6934030 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B24 Observer: ST and JB

Zone: 51 Easting: 414889 mE Northing: 6934030 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B25 Observer: ST and JB

Zone: 51 Easting: 414569 mE Northing: 6934033 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B26 Observer: ST and JB

Zone: 51 Easting: 414321 mE Northing: 6934101 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B27 Observer: ST and JB

Zone: 51 Easting: 414011 mE Northing: 6934049 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B28 Observer: ST and JB

Zone: 51 Easting: 413647 mE Northing: 6934041 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B29 Observer: ST and JB

Zone: 51 Easting: 413330 mE Northing: 6933970 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B30 Observer: ST and JB

Zone: 51 Easting: 413115 mE Northing: 6933902 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B31 Observer: ST and JB

Zone: 51 Easting: 412936 mE Northing: 6934120 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B32 Observer: ST and JB

Zone: 51 Easting: 413109 mE Northing: 6934240 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B33 Observer: ST and JB

Zone: 51 Easting: 413394 mE Northing: 6934235 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B34 Observer: ST and JB

Zone: 51 Easting: 413707 mE Northing: 6934226 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B35 Observer: ST and JB

Zone: 51 Easting: 414002 mE Northing: 6934241 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B36 Observer: ST and JB

Zone: 51 Easting: 414309 mE Northing: 6934251 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B37 Observer: ST and JB

Zone: 51 Easting: 414612 mE Northing: 6934283 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B38 Observer: ST and JB

Zone: 51 Easting: 414935 mE Northing: 6934231 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B39 Observer: ST and JB

Zone: 51 Easting: 415207 mE Northing: 6934218 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B40 Observer: ST and JB

Zone: 51 Easting: 415512 mE Northing: 6934240 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B41 Observer: ST and JB

Zone: 51 Easting: 415817 mE Northing: 6934240 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B42 Observer: ST and JB

Zone: 51 Easting: 416114 mE Northing: 6934271 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B43 Observer: ST and JB

Zone: 51 Easting: 415853 mE Northing: 6934437 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B44 Observer: ST and JB

Zone: 51 Easting: 415559 mE Northing: 6934598 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B45 Observer: ST and JB

Zone: 51 Easting: 415210 mE Northing: 6934599 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B46 Observer: ST and JB

Zone: 51 Easting: 414883 mE Northing: 6934602 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B47 Observer: ST and JB

Zone: 51 Easting: 414598 mE Northing: 6934575 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B48 Observer: ST and JB

Zone: 51 Easting: 414290 mE Northing: 6934576 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B49 Observer: ST and JB

Zone: 51 Easting: 413986 mE Northing: 6934576 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B50 Observer: ST and JB

Zone: 51 Easting: 413658 mE Northing: 6934508 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B51 Observer: ST and JB

Zone: 51 Easting: 413368 mE Northing: 6934527 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B52 Observer: ST and JB

Zone: 51 Easting: 413106 mE Northing: 6934508 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B53 Observer: ST and JB

Zone: 51 Easting: 412931 mE Northing: 6934732 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B54 Observer: ST and JB

Zone: 51 Easting: 413087 mE Northing: 6935002 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B55 Observer: ST and JB

Zone: 51 Easting: 413401 mE Northing: 6934989 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B56 Observer: ST and JB

Zone: 51 Easting: 413693 mE Northing: 6935008 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B57 Observer: ST and JB

Zone: 51 Easting: 414007 mE Northing: 6934995 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B58 Observer: ST and JB

Zone: 51 Easting: 414288 mE Northing: 6934996 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B59 Observer: ST and JB

Zone: 51 Easting: 414607 mE Northing: 6935006 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B60 Observer: ST and JB

Zone: 51 Easting: 414898 mE Northing: 6935003 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B61 Observer: ST and JB

Zone: 51 Easting: 415167 mE Northing: 6934999 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B62 Observer: ST and JB

Zone: 51 Easting: 414975 mE Northing: 6935207 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B63 Observer: ST and JB

Zone: 51 Easting: 414745 mE Northing: 6935425 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B64 Observer: ST and JB

Zone: 51 Easting: 414535 mE Northing: 6935422 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B65 Observer: ST and JB

Zone: 51 Easting: 414293 mE Northing: 6935418 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



Date: 5/10/2022 Habitat Assessment #: B66 Observer: ST and JB

Zone: 51 Easting: 414019 mE Northing: 6935425 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B67 Observer: ST and JB

Zone: 51 Easting: 413707 mE Northing: 6935434 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B68 Observer: ST and JB

Zone: 51 Easting: 413402 mE Northing: 6935418 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B69 Observer: ST and JB

Zone: 51 Easting: 413109 mE Northing: 6935371 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B70 Observer: ST and JB

Zone: 51 Easting: 413095 mE Northing: 6935619 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B71 Observer: ST and JB

Zone: 51 Easting: 413407 mE Northing: 6935631 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B72 Observer: ST and JB

Zone: 51 Easting: 413730 mE Northing: 6935627 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B73 Observer: ST and JB

Zone: 51 Easting: 413995 mE Northing: 6935638 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B74 Observer: ST and JB

Zone: 51 Easting: 414284 mE Northing: 6935625 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B75 Observer: ST and JB

Zone: 51 Easting: 414588 mE Northing: 6935646 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B76 Observer: ST and JB

Zone: 51 Easting: 414331 mE Northing: 6935873 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B77 Observer: ST and JB

Zone: 51 Easting: 414001 mE Northing: 6935824 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B78 Observer: ST and JB

Zone: 51 Easting: 413645 mE Northing: 6935829 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B79 Observer: ST and JB

Zone: 51 Easting: 413383 mE Northing: 6935844 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B80 Observer: ST and JB

Zone: 51 Easting: 413073 mE Northing: 6935829 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B81 Observer: ST and JB

Zone: 51 Easting: 413487 mE Northing: 6936232 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B82 Observer: ST and JB

Zone: 51 Easting: 413735 mE Northing: 6936198 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B83 Observer: ST and JB

Zone: 51 Easting: 413992 mE Northing: 6936202 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B84 Observer: ST and JB

Zone: 51 Easting: 413700 mE Northing: 6936476 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B85 Observer: ST and JB

Zone: 51 Easting: 413934 mE Northing: 6936529 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B86 Observer: ST and JB

Zone: 51 Easting: 417397 mE Northing: 6933458 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B87 Observer: ST and JB

Zone: 51 Easting: 417579 mE Northing: 6933179 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B88 Observer: ST and JB

Zone: 51 Easting: 417272 mE Northing: 6933179 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B89 Observer: ST and JB

Zone: 51 Easting: 417000 mE Northing: 6933241 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B90 Observer: ST and JB

Zone: 51 Easting: 416691 mE Northing: 6933242 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B91 Observer: ST and JB

Zone: 51 Easting: 416400 mE Northing: 6933234 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B92 Observer: ST and JB

Zone: 51 Easting: 416091 mE Northing: 6933234 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B93 Observer: ST and JB

Zone: 51 Easting: 415804 mE Northing: 6933234 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B94 Observer: ST and JB

Zone: 51 Easting: 415516 mE Northing: 6933226 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B95 Observer: ST and JB

Zone: 51 Easting: 415274 mE Northing: 6933163 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B96 Observer: ST and JB

Zone: 51 Easting: 415483 mE Northing: 6932918 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B97 Observer: ST and JB

Zone: 51 Easting: 415780 mE Northing: 6932904 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B98 Observer: ST and JB

Zone: 51 Easting: 416093 mE Northing: 6932902 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B99 Observer: ST and JB

Zone: 51 Easting: 416411 mE Northing: 6932820 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B100 Observer: ST and JB

Zone: 51 Easting: 416747 mE Northing: 6932817 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B101 Observer: ST and JB

Zone: 51 Easting: 417011 mE Northing: 6932810 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B102 Observer: ST and JB

Zone: 51 Easting: 417333 mE Northing: 6932810 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B103 Observer: ST and JB

Zone: 51 Easting: 417595 mE Northing: 6932801 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B104 Observer: ST and JB

Zone: 51 Easting: 417816 mE Northing: 6932583 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B105 Observer: ST and JB

Zone: 51 Easting: 417592 mE Northing: 6932387 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



Date: 5/10/2022 Habitat Assessment #: B106 Observer: ST and JB

Zone: 51 Easting: 417312 mE Northing: 6932390 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B107 Observer: ST and JB

Zone: 51 Easting: 417000 mE Northing: 6932389 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B108 Observer: ST and JB

Zone: 51 Easting: 416680 mE Northing: 6932396 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B109 Observer: ST and JB

Zone: 51 Easting: 416383 mE Northing: 6932407 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B110 Observer: ST and JB

Zone: 51 Easting: 416124 mE Northing: 6932388 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B111 Observer: ST and JB

Zone: 51 Easting: 416271 mE Northing: 6932129 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B112 Observer: ST and JB

Zone: 51 Easting: 416415 mE Northing: 6932010 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B113 Observer: ST and JB

Zone: 51 Easting: 416727 mE Northing: 6931996 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B114 Observer: ST and JB

Zone: 51 Easting: 416987 mE Northing: 6931996 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B115 Observer: ST and JB

Zone: 51 Easting: 417307 mE Northing: 6931942 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B116 Observer: ST and JB

Zone: 51 Easting: 417607 mE Northing: 6931943 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B117 Observer: ST and JB

Zone: 51 Easting: 417918 mE Northing: 6931945 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B118 Observer: ST and JB

Zone: 51 Easting: 418221 mE Northing: 6931945 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 5/10/2022 Habitat Assessment #: B119 Observer: ST and JB

Zone: 51 Easting: 418492 mE Northing: 6931954 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



Date: 6/10/2022 Habitat Assessment #: B120 Observer: ST and JB

Zone: 51 Easting: 417898 mE Northing: 6931755 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B121 Observer: ST and JB

Zone: 51 Easting: 417574 mE Northing: 6931760 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B122 Observer: ST and JB

Zone: 51 Easting: 417295 mE Northing: 6931760 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B123 Observer: ST and JB

Zone: 51 Easting: 416992 mE Northing: 6931762 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B124 Observer: ST and JB

Zone: 51 Easting: 416707 mE Northing: 6931766 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



Date: 6/10/2022 Habitat Assessment #: B125 Observer: ST and JB

Zone: 51 Easting: 416427 mE Northing: 6931766 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B126 Observer: ST and JB

Zone: 51 Easting: 416377 mE Northing: 6931595 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B127 Observer: ST and JB

Zone: 51 Easting: 416696 mE Northing: 6931550 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



Date: 6/10/2022 Habitat Assessment #: B128 Observer: ST and JB

Zone: 51 Easting: 417042 mE Northing: 6931599 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



Date: 6/10/2022 Habitat Assessment #: B129 Observer: ST and JB

Zone: 51 Easting: 417330 mE Northing: 6931599 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



Date: 6/10/2022 Habitat Assessment #: B130 Observer: ST and JB

Zone: 51 Easting: 417624 mE Northing: 6931599 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



Date: 6/10/2022 Habitat Assessment #: B131 Observer: ST and JB

Zone: 51 Easting: 417931 mE Northing: 6931598 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B132 Observer: ST and JB

Zone: 51 Easting: 418214 mE Northing: 6931597 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B133 Observer: ST and JB

Zone: 51 Easting: 418534 mE Northing: 6931579 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B134 Observer: ST and JB

Zone: 51 Easting: 418500 mE Northing: 6931381 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



Date: 6/10/2022 Habitat Assessment #: B135 Observer: ST and JB

Zone: 51 Easting: 418432 mE Northing: 6931192 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B136 Observer: ST and JB

Zone: 51 Easting: 418209 mE Northing: 6931200 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B137 Observer: ST and JB

Zone: 51 Easting: 417901 mE Northing: 6931201 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B138 Observer: ST and JB

Zone: 51 Easting: 417596 mE Northing: 6931199 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B139 Observer: ST and JB

Zone: 51 Easting: 417295 mE Northing: 6931199 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B140 Observer: ST and JB

Zone: 51 Easting: 416916 mE Northing: 6931209 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



Date: 6/10/2022 Habitat Assessment #: B141 Observer: ST and JB

Zone: 51 Easting: 416689 mE Northing: 6931252 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B142 Observer: ST and JB

Zone: 51 Easting: 416388 mE Northing: 6931252 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B143 Observer: ST and JB

Zone: 51 Easting: 416376 mE Northing: 6930956 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B144 Observer: ST and JB

Zone: 51 Easting: 416723 mE Northing: 6930862 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B145 Observer: ST and JB

Zone: 51 Easting: 417010 mE Northing: 6930821 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



Date: 6/10/2022 Habitat Assessment #: B146 Observer: ST and JB

Zone: 51 Easting: 417304 mE Northing: 6930815 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



Date: 6/10/2022 Habitat Assessment #: B147 Observer: ST and JB

Zone: 51 Easting: 417608 mE Northing: 6930809 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



Date: 6/10/2022 Habitat Assessment #: B148 Observer: ST and JB

Zone: 51 Easting: 417928 mE Northing: 6930804 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B149 Observer: ST and JB

Zone: 51 Easting: 417584 mE Northing: 6930536 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B150 Observer: ST and JB

Zone: 51 Easting: 417304 mE Northing: 6930513 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B151 Observer: ST and JB

Zone: 51 Easting: 416996 mE Northing: 6930556 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



Date: 6/10/2022 Habitat Assessment #: B152 Observer: ST and JB

Zone: 51 Easting: 416677 mE Northing: 6930594 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B153 Observer: ST and JB

Zone: 51 Easting: 416410 mE Northing: 6930566 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B154 Observer: ST and JB

Zone: 51 Easting: 416313 mE Northing: 6930369 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B155 Observer: ST and JB

Zone: 51 Easting: 416543 mE Northing: 6930407 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B156 Observer: ST and JB

Zone: 51 Easting: 416772 mE Northing: 6930349 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B157 Observer: ST and JB

Zone: 51 Easting: 417013 mE Northing: 6930239 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: B158 Observer: ST and JB

Zone: 51 Easting: 417320 mE Northing: 6930298 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



Date: 6/10/2022 Habitat Assessment #: B159 Observer: ST and JB

Zone: 51 Easting: 418473 mE Northing: 6931819 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB1 Observer: ST and JB

Zone: 51 Easting: 404629 mE Northing: 6941358 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB2 Observer: ST and JB

Zone: 51 Easting: 404405 mE Northing: 6941351 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB3 Observer: ST and JB

Zone: 51 Easting: 404055 mE Northing: 6941341 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB4 Observer: ST and JB

Zone: 51 Easting: 403788 mE Northing: 6941331 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 | Habitat Assessment #: TB5 | Observer: ST and JB

Zone: 51 | Easting: 403506 mE | Northing: 6941330 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB6 Observer: ST and JB

Zone: 51 Easting: 403185 mE Northing: 6941360 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 | Habitat Assessment #: TB7 | Observer: ST and JB

Zone: 51 | Easting: 402886 mE | Northing: 6941360 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB8 Observer: ST and JB

Zone: 51 Easting: 402576 mE Northing: 6941359 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 | Habitat Assessment #: TB9 | Observer: ST and JB

Zone: 51 | Easting: 402295 mE | Northing: 6941360 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB10 Observer: ST and JB

Zone: 51 Easting: 402021 mE Northing: 6941361 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB11 Observer: ST and JB

Zone: 51 Easting: 401704 mE Northing: 6941362 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB12 Observer: ST and JB

Zone: 51 Easting: 401389 mE Northing: 6941250 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB13 Observer: ST and JB

Zone: 51 Easting: 401574 mE Northing: 6941163 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB14 Observer: ST and JB

Zone: 51 Easting: 401784 mE Northing: 6941164 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB15 Observer: ST and JB

Zone: 51 Easting: 402024 mE Northing: 6941162 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 | Habitat Assessment #: TB16 | Observer: ST and JB

Zone: 51 | Easting: 402329 mE | Northing: 6941160 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB17 Observer: ST and JB

Zone: 51 Easting: 402607 mE Northing: 6941161 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB18 Observer: ST and JB

Zone: 51 Easting: 402892 mE Northing: 6941160 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB19 Observer: ST and JB

Zone: 51 Easting: 403194 mE Northing: 6941162 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB20 Observer: ST and JB

Zone: 51 Easting: 403501 mE Northing: 6941132 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB21 Observer: ST and JB

Zone: 51 Easting: 403812 mE Northing: 6941158 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB22 Observer: ST and JB

Zone: 51 Easting: 404134 mE Northing: 6941120 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB23 Observer: ST and JB

Zone: 51 Easting: 404407 mE Northing: 6941126 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB24 Observer: ST and JB

Zone: 51 Easting: 404600 mE Northing: 6941092 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB25 Observer: ST and JB

Zone: 51 Easting: 404559 mE Northing: 6940832 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB26 Observer: ST and JB

Zone: 51 Easting: 404390 mE Northing: 6940829 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB27 Observer: ST and JB

Zone: 51 Easting: 404132 mE Northing: 6940784 mN

Fire History: > 5 years Landform: Undulating Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB28 Observer: ST and JB

Zone: 51 Easting: 404388 mE Northing: 6937843 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Rock

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB29 Observer: ST and JB

Zone: 51 Easting: 404666 mE Northing: 6937825 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB30 Observer: ST and JB

Zone: 51 Easting: 404363 mE Northing: 6937685 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB31 Observer: ST and JB

Zone: 51 Easting: 404522 mE Northing: 6937556 mN

Fire History: > 5 years Landform: Undulating Plain Soil Type: Rock

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB32 Observer: ST and JB

Zone: 51 Easting: 404197 mE Northing: 6937576 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Rock

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB33 Observer: ST and JB

Zone: 51 Easting: 404120 mE Northing: 6937700 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Rock

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB34 Observer: ST and JB

Zone: 51 Easting: 404118 mE Northing: 6937860 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



Date: 6/10/2022 Habitat Assessment #: TB35 Observer: ST and JB

Zone: 51 Easting: 403783 mE Northing: 6937883 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB36 Observer: ST and JB

Zone: 51 Easting: 403479 mE Northing: 6937905 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB37 Observer: ST and JB

Zone: 51 Easting: 403218 mE Northing: 6937792 mN

Fire History: > 5 years Landform: Gentle Slope Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



Date: 6/10/2022 Habitat Assessment #: TB38 Observer: ST and JB

Zone: 51 Easting: 403143 mE Northing: 6937928 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB39 Observer: ST and JB

Zone: 51 Easting: 402874 mE Northing: 6937947 mN

Fire History: > 5 years Landform: Gentle Slope Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB40 Observer: ST and JB

Zone: 51 Easting: 402577 mE Northing: 6937967 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB41 Observer: ST and JB

Zone: 51 Easting: 402261 mE Northing: 6937987 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB42 Observer: ST and JB

Zone: 51 Easting: 401969 mE Northing: 6938008 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB43 Observer: ST and JB

Zone: 51 Easting: 401698 mE Northing: 6938026 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 | Habitat Assessment #: TB44 | Observer: ST and JB

Zone: 51 | Easting: 401405 mE | Northing: 6938047 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB45 Observer: ST and JB

Zone: 51 Easting: 401523 mE Northing: 6937678 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

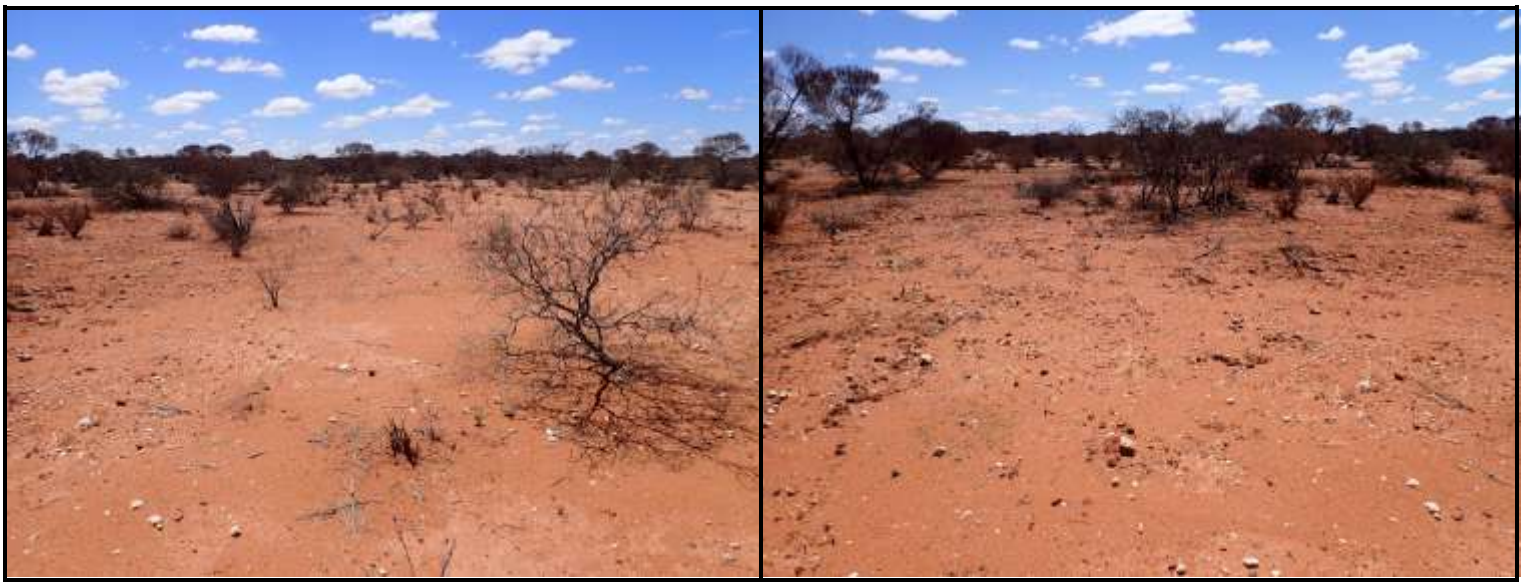
Date: 6/10/2022 Habitat Assessment #: TB46 Observer: ST and JB

Zone: 51 Easting: 401868 mE Northing: 6937548 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB47 Observer: ST and JB

Zone: 51 Easting: 402164 mE Northing: 6937575 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB48 Observer: ST and JB

Zone: 51 Easting: 402496 mE Northing: 6937642 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 | Habitat Assessment #: TB49 | Observer: ST and JB

Zone: 51 | Easting: 402891 mE | Northing: 6937695 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB50 Observer: ST and JB

Zone: 51 Easting: 403199 mE Northing: 6937611 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB51 Observer: ST and JB

Zone: 51 Easting: 403566 mE Northing: 6937645 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB52 Observer: ST and JB

Zone: 51 Easting: 403821 mE Northing: 6937605 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB53 Observer: ST and JB

Zone: 51 Easting: 403514 mE Northing: 6938162 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB54 Observer: ST and JB

Zone: 51 Easting: 403177 mE Northing: 6938166 mN

Fire History: > 5 years Landform: Gentle Slope Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



Date: 6/10/2022 Habitat Assessment #: TB55 Observer: ST and JB

Zone: 51 Easting: 403787 mE Northing: 6938162 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB56 Observer: ST and JB

Zone: 51 Easting: 404131 mE Northing: 6938161 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB57 Observer: ST and JB

Zone: 51 Easting: 404412 mE Northing: 6938166 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB58 Observer: ST and JB

Zone: 51 Easting: 404651 mE Northing: 6938162 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB59 Observer: ST and JB

Zone: 51 Easting: 404610 mE Northing: 6938363 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB60 Observer: ST and JB

Zone: 51 Easting: 404385 mE Northing: 6938361 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 | Habitat Assessment #: TB61 | Observer: ST and JB

Zone: 51 | Easting: 404047 mE | Northing: 6938363 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB62 Observer: ST and JB

Zone: 51 Easting: 403816 mE Northing: 6938361 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB63 Observer: ST and JB

Zone: 51 Easting: 403487 mE Northing: 6938361 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB64 Observer: ST and JB

Zone: 51 Easting: 403184 mE Northing: 6938962 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB65 Observer: ST and JB

Zone: 51 Easting: 403182 mE Northing: 6938363 mN

Fire History: > 5 years Landform: Gentle Slope Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB66 Observer: ST and JB

Zone: 51 Easting: 403001 mE Northing: 6938268 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB67 Observer: ST and JB

Zone: 51 Easting: 403302 mE Northing: 6938564 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB68 Observer: ST and JB

Zone: 51 Easting: 403180 mE Northing: 6938761 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 | Habitat Assessment #: TB69 | Observer: ST and JB

Zone: 51 | Easting: 403538 mE | Northing: 6938762 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand , Pebbles, Cobbles and Stones



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB70 Observer: ST and JB

Zone: 51 Easting: 403818 mE Northing: 6938760 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB71 Observer: ST and JB

Zone: 51 Easting: 404109 mE Northing: 6938763 mN

Fire History: > 5 years Landform: Undulating Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 | Habitat Assessment #: TB72 | Observer: ST and JB

Zone: 51 | Easting: 404409 mE | Northing: 6938760 mN

Fire History: > 5 years | Landform: Gentle Slope | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB73 Observer: ST and JB

Zone: 51 Easting: 404631 mE Northing: 6938760 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 | Habitat Assessment #: TB74 | Observer: ST and JB

Zone: 51 | Easting: 404643 mE | Northing: 6938963 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand , Pebbles, Cobbles and Stones



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB75 Observer: ST and JB

Zone: 51 Easting: 404401 mE Northing: 6938960 mN

Fire History: > 5 years Landform: Gentle Slope Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB76 Observer: ST and JB

Zone: 51 Easting: 404101 mE Northing: 6938960 mN

Fire History: > 5 years Landform: Gentle Slope Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 | Habitat Assessment #: TB77 | Observer: ST and JB

Zone: 51 | Easting: 403789 mE | Northing: 6938960 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB78 Observer: ST and JB

Zone: 51 Easting: 403497 mE Northing: 6938960 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB79 Observer: ST and JB

Zone: 51 Easting: 402978 mE Northing: 6938858 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB80 Observer: ST and JB

Zone: 51 Easting: 403657 mE Northing: 6938576 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand , Pebbles, Cobbles and Stones



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB81 Observer: ST and JB

Zone: 51 Easting: 404003 mE Northing: 6938562 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB82 Observer: ST and JB

Zone: 51 Easting: 404307 mE Northing: 6938562 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB83 Observer: ST and JB

Zone: 51 Easting: 404573 mE Northing: 6938564 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 | Habitat Assessment #: TB84 | Observer: ST and JB

Zone: 51 | Easting: 404133 mE | Northing: 6939147 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB85 Observer: ST and JB

Zone: 51 Easting: 404397 mE Northing: 6939162 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB86 Observer: ST and JB

Zone: 51 Easting: 404642 mE Northing: 6939162 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



Date: 6/10/2022 Habitat Assessment #: TB87 Observer: ST and JB

Zone: 51 Easting: 403810 mE Northing: 6939161 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB88 Observer: ST and JB

Zone: 51 Easting: 403478 mE Northing: 6939163 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB89 Observer: ST and JB

Zone: 51 Easting: 403248 mE Northing: 6939159 mN

Fire History: > 5 years Landform: Gentle Slope Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB90 Observer: ST and JB

Zone: 51 Easting: 402905 mE Northing: 6939159 mN

Fire History: > 5 years Landform: Gentle Slope Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB91 Observer: ST and JB

Zone: 51 Easting: 402581 mE Northing: 6939183 mN

Fire History: > 5 years Landform: Gentle Slope Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB92 Observer: ST and JB

Zone: 51 Easting: 402312 mE Northing: 6939193 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB93 Observer: ST and JB

Zone: 51 Easting: 402009 mE Northing: 6939195 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

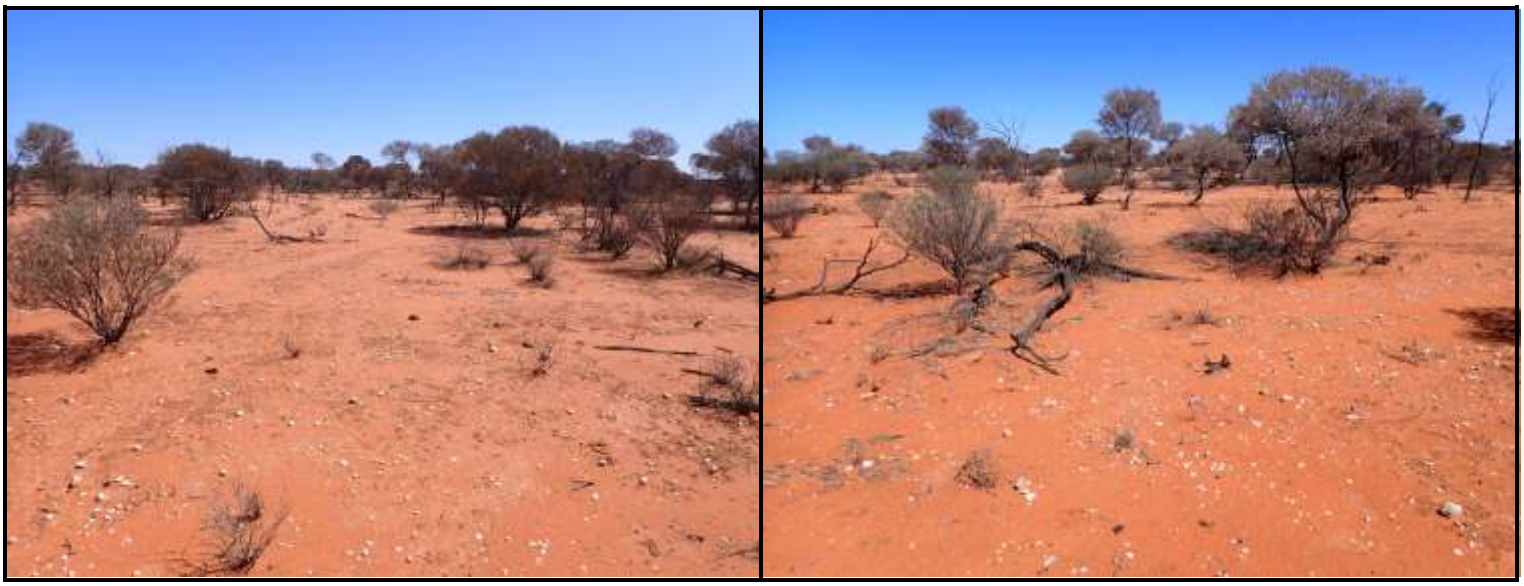
Date: 6/10/2022 Habitat Assessment #: TB94 Observer: ST and JB

Zone: 51 Easting: 401718 mE Northing: 6939128 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB95 Observer: ST and JB

Zone: 51 Easting: 401431 mE Northing: 6939121 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB96 Observer: ST and JB

Zone: 51 Easting: 401428 mE Northing: 6938889 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB97 Observer: ST and JB

Zone: 51 Easting: 401445 mE Northing: 6938522 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB98 Observer: ST and JB

Zone: 51 Easting: 401483 mE Northing: 6938268 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 | Habitat Assessment #: TB99 | Observer: ST and JB

Zone: 51 | Easting: 401720 mE | Northing: 6938227 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB100 Observer: ST and JB

Zone: 51 Easting: 402012 mE Northing: 6938283 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB101 Observer: ST and JB

Zone: 51 Easting: 401969 mE Northing: 6938564 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB102 Observer: ST and JB

Zone: 51 Easting: 401709 mE Northing: 6938586 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB103 Observer: ST and JB

Zone: 51 Easting: 401722 mE Northing: 6938879 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB104 Observer: ST and JB

Zone: 51 Easting: 402000 mE Northing: 6938836 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB105 Observer: ST and JB

Zone: 51 Easting: 401444 mE Northing: 6939475 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB106 Observer: ST and JB

Zone: 51 Easting: 401698 mE Northing: 6939442 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB107 Observer: ST and JB

Zone: 51 Easting: 402036 mE Northing: 6939383 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB108 Observer: ST and JB

Zone: 51 Easting: 402343 mE Northing: 6939370 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB109 Observer: ST and JB

Zone: 51 Easting: 402615 mE Northing: 6939366 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB110 Observer: ST and JB

Zone: 51 Easting: 402894 mE Northing: 6939367 mN

Fire History: > 5 years Landform: Gentle Slope Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB111 Observer: ST and JB

Zone: 51 Easting: 403142 mE Northing: 6939363 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB112 Observer: ST and JB

Zone: 51 Easting: 403485 mE Northing: 6939365 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB113 Observer: ST and JB

Zone: 51 Easting: 403803 mE Northing: 6939364 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB114 Observer: ST and JB

Zone: 51 Easting: 404156 mE Northing: 6939361 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB115 Observer: ST and JB

Zone: 51 Easting: 404421 mE Northing: 6939358 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB116 Observer: ST and JB

Zone: 51 Easting: 404659 mE Northing: 6939356 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB117 Observer: ST and JB

Zone: 51 Easting: 404560 mE Northing: 6939549 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB118 Observer: ST and JB

Zone: 51 Easting: 404333 mE Northing: 6939521 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Cobbles





TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB119 Observer: ST and JB

Zone: 51 Easting: 404097 mE Northing: 6939565 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB120 Observer: ST and JB

Zone: 51 Easting: 403784 mE Northing: 6939561 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB121 Observer: ST and JB

Zone: 51 Easting: 403508 mE Northing: 6939562 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB122 Observer: ST and JB

Zone: 51 Easting: 403180 mE Northing: 6939566 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand , Pebbles, Cobbles and Stones



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB123 Observer: ST and JB

Zone: 51 Easting: 402886 mE Northing: 6939566 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB124 Observer: ST and JB

Zone: 51 Easting: 402683 mE Northing: 6939566 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB125 Observer: ST and JB

Zone: 51 Easting: 402285 mE Northing: 6939568 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB126 Observer: ST and JB

Zone: 51 Easting: 401988 mE Northing: 6939572 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB127 Observer: ST and JB

Zone: 51 Easting: 401705 mE Northing: 6939558 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB128 Observer: ST and JB

Zone: 51 Easting: 401387 mE Northing: 6939628 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB129 Observer: ST and JB

Zone: 51 Easting: 401388 mE Northing: 6940009 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB130 Observer: ST and JB

Zone: 51 Easting: 401700 mE Northing: 6939983 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles





TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB131 Observer: ST and JB

Zone: 51 Easting: 402006 mE Northing: 6939973 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB132 Observer: ST and JB

Zone: 51 Easting: 402315 mE Northing: 6939964 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB133 Observer: ST and JB

Zone: 51 Easting: 402589 mE Northing: 6939962 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB134 Observer: ST and JB

Zone: 51 Easting: 402891 mE Northing: 6939962 mN

Fire History: > 5 years Landform: Gentle Slope Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB135 Observer: ST and JB

Zone: 51 Easting: 403231 mE Northing: 6939962 mN

Fire History: > 5 years Landform: Gentle Slope Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB136 Observer: ST and JB

Zone: 51 Easting: 403513 mE Northing: 6939962 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB137 Observer: ST and JB

Zone: 51 Easting: 403809 mE Northing: 6939961 mN

Fire History: > 5 years Landform: Gentle Slope Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/10/2022 Habitat Assessment #: TB138 Observer: ST and JB

Zone: 51 Easting: 404124 mE Northing: 6939962 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB139 Observer: ST and JB

Zone: 51 Easting: 404404 mE Northing: 6939882 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB140 Observer: ST and JB

Zone: 51 Easting: 404645 mE Northing: 6939859 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB141 Observer: ST and JB

Zone: 51 Easting: 404418 mE Northing: 6939734 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 | Habitat Assessment #: TB142 | Observer: ST and JB

Zone: 51 | Easting: 404151 mE | Northing: 6939758 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB143 Observer: ST and JB

Zone: 51 Easting: 403820 mE Northing: 6939760 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 | Habitat Assessment #: TB144 | Observer: ST and JB

Zone: 51 | Easting: 403499 mE | Northing: 6939762 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB145 Observer: ST and JB

Zone: 51 Easting: 403180 mE Northing: 6939760 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB146 Observer: ST and JB

Zone: 51 Easting: 402904 mE Northing: 6939756 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB147 Observer: ST and JB

Zone: 51 Easting: 402578 mE Northing: 6939755 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles





TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB148 Observer: ST and JB

Zone: 51 Easting: 402296 mE Northing: 6939769 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB149 Observer: ST and JB

Zone: 51 Easting: 401993 mE Northing: 6939761 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB150 Observer: ST and JB

Zone: 51 Easting: 401726 mE Northing: 6939759 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB151 Observer: ST and JB

Zone: 51 Easting: 401487 mE Northing: 6940182 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB152 Observer: ST and JB

Zone: 51 Easting: 401712 mE Northing: 6940157 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



Date: 7/10/2022 Habitat Assessment #: TB153 Observer: ST and JB

Zone: 51 Easting: 402021 mE Northing: 6940160 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 | Habitat Assessment #: TB154 | Observer: ST and JB

Zone: 51 | Easting: 402313 mE | Northing: 6940160 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB155 Observer: ST and JB

Zone: 51 Easting: 402613 mE Northing: 6940160 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles





TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB156 Observer: ST and JB

Zone: 51 Easting: 402907 mE Northing: 6940161 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB157 Observer: ST and JB

Zone: 51 Easting: 403208 mE Northing: 6940160 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB158 Observer: ST and JB

Zone: 51 Easting: 403553 mE Northing: 6940162 mN

Fire History: > 5 years Landform: Gentle Slope Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB159 Observer: ST and JB

Zone: 51 Easting: 403832 mE Northing: 6940160 mN

Fire History: > 5 years Landform: Gentle Slope Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB160 Observer: ST and JB

Zone: 51 Easting: 404120 mE Northing: 6940161 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB161 Observer: ST and JB

Zone: 51 Easting: 404408 mE Northing: 6940209 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB162 Observer: ST and JB

Zone: 51 Easting: 404646 mE Northing: 6940257 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



Date: 7/10/2022 Habitat Assessment #: TB163 Observer: ST and JB

Zone: 51 Easting: 404562 mE Northing: 6940480 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



Date: 7/10/2022 Habitat Assessment #: TB164 Observer: ST and JB

Zone: 51 Easting: 404380 mE Northing: 6940483 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB165 Observer: ST and JB

Zone: 51 Easting: 404143 mE Northing: 6940463 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB166 Observer: ST and JB

Zone: 51 Easting: 403794 mE Northing: 6940490 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB167 Observer: ST and JB

Zone: 51 Easting: 403633 mE Northing: 6940563 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB168 Observer: ST and JB

Zone: 51 Easting: 403461 mE Northing: 6940551 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB169 Observer: ST and JB

Zone: 51 Easting: 403182 mE Northing: 6940565 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB170 Observer: ST and JB

Zone: 51 Easting: 402881 mE Northing: 6940563 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB171 Observer: ST and JB

Zone: 51 Easting: 402592 mE Northing: 6940561 mN

Fire History: > 5 years Landform: Gentle Slope Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand , Pebbles, Cobbles and Stones



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB172 Observer: ST and JB

Zone: 51 Easting: 402273 mE Northing: 6940561 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



Date: 7/10/2022 Habitat Assessment #: TB173 Observer: ST and JB

Zone: 51 Easting: 401990 mE Northing: 6940552 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB174 Observer: ST and JB

Zone: 51 Easting: 401718 mE Northing: 6940512 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB175 Observer: ST and JB

Zone: 51 Easting: 401444 mE Northing: 6940533 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB176 Observer: ST and JB

Zone: 51 Easting: 401490 mE Northing: 6940783 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB177 Observer: ST and JB

Zone: 51 Easting: 401726 mE Northing: 6940827 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB178 Observer: ST and JB

Zone: 51 Easting: 402018 mE Northing: 6940816 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB179 Observer: ST and JB

Zone: 51 Easting: 402328 mE Northing: 6940759 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB180 Observer: ST and JB

Zone: 51 Easting: 402605 mE Northing: 6940759 mN

Fire History: > 5 years Landform: Gentle Slope Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB181 Observer: ST and JB

Zone: 51 Easting: 402900 mE Northing: 6940762 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB182 Observer: ST and JB

Zone: 51 Easting: 403208 mE Northing: 6940763 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



Date: 7/10/2022 Habitat Assessment #: TB183 Observer: ST and JB

Zone: 51 Easting: 403506 mE Northing: 6940784 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: TB184 Observer: ST and JB

Zone: 51 Easting: 403826 mE Northing: 6940837 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 | Habitat Assessment #: 136 | Observer: ST and JB

Zone: 51 | Easting: 403009 mE | Northing: 6941532 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 | Habitat Assessment #: 137 | Observer: ST and JB

Zone: 51 | Easting: 402937 mE | Northing: 6941773 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 | Habitat Assessment #: 138 | Observer: ST and JB

Zone: 51 | Easting: 402897 mE | Northing: 6941989 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 139 Observer: ST and JB

Zone: 51 Easting: 402825 mE Northing: 6942221 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 140 Observer: ST and JB

Zone: 51 Easting: 402774 mE Northing: 6942474 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 | Habitat Assessment #: 1 | Observer: ST and JB

Zone: 51 | Easting: 402744 mE | Northing: 6942564 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 | Habitat Assessment #: 2 | Observer: ST and JB

Zone: 51 | Easting: 403002 mE | Northing: 6942577 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 3 Observer: ST and JB

Zone: 51 Easting: 403000 mE Northing: 6942887 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 4 Observer: ST and JB

Zone: 51 Easting: 403010 mE Northing: 6943156 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 5 Observer: ST and JB

Zone: 51 Easting: 403364 mE Northing: 6943162 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 6 Observer: ST and JB

Zone: 51 Easting: 403403 mE Northing: 6942854 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 7 Observer: ST and JB

Zone: 51 Easting: 403396 mE Northing: 6942566 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 | Habitat Assessment #: 8 | Observer: ST and JB

Zone: 51 | Easting: 402739 mE | Northing: 6942878 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 | Habitat Assessment #: 9 | Observer: ST and JB

Zone: 51 | Easting: 402422 mE | Northing: 6942829 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 | Habitat Assessment #: 10 | Observer: ST and JB

Zone: 51 | Easting: 402136 mE | Northing: 6942755 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 11 Observer: ST and JB

Zone: 51 Easting: 401822 mE Northing: 6942761 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 12 Observer: ST and JB

Zone: 51 Easting: 401517 mE Northing: 6942760 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 13 Observer: ST and JB

Zone: 51 Easting: 401515 mE Northing: 6942560 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 14 Observer: ST and JB

Zone: 51 Easting: 401845 mE Northing: 6942559 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 | Habitat Assessment #: 15 | Observer: ST and JB

Zone: 51 | Easting: 402134 mE | Northing: 6942563 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 16 Observer: ST and JB

Zone: 51 Easting: 402430 mE Northing: 6942568 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 17 Observer: ST and JB

Zone: 51 Easting: 402136 mE Northing: 6942960 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



Date: 7/10/2022 Habitat Assessment #: 18 Observer: ST and JB

Zone: 51 Easting: 401841 mE Northing: 6942960 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



Date: 7/10/2022 Habitat Assessment #: 19 Observer: ST and JB

Zone: 51 Easting: 401537 mE Northing: 6942959 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 20 Observer: ST and JB

Zone: 51 Easting: 402721 mE Northing: 6943162 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 21 Observer: ST and JB

Zone: 51 Easting: 402451 mE Northing: 6943159 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 22 Observer: ST and JB

Zone: 51 Easting: 402140 mE Northing: 6943160 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 23 Observer: ST and JB

Zone: 51 Easting: 401832 mE Northing: 6943162 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 24 Observer: ST and JB

Zone: 51 Easting: 401538 mE Northing: 6943160 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



Date: 7/10/2022 Habitat Assessment #: 25 Observer: ST and JB

Zone: 51 Easting: 401232 mE Northing: 6943160 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 26 Observer: ST and JB

Zone: 51 Easting: 400929 mE Northing: 6943179 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 27 Observer: ST and JB

Zone: 51 Easting: 400635 mE Northing: 6943142 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 28 Observer: ST and JB

Zone: 51 Easting: 400349 mE Northing: 6943140 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 29 Observer: ST and JB

Zone: 51 Easting: 400385 mE Northing: 6943460 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 30 Observer: ST and JB

Zone: 51 Easting: 400655 mE Northing: 6943452 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 31 Observer: ST and JB

Zone: 51 Easting: 400931 mE Northing: 6943443 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 32 Observer: ST and JB

Zone: 51 Easting: 401263 mE Northing: 6943458 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 33 Observer: ST and JB

Zone: 51 Easting: 401562 mE Northing: 6943448 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 34 Observer: ST and JB

Zone: 51 Easting: 401846 mE Northing: 6943457 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



Date: 7/10/2022 Habitat Assessment #: 35 Observer: ST and JB

Zone: 51 Easting: 402133 mE Northing: 6943493 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 36 Observer: ST and JB

Zone: 51 Easting: 402450 mE Northing: 6943482 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 38 Observer: ST and JB

Zone: 51 Easting: 403064 mE Northing: 6943456 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 39 Observer: ST and JB

Zone: 51 Easting: 403380 mE Northing: 6943486 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 40 Observer: ST and JB

Zone: 51 Easting: 403350 mE Northing: 6943655 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 41 Observer: ST and JB

Zone: 51 Easting: 403029 mE Northing: 6943655 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 42 Observer: ST and JB

Zone: 51 Easting: 402713 mE Northing: 6943661 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 43 Observer: ST and JB

Zone: 51 Easting: 402407 mE Northing: 6943647 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



Date: 7/10/2022 Habitat Assessment #: 44 Observer: ST and JB

Zone: 51 Easting: 402125 mE Northing: 6943660 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 45 Observer: ST and JB

Zone: 51 Easting: 401848 mE Northing: 6943660 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 46 Observer: ST and JB

Zone: 51 Easting: 401555 mE Northing: 6943671 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 47 Observer: ST and JB

Zone: 51 Easting: 401226 mE Northing: 6943763 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



Date: 7/10/2022 Habitat Assessment #: 48 Observer: ST and JB

Zone: 51 Easting: 400917 mE Northing: 6943760 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



Date: 7/10/2022 Habitat Assessment #: 49 Observer: ST and JB

Zone: 51 Easting: 400629 mE Northing: 6943754 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 50 Observer: ST and JB

Zone: 51 Easting: 400345 mE Northing: 6943770 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



Date: 7/10/2022 Habitat Assessment #: 51 Observer: ST and JB

Zone: 51 Easting: 400337 mE Northing: 6944077 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



Date: 7/10/2022 Habitat Assessment #: 52 Observer: ST and JB

Zone: 51 Easting: 400661 mE Northing: 6944074 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 53 Observer: ST and JB

Zone: 51 Easting: 400946 mE Northing: 6944070 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 54 Observer: ST and JB

Zone: 51 Easting: 401260 mE Northing: 6944061 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 55 Observer: ST and JB

Zone: 51 Easting: 401543 mE Northing: 6944089 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



Date: 7/10/2022 Habitat Assessment #: 56 Observer: ST and JB

Zone: 51 Easting: 401847 mE Northing: 6944064 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 57 Observer: ST and JB

Zone: 51 Easting: 402186 mE Northing: 6944066 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 58 Observer: ST and JB

Zone: 51 Easting: 402448 mE Northing: 6944017 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 59 Observer: ST and JB

Zone: 51 Easting: 402768 mE Northing: 6944069 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 60 Observer: ST and JB

Zone: 51 Easting: 403050 mE Northing: 6944049 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 61 Observer: ST and JB

Zone: 51 Easting: 403350 mE Northing: 6944069 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



Date: 7/10/2022 Habitat Assessment #: 62 Observer: ST and JB

Zone: 51 Easting: 403339 mE Northing: 6944377 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



Date: 7/10/2022 Habitat Assessment #: 63 Observer: ST and JB

Zone: 51 Easting: 403040 mE Northing: 6944381 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Good Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 64 Observer: ST and JB

Zone: 51 Easting: 402722 mE Northing: 6944396 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Good Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 65 Observer: ST and JB

Zone: 51 Easting: 402451 mE Northing: 6944356 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 66 Observer: ST and JB

Zone: 51 Easting: 402129 mE Northing: 6944379 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 67 Observer: ST and JB

Zone: 51 Easting: 401963 mE Northing: 6944381 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Completely degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 68 Observer: ST and JB

Zone: 51 Easting: 401831 mE Northing: 6944364 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 69 Observer: ST and JB

Zone: 51 Easting: 401545 mE Northing: 6944361 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 70 Observer: ST and JB

Zone: 51 Easting: 401200 mE Northing: 6944404 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 71 Observer: ST and JB

Zone: 51 Easting: 400903 mE Northing: 6944343 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 72 Observer: ST and JB

Zone: 51 Easting: 400626 mE Northing: 6944344 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 73 Observer: ST and JB

Zone: 51 Easting: 400338 mE Northing: 6944381 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 74 Observer: ST and JB

Zone: 51 Easting: 400338 mE Northing: 6944556 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



Date: 7/10/2022 Habitat Assessment #: 75 Observer: ST and JB

Zone: 51 Easting: 400659 mE Northing: 6944560 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 76 Observer: ST and JB

Zone: 51 Easting: 400951 mE Northing: 6944564 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 77 Observer: ST and JB

Zone: 51 Easting: 401237 mE Northing: 6944561 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 78 Observer: ST and JB

Zone: 51 Easting: 401544 mE Northing: 6944564 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 79 Observer: ST and JB

Zone: 51 Easting: 401846 mE Northing: 6944555 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Completely degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 80 Observer: ST and JB

Zone: 51 Easting: 402123 mE Northing: 6944571 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 81 Observer: ST and JB

Zone: 51 Easting: 402428 mE Northing: 6944563 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 82 Observer: ST and JB

Zone: 51 Easting: 402763 mE Northing: 6944563 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 83 Observer: ST and JB

Zone: 51 Easting: 403044 mE Northing: 6944563 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 84 Observer: ST and JB

Zone: 51 Easting: 403374 mE Northing: 6944564 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 85 Observer: ST and JB

Zone: 51 Easting: 403397 mE Northing: 6944806 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 86 Observer: ST and JB

Zone: 51 Easting: 403038 mE Northing: 6944836 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 87 Observer: ST and JB

Zone: 51 Easting: 402732 mE Northing: 6944924 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 | Habitat Assessment #: 88 | Observer: ST and JB

Zone: 51 | Easting: 402413 mE | Northing: 6944921 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Good | Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 89 Observer: ST and JB

Zone: 51 Easting: 402152 mE Northing: 6944919 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Good Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 90 Observer: ST and JB

Zone: 51 Easting: 401837 mE Northing: 6944900 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



Date: 7/10/2022 Habitat Assessment #: 91 Observer: ST and JB

Zone: 51 Easting: 401528 mE Northing: 6944892 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 92 Observer: ST and JB

Zone: 51 Easting: 401241 mE Northing: 6944915 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 93 Observer: ST and JB

Zone: 51 Easting: 400930 mE Northing: 6944921 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Good Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 94 Observer: ST and JB

Zone: 51 Easting: 400635 mE Northing: 6944931 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Good Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 | Habitat Assessment #: 95 | Observer: ST and JB

Zone: 51 | Easting: 400333 mE | Northing: 6944945 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Good | Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 96 Observer: ST and JB

Zone: 51 Easting: 400355 mE Northing: 6945265 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Good Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 97 Observer: ST and JB

Zone: 51 Easting: 400647 mE Northing: 6945219 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Good Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 98 Observer: ST and JB

Zone: 51 Easting: 400916 mE Northing: 6945265 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 99 Observer: ST and JB

Zone: 51 Easting: 401251 mE Northing: 6945249 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 100 Observer: ST and JB

Zone: 51 Easting: 401541 mE Northing: 6945229 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 101 Observer: ST and JB

Zone: 51 Easting: 401844 mE Northing: 6945285 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Good Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 102 Observer: ST and JB

Zone: 51 Easting: 402170 mE Northing: 6945279 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Good Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 103 Observer: ST and JB

Zone: 51 Easting: 402415 mE Northing: 6945358 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 104 Observer: ST and JB

Zone: 51 Easting: 402757 mE Northing: 6945361 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 105 Observer: ST and JB

Zone: 51 Easting: 402887 mE Northing: 6945571 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 106 Observer: ST and JB

Zone: 51 Easting: 402705 mE Northing: 6945585 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 107 Observer: ST and JB

Zone: 51 Easting: 402427 mE Northing: 6945588 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Good Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 | Habitat Assessment #: 109 | Observer: ST and JB

Zone: 51 | Easting: 402170 mE | Northing: 6945602 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Good | Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 110 Observer: ST and JB

Zone: 51 Easting: 401824 mE Northing: 6945582 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Good Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 111 Observer: ST and JB

Zone: 51 Easting: 401528 mE Northing: 6945571 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Good Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 | Habitat Assessment #: 112 | Observer: ST and JB

Zone: 51 | Easting: 401242 mE | Northing: 6945521 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Good | Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 113 Observer: ST and JB

Zone: 51 Easting: 400961 mE Northing: 6945596 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 114 Observer: ST and JB

Zone: 51 Easting: 400622 mE Northing: 6945575 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Good Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 115 Observer: ST and JB

Zone: 51 Easting: 400337 mE Northing: 6945577 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Good Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 116 Observer: ST and JB

Zone: 51 Easting: 400340 mE Northing: 6945847 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 117 Observer: ST and JB

Zone: 51 Easting: 400621 mE Northing: 6945854 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Good Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 118 Observer: ST and JB

Zone: 51 Easting: 400946 mE Northing: 6945889 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Good Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 119 Observer: ST and JB

Zone: 51 Easting: 401245 mE Northing: 6945878 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Good Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 120 Observer: ST and JB

Zone: 51 Easting: 401535 mE Northing: 6945921 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 121 Observer: ST and JB

Zone: 51 Easting: 401842 mE Northing: 6945896 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Good Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 122 Observer: ST and JB

Zone: 51 Easting: 402140 mE Northing: 6945897 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



Date: 7/10/2022 Habitat Assessment #: 123 Observer: ST and JB

Zone: 51 Easting: 402448 mE Northing: 6945859 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Good Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 124 Observer: ST and JB

Zone: 51 Easting: 402747 mE Northing: 6945902 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Good Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 125 Observer: ST and JB

Zone: 51 Easting: 402850 mE Northing: 6946076 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 126 Observer: ST and JB

Zone: 51 Easting: 402970 mE Northing: 6946143 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 127 Observer: ST and JB

Zone: 51 Easting: 402693 mE Northing: 6946144 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 128 Observer: ST and JB

Zone: 51 Easting: 402413 mE Northing: 6946134 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 129 Observer: ST and JB

Zone: 51 Easting: 402103 mE Northing: 6946143 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



Date: 7/10/2022 Habitat Assessment #: 130 Observer: ST and JB

Zone: 51 Easting: 401834 mE Northing: 6946154 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 131 Observer: ST and JB

Zone: 51 Easting: 401543 mE Northing: 6946156 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 132 Observer: ST and JB

Zone: 51 Easting: 401240 mE Northing: 6946164 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 133 Observer: ST and JB

Zone: 51 Easting: 400944 mE Northing: 6946156 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 134 Observer: ST and JB

Zone: 51 Easting: 400641 mE Northing: 6946165 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/10/2022 Habitat Assessment #: 135 Observer: ST and JB

Zone: 51 Easting: 400316 mE Northing: 6946161 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland over spinifex

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-C1 Observer: ST and JB

Zone: 51 Easting: 414121 mE Northing: 6936384 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-C2 Observer: ST and JB

Zone: 51 Easting: 414299 mE Northing: 6936633 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-C3 Observer: ST and JB

Zone: 51 Easting: 414546 mE Northing: 6936690 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



Date: 8/10/2022 Habitat Assessment #: B-C4 Observer: ST and JB

Zone: 51 Easting: 414804 mE Northing: 6936700 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-C5 Observer: ST and JB

Zone: 51 Easting: 415063 mE Northing: 6936743 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-C6 Observer: ST and JB

Zone: 51 Easting: 415388 mE Northing: 6936768 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



Date: 8/10/2022 Habitat Assessment #: B-C7 Observer: ST and JB

Zone: 51 Easting: 415617 mE Northing: 6936939 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-C8 Observer: ST and JB

Zone: 51 Easting: 415838 mE Northing: 6937123 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-C9 Observer: ST and JB

Zone: 51 Easting: 416026 mE Northing: 6937466 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



Date: 8/10/2022 Habitat Assessment #: B-C10 Observer: ST and JB

Zone: 51 Easting: 416218 mE Northing: 6937711 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



Date: 8/10/2022 | Habitat Assessment #: B-C11 | Observer: ST and JB

Zone: 51 | Easting: 416501 mE | Northing: 6937843 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-C12 Observer: ST and JB

Zone: 51 Easting: 416720 mE Northing: 6938148 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 | Habitat Assessment #: B-C13 | Observer: ST and JB

Zone: 51 | Easting: 416951 mE | Northing: 6938417 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand and Pebbles



Date: 8/10/2022 Habitat Assessment #: B-C14 Observer: ST and JB

Zone: 51 Easting: 417110 mE Northing: 6938705 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



Date: 8/10/2022 Habitat Assessment #: B-C15 Observer: ST and JB

Zone: 51 Easting: 417253 mE Northing: 6939016 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-C16 Observer: ST and JB

Zone: 51 Easting: 417384 mE Northing: 6939303 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-C17 Observer: ST and JB

Zone: 51 Easting: 417550 mE Northing: 6939581 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-C18 Observer: ST and JB

Zone: 51 Easting: 417766 mE Northing: 6939835 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



Date: 8/10/2022 Habitat Assessment #: B-C19 Observer: ST and JB

Zone: 51 Easting: 418009 mE Northing: 6940117 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



Date: 8/10/2022 | Habitat Assessment #: B-C20 | Observer: ST and JB

Zone: 51 | Easting: 418310 mE | Northing: 6940332 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 | Habitat Assessment #: B-C21 | Observer: ST and JB

Zone: 51 | Easting: 418533 mE | Northing: 6940607 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand and Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-C22 Observer: ST and JB

Zone: 51 Easting: 418793 mE Northing: 6940868 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



Date: 8/10/2022 Habitat Assessment #: B-C23 Observer: ST and JB

Zone: 51 Easting: 419057 mE Northing: 6941106 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-C24 Observer: ST and JB

Zone: 51 Easting: 419315 mE Northing: 6941348 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-C25 Observer: ST and JB

Zone: 51 Easting: 419557 mE Northing: 6941552 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



Date: 8/10/2022 Habitat Assessment #: B-C26 Observer: ST and JB

Zone: 51 Easting: 419707 mE Northing: 6941801 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-C27 Observer: ST and JB

Zone: 51 Easting: 419947 mE Northing: 6942030 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-C28 Observer: ST and JB

Zone: 51 Easting: 420161 mE Northing: 6942204 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-C29 Observer: ST and JB

Zone: 51 Easting: 420390 mE Northing: 6942480 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-C30 Observer: ST and JB

Zone: 51 Easting: 420620 mE Northing: 6942723 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-C31 Observer: ST and JB

Zone: 51 Easting: 420863 mE Northing: 6942933 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-C32 Observer: ST and JB

Zone: 51 Easting: 421114 mE Northing: 6943134 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-C33 Observer: ST and JB

Zone: 51 Easting: 421290 mE Northing: 6943392 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



Date: 8/10/2022 Habitat Assessment #: B-C34 Observer: ST and JB

Zone: 51 Easting: 421527 mE Northing: 6943619 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand , Pebbles, Cobbles and Stones



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 | Habitat Assessment #: B-C35 | Observer: ST and JB

Zone: 51 | Easting: 421759 mE | Northing: 6943827 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 | Habitat Assessment #: B-C36 | Observer: ST and JB

Zone: 51 | Easting: 421959 mE | Northing: 6944096 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 | Habitat Assessment #: B-C37 | Observer: ST and JB

Zone: 51 | Easting: 422269 mE | Northing: 6944356 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 | Habitat Assessment #: B-C38 | Observer: ST and JB

Zone: 51 | Easting: 422531 mE | Northing: 6944589 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand , Pebbles, Cobbles and Stones



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-C39 Observer: ST and JB

Zone: 51 Easting: 422780 mE Northing: 6944832 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand , Pebbles, Cobbles and Stones



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 | Habitat Assessment #: B-C40 | Observer: ST and JB

Zone: 51 | Easting: 423062 mE | Northing: 6945017 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 | Habitat Assessment #: B-C41 | Observer: ST and JB

Zone: 51 | Easting: 423345 mE | Northing: 6945233 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-TB1 Observer: ST and JB

Zone: 51 Easting: 413304 mE Northing: 6936232 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-TB2 Observer: ST and JB

Zone: 51 Easting: 412907 mE Northing: 6936431 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 | Habitat Assessment #: B-TB3 | Observer: ST and JB

Zone: 51 | Easting: 412498 mE | Northing: 6936538 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 | Habitat Assessment #: B-TB4 | Observer: ST and JB

Zone: 51 | Easting: 412146 mE | Northing: 6936623 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

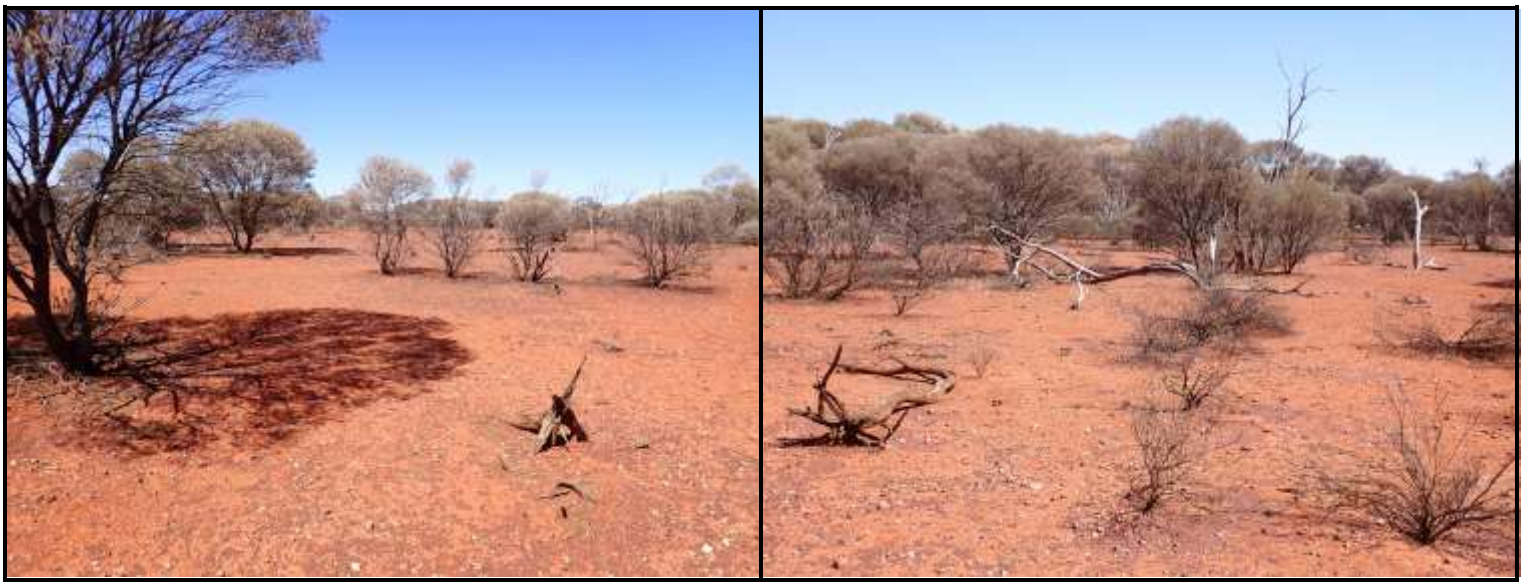
Date: 8/10/2022 | Habitat Assessment #: B-TB5 | Observer: ST and JB

Zone: 51 | Easting: 411839 mE | Northing: 6936739 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-TB6 Observer: ST and JB

Zone: 51 Easting: 411452 mE Northing: 6936791 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 | Habitat Assessment #: B-TB7 | Observer: ST and JB

Zone: 51 | Easting: 411113 mE | Northing: 6936982 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-TB8 Observer: ST and JB

Zone: 51 Easting: 410727 mE Northing: 6937072 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-TB9 Observer: ST and JB

Zone: 51 Easting: 410402 mE Northing: 6937174 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 | Habitat Assessment #: B-TB10 | Observer: ST and JB

Zone: 51 | Easting: 410057 mE | Northing: 6937248 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-TB11 Observer: ST and JB

Zone: 51 Easting: 409749 mE Northing: 6937428 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-TB12 Observer: ST and JB

Zone: 51 Easting: 409410 mE Northing: 6937501 mN

Fire History: > 5 years Landform: Gentle Slope Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



Date: 8/10/2022 Habitat Assessment #: B-TB13 Observer: ST and JB

Zone: 51 Easting: 409126 mE Northing: 6937657 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-TB14 Observer: ST and JB

Zone: 51 Easting: 408747 mE Northing: 6937677 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 | Habitat Assessment #: B-TB15 | Observer: ST and JB

Zone: 51 | Easting: 408469 mE | Northing: 6937822 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 | Habitat Assessment #: B-TB16 | Observer: ST and JB

Zone: 51 | Easting: 408129 mE | Northing: 6937967 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 | Habitat Assessment #: B-TB17 | Observer: ST and JB

Zone: 51 | Easting: 407789 mE | Northing: 6938074 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-TB18 Observer: ST and JB

Zone: 51 Easting: 407523 mE Northing: 6938126 mN

Fire History: > 5 years Landform: Gentle Slope Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



Date: 8/10/2022 Habitat Assessment #: B-TB19 Observer: ST and JB

Zone: 51 Easting: 407148 mE Northing: 6938255 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-TB20 Observer: ST and JB

Zone: 51 Easting: 406857 mE Northing: 6938370 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-TB21 Observer: ST and JB

Zone: 51 Easting: 406501 mE Northing: 6938444 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-TB22 Observer: ST and JB

Zone: 51 Easting: 406262 mE Northing: 6938537 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-TB23 Observer: ST and JB

Zone: 51 Easting: 405877 mE Northing: 6938661 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 | Habitat Assessment #: B-TB24 | Observer: ST and JB

Zone: 51 | Easting: 405556 mE | Northing: 6938800 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 | Habitat Assessment #: B-TB25 | Observer: ST and JB

Zone: 51 | Easting: 405233 mE | Northing: 6938865 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-TB26 Observer: ST and JB

Zone: 51 Easting: 404991 mE Northing: 6939029 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/10/2022 Habitat Assessment #: B-TB27 Observer: ST and JB

Zone: 51 Easting: 404752 mE Northing: 6938997 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB1 Observer: ST and JB

Zone: 51 Easting: 422947 mE Northing: 6921175 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB2 Observer: ST and JB

Zone: 51 Easting: 422812 mE Northing: 6921462 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB3 Observer: ST and JB

Zone: 51 Easting: 422689 mE Northing: 6921741 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 | Habitat Assessment #: B-DB4 | Observer: ST and JB

Zone: 51 | Easting: 422588 mE | Northing: 6921929 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB5 Observer: ST and JB

Zone: 51 Easting: 422438 mE Northing: 6922181 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB6 Observer: ST and JB

Zone: 51 Easting: 422390 mE Northing: 6922433 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB7 Observer: ST and JB

Zone: 51 Easting: 422286 mE Northing: 6922500 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB8 Observer: ST and JB

Zone: 51 Easting: 422254 mE Northing: 6922808 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB9 Observer: ST and JB

Zone: 51 Easting: 422085 mE Northing: 6923103 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB10 Observer: ST and JB

Zone: 51 Easting: 421923 mE Northing: 6923393 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB11 Observer: ST and JB

Zone: 51 Easting: 421803 mE Northing: 6923656 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB12 Observer: ST and JB

Zone: 51 Easting: 421652 mE Northing: 6923925 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB13 Observer: ST and JB

Zone: 51 Easting: 421531 mE Northing: 6924220 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB14 Observer: ST and JB

Zone: 51 Easting: 421429 mE Northing: 6924492 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB15 Observer: ST and JB

Zone: 51 Easting: 421240 mE Northing: 6924889 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 | Habitat Assessment #: B-DB16 | Observer: ST and JB

Zone: 51 | Easting: 421116 mE | Northing: 6925205 mN

Fire History: > 5 years | Landform: Flat Plain | Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition | Surface: Sand, Pebbles and Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB17 Observer: ST and JB

Zone: 51 Easting: 420965 mE Northing: 6925500 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB18 Observer: ST and JB

Zone: 51 Easting: 420918 mE Northing: 6925788 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB19 Observer: ST and JB

Zone: 51 Easting: 420716 mE Northing: 6926041 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB20 Observer: ST and JB

Zone: 51 Easting: 420649 mE Northing: 6926301 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB21 Observer: ST and JB

Zone: 51 Easting: 420498 mE Northing: 6926599 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB22 Observer: ST and JB

Zone: 51 Easting: 420352 mE Northing: 6926906 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB23 Observer: ST and JB

Zone: 51 Easting: 420210 mE Northing: 6927226 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB24 Observer: ST and JB

Zone: 51 Easting: 420073 mE Northing: 6927548 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB25 Observer: ST and JB

Zone: 51 Easting: 419890 mE Northing: 6927822 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB26 Observer: ST and JB

Zone: 51 Easting: 419768 mE Northing: 6928091 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB27 Observer: ST and JB

Zone: 51 Easting: 419738 mE Northing: 6928358 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB28 Observer: ST and JB

Zone: 51 Easting: 419583 mE Northing: 6928588 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB29 Observer: ST and JB

Zone: 51 Easting: 419466 mE Northing: 6928855 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB30 Observer: ST and JB

Zone: 51 Easting: 419250 mE Northing: 6929192 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB31 Observer: ST and JB

Zone: 51 Easting: 419192 mE Northing: 6929514 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB32 Observer: ST and JB

Zone: 51 Easting: 418984 mE Northing: 6929642 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB33 Observer: ST and JB

Zone: 51 Easting: 418802 mE Northing: 6929914 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB34 Observer: ST and JB

Zone: 51 Easting: 418638 mE Northing: 6930129 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB35 Observer: ST and JB

Zone: 51 Easting: 418475 mE Northing: 6930386 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB36 Observer: ST and JB

Zone: 51 Easting: 418271 mE Northing: 6930547 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/10/2022 Habitat Assessment #: B-DB37 Observer: ST and JB

Zone: 51 Easting: 418134 mE Northing: 6930756 mN

Fire History: > 5 years Landform: Flat Plain Soil Type: Sandy Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Sand and Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH1 Observer: GF and JR

Zone: 51 Easting: 433738 mE Northing: 6913024 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH2 Observer: GF and JR

Zone: 51 Easting: 434042 mE Northing: 6913085 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH3 Observer: GF and JR

Zone: 51 Easting: 434336 mE Northing: 6913003 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH4 Observer: GF and JR

Zone: 51 Easting: 434630 mE Northing: 6912944 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH5 Observer: GF and JR

Zone: 51 Easting: 434920 mE Northing: 6912873 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH6 Observer: GF and JR

Zone: 51 Easting: 435105 mE Northing: 6912826 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH7 Observer: GF and JR

Zone: 51 Easting: 433431 mE Northing: 6913012 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH8 Observer: GF and JR

Zone: 51 Easting: 433137 mE Northing: 6913008 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH9 Observer: GF and JR

Zone: 51 Easting: 432838 mE Northing: 6913130 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH10 Observer: GF and JR

Zone: 51 Easting: 432556 mE Northing: 6913036 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH11 Observer: GF and JR

Zone: 51 Easting: 432244 mE Northing: 6913039 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles and stones



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH12 Observer: GF and JR

Zone: 51 Easting: 431935 mE Northing: 6913164 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Reasonable condition Surface: Cobbles and stones



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH13 Observer: GF and JR

Zone: 51 Easting: 431352 mE Northing: 6913007 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH14 Observer: GF and JR

Zone: 51 Easting: 430839 mE Northing: 6910691 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Reasonable condition Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH15 Observer: GF and JR

Zone: 51 Easting: 430802 mE Northing: 6910423 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH16 Observer: GF and JR

Zone: 51 Easting: 430782 mE Northing: 6910120 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH17 Observer: GF and JR

Zone: 51 Easting: 430719 mE Northing: 6909827 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH18 Observer: GF and JR

Zone: 51 Easting: 431646 mE Northing: 6913030 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Reasonable condition Surface: Sand and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH19 Observer: GF and JR

Zone: 51 Easting: 430682 mE Northing: 6909537 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH20 Observer: GF and JR

Zone: 51 Easting: 430496 mE Northing: 6909271 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH21 Observer: GF and JR

Zone: 51 Easting: 430160 mE Northing: 6909119 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH22 Observer: GF and JR

Zone: 51 Easting: 429885 mE Northing: 6908988 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH23 Observer: GF and JR

Zone: 51 Easting: 429568 mE Northing: 6908993 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH24 Observer: GF and JR

Zone: 51 Easting: 429251 mE Northing: 6909146 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH25 Observer: GF and JR

Zone: 51 Easting: 429083 mE Northing: 6909394 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH26 Observer: GF and JR

Zone: 51 Easting: 428931 mE Northing: 6909656 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH27 Observer: GF and JR

Zone: 51 Easting: 428801 mE Northing: 6909924 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH28 Observer: GF and JR

Zone: 51 Easting: 428650 mE Northing: 6910182 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH29 Observer: GF and JR

Zone: 51 Easting: 428479 mE Northing: 6910433 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH30 Observer: GF and JR

Zone: 51 Easting: 428282 mE Northing: 6910665 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH31 Observer: GF and JR

Zone: 51 Easting: 428121 mE Northing: 6910913 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH32 Observer: GF and JR

Zone: 51 Easting: 427884 mE Northing: 6911119 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH33 Observer: GF and JR

Zone: 51 Easting: 425967 mE Northing: 6913958 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Fair condition Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH34 Observer: GF and JR

Zone: 51 Easting: 425849 mE Northing: 6914235 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH35 Observer: GF and JR

Zone: 51 Easting: 425731 mE Northing: 6914516 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH36 Observer: GF and JR

Zone: 51 Easting: 425623 mE Northing: 6914785 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH37 Observer: GF and JR

Zone: 51 Easting: 425507 mE Northing: 6915065 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH38 Observer: GF and JR

Zone: 51 Easting: 425383 mE Northing: 6915342 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH39 Observer: GF and JR

Zone: 51 Easting: 425260 mE Northing: 6915626 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH40 Observer: GF and JR

Zone: 51 Easting: 425149 mE Northing: 6915894 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH41 Observer: GF and JR

Zone: 51 Easting: 425028 mE Northing: 6916180 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH42 Observer: GF and JR

Zone: 51 Easting: 424908 mE Northing: 6916462 mN

Fire History: > 5 years Landform: Ephemeral creek Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH43 Observer: GF and JR

Zone: 51 Easting: 424679 mE Northing: 6917007 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 6/04/2022 Habitat Assessment #: KJH44 Observer: GF and JR

Zone: 51 Easting: 424793 mE Northing: 6916738 mN

Fire History: > 5 years Landform: Ephemeral creek Soil Type: River sand

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V1 Observer: GF and JR

Zone: 51 Easting: 435547 mE Northing: 6935458 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V2 Observer: GF and JR

Zone: 51 Easting: 435490 mE Northing: 6935621 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V3 Observer: GF and JR

Zone: 51 Easting: 435181 mE Northing: 6935549 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V4 Observer: GF and JR

Zone: 51 Easting: 434906 mE Northing: 6935485 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V5 Observer: GF and JR

Zone: 51 Easting: 434718 mE Northing: 6935646 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V6 Observer: GF and JR

Zone: 51 Easting: 435022 mE Northing: 6935717 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V7 Observer: GF and JR

Zone: 51 Easting: 435304 mE Northing: 6935785 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V8 Observer: GF and JR

Zone: 51 Easting: 435594 mE Northing: 6935841 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V9 Observer: GF and JR

Zone: 51 Easting: 435589 mE Northing: 6936097 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V10 Observer: GF and JR

Zone: 51 Easting: 435277 mE Northing: 6936108 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V11 Observer: GF and JR

Zone: 51 Easting: 434982 mE Northing: 6936119 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V12 Observer: GF and JR

Zone: 51 Easting: 434680 mE Northing: 6936049 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V13 Observer: GF and JR

Zone: 51 Easting: 434583 mE Northing: 6936325 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V14 Observer: GF and JR

Zone: 51 Easting: 434886 mE Northing: 6936384 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V15 Observer: GF and JR

Zone: 51 Easting: 435179 mE Northing: 6936410 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V16 Observer: GF and JR

Zone: 51 Easting: 435435 mE Northing: 6936424 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V17 Observer: GF and JR

Zone: 51 Easting: 435469 mE Northing: 6936708 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V18 Observer: GF and JR

Zone: 51 Easting: 435167 mE Northing: 6936660 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V19 Observer: GF and JR

Zone: 51 Easting: 434875 mE Northing: 6936621 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V20 Observer: GF and JR

Zone: 51 Easting: 434582 mE Northing: 6936542 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V21 Observer: GF and JR

Zone: 51 Easting: 434459 mE Northing: 6936816 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V22 Observer: GF and JR

Zone: 51 Easting: 434754 mE Northing: 6936885 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V23 Observer: GF and JR

Zone: 51 Easting: 435057 mE Northing: 6936948 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V24 Observer: GF and JR

Zone: 51 Easting: 435343 mE Northing: 6937019 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V25 Observer: GF and JR

Zone: 51 Easting: 435623 mE Northing: 6937078 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V26 Observer: GF and JR

Zone: 51 Easting: 435624 mE Northing: 6937392 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V27 Observer: GF and JR

Zone: 51 Easting: 435325 mE Northing: 6937328 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V28 Observer: GF and JR

Zone: 51 Easting: 435035 mE Northing: 6937274 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V29 Observer: GF and JR

Zone: 51 Easting: 434740 mE Northing: 6937200 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V30 Observer: GF and JR

Zone: 51 Easting: 434446 mE Northing: 6937130 mN

Fire History: > 5 years Landform: Gentle slope Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V31 Observer: GF and JR

Zone: 51 Easting: 434335 mE Northing: 6937350 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V32 Observer: GF and JR

Zone: 51 Easting: 434631 mE Northing: 6937420 mN

Fire History: > 5 years Landform: Gentle slope Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V33 Observer: GF and JR

Zone: 51 Easting: 434932 mE Northing: 6937495 mN

Fire History: > 5 years Landform: Gentle slope Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V34 Observer: GF and JR

Zone: 51 Easting: 435219 mE Northing: 6937545 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V35 Observer: GF and JR

Zone: 51 Easting: 435519 mE Northing: 6937577 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V36 Observer: GF and JR

Zone: 51 Easting: 435650 mE Northing: 6937852 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V37 Observer: GF and JR

Zone: 51 Easting: 435351 mE Northing: 6937815 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V38 Observer: GF and JR

Zone: 51 Easting: 435037 mE Northing: 6937763 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V39 Observer: GF and JR

Zone: 51 Easting: 434743 mE Northing: 6937695 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V40 Observer: GF and JR

Zone: 51 Easting: 434462 mE Northing: 6937628 mN

Fire History: > 5 years Landform: Gentle slope Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V41 Observer: GF and JR

Zone: 51 Easting: 434266 mE Northing: 6937583 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V42 Observer: GF and JR

Zone: 51 Easting: 434191 mE Northing: 6937895 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V43 Observer: GF and JR

Zone: 51 Easting: 434481 mE Northing: 6937962 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V44 Observer: GF and JR

Zone: 51 Easting: 434792 mE Northing: 6938034 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 | Habitat Assessment #: V45 | Observer: GF and JR

Zone: 51 | Easting: 435076 mE | Northing: 6938104 mN

Fire History: > 5 years | Landform: Flatplain | Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded | Surface: Sand, pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V46 Observer: GF and JR

Zone: 51 Easting: 435382 mE Northing: 6938095 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V47 Observer: GF and JR

Zone: 51 Easting: 435649 mE Northing: 6938116 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V48 Observer: GF and JR

Zone: 51 Easting: 435126 mE Northing: 6938370 mN

Fire History: > 5 years Landform: Gentle slope Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V49 Observer: GF and JR

Zone: 51 Easting: 434819 mE Northing: 6938285 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V50 Observer: GF and JR

Zone: 51 Easting: 434540 mE Northing: 6938219 mN

Fire History: > 5 years Landform: Gentle slope Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V51 Observer: GF and JR

Zone: 51 Easting: 434242 mE Northing: 6938150 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V52 Observer: GF and JR

Zone: 51 Easting: 434085 mE Northing: 6938360 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V53 Observer: GF and JR

Zone: 51 Easting: 434379 mE Northing: 6938429 mN

Fire History: > 5 years Landform: Gentle slope Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V54 Observer: GF and JR

Zone: 51 Easting: 434674 mE Northing: 6938499 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V55 Observer: GF and JR

Zone: 51 Easting: 434960 mE Northing: 6938564 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V56 Observer: GF and JR

Zone: 51 Easting: 435146 mE Northing: 6938610 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V57 Observer: GF and JR

Zone: 51 Easting: 435124 mE Northing: 6938810 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V58 Observer: GF and JR

Zone: 51 Easting: 434825 mE Northing: 6938778 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V59 Observer: GF and JR

Zone: 51 Easting: 434525 mE Northing: 6938707 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V60 Observer: GF and JR

Zone: 51 Easting: 434229 mE Northing: 6938640 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V61 Observer: GF and JR

Zone: 51 Easting: 434039 mE Northing: 6938596 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V62 Observer: GF and JR

Zone: 51 Easting: 433981 mE Northing: 6938771 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V63 Observer: GF and JR

Zone: 51 Easting: 434251 mE Northing: 6938810 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V64 Observer: GF and JR

Zone: 51 Easting: 434573 mE Northing: 6938857 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V65 Observer: GF and JR

Zone: 51 Easting: 433693 mE Northing: 6938678 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V66 Observer: GF and JR

Zone: 51 Easting: 433419 mE Northing: 6938655 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V67 Observer: GF and JR

Zone: 51 Easting: 433403 mE Northing: 6938839 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V68 Observer: GF and JR

Zone: 51 Easting: 433656 mE Northing: 6938837 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V69 Observer: GF and JR

Zone: 51 Easting: 433920 mE Northing: 6938847 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V70 Observer: GF and JR

Zone: 51 Easting: 433751 mE Northing: 6938525 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V71 Observer: GF and JR

Zone: 51 Easting: 433448 mE Northing: 6938447 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V72 Observer: GF and JR

Zone: 51 Easting: 433414 mE Northing: 6938151 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V73 Observer: GF and JR

Zone: 51 Easting: 433708 mE Northing: 6938209 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V74 Observer: GF and JR

Zone: 51 Easting: 433951 mE Northing: 6938330 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V75 Observer: GF and JR

Zone: 51 Easting: 433951 mE Northing: 6938084 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V76 Observer: GF and JR

Zone: 51 Easting: 433651 mE Northing: 6938015 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V77 Observer: GF and JR

Zone: 51 Easting: 433405 mE Northing: 6937959 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V78 Observer: GF and JR

Zone: 51 Easting: 433434 mE Northing: 6937653 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V79 Observer: GF and JR

Zone: 51 Easting: 433697 mE Northing: 6937800 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V80 Observer: GF and JR

Zone: 51 Easting: 434008 mE Northing: 6937849 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V81 Observer: GF and JR

Zone: 51 Easting: 433964 mE Northing: 6937509 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V82 Observer: GF and JR

Zone: 51 Easting: 433687 mE Northing: 6937434 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V83 Observer: GF and JR

Zone: 51 Easting: 433399 mE Northing: 6937334 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V84 Observer: GF and JR

Zone: 51 Easting: 433461 mE Northing: 6937037 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V85 Observer: GF and JR

Zone: 51 Easting: 433736 mE Northing: 6937168 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V86 Observer: GF and JR

Zone: 51 Easting: 434026 mE Northing: 6937258 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V87 Observer: GF and JR

Zone: 51 Easting: 434175 mE Northing: 6937309 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V88 Observer: GF and JR

Zone: 51 Easting: 434156 mE Northing: 6937070 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V89 Observer: GF and JR

Zone: 51 Easting: 433863 mE Northing: 6936994 mN

Fire History: > 5 years Landform: Gentle slope Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V90 Observer: GF and JR

Zone: 51 Easting: 433564 mE Northing: 6936921 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V91 Observer: GF and JR

Zone: 51 Easting: 433393 mE Northing: 6936904 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V92 Observer: GF and JR

Zone: 51 Easting: 433380 mE Northing: 6936600 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V93 Observer: GF and JR

Zone: 51 Easting: 433654 mE Northing: 6936706 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V94 Observer: GF and JR

Zone: 51 Easting: 433961 mE Northing: 6936778 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

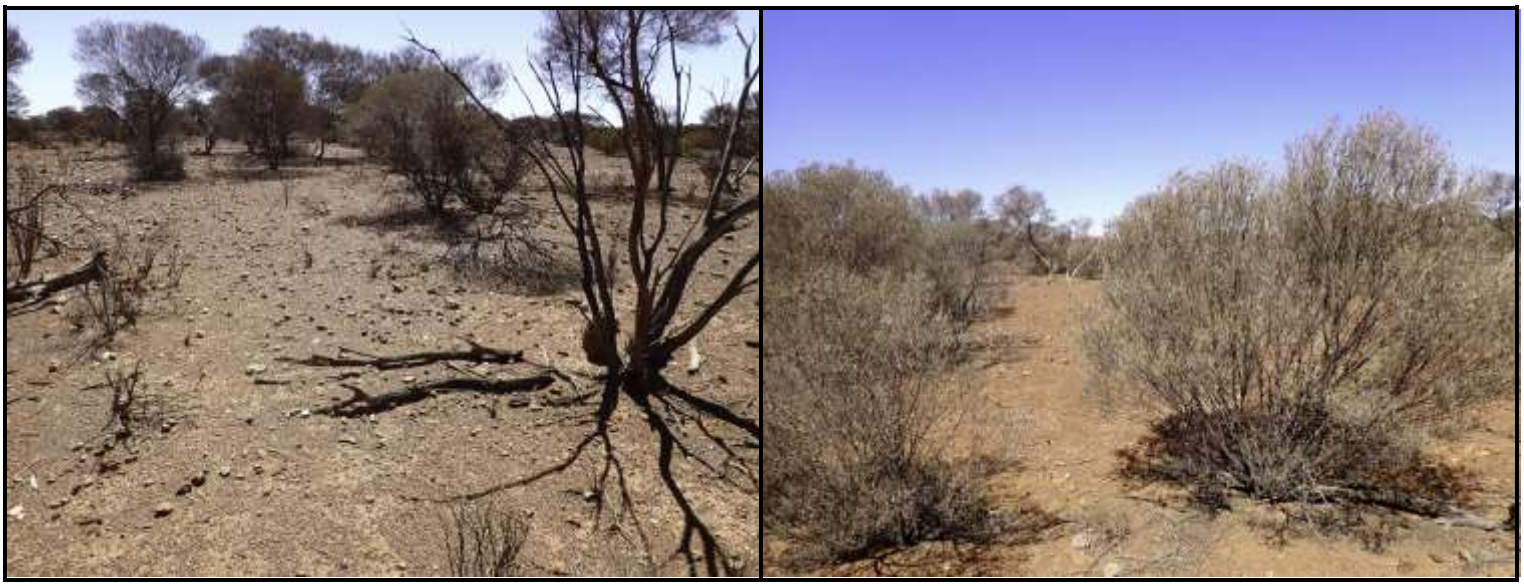
Date: 7/04/2022 Habitat Assessment #: V95 Observer: GF and JR

Zone: 51 Easting: 434258 mE Northing: 6936851 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V96 Observer: GF and JR

Zone: 51 Easting: 434294 mE Northing: 6936470 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V97 Observer: GF and JR

Zone: 51 Easting: 433990 mE Northing: 6936397 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V98 Observer: GF and JR

Zone: 51 Easting: 433699 mE Northing: 6936330 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V99 Observer: GF and JR

Zone: 51 Easting: 433405 mE Northing: 6936259 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V100 Observer: GF and JR

Zone: 51 Easting: 433415 mE Northing: 6935952 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V101 Observer: GF and JR

Zone: 51 Easting: 433721 mE Northing: 6936001 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V102 Observer: GF and JR

Zone: 51 Easting: 434009 mE Northing: 6936065 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V103 Observer: GF and JR

Zone: 51 Easting: 434296 mE Northing: 6936121 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V104 Observer: GF and JR

Zone: 51 Easting: 434574 mE Northing: 6936187 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V105 Observer: GF and JR

Zone: 51 Easting: 434642 mE Northing: 6935913 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V106 Observer: GF and JR

Zone: 51 Easting: 434356 mE Northing: 6935846 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V107 Observer: GF and JR

Zone: 51 Easting: 434069 mE Northing: 6935776 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V108 Observer: GF and JR

Zone: 51 Easting: 433759 mE Northing: 6935703 mN

Fire History: > 5 years Landform: Gentle slope Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V109 Observer: GF and JR

Zone: 51 Easting: 433476 mE Northing: 6935636 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V110 Observer: GF and JR

Zone: 51 Easting: 433459 mE Northing: 6935342 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V111 Observer: GF and JR

Zone: 51 Easting: 433757 mE Northing: 6935407 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V112 Observer: GF and JR

Zone: 51 Easting: 434053 mE Northing: 6935468 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 | Habitat Assessment #: V113 | Observer: GF and JR

Zone: 51 | Easting: 434341 mE | Northing: 6935527 mN

Fire History: > 5 years | Landform: Flatplain | Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded | Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V114 Observer: GF and JR

Zone: 51 Easting: 434634 mE Northing: 6935585 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

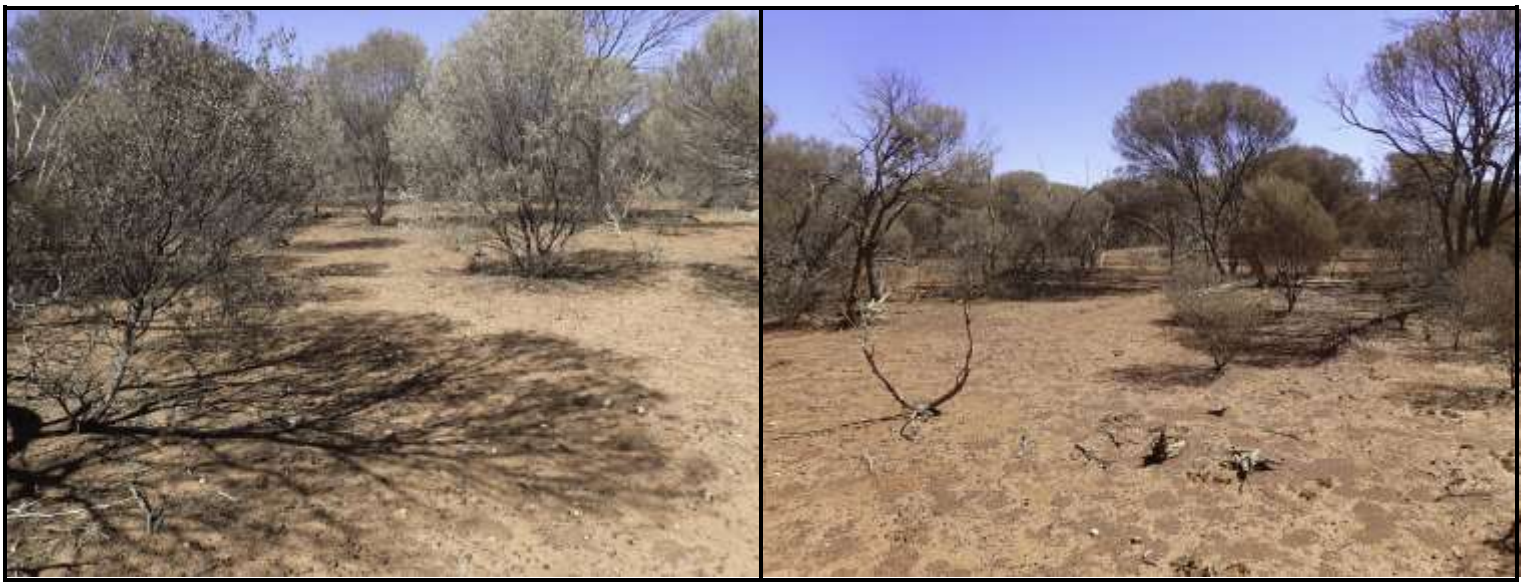
Date: 7/04/2022 Habitat Assessment #: V115 Observer: GF and JR

Zone: 51 Easting: 434362 mE Northing: 6935222 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V116 Observer: GF and JR

Zone: 51 Easting: 434061 mE Northing: 6935185 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V117 Observer: GF and JR

Zone: 51 Easting: 433756 mE Northing: 6935176 mN

Fire History: > 5 years Landform: Gentle slope Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: V118 Observer: GF and JR

Zone: 51 Easting: 433459 mE Northing: 6935139 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C1 Observer: GF and JR

Zone: 51 Easting: 425719 mE Northing: 6943594 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C2 Observer: GF and JR

Zone: 51 Easting: 425419 mE Northing: 6943594 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C3 Observer: GF and JR

Zone: 51 Easting: 425116 mE Northing: 6943587 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C4 Observer: GF and JR

Zone: 51 Easting: 424816 mE Northing: 6943566 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C5 Observer: GF and JR

Zone: 51 Easting: 424517 mE Northing: 6943557 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C6 Observer: GF and JR

Zone: 51 Easting: 424220 mE Northing: 6943518 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C7 Observer: GF and JR

Zone: 51 Easting: 423902 mE Northing: 6943514 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C8 Observer: GF and JR

Zone: 51 Easting: 423614 mE Northing: 6943501 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C9 Observer: GF and JR

Zone: 51 Easting: 423615 mE Northing: 6943198 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C10 Observer: GF and JR

Zone: 51 Easting: 423914 mE Northing: 6943147 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles and stones



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C11 Observer: GF and JR

Zone: 51 Easting: 424218 mE Northing: 6943122 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C12 Observer: GF and JR

Zone: 51 Easting: 424514 mE Northing: 6943110 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C13 Observer: GF and JR

Zone: 51 Easting: 424814 mE Northing: 6943094 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C14 Observer: GF and JR

Zone: 51 Easting: 425119 mE Northing: 6943104 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C15 Observer: GF and JR

Zone: 51 Easting: 425443 mE Northing: 6943105 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C16 Observer: GF and JR

Zone: 51 Easting: 425727 mE Northing: 6943071 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C17 Observer: GF and JR

Zone: 51 Easting: 425710 mE Northing: 6942766 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C18 Observer: GF and JR

Zone: 51 Easting: 425411 mE Northing: 6942752 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C19 Observer: GF and JR

Zone: 51 Easting: 425110 mE Northing: 6942779 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C20 Observer: GF and JR

Zone: 51 Easting: 424809 mE Northing: 6942772 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C21 Observer: GF and JR

Zone: 51 Easting: 424509 mE Northing: 6942752 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C22 Observer: GF and JR

Zone: 51 Easting: 424207 mE Northing: 6942759 mN

Fire History: > 5 years Landform: Gentle slope Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C23 Observer: GF and JR

Zone: 51 Easting: 423901 mE Northing: 6942765 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C24 Observer: GF and JR

Zone: 51 Easting: 423604 mE Northing: 6942773 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C25 Observer: GF and JR

Zone: 51 Easting: 423622 mE Northing: 6942470 mN

Fire History: > 5 years Landform: Ephemeral creek Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles and stones



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C26 Observer: GF and JR

Zone: 51 Easting: 423932 mE Northing: 6942513 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C27 Observer: GF and JR

Zone: 51 Easting: 424244 mE Northing: 6942515 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C28 Observer: GF and JR

Zone: 51 Easting: 424522 mE Northing: 6942520 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C29 Observer: GF and JR

Zone: 51 Easting: 424838 mE Northing: 6942501 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C30 Observer: GF and JR

Zone: 51 Easting: 425124 mE Northing: 6942534 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C31 Observer: GF and JR

Zone: 51 Easting: 425514 mE Northing: 6942515 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 7/04/2022 Habitat Assessment #: C32 Observer: GF and JR

Zone: 51 Easting: 425737 mE Northing: 6942527 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C33 Observer: GF and JR

Zone: 51 Easting: 425759 mE Northing: 6943328 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C34 Observer: GF and JR

Zone: 51 Easting: 425466 mE Northing: 6943394 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C35 Observer: GF and JR

Zone: 51 Easting: 425156 mE Northing: 6943349 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C36 Observer: GF and JR

Zone: 51 Easting: 424860 mE Northing: 6943343 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and stones



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C37 Observer: GF and JR

Zone: 51 Easting: 424551 mE Northing: 6943318 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C38 Observer: GF and JR

Zone: 51 Easting: 424251 mE Northing: 6943319 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C39 Observer: GF and JR

Zone: 51 Easting: 423952 mE Northing: 6943298 mN

Fire History: > 5 years Landform: Gentle slope Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles





TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C40 Observer: GF and JR

Zone: 51 Easting: 423727 mE Northing: 6942115 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Rock and clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C41 Observer: GF and JR

Zone: 51 Easting: 424050 mE Northing: 6942115 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C42 Observer: GF and JR

Zone: 51 Easting: 424329 mE Northing: 6942100 mN

Fire History: > 5 years Landform: Gentle slope Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C43 Observer: GF and JR

Zone: 51 Easting: 424628 mE Northing: 6942150 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C44 Observer: GF and JR

Zone: 51 Easting: 424922 mE Northing: 6942141 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C45 Observer: GF and JR

Zone: 51 Easting: 425242 mE Northing: 6942110 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C46 Observer: GF and JR

Zone: 51 Easting: 425530 mE Northing: 6942104 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles





TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C47 Observer: GF and JR

Zone: 51 Easting: 425761 mE Northing: 6942095 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles





TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C48 Observer: GF and JR

Zone: 51 Easting: 425719 mE Northing: 6941835 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C49 Observer: GF and JR

Zone: 51 Easting: 425411 mE Northing: 6941832 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



Date: 8/04/2022 Habitat Assessment #: C50 Observer: GF and JR

Zone: 51 Easting: 425116 mE Northing: 6941841 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay





TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C51 Observer: GF and JR

Zone: 51 Easting: 424820 mE Northing: 6941841 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Stone



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C52 Observer: GF and JR

Zone: 51 Easting: 424515 mE Northing: 6941832 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 | Habitat Assessment #: C53 | Observer: GF and JR

Zone: 51 | Easting: 424216 mE | Northing: 6941836 mN

Fire History: > 5 years | Landform: Flatplain | Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded | Surface: Sand , cobbles and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C54 Observer: GF and JR

Zone: 51 Easting: 423908 mE Northing: 6941820 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C55 Observer: GF and JR

Zone: 51 Easting: 424006 mE Northing: 6941527 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C56 Observer: GF and JR

Zone: 51 Easting: 424302 mE Northing: 6941561 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C57 Observer: GF and JR

Zone: 51 Easting: 424486 mE Northing: 6941527 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C58 Observer: GF and JR

Zone: 51 Easting: 424806 mE Northing: 6941551 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C59 Observer: GF and JR

Zone: 51 Easting: 425108 mE Northing: 6941517 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C60 Observer: GF and JR

Zone: 51 Easting: 425405 mE Northing: 6941531 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 | Habitat Assessment #: C61 | Observer: GF and JR

Zone: 51 | Easting: 425713 mE | Northing: 6941537 mN

Fire History: > 5 years | Landform: Flatplain | Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded | Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C62 Observer: GF and JR

Zone: 51 Easting: 425492 mE Northing: 6943880 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C63 Observer: GF and JR

Zone: 51 Easting: 425191 mE Northing: 6943884 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C64 Observer: GF and JR

Zone: 51 Easting: 424889 mE Northing: 6943878 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C65 Observer: GF and JR

Zone: 51 Easting: 424584 mE Northing: 6943881 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C66 Observer: GF and JR

Zone: 51 Easting: 424289 mE Northing: 6943890 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C67 Observer: GF and JR

Zone: 51 Easting: 423983 mE Northing: 6943895 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand , cobbles and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C68 Observer: GF and JR

Zone: 51 Easting: 423686 mE Northing: 6943900 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C69 Observer: GF and JR

Zone: 51 Easting: 423532 mE Northing: 6943911 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C70 Observer: GF and JR

Zone: 51 Easting: 423553 mE Northing: 6944204 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C71 Observer: GF and JR

Zone: 51 Easting: 423856 mE Northing: 6944188 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C72 Observer: GF and JR

Zone: 51 Easting: 424162 mE Northing: 6944217 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C73 Observer: GF and JR

Zone: 51 Easting: 424443 mE Northing: 6944207 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C74 Observer: GF and JR

Zone: 51 Easting: 424747 mE Northing: 6944227 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 | Habitat Assessment #: C75 | Observer: GF and JR

Zone: 51 | Easting: 425065 mE | Northing: 6944204 mN

Fire History: > 5 years | Landform: Flatplain | Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded | Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C76 Observer: GF and JR

Zone: 51 Easting: 425362 mE Northing: 6944203 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C77 Observer: GF and JR

Zone: 51 Easting: 425531 mE Northing: 6944183 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C78 Observer: GF and JR

Zone: 51 Easting: 425512 mE Northing: 6944499 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C79 Observer: GF and JR

Zone: 51 Easting: 425206 mE Northing: 6944502 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C80 Observer: GF and JR

Zone: 51 Easting: 424908 mE Northing: 6944492 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C81 Observer: GF and JR

Zone: 51 Easting: 424605 mE Northing: 6944502 mN

Fire History: > 5 years Landform: Undulating plain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C82 Observer: GF and JR

Zone: 51 Easting: 424314 mE Northing: 6944499 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C83 Observer: GF and JR

Zone: 51 Easting: 424007 mE Northing: 6944501 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C84 Observer: GF and JR

Zone: 51 Easting: 423713 mE Northing: 6944483 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C85 Observer: GF and JR

Zone: 51 Easting: 423541 mE Northing: 6944476 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C86 Observer: GF and JR

Zone: 51 Easting: 423578 mE Northing: 6944804 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C87 Observer: GF and JR

Zone: 51 Easting: 423882 mE Northing: 6944807 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C88 Observer: GF and JR

Zone: 51 Easting: 424181 mE Northing: 6944810 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 | Habitat Assessment #: C89 | Observer: GF and JR

Zone: 51 | Easting: 424485 mE | Northing: 6944798 mN

Fire History: > 5 years | Landform: Flatplain | Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded | Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C90 Observer: GF and JR

Zone: 51 Easting: 424784 mE Northing: 6944801 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C91 Observer: GF and JR

Zone: 51 Easting: 425090 mE Northing: 6944794 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C92 Observer: GF and JR

Zone: 51 Easting: 425374 mE Northing: 6944798 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C93 Observer: GF and JR

Zone: 51 Easting: 425531 mE Northing: 6944788 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C94 Observer: GF and JR

Zone: 51 Easting: 425507 mE Northing: 6945119 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C95 Observer: GF and JR

Zone: 51 Easting: 425203 mE Northing: 6945116 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Clay





TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C96 Observer: GF and JR

Zone: 51 Easting: 424907 mE Northing: 6945115 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C97 Observer: GF and JR

Zone: 51 Easting: 424612 mE Northing: 6945106 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C98 Observer: GF and JR

Zone: 51 Easting: 424305 mE Northing: 6945086 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C99 Observer: GF and JR

Zone: 51 Easting: 424007 mE Northing: 6945107 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C100 Observer: GF and JR

Zone: 51 Easting: 423696 mE Northing: 6945116 mN

Fire History: > 5 years Landform: Gentle slope Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C101 Observer: GF and JR

Zone: 51 Easting: 423544 mE Northing: 6945102 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C102 Observer: GF and JR

Zone: 51 Easting: 423555 mE Northing: 6945404 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C103 Observer: GF and JR

Zone: 51 Easting: 423861 mE Northing: 6945402 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C104 Observer: GF and JR

Zone: 51 Easting: 424169 mE Northing: 6945416 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C105 Observer: GF and JR

Zone: 51 Easting: 424454 mE Northing: 6945412 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C106 Observer: GF and JR

Zone: 51 Easting: 424762 mE Northing: 6945397 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C107 Observer: GF and JR

Zone: 51 Easting: 425050 mE Northing: 6945412 mN

Fire History: > 5 years Landform: Undulating plain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C108 Observer: GF and JR

Zone: 51 Easting: 425374 mE Northing: 6945389 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C109 Observer: GF and JR

Zone: 51 Easting: 425538 mE Northing: 6945401 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C110 Observer: GF and JR

Zone: 51 Easting: 425968 mE Northing: 6945522 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C111 Observer: GF and JR

Zone: 51 Easting: 425667 mE Northing: 6945518 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 | Habitat Assessment #: C112 | Observer: GF and JR

Zone: 51 | Easting: 425961 mE | Northing: 6945706 mN

Fire History: > 5 years | Landform: Flatplain | Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded | Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C113 Observer: GF and JR

Zone: 51 Easting: 425730 mE Northing: 6945708 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C114 Observer: GF and JR

Zone: 51 Easting: 425393 mE Northing: 6945692 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C115 Observer: GF and JR

Zone: 51 Easting: 425070 mE Northing: 6945702 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C116 Observer: GF and JR

Zone: 51 Easting: 424773 mE Northing: 6945703 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C117 Observer: GF and JR

Zone: 51 Easting: 424473 mE Northing: 6945691 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand, pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C118 Observer: GF and JR

Zone: 51 Easting: 424163 mE Northing: 6945698 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C119 Observer: GF and JR

Zone: 51 Easting: 423867 mE Northing: 6945684 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C120 Observer: GF and JR

Zone: 51 Easting: 423560 mE Northing: 6945690 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: CP



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C121 Observer: GF and JR

Zone: 51 Easting: 423557 mE Northing: 6946010 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C122 Observer: GF and JR

Zone: 51 Easting: 423863 mE Northing: 6946030 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C123 Observer: GF and JR

Zone: 51 Easting: 424161 mE Northing: 6945985 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C124 Observer: GF and JR

Zone: 51 Easting: 424459 mE Northing: 6946013 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C125 Observer: GF and JR

Zone: 51 Easting: 424780 mE Northing: 6946018 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C126 Observer: GF and JR

Zone: 51 Easting: 425061 mE Northing: 6946018 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C127 Observer: GF and JR

Zone: 51 Easting: 425360 mE Northing: 6946023 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C128 Observer: GF and JR

Zone: 51 Easting: 425667 mE Northing: 6945999 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C129 Observer: GF and JR

Zone: 51 Easting: 425984 mE Northing: 6945983 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C130 Observer: GF and JR

Zone: 51 Easting: 425966 mE Northing: 6946278 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C131 Observer: GF and JR

Zone: 51 Easting: 425647 mE Northing: 6946305 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C132 Observer: GF and JR

Zone: 51 Easting: 425360 mE Northing: 6946297 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C133 Observer: GF and JR

Zone: 51 Easting: 424772 mE Northing: 6946295 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C134 Observer: GF and JR

Zone: 51 Easting: 424455 mE Northing: 6946304 mN

Fire History: > 5 years Landform: Undulating plain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C135 Observer: GF and JR

Zone: 51 Easting: 424145 mE Northing: 6946300 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C136 Observer: GF and JR

Zone: 51 Easting: 423880 mE Northing: 6946289 mN

Fire History: > 5 years Landform: Gentle slope Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: CP





TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C137 Observer: GF and JR

Zone: 51 Easting: 423550 mE Northing: 6946319 mN

Fire History: > 5 years Landform: Gentle slope Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: CP



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C138 Observer: GF and JR

Zone: 51 Easting: 423546 mE Northing: 6946607 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: CP



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C139 Observer: GF and JR

Zone: 51 Easting: 423848 mE Northing: 6946591 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: CP



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C140 Observer: GF and JR

Zone: 51 Easting: 424148 mE Northing: 6946571 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: CP



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C141 Observer: GF and JR

Zone: 51 Easting: 424441 mE Northing: 6946575 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C142 Observer: GF and JR

Zone: 51 Easting: 424749 mE Northing: 6946600 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C143 Observer: GF and JR

Zone: 51 Easting: 425061 mE Northing: 6946300 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C144 Observer: GF and JR

Zone: 51 Easting: 425053 mE Northing: 6946586 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C145 Observer: GF and JR

Zone: 51 Easting: 425353 mE Northing: 6946568 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C146 Observer: GF and JR

Zone: 51 Easting: 425666 mE Northing: 6946599 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C147 Observer: GF and JR

Zone: 51 Easting: 425950 mE Northing: 6946583 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C148 Observer: GF and JR

Zone: 51 Easting: 425960 mE Northing: 6946835 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C149 Observer: GF and JR

Zone: 51 Easting: 425653 mE Northing: 6946853 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 | Habitat Assessment #: C150 | Observer: GF and JR

Zone: 51 | Easting: 425357 mE | Northing: 6946819 mN

Fire History: > 5 years | Landform: Flatplain | Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded | Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C151 Observer: GF and JR

Zone: 51 Easting: 425059 mE Northing: 6946821 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C152 Observer: GF and JR

Zone: 51 Easting: 424757 mE Northing: 6946822 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C153 Observer: GF and JR

Zone: 51 Easting: 424439 mE Northing: 6946822 mN

Fire History: > 5 years Landform: Gentle slope Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: CP



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C154 Observer: GF and JR

Zone: 51 Easting: 424146 mE Northing: 6946826 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C155 Observer: GF and JR

Zone: 51 Easting: 423857 mE Northing: 6946824 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 8/04/2022 Habitat Assessment #: C156 Observer: GF and JR

Zone: 51 Easting: 423537 mE Northing: 6946805 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ1 Observer: GF and JR

Zone: 51 Easting: 427965 mE Northing: 6910120 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand , cobbles and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ2 Observer: GF and JR

Zone: 51 Easting: 427663 mE Northing: 6910154 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and stones



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ3 Observer: GF and JR

Zone: 51 Easting: 427322 mE Northing: 6910151 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ4 Observer: GF and JR

Zone: 51 Easting: 427063 mE Northing: 6910139 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ5 Observer: GF and JR

Zone: 51 Easting: 426755 mE Northing: 6910145 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ6 Observer: GF and JR

Zone: 51 Easting: 426455 mE Northing: 6910125 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ7 Observer: GF and JR

Zone: 51 Easting: 426171 mE Northing: 6910136 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ8 Observer: GF and JR

Zone: 51 Easting: 425857 mE Northing: 6910128 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ9 Observer: GF and JR

Zone: 51 Easting: 425561 mE Northing: 6910131 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ10 Observer: GF and JR

Zone: 51 Easting: 425268 mE Northing: 6910115 mN

Fire History: > 5 years Landform: Ephemeral creek Soil Type: River sand

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Rivers sand, pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ11 Observer: GF and JR

Zone: 51 Easting: 424961 mE Northing: 6910153 mN

Fire History: > 5 years Landform: Undulating plain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ12 Observer: GF and JR

Zone: 51 Easting: 424694 mE Northing: 6910113 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ13 Observer: GF and JR

Zone: 51 Easting: 424735 mE Northing: 6910508 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ14 Observer: GF and JR

Zone: 51 Easting: 425037 mE Northing: 6910486 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ15 Observer: GF and JR

Zone: 51 Easting: 425334 mE Northing: 6910514 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ16 Observer: GF and JR

Zone: 51 Easting: 425637 mE Northing: 6910487 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ17 Observer: GF and JR

Zone: 51 Easting: 425927 mE Northing: 6910508 mN

Fire History: > 5 years Landform: Ephemeral creek Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Stone



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ18 Observer: GF and JR

Zone: 51 Easting: 426244 mE Northing: 6910526 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ19 Observer: GF and JR

Zone: 51 Easting: 426543 mE Northing: 6910514 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ20 Observer: GF and JR

Zone: 51 Easting: 426836 mE Northing: 6910497 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ21 Observer: GF and JR

Zone: 51 Easting: 427184 mE Northing: 6910546 mN

Fire History: > 5 years Landform: Undulating plain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ22 Observer: GF and JR

Zone: 51 Easting: 427449 mE Northing: 6910536 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ23 Observer: GF and JR

Zone: 51 Easting: 427730 mE Northing: 6910509 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ24 Observer: GF and JR

Zone: 51 Easting: 427969 mE Northing: 6910518 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

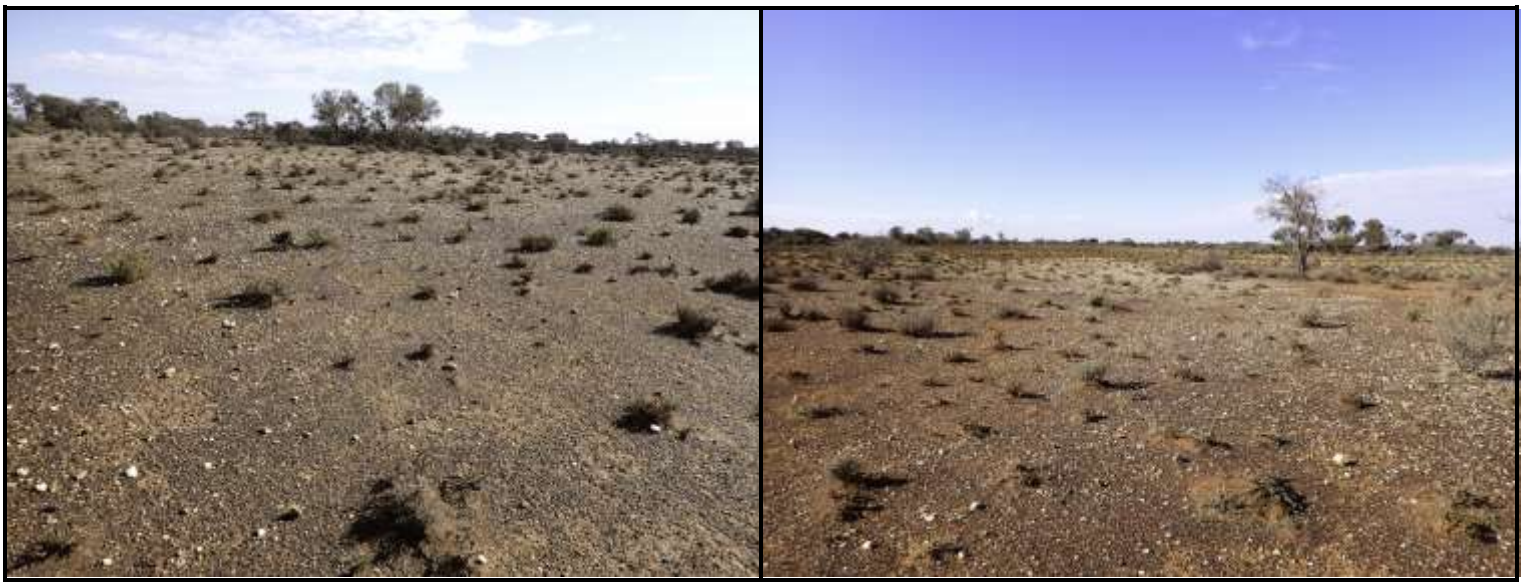
Date: 9/04/2022 Habitat Assessment #: KJ25 Observer: GF and JR

Zone: 51 Easting: 427946 mE Northing: 6910822 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ26 Observer: GF and JR

Zone: 51 Easting: 427768 mE Northing: 6910801 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ27 Observer: GF and JR

Zone: 51 Easting: 427445 mE Northing: 6910811 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ28 Observer: GF and JR

Zone: 51 Easting: 427124 mE Northing: 6910806 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ29 Observer: GF and JR

Zone: 51 Easting: 426823 mE Northing: 6910810 mN

Fire History: > 5 years Landform: Ephemeral creek Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ30 Observer: GF and JR

Zone: 51 Easting: 426535 mE Northing: 6910810 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ31 Observer: GF and JR

Zone: 51 Easting: 426243 mE Northing: 6910805 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ32 Observer: GF and JR

Zone: 51 Easting: 425922 mE Northing: 6910811 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ33 Observer: GF and JR

Zone: 51 Easting: 425626 mE Northing: 6910805 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ34 Observer: GF and JR

Zone: 51 Easting: 425316 mE Northing: 6910793 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ35 Observer: GF and JR

Zone: 51 Easting: 425020 mE Northing: 6910783 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ36 Observer: GF and JR

Zone: 51 Easting: 424734 mE Northing: 6910793 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ37 Observer: GF and JR

Zone: 51 Easting: 424728 mE Northing: 6911098 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ38 Observer: GF and JR

Zone: 51 Easting: 425128 mE Northing: 6911099 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ39 Observer: GF and JR

Zone: 51 Easting: 425437 mE Northing: 6911113 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ40 Observer: GF and JR

Zone: 51 Easting: 425708 mE Northing: 6911094 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ41 Observer: GF and JR

Zone: 51 Easting: 426049 mE Northing: 6911110 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ42 Observer: GF and JR

Zone: 51 Easting: 426359 mE Northing: 6911094 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ43 Observer: GF and JR

Zone: 51 Easting: 426627 mE Northing: 6911094 mN

Fire History: > 5 years Landform: Undulating plain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ44 Observer: GF and JR

Zone: 51 Easting: 426923 mE Northing: 6911090 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ45 Observer: GF and JR

Zone: 51 Easting: 427239 mE Northing: 6911092 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ46 Observer: GF and JR

Zone: 51 Easting: 427520 mE Northing: 6911102 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ47 Observer: GF and JR

Zone: 51 Easting: 427798 mE Northing: 6911089 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ48 Observer: GF and JR

Zone: 51 Easting: 427944 mE Northing: 6911421 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ49 Observer: GF and JR

Zone: 51 Easting: 427751 mE Northing: 6911420 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ50 Observer: GF and JR

Zone: 51 Easting: 427423 mE Northing: 6911412 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ51 Observer: GF and JR

Zone: 51 Easting: 427131 mE Northing: 6911424 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ52 Observer: GF and JR

Zone: 51 Easting: 426830 mE Northing: 6911402 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ53 Observer: GF and JR

Zone: 51 Easting: 426529 mE Northing: 6911419 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ54 Observer: GF and JR

Zone: 51 Easting: 426245 mE Northing: 6911397 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ55 Observer: GF and JR

Zone: 51 Easting: 425907 mE Northing: 6911396 mN

Fire History: > 5 years Landform: Undulating plain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ56 Observer: GF and JR

Zone: 51 Easting: 425630 mE Northing: 6911414 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ57 Observer: GF and JR

Zone: 51 Easting: 425342 mE Northing: 6911379 mN

Fire History: > 5 years Landform: Ephemeral creek Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Stone



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ58 Observer: GF and JR

Zone: 51 Easting: 425025 mE Northing: 6911403 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Rock

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ59 Observer: GF and JR

Zone: 51 Easting: 424732 mE Northing: 6911408 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ60 Observer: GF and JR

Zone: 51 Easting: 424723 mE Northing: 6911709 mN

Fire History: > 5 years Landform: Ephemeral creek Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ61 Observer: GF and JR

Zone: 51 Easting: 425141 mE Northing: 6911701 mN

Fire History: > 5 years Landform: Gentle slope Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ62 Observer: GF and JR

Zone: 51 Easting: 425445 mE Northing: 6911701 mN

Fire History: > 5 years Landform: Ephemeral creek Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ63 Observer: GF and JR

Zone: 51 Easting: 425738 mE Northing: 6911715 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ64 Observer: GF and JR

Zone: 51 Easting: 426045 mE Northing: 6911699 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ65 Observer: GF and JR

Zone: 51 Easting: 426339 mE Northing: 6911691 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ66 Observer: GF and JR

Zone: 51 Easting: 426640 mE Northing: 6911726 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ67 Observer: GF and JR

Zone: 51 Easting: 426939 mE Northing: 6911727 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ68 Observer: GF and JR

Zone: 51 Easting: 427225 mE Northing: 6911720 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ69 Observer: GF and JR

Zone: 51 Easting: 427535 mE Northing: 6911719 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ70 Observer: GF and JR

Zone: 51 Easting: 427829 mE Northing: 6911692 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ71 Observer: GF and JR

Zone: 51 Easting: 427947 mE Northing: 6912000 mN

Fire History: > 5 years Landform: Undulating plain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ72 Observer: GF and JR

Zone: 51 Easting: 427744 mE Northing: 6911997 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ73 Observer: GF and JR

Zone: 51 Easting: 427442 mE Northing: 6912000 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ74 Observer: GF and JR

Zone: 51 Easting: 427144 mE Northing: 6912003 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ75 Observer: GF and JR

Zone: 51 Easting: 426834 mE Northing: 6911987 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ76 Observer: GF and JR

Zone: 51 Easting: 426541 mE Northing: 6912002 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ77 Observer: GF and JR

Zone: 51 Easting: 426250 mE Northing: 6911987 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ78 Observer: GF and JR

Zone: 51 Easting: 425926 mE Northing: 6912010 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ79 Observer: GF and JR

Zone: 51 Easting: 425647 mE Northing: 6912009 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ80 Observer: GF and JR

Zone: 51 Easting: 425342 mE Northing: 6911996 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ81 Observer: GF and JR

Zone: 51 Easting: 425050 mE Northing: 6911971 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ82 Observer: GF and JR

Zone: 51 Easting: 424723 mE Northing: 6911992 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ83 Observer: GF and JR

Zone: 51 Easting: 424736 mE Northing: 6912313 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ84 Observer: GF and JR

Zone: 51 Easting: 425047 mE Northing: 6912322 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ85 Observer: GF and JR

Zone: 51 Easting: 425353 mE Northing: 6912332 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ86 Observer: GF and JR

Zone: 51 Easting: 425649 mE Northing: 6912339 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ87 Observer: GF and JR

Zone: 51 Easting: 425935 mE Northing: 6912341 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ88 Observer: GF and JR

Zone: 51 Easting: 426235 mE Northing: 6912335 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ89 Observer: GF and JR

Zone: 51 Easting: 426538 mE Northing: 6912284 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ90 Observer: GF and JR

Zone: 51 Easting: 426859 mE Northing: 6912286 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ91 Observer: GF and JR

Zone: 51 Easting: 427149 mE Northing: 6912282 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ92 Observer: GF and JR

Zone: 51 Easting: 427445 mE Northing: 6912291 mN

Fire History: > 5 years Landform: Undulating plain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ93 Observer: GF and JR

Zone: 51 Easting: 427748 mE Northing: 6912284 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ94 Observer: GF and JR

Zone: 51 Easting: 427939 mE Northing: 6912294 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ95 Observer: GF and JR

Zone: 51 Easting: 427923 mE Northing: 6912598 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ96 Observer: GF and JR

Zone: 51 Easting: 427741 mE Northing: 6912596 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ97 Observer: GF and JR

Zone: 51 Easting: 427441 mE Northing: 6912598 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ98 Observer: GF and JR

Zone: 51 Easting: 427134 mE Northing: 6912599 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ99 Observer: GF and JR

Zone: 51 Easting: 426834 mE Northing: 6912620 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ100 Observer: GF and JR

Zone: 51 Easting: 426502 mE Northing: 6912601 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ101 Observer: GF and JR

Zone: 51 Easting: 426244 mE Northing: 6912622 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ102 Observer: GF and JR

Zone: 51 Easting: 425905 mE Northing: 6912601 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ103 Observer: GF and JR

Zone: 51 Easting: 425642 mE Northing: 6912589 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ104 Observer: GF and JR

Zone: 51 Easting: 425338 mE Northing: 6912611 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ105 Observer: GF and JR

Zone: 51 Easting: 425029 mE Northing: 6912601 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ106 Observer: GF and JR

Zone: 51 Easting: 424730 mE Northing: 6912601 mN

Fire History: > 5 years Landform: Ephemeral creek Soil Type: Rock

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand , cobbles and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ107 Observer: GF and JR

Zone: 51 Easting: 424736 mE Northing: 6912896 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ108 Observer: GF and JR

Zone: 51 Easting: 425044 mE Northing: 6912893 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ109 Observer: GF and JR

Zone: 51 Easting: 425337 mE Northing: 6912909 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ110 Observer: GF and JR

Zone: 51 Easting: 425645 mE Northing: 6912907 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ111 Observer: GF and JR

Zone: 51 Easting: 425961 mE Northing: 6912898 mN

Fire History: > 5 years Landform: Undulating plain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ112 Observer: GF and JR

Zone: 51 Easting: 426258 mE Northing: 6912901 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ113 Observer: GF and JR

Zone: 51 Easting: 426549 mE Northing: 6912886 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ114 Observer: GF and JR

Zone: 51 Easting: 426866 mE Northing: 6912901 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ115 Observer: GF and JR

Zone: 51 Easting: 427158 mE Northing: 6912897 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ116 Observer: GF and JR

Zone: 51 Easting: 427464 mE Northing: 6912896 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ117 Observer: GF and JR

Zone: 51 Easting: 427746 mE Northing: 6912897 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ118 Observer: GF and JR

Zone: 51 Easting: 427948 mE Northing: 6912892 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ119 Observer: GF and JR

Zone: 51 Easting: 427929 mE Northing: 6913203 mN

Fire History: > 5 years Landform: Gentle slope Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ120 Observer: GF and JR

Zone: 51 Easting: 427737 mE Northing: 6913200 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ121 Observer: GF and JR

Zone: 51 Easting: 427440 mE Northing: 6913202 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ122 Observer: GF and JR

Zone: 51 Easting: 427139 mE Northing: 6913192 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ123 Observer: GF and JR

Zone: 51 Easting: 426823 mE Northing: 6913194 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ124 Observer: GF and JR

Zone: 51 Easting: 426532 mE Northing: 6913197 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ125 Observer: GF and JR

Zone: 51 Easting: 426236 mE Northing: 6913188 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ126 Observer: GF and JR

Zone: 51 Easting: 425939 mE Northing: 6913191 mN

Fire History: > 5 years Landform: Gentle slope Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ127 Observer: GF and JR

Zone: 51 Easting: 425652 mE Northing: 6913201 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ128 Observer: GF and JR

Zone: 51 Easting: 425344 mE Northing: 6913194 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ129 Observer: GF and JR

Zone: 51 Easting: 425021 mE Northing: 6913190 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ130 Observer: GF and JR

Zone: 51 Easting: 424715 mE Northing: 6913210 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ131 Observer: GF and JR

Zone: 51 Easting: 424738 mE Northing: 6913504 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Clay and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ132 Observer: GF and JR

Zone: 51 Easting: 425043 mE Northing: 6913511 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ133 Observer: GF and JR

Zone: 51 Easting: 425349 mE Northing: 6913485 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ134 Observer: GF and JR

Zone: 51 Easting: 425647 mE Northing: 6913493 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ135 Observer: GF and JR

Zone: 51 Easting: 425953 mE Northing: 6913481 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ136 Observer: GF and JR

Zone: 51 Easting: 426246 mE Northing: 6913501 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ137 Observer: GF and JR

Zone: 51 Easting: 426560 mE Northing: 6913502 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ138 Observer: GF and JR

Zone: 51 Easting: 426856 mE Northing: 6913487 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ139 Observer: GF and JR

Zone: 51 Easting: 427159 mE Northing: 6913495 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ140 Observer: GF and JR

Zone: 51 Easting: 427447 mE Northing: 6913487 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ141 Observer: GF and JR

Zone: 51 Easting: 427757 mE Northing: 6913505 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ142 Observer: GF and JR

Zone: 51 Easting: 427929 mE Northing: 6913494 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ143 Observer: GF and JR

Zone: 51 Easting: 427930 mE Northing: 6913793 mN

Fire History: > 5 years Landform: Gentle slope Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ144 Observer: GF and JR

Zone: 51 Easting: 427740 mE Northing: 6913790 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ145 Observer: GF and JR

Zone: 51 Easting: 427448 mE Northing: 6913793 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ146 Observer: GF and JR

Zone: 51 Easting: 427148 mE Northing: 6913776 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ147 Observer: GF and JR

Zone: 51 Easting: 426848 mE Northing: 6913796 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ148 Observer: GF and JR

Zone: 51 Easting: 426562 mE Northing: 6913779 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Clay and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ149 Observer: GF and JR

Zone: 51 Easting: 426243 mE Northing: 6913790 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ150 Observer: GF and JR

Zone: 51 Easting: 425943 mE Northing: 6913800 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ151 Observer: GF and JR

Zone: 51 Easting: 425651 mE Northing: 6913784 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ152 Observer: GF and JR

Zone: 51 Easting: 425338 mE Northing: 6913783 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ153 Observer: GF and JR

Zone: 51 Easting: 425046 mE Northing: 6913791 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ154 Observer: GF and JR

Zone: 51 Easting: 424764 mE Northing: 6913780 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ155 Observer: GF and JR

Zone: 51 Easting: 424728 mE Northing: 6913875 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ156 Observer: GF and JR

Zone: 51 Easting: 425057 mE Northing: 6913877 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Clay and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ157 Observer: GF and JR

Zone: 51 Easting: 425362 mE Northing: 6913873 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ158 Observer: GF and JR

Zone: 51 Easting: 425658 mE Northing: 6913878 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ159 Observer: GF and JR

Zone: 51 Easting: 425969 mE Northing: 6913883 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ160 Observer: GF and JR

Zone: 51 Easting: 426258 mE Northing: 6913875 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ161 Observer: GF and JR

Zone: 51 Easting: 426566 mE Northing: 6913889 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ162 Observer: GF and JR

Zone: 51 Easting: 426862 mE Northing: 6913884 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ163 Observer: GF and JR

Zone: 51 Easting: 427163 mE Northing: 6913894 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ164 Observer: GF and JR

Zone: 51 Easting: 427474 mE Northing: 6913887 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ165 Observer: GF and JR

Zone: 51 Easting: 427765 mE Northing: 6913899 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: KJ166 Observer: GF and JR

Zone: 51 Easting: 427945 mE Northing: 6913883 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 9/04/2022 Habitat Assessment #: DB1 Observer: GF and JR

Zone: 51 Easting: 425280 mE Northing: 6917365 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB2 Observer: GF and JR

Zone: 51 Easting: 425135 mE Northing: 6917350 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB3 Observer: GF and JR

Zone: 51 Easting: 424844 mE Northing: 6917357 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB4 Observer: GF and JR

Zone: 51 Easting: 424535 mE Northing: 6917347 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB5 Observer: GF and JR

Zone: 51 Easting: 424215 mE Northing: 6917328 mN

Fire History: > 5 years Landform: Undulating plain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB6 Observer: GF and JR

Zone: 51 Easting: 423936 mE Northing: 6917355 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB7 Observer: GF and JR

Zone: 51 Easting: 423631 mE Northing: 6917345 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB8 Observer: GF and JR

Zone: 51 Easting: 423343 mE Northing: 6917335 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB9 Observer: GF and JR

Zone: 51 Easting: 423034 mE Northing: 6917333 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB10 Observer: GF and JR

Zone: 51 Easting: 422732 mE Northing: 6917331 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB11 Observer: GF and JR

Zone: 51 Easting: 422444 mE Northing: 6917334 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Clay





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB12 Observer: GF and JR

Zone: 51 Easting: 422129 mE Northing: 6917329 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Clay





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB13 Observer: GF and JR

Zone: 51 Easting: 421833 mE Northing: 6917332 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB14 Observer: GF and JR

Zone: 51 Easting: 421814 mE Northing: 6917629 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB15 Observer: GF and JR

Zone: 51 Easting: 422150 mE Northing: 6917639 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB16 Observer: GF and JR

Zone: 51 Easting: 422449 mE Northing: 6917613 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB17 Observer: GF and JR

Zone: 51 Easting: 422736 mE Northing: 6917615 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB18 Observer: GF and JR

Zone: 51 Easting: 423036 mE Northing: 6917623 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



Date: 10/04/2022 Habitat Assessment #: DB19 Observer: GF and JR

Zone: 51 Easting: 423350 mE Northing: 6917628 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB20 Observer: GF and JR

Zone: 51 Easting: 423644 mE Northing: 6917625 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB21 Observer: GF and JR

Zone: 51 Easting: 423937 mE Northing: 6917617 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB22 Observer: GF and JR

Zone: 51 Easting: 424218 mE Northing: 6917625 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB23 Observer: GF and JR

Zone: 51 Easting: 424550 mE Northing: 6917620 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB24 Observer: GF and JR

Zone: 51 Easting: 424843 mE Northing: 6917618 mN

Fire History: > 5 years Landform: Undulating plain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB25 Observer: GF and JR

Zone: 51 Easting: 425129 mE Northing: 6917622 mN

Fire History: > 5 years Landform: Undulating plain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB26 Observer: GF and JR

Zone: 51 Easting: 425257 mE Northing: 6917620 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB27 Observer: GF and JR

Zone: 51 Easting: 425188 mE Northing: 6917918 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB28 Observer: GF and JR

Zone: 51 Easting: 424840 mE Northing: 6917933 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB29 Observer: GF and JR

Zone: 51 Easting: 424540 mE Northing: 6917928 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB30 Observer: GF and JR

Zone: 51 Easting: 424228 mE Northing: 6917933 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB31 Observer: GF and JR

Zone: 51 Easting: 423941 mE Northing: 6917925 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB32 Observer: GF and JR

Zone: 51 Easting: 423648 mE Northing: 6917912 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB33 Observer: GF and JR

Zone: 51 Easting: 423335 mE Northing: 6917921 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB34 Observer: GF and JR

Zone: 51 Easting: 423034 mE Northing: 6917925 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB35 Observer: GF and JR

Zone: 51 Easting: 422724 mE Northing: 6917926 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB36 Observer: GF and JR

Zone: 51 Easting: 422436 mE Northing: 6917929 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB37 Observer: GF and JR

Zone: 51 Easting: 422126 mE Northing: 6917931 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB38 Observer: GF and JR

Zone: 51 Easting: 421847 mE Northing: 6917919 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB39 Observer: GF and JR

Zone: 51 Easting: 421832 mE Northing: 6918240 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB40 Observer: GF and JR

Zone: 51 Easting: 422135 mE Northing: 6918226 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB41 Observer: GF and JR

Zone: 51 Easting: 422441 mE Northing: 6918216 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB42 Observer: GF and JR

Zone: 51 Easting: 422738 mE Northing: 6918224 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB43 Observer: GF and JR

Zone: 51 Easting: 423046 mE Northing: 6918219 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB44 Observer: GF and JR

Zone: 51 Easting: 423346 mE Northing: 6918223 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB45 Observer: GF and JR

Zone: 51 Easting: 423644 mE Northing: 6918213 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB46 Observer: GF and JR

Zone: 51 Easting: 423917 mE Northing: 6918227 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB47 Observer: GF and JR

Zone: 51 Easting: 424212 mE Northing: 6918227 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB48 Observer: GF and JR

Zone: 51 Easting: 424543 mE Northing: 6918205 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB49 Observer: GF and JR

Zone: 51 Easting: 424841 mE Northing: 6918213 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB50 Observer: GF and JR

Zone: 51 Easting: 425131 mE Northing: 6918214 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB51 Observer: GF and JR

Zone: 51 Easting: 425240 mE Northing: 6918206 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB52 Observer: GF and JR

Zone: 51 Easting: 425167 mE Northing: 6918518 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB53 Observer: GF and JR

Zone: 51 Easting: 424834 mE Northing: 6918530 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB54 Observer: GF and JR

Zone: 51 Easting: 424503 mE Northing: 6918510 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB55 Observer: GF and JR

Zone: 51 Easting: 424222 mE Northing: 6918511 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB56 Observer: GF and JR

Zone: 51 Easting: 423931 mE Northing: 6918544 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB57 Observer: GF and JR

Zone: 51 Easting: 423625 mE Northing: 6918521 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB58 Observer: GF and JR

Zone: 51 Easting: 423294 mE Northing: 6918533 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB59 Observer: GF and JR

Zone: 51 Easting: 423027 mE Northing: 6918516 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB60 Observer: GF and JR

Zone: 51 Easting: 422720 mE Northing: 6918516 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB61 Observer: GF and JR

Zone: 51 Easting: 422429 mE Northing: 6918538 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB62 Observer: GF and JR

Zone: 51 Easting: 422105 mE Northing: 6918515 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB63 Observer: GF and JR

Zone: 51 Easting: 421832 mE Northing: 6918540 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB64 Observer: GF and JR

Zone: 51 Easting: 421797 mE Northing: 6918826 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB65 Observer: GF and JR

Zone: 51 Easting: 422144 mE Northing: 6918815 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB66 Observer: GF and JR

Zone: 51 Easting: 422440 mE Northing: 6918820 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB67 Observer: GF and JR

Zone: 51 Easting: 422737 mE Northing: 6918825 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB68 Observer: GF and JR

Zone: 51 Easting: 423026 mE Northing: 6918822 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB69 Observer: GF and JR

Zone: 51 Easting: 423346 mE Northing: 6918823 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB70 Observer: GF and JR

Zone: 51 Easting: 423644 mE Northing: 6918821 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB71 Observer: GF and JR

Zone: 51 Easting: 423937 mE Northing: 6918826 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB72 Observer: GF and JR

Zone: 51 Easting: 424239 mE Northing: 6918820 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB73 Observer: GF and JR

Zone: 51 Easting: 424549 mE Northing: 6918810 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB74 Observer: GF and JR

Zone: 51 Easting: 424844 mE Northing: 6918819 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB75 Observer: GF and JR

Zone: 51 Easting: 425116 mE Northing: 6918832 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB76 Observer: GF and JR

Zone: 51 Easting: 425069 mE Northing: 6919126 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB77 Observer: GF and JR

Zone: 51 Easting: 424823 mE Northing: 6919120 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB78 Observer: GF and JR

Zone: 51 Easting: 424536 mE Northing: 6919123 mN

Fire History: > 5 years Landform: Gentle slope Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB79 Observer: GF and JR

Zone: 51 Easting: 424233 mE Northing: 6919122 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB80 Observer: GF and JR

Zone: 51 Easting: 423938 mE Northing: 6919131 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB81 Observer: GF and JR

Zone: 51 Easting: 423629 mE Northing: 6919110 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB82 Observer: GF and JR

Zone: 51 Easting: 423332 mE Northing: 6919125 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB83 Observer: GF and JR

Zone: 51 Easting: 423015 mE Northing: 6919123 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB84 Observer: GF and JR

Zone: 51 Easting: 422744 mE Northing: 6919112 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB85 Observer: GF and JR

Zone: 51 Easting: 422446 mE Northing: 6919110 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB86 Observer: GF and JR

Zone: 51 Easting: 422133 mE Northing: 6919131 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB87 Observer: GF and JR

Zone: 51 Easting: 421846 mE Northing: 6919118 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB88 Observer: GF and JR

Zone: 51 Easting: 421786 mE Northing: 6919439 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB89 Observer: GF and JR

Zone: 51 Easting: 422145 mE Northing: 6919409 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Clay





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB90 Observer: GF and JR

Zone: 51 Easting: 422431 mE Northing: 6919425 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB91 Observer: GF and JR

Zone: 51 Easting: 422744 mE Northing: 6919431 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB92 Observer: GF and JR

Zone: 51 Easting: 423041 mE Northing: 6919411 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB93 Observer: GF and JR

Zone: 51 Easting: 423320 mE Northing: 6919457 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB94 Observer: GF and JR

Zone: 51 Easting: 423625 mE Northing: 6919455 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB95 Observer: GF and JR

Zone: 51 Easting: 423917 mE Northing: 6919413 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB96 Observer: GF and JR

Zone: 51 Easting: 424217 mE Northing: 6919449 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB97 Observer: GF and JR

Zone: 51 Easting: 424535 mE Northing: 6919423 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB98 Observer: GF and JR

Zone: 51 Easting: 424812 mE Northing: 6919402 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB99 Observer: GF and JR

Zone: 51 Easting: 424964 mE Northing: 6919430 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB100 Observer: GF and JR

Zone: 51 Easting: 424911 mE Northing: 6919727 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles and cobbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB101 Observer: GF and JR

Zone: 51 Easting: 424549 mE Northing: 6919726 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB102 Observer: GF and JR

Zone: 51 Easting: 424233 mE Northing: 6919730 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB103 Observer: GF and JR

Zone: 51 Easting: 423953 mE Northing: 6919717 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB104 Observer: GF and JR

Zone: 51 Easting: 423632 mE Northing: 6919732 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Clay and pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB105 Observer: GF and JR

Zone: 51 Easting: 423299 mE Northing: 6919748 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB106 Observer: GF and JR

Zone: 51 Easting: 423042 mE Northing: 6919755 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB107 Observer: GF and JR

Zone: 51 Easting: 422729 mE Northing: 6919745 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB108 Observer: GF and JR

Zone: 51 Easting: 422436 mE Northing: 6919745 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB109 Observer: GF and JR

Zone: 51 Easting: 422142 mE Northing: 6919731 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB110 Observer: GF and JR

Zone: 51 Easting: 421799 mE Northing: 6919744 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB111 Observer: GF and JR

Zone: 51 Easting: 421812 mE Northing: 6920034 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB112 Observer: GF and JR

Zone: 51 Easting: 422135 mE Northing: 6920025 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB113 Observer: GF and JR

Zone: 51 Easting: 422444 mE Northing: 6920025 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB114 Observer: GF and JR

Zone: 51 Easting: 422731 mE Northing: 6920021 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB115 Observer: GF and JR

Zone: 51 Easting: 423056 mE Northing: 6920004 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB116 Observer: GF and JR

Zone: 51 Easting: 423334 mE Northing: 6920026 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB117 Observer: GF and JR

Zone: 51 Easting: 423648 mE Northing: 6920015 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB118 Observer: GF and JR

Zone: 51 Easting: 423932 mE Northing: 6920025 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB119 Observer: GF and JR

Zone: 51 Easting: 424229 mE Northing: 6920029 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB120 Observer: GF and JR

Zone: 51 Easting: 424543 mE Northing: 6920027 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB121 Observer: GF and JR

Zone: 51 Easting: 424785 mE Northing: 6920023 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB122 Observer: GF and JR

Zone: 51 Easting: 424621 mE Northing: 6920326 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB123 Observer: GF and JR

Zone: 51 Easting: 424529 mE Northing: 6920333 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB124 Observer: GF and JR

Zone: 51 Easting: 424235 mE Northing: 6920323 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB125 Observer: GF and JR

Zone: 51 Easting: 423935 mE Northing: 6920338 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB126 Observer: GF and JR

Zone: 51 Easting: 423624 mE Northing: 6920330 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB127 Observer: GF and JR

Zone: 51 Easting: 423343 mE Northing: 6920335 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB128 Observer: GF and JR

Zone: 51 Easting: 423037 mE Northing: 6920329 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB129 Observer: GF and JR

Zone: 51 Easting: 422727 mE Northing: 6920351 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB130 Observer: GF and JR

Zone: 51 Easting: 422430 mE Northing: 6920346 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB131 Observer: GF and JR

Zone: 51 Easting: 422141 mE Northing: 6920324 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB132 Observer: GF and JR

Zone: 51 Easting: 421801 mE Northing: 6920315 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB133 Observer: GF and JR

Zone: 51 Easting: 421782 mE Northing: 6920626 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB134 Observer: GF and JR

Zone: 51 Easting: 422095 mE Northing: 6920641 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB135 Observer: GF and JR

Zone: 51 Easting: 422455 mE Northing: 6920619 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB136 Observer: GF and JR

Zone: 51 Easting: 422720 mE Northing: 6920627 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB137 Observer: GF and JR

Zone: 51 Easting: 423034 mE Northing: 6920624 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB138 Observer: GF and JR

Zone: 51 Easting: 423327 mE Northing: 6920628 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB139 Observer: GF and JR

Zone: 51 Easting: 423614 mE Northing: 6920622 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB140 Observer: GF and JR

Zone: 51 Easting: 423895 mE Northing: 6920627 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Completely degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB141 Observer: GF and JR

Zone: 51 Easting: 424237 mE Northing: 6920623 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB142 Observer: GF and JR

Zone: 51 Easting: 424491 mE Northing: 6920622 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB143 Observer: GF and JR

Zone: 51 Easting: 424297 mE Northing: 6920934 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB144 Observer: GF and JR

Zone: 51 Easting: 423938 mE Northing: 6920933 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB145 Observer: GF and JR

Zone: 51 Easting: 423634 mE Northing: 6920928 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB146 Observer: GF and JR

Zone: 51 Easting: 423330 mE Northing: 6920926 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB147 Observer: GF and JR

Zone: 51 Easting: 423020 mE Northing: 6920918 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB148 Observer: GF and JR

Zone: 51 Easting: 422716 mE Northing: 6920916 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB149 Observer: GF and JR

Zone: 51 Easting: 422434 mE Northing: 6920925 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

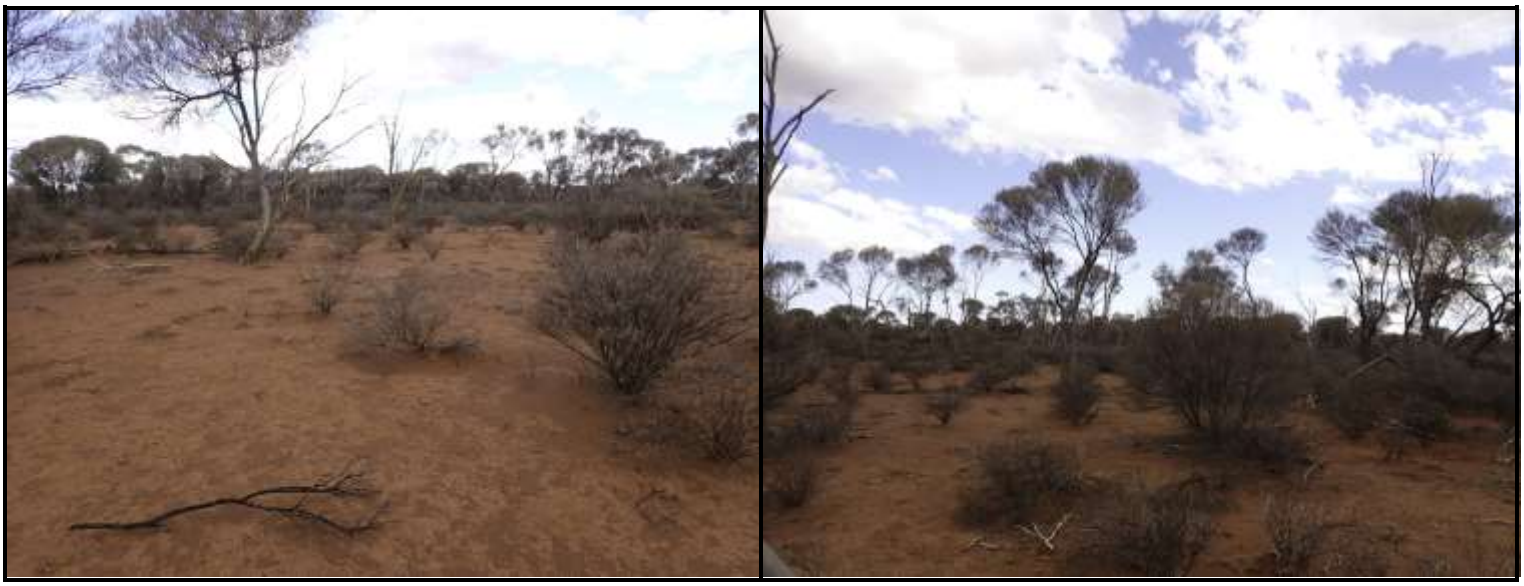
Date: 10/04/2022 Habitat Assessment #: DB150 Observer: GF and JR

Zone: 51 Easting: 422141 mE Northing: 6920921 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB151 Observer: GF and JR

Zone: 51 Easting: 421799 mE Northing: 6920926 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB152 Observer: GF and JR

Zone: 51 Easting: 421824 mE Northing: 6921054 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB153 Observer: GF and JR

Zone: 51 Easting: 422145 mE Northing: 6921076 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB154 Observer: GF and JR

Zone: 51 Easting: 422455 mE Northing: 6921045 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB155 Observer: GF and JR

Zone: 51 Easting: 422737 mE Northing: 6921064 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB156 Observer: GF and JR

Zone: 51 Easting: 423043 mE Northing: 6921069 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Sand



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB157 Observer: GF and JR

Zone: 51 Easting: 423337 mE Northing: 6921071 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Sandy clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB158 Observer: GF and JR

Zone: 51 Easting: 423638 mE Northing: 6921069 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles



TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB159 Observer: GF and JR

Zone: 51 Easting: 423927 mE Northing: 6921066 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS

Date: 10/04/2022 Habitat Assessment #: DB160 Observer: GF and JR

Zone: 51 Easting: 424206 mE Northing: 6921075 mN

Fire History: > 5 years Landform: Flatplain Soil Type: Clay

Habitat Structure: Open Mulga Woodland

Habitat Quality: Partially degraded Surface: Pebbles





TERRESTRIAL ECOSYSTEMS