KANOWNA PROJECT (CPS 8235)

Reconnaissance Flora and Basic Fauna Survey

Prepared for Northern Star Resources Ltd
January 2025

Prepared by
BOTANICA CONSULTING
33 Brewer St PERTH WA 6000 | 0419 916 034

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Disclaimer

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Cover Photo: Eucalypt Woodland on a Clay Loam Plain, taken on the 15th of October 2024.

Prepared by: Amy Johnston
Graduate Environmental Consultant
Botanica Consulting

Reviewed by: Andrea Williams
Director
Botanica Consulting

Catherine Wharton
Senior Environmental Consultant
Botanica Consulting

Approved by: Jim Williams
Director
Botanica Consulting

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EXECUTIVE SUMMARY

Botanica Consulting Pty Ltd (Botanica) was commissioned by Northern Star Resources Ltd (NSR) to undertake a reconnaissance flora and basic terrestrial vertebrate fauna survey at the Kanowna Project (CPS 8235), (referred to as the 'survey area'). The survey area encompassed an area of approximately 3431 ha and is located approximately 15 km southeast of Coolgardie in the Eastern Goldfields region of Western Australia (Figure 1-1).

Botanica conducted a reconnaissance flora and basic terrestrial vertebrate fauna survey of the survey area on the 15th of October 2024. The area was traversed with a four-wheel drive, all-terrain vehicle and on foot by Jim Williams (Director/Principal Botanist) and Trent Matheson (Field Technician).

The survey area lies within the Great Western Woodlands and within the Eastern Goldfields (COO3) subregion of the Coolgardie Bioregion, as defined by the Interim Biogeographic Regionalisation of Australia (IBRA). Three pre-European Beard vegetation associations occur within the survey area, all of which retain at least 96% of their pre-European extent and are therefore not considered threatened.

Prior to the field survey, desktop assessments were undertaken for flora and fauna to identify any potential significant flora, vegetation, fauna and communities that may occur within the survey area. The desktop assessment consisted of a literature review of previous flora and fauna assessments conducted within the local region, searches of the Department of Biodiversity, Conservation and Attractions' (DBCA) Threatened and Priority databases for conservation significant flora, fauna and ecological communities, a search of the NatureMap database, a search of the Dandjoo database, and a search for Matters of National Environmental Significance occurring within 40 km of the survey area.

Results of the desktop assessment identified a total of 697 vascular flora taxa (dominant genera included *Acacia*, *Eucalyptus* and *Eremophila*) and 268 terrestrial vertebrate fauna taxa (comprising of three amphibians, 149 bird species, 28 mammals and 88 reptiles) as having been previously recorded within 40 km of the survey area.

The desktop assessment identified the potential for 104 introduced flora (weed) species and seven introduced vertebrate fauna (feral) species as potentially occurring within 40 km of the survey area. Eight of the introduced flora (weed) species are listed as Declared Pests and/or Weeds of National Significance (WoNS).

The desktop assessment identified 63 significant flora species previously recorded within 40 km of the survey area; three of which were previously recorded within 10 km of the survey area. Nil species were previously recorded within the survey area. Of the 63 significant flora species previously

recorded within 40 km of the survey area 50 were assessed as possibly occurring within the survey area, and the remaining 14 were assessed as being unlikely to occur within the survey area due to unsuitable habitat or being outside the known range of the species

The desktop assessment did not identify any Threatened Ecological Communities (TECs) or Priority Ecological Communities (PECs) within the survey area. The nearest PEC, the Emu Land System (Priority 3), is located approximately 64 km northeast of the survey area.

The desktop assessment identified 17 significant fauna species (15 terrestrial vertebrates and two invertebrates) previously recorded within 40 km of the survey area. Of these, the Malleefowl (*Leipoa ocellata*), Grey Falcon (*Falco hypoleucos*), the Southern Whiteface (*Aphelocephala leucopsis*), the Inland Hairstreak butterfly (*Jalmenus aridus)* and the Arid bronze azure butterfly (*Ogyris subterrestris petrina*) could possibly occur within the survey area. The remaining 12 species were assessed as unlikely to occur or would not occur within the survey area.

The field survey identified 186 vascular flora taxa within the survey area. 88 genera across 28 families, with the most diverse families being Chenopodiaceae, Fabaceae and Myrtaceae. Dominant genera include *Eremophila, Acacia*, *Eucalyptus* and *Maireana*.

A total of 13 broad-scale vegetation types were identified within the survey area; plus areas defined as disturbed which were predominately cleared of native vegetation and contained numerous weed species. These vegetation types were located within four different landform types (not including the disturbed areas).

Based on the vegetation condition rating scale specified in the Environmental Protection Authority (EPA) *Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016a), vegetation was rated as ‘Degraded’ to ‘Very Good’. Disturbances within the survey area were a result of clearing for roads and tracks.

Thirteen introduced flora (weed) species were identified within the survey area during the field assessment. No species are listed as a WoNS or as a Declared Pest in Western Australia.

No Threatened Flora listed under the Western Australian *Biodiversity Conservation* (BC) *Act 2016* or the Commonwealth *Environment Protection and Biodiversity Conservation* (EPBC) *Act 1999*, or Priority flora as listed by DBCA were identified in the survey area. No TECs as listed under the BC Act or EPBC Act, or PECs as listed by DBCA were identified within the survey area.

There are no wetlands of international importance (Ramsar Wetlands) or national importance (Australian Nature Conservation Agency Wetlands) within the survey area nor any proposed or gazetted conservation reserves.

The field survey identified five broad-scale terrestrial fauna habitats occurring within the survey area (including areas defined as cleared/disturbed). A total of 19 vertebrate fauna taxa were identified within the survey area. These taxa represented 15 families across two classes, including Reptilia (3 families, 3 species) and Aves (12 families, 16 species).

No Threatened fauna listed under the EPBC Act or BC Act, or Priority fauna as listed by DBCA were identified within the survey area.

Based on the outcomes from the survey undertaken, Botanica assessed the results of the desktop and field survey with regards to the native vegetation clearing principles listed under Schedule 5 of the *Environmental Protection* (EP) *Act 1986*. The assessment found that the proposed vegetation clearing activities are not at variance with any of the clearing principles.

1 INTRODUCTION

Botanica Consulting Pty Ltd (Botanica) was commissioned by Northern Star Resources Ltd (NSR) to undertake a reconnaissance flora and basic terrestrial vertebrate fauna survey at the Kanowna Project (CPS 8235), (referred to as the 'survey area'). The survey area encompassed a total area of approximately 3431 ha and is located approximately 15 km southeast of Coolgardie in the Eastern Goldfields region of Western Australia (Figure 1-1).

Botanica conducted a reconnaissance flora and basic terrestrial vertebrate fauna survey of the survey area on the 15th of October 2024. The area was traversed with a four-wheel drive, all-terrain vehicle and on foot by Jim Williams (Director/Principal Botanist) and Trent Matheson (Field Technician).

The purpose of this survey was to support regulatory approval applications for the proposed Kanowna Project (CPS 8235).

The survey area lies within the Great Western Woodlands and within the Eastern Goldfields (COO3) subregion of the Coolgardie Bioregion, as defined by the Interim Biogeographic Regionalisation of Australia (IBRA).

1.1 Objectives

The flora assessment was conducted in accordance with the requirements of a reconnaissance flora survey as defined in *Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016a). The objectives of the flora/vegetation and fauna assessment were to:

- Gather background information on flora and vegetation in the target area (literature review, database, and map-based searches);
- Identify significant flora, vegetation and ecological communities and assess the potential sensitivity to impact;
- Conduct a field survey to verify / ground truth the desktop assessment findings;
- Undertake floristic community mapping to a scale appropriate for the bioregion and described according to the National Vegetation Information System (NVIS) structure and floristics;
- Undertake vegetation condition mapping;
- Assess the project area's plant species diversity, density, composition, structure and weed cover, using NVIS classification system for vegetation description;

- Assess Matters of National Environmental Significance (MNES) and indicate whether potential impacts on MNES as protected under the EPBC Act are likely to require referral of the project to the Commonwealth DCCEEW; and
- Determine the State legislative context of environmental aspects required for the assessment.

The fauna assessment was conducted in accordance with the requirements of a basic terrestrial vertebrate fauna survey as defined in *Technical Guidance - Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment* (EPA, 2020). The objectives of the assessment were to:

- Undertake a literature review, including map-based information searches of all current and relevant literature sources and databases relating to the survey area;
- Undertake a desktop investigation to identify any previously recorded occurrences of or potentially occurring Threatened and Priority listed fauna within the survey area;
- Undertake searches on available databases for details relating to any Threatened and Priority listed fauna previously identified as occurring or potentially occurring within the survey area;
- Conduct fauna habitat mapping and identify habitat types which are suitable for each significant fauna considered likely or possible to occur, or fauna recorded in the survey area;
- Undertake opportunistic, low intensity sampling of fauna; and
- Report on the conservation status of species present using the Western Australian Museum and Environment Protection and Biodiversity Conservation Act 1999 databases for presence of Threatened and Priority listed fauna species within the survey area.

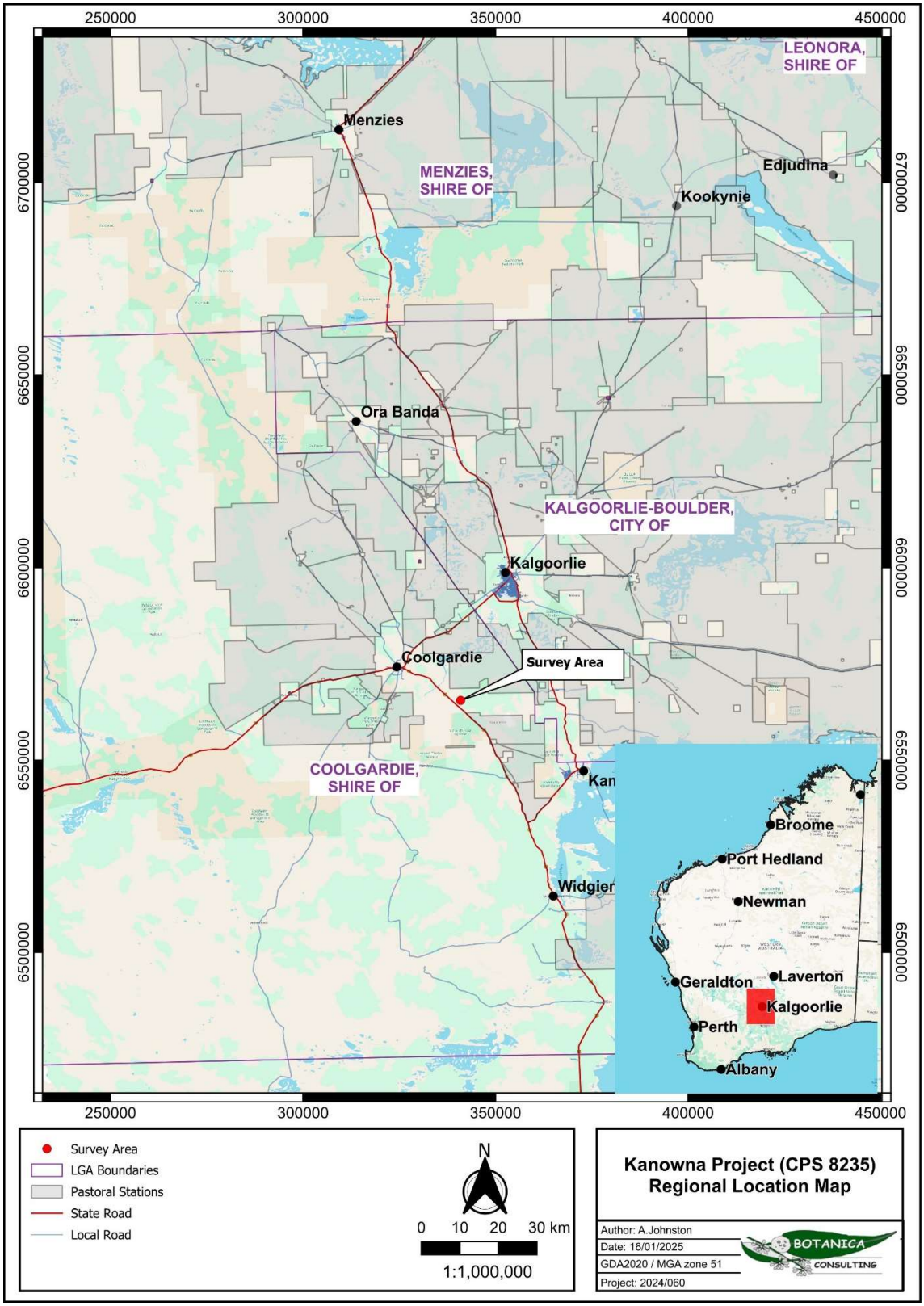


Figure 1-1: Regional location of the Kanowna Project (CPS 8235)

2 BIOPHYSICAL ENVIRONMENT

2.1 Regional Environment

The survey area lies within the Eastern Goldfields (COO3) subregion of the Coolgardie bioregion, as defined by the Interim Biogeographic Regionalisation of Australia (IBRA) (Figure 2-1).

The Coolgardie bioregion covers the interzone between mulga and spinifex country, and eucalypt environments. The vegetation consists of Mallees, *Acacia* thickets and shrub heaths on sandplains. Diverse *Eucalyptus* woodlands occur around salt lakes, on ranges, and in valleys. Salt lakes support dwarf shrublands of samphire. Woodlands and *Dodonaea* shrubland occur on basic granulites of the Fraser Range. The area is rich in endemic *Acacia* species.

The Eastern Goldfields subregion (5,102,428 ha) lies on the 'Eastern Goldfields Terrains' of the Yilgarn Craton, which is described as gently undulating plains with a subdued relief, interrupted in the west with low hills and ridges of Archaean greenstones and in the east by a horst of Proterozoic basic granulite. The underlying geology is of gneisses and granites eroded into a flat plane covered with tertiary soils and with scattered exposures of bedrock. Calcareous earths are the dominant soil group and cover much of the plains and greenstone area.

A series of large playa lakes in the western half of the Eastern Goldfields subregion are the remnants of an ancient major drainage line (Cowan, 2001). Ephemeral streams drain the low rises north and east into salt lakes and clay plans. Generally, these drainage lines are poorly defined wash or sheet zones, except where they enter the major salt lakes.

Woodland in the Coolgardie bioregion has been logged in the past for mining, timber and firewood, therefore much of the existing vegetation is of secondary growth (Beard, 1972).

2.2 Land Use

The dominant land uses of the Eastern Goldfields subregion are unallocated Crown Land and Crown reserves, grazing-native pastures-leasehold (37.8%), freehold (7.15%), conservation and mining leases (Cowan, 2001).

The survey area is comprised of one exploration tenement (E15/1770), one pending exploration tenement (E15/1980) and a freehold/ leasehold area; all of which are located within the Shire of Coolgardie.

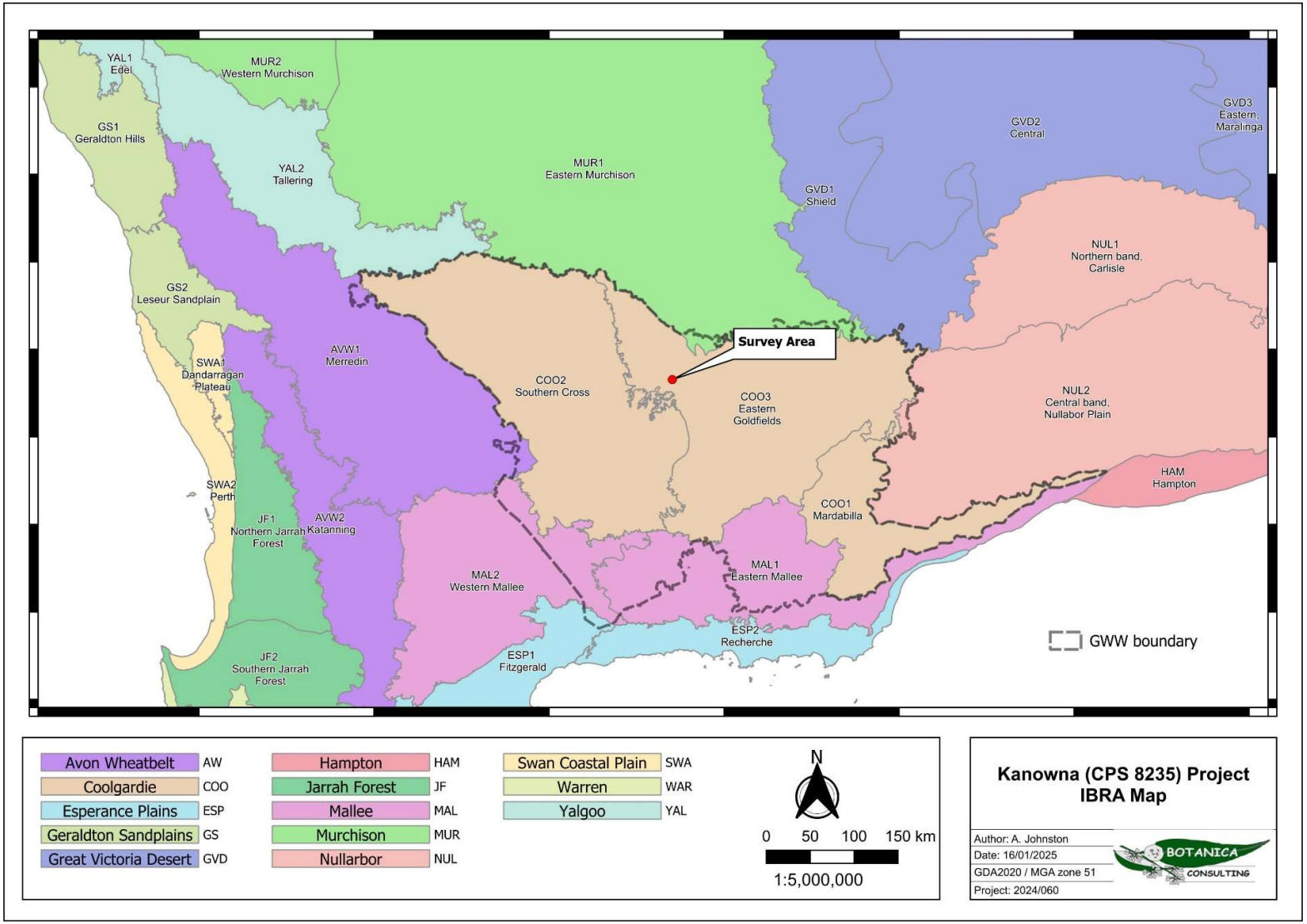


Figure 2-1: Map of the IBRA subregions and boundary of the Great Western Woodlands in relation to the survey area

2.3 Soils and Landscape Systems

The survey area lies within the Kalgoorlie Province soil-landscape of the Western Region, which consists of an extensive plateau of low relief. Flat to undulating plains with small valleys (occasionally broken by low narrow rocky hills, ridges, tors and bosses) are most commonly found on granitic terrain (Tille, 2006). On these plains may be found some silcrete duricrust, claypans, salt lakes with dunes and lunettes, gilgai areas, small remnants of sand plain, and small dune tracts (Tille, 2006).

The Kalgoorlie Province is further divided into six soil-landscape zones, with the survey area located within the Norseman Zone (266) in the south-eastern Goldfields between Menzies and Norseman.

The Norseman zone is located in the southern Goldfields between Koolyanobbing, Menzies, Zanthus (Trans-Australian Railway), Norseman and Lake Hope. The landscape consists of undulating plains and uplands (with some sandplains and salt lakes) on granitic rocks of the Yilgarn Craton. Soils include calcareous loamy earths, yellow sandy and loamy earths, red loamy earths, red deep sands and Salt Lake soils. Vegetation consists of salmon gum-redwood-merrit-red mallee-gimlet woodland with acacia/casuarina thickets (and some mulga shrublands and spinifex grasslands). (Tille, 2006).

In accordance with soil landscape system mapping data (Government of Western Australia, 2019a), the soil landscape zones are divided into soil landscape systems, with the survey area located within two landscape systems as described in Table 2-1 and shown in Figure 2-2.

Table 2-1: Soil landscape systems within the survey area

Zone	Soil Landscape System	Description	Extent within Survey Area
Norseman Zone (266)	Mx43 Atlas System	Gently undulating valley plains and pediments; some outcrop of basic rock.	2122 ha (62%)
	My154 Atlas System	Undulating country on acid volcanic rocks and sedimentary materials.	1309 ha (38%)
Total			**3431 (100%)**

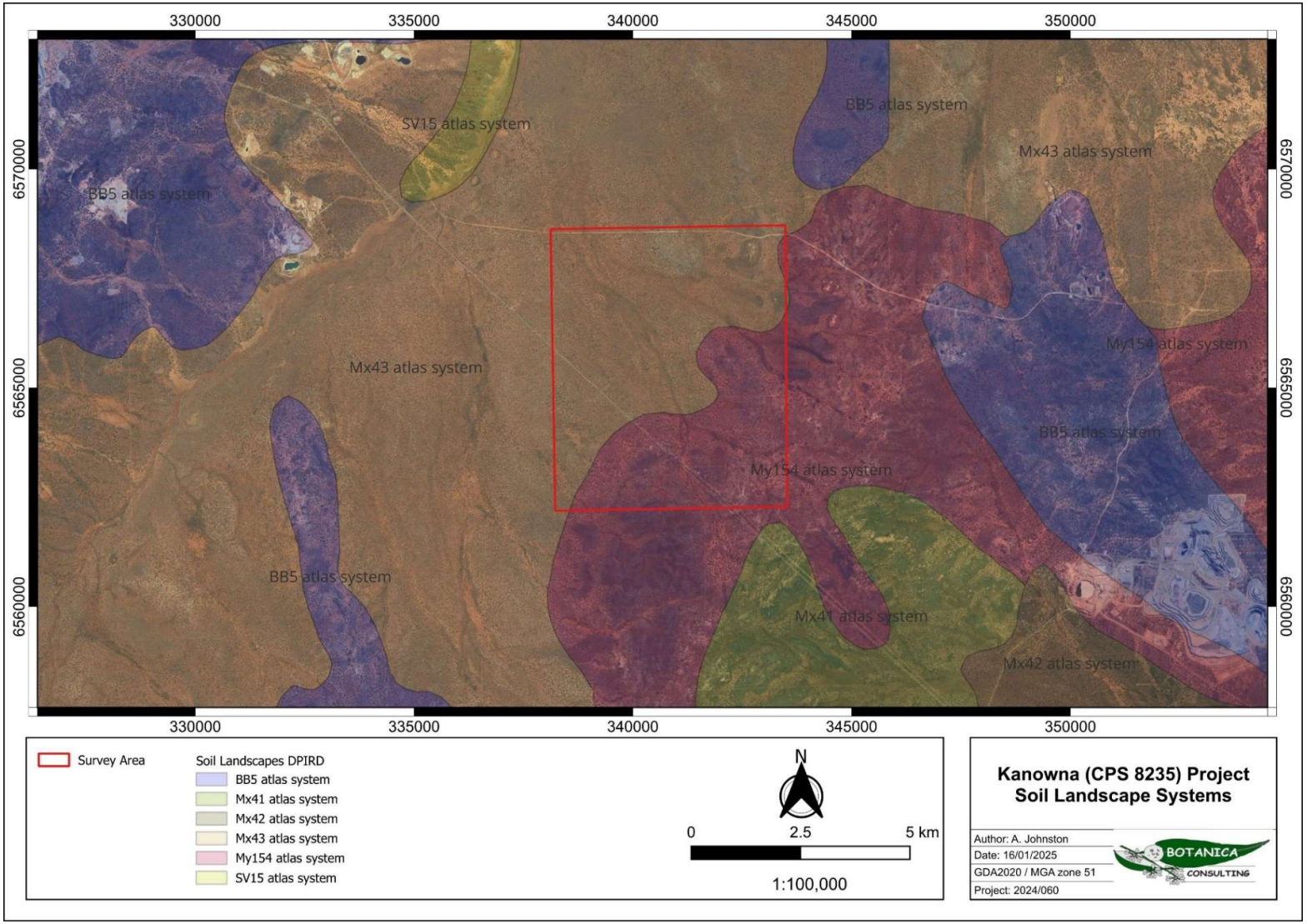


Figure 2-22: Map of soil landscape systems within the survey area

2.4 Pre-European Vegetation

In accordance with Beard (1990) the survey area is located in the Coolgardie Botanical District of the Southwestern Interzone Province. Vegetation is predominately *Eucalyptus* woodlands, with slopes and flats containing *E. longicornis* alongside *E. salubris* and *E. salmonophloia*. Woodland understories range from tall sclerophyll shrubland dominated by *Melaleuca pauperiflora* to soft-leaved saltbush shrubland of *Atriplex vesicaria* and *A. nummularia*. Some hill slopes contain mallees of *E. livida* or *E. loxophleba*, while ironstone ridges are covered in thickets of *Acacia quadrimarginea*, *Allocasuarina acutivalvis* and *A. campestris*. Other vegetation assemblages include species-rich scrub-heaths and *Allocasuarina* thickets on sandplains, merging into *Acacia* thickets and Kwongan vegetation to the north.

The survey area occurs entirely within the Coolgardie System on the edge of the Binneringe and Randell Systems. The pre-European vegetation association dataset (DPIRD, 2018) identifies three vegetation associations occurring within the survey area (Figure 2-3). The system association descriptions and their remaining extent in the Eastern Goldfields subregion, as specified in Report 3b of the 2018 Statewide Vegetation Statistics (Government of Western Australia, 2019b), are provided in Table 2-2.

Areas retaining less than 30% of their pre-European vegetation extent generally experience exponentially accelerated species loss, while areas with less than 10% are considered “endangered” (EPA, 2000). The vegetation associations within the survey area retain at least 96% of their pre-European extent and are not considered to be representative of remnant vegetation.

Table 2-2: Pre-European vegetation associations within the survey area

Pre-European Vegetation		Pre-European Extent Remaining (%)	Current Extent Reserved for Conservation (%)	Extent within Survey Area
System / Vegetation Association	Description			
Coolgardie 936	Medium woodland; salmon gum	99.35	-	2484 ha 72.4% of total survey area
Coolgardie 9	Medium woodland; coral gum (*Eucalyptus torquata*) & goldfields blackbutt (*E. lesoufii*)	96.88	0.53	941 ha 27.4% of total survey area
Coolgardie 128	Bare areas; rock outcrops	99.61	-	6 ha 0.2% of total survey area
Total				**3431 (100%)**

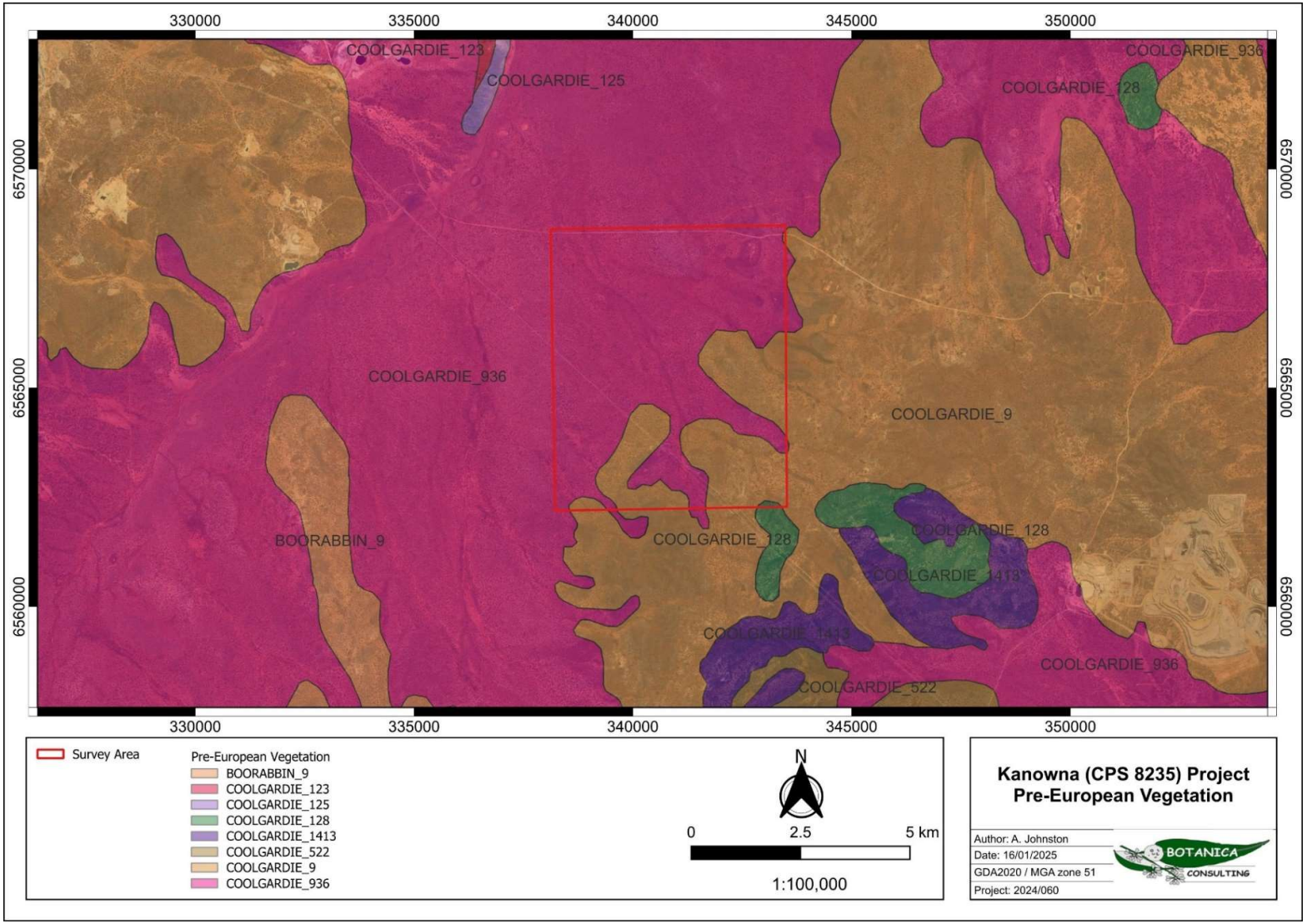


Figure 2-33: Pre-European vegetation associations within the survey area

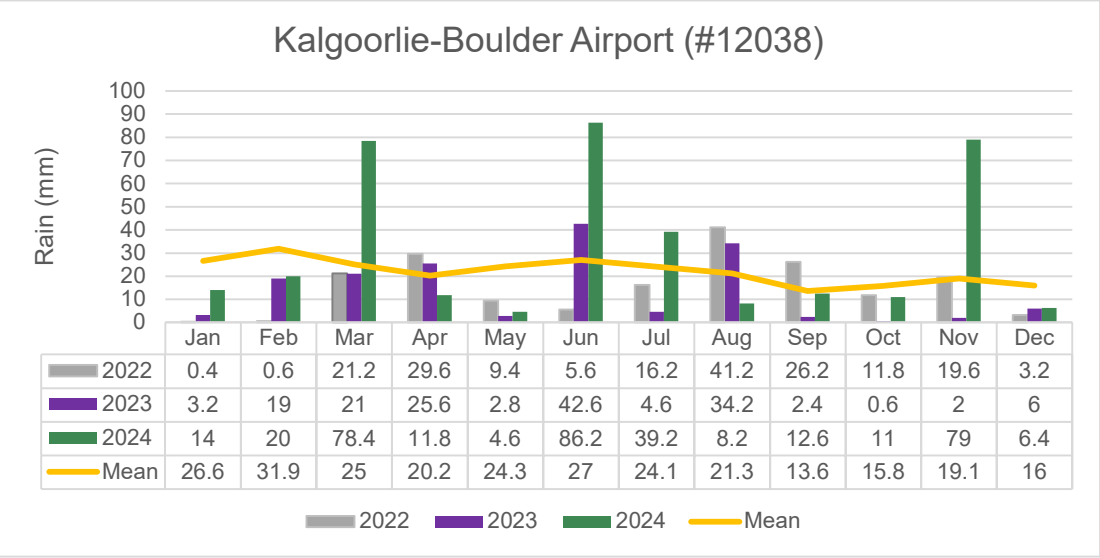
2.5 Climate

The Coolgardie bioregion experiences an arid to semi-arid climate, with an average rainfall between 200-300 mm, sometimes in summer but usually in winter (Cowan, 2001). The nearest Bureau of Meteorology (BoM) weather station is at Coolgardie (#12018); located approximately 19 km northwest of the survey area's centroid; however data is inconsistently recorded at this weather station. For the purposes of this report, data recorded at the Kalgoorlie-Boulder Airport weather station (#12038) has been used, which is located approximately 35 km to the northeast.

Kalgoorlie-Boulder Airport receives an average annual rainfall of about 265 mm, with a bimodal rainfall pattern with peak falls in summer (February) and winter (June) (Figure 2-4). Summer rainfall originates from deteriorating tropical cyclones that cross the coast of northern Western Australia and dissipate to the south-east. Winter rainfall results from cold fronts crossing the southern coastline and moving inland.

The highest temperatures are recorded between November and March, when mean minimum and maximum temperatures are 18°C and 33.7°C, respectively. The lowest temperatures are recorded between June and August, when mean minimum and maximum temperatures are 5.1°C and 16.9°C, respectively.

The survey was conducted in October 2024, with the preceding months of June and July receiving above average rainfall whilst May and August received well below average rainfall (



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2022	0.4	0.6	21.2	29.6	9.4	5.6	16.2	41.2	26.2	11.8	19.6	3.2
2023	3.2	19	21	25.6	2.8	42.6	4.6	34.2	2.4	0.6	2	6
2024	14	20	78.4	11.8	4.6	86.2	39.2	8.2	12.6	11	79	6.4
Mean	26.6	31.9	25	20.2	24.3	27	24.1	21.3	13.6	15.8	19.1	16

Figure 2-5). The average rainfall for 2024 was greater than the long-term average of the preceding years (Figure 2-6).

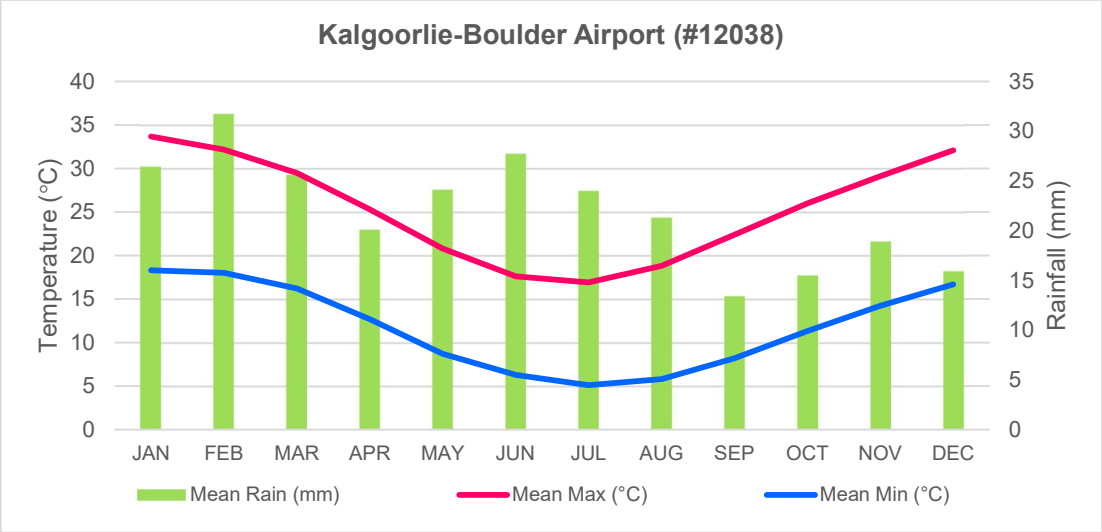
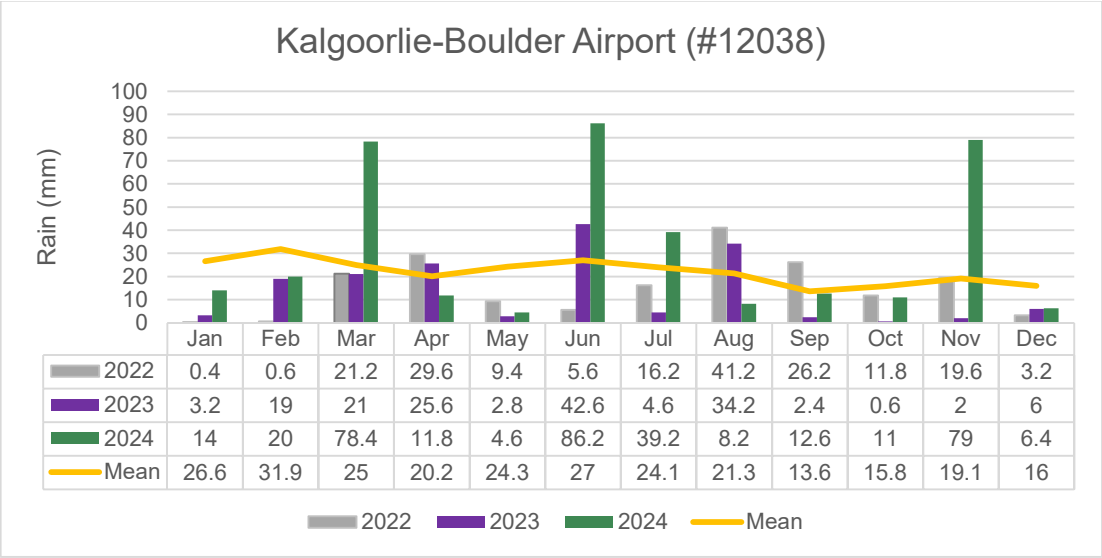


Figure 2-44: Climate data for Kalgoorlie-Boulder Airport (#12038) (BoM, 2025)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2022	0.4	0.6	21.2	29.6	9.4	5.6	16.2	41.2	26.2	11.8	19.6	3.2
2023	3.2	19	21	25.6	2.8	42.6	4.6	34.2	2.4	0.6	2	6
2024	14	20	78.4	11.8	4.6	86.2	39.2	8.2	12.6	11	79	6.4
Mean	26.6	31.9	25	20.2	24.3	27	24.1	21.3	13.6	15.8	19.1	16

Figure 2-55: Monthly rainfall data for Kalgoorlie-Boulder Airport (#12038) (BoM, 2025)

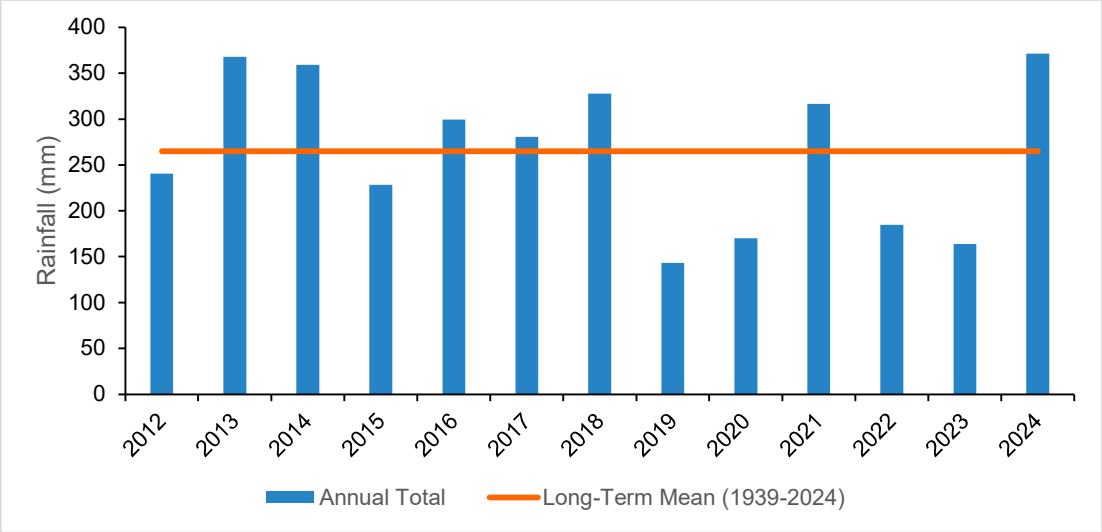


Figure 2-66: Annual rainfall data for Kalgoorlie-Boulder Airport (#12038) (BoM, 2025)

2.6 Conservation Values

No Threatened Ecological Communities (TECs) listed under the EPBC Act or the BC Act are known to occur within, or within 40 km of, the survey area.

No Priority Ecological Communities (PECs) as listed by DBCA occur within, or within 40 km of, the survey area. The nearest PEC, the Emu Land System (Priority 3), is located approximately 64 km northeast of the survey area.

There are no Ramsar wetlands of international importance or sites listed in the Directory of Important (DIWA) (*i.e.*, wetlands of national importance) within, or within 40 km of, the survey area. The Eastern Goldfields (COO3) subregion contains one wetland of national importance: Rowles Lagoon System, located approximately 78 km northwest of the survey area. The nearest Ramsar wetland: Lake Ballard, is located approximately 166 km north-northwest of the survey area.

The Rowles Lagoon System is also the nearest Environmentally Sensitive Area (ESA) as listed under the *Environmental Protection* (EP) *Act 1986*.

There are no proposed nor gazetted conservation reserves within the survey area; however, there are several gazetted conservation reserves within 40 km of the survey area. The closest gazetted conservation reserve is the Karamindie Forest (State Forest, Class A) which is located approximately 5 km northeast of the survey area. The survey area also shares a southern border with the Yallari Timber Reserve (Section 5(g) reserve, Class C).

A map showing conservation values in relation to the survey area is provided in Figure 2-7.

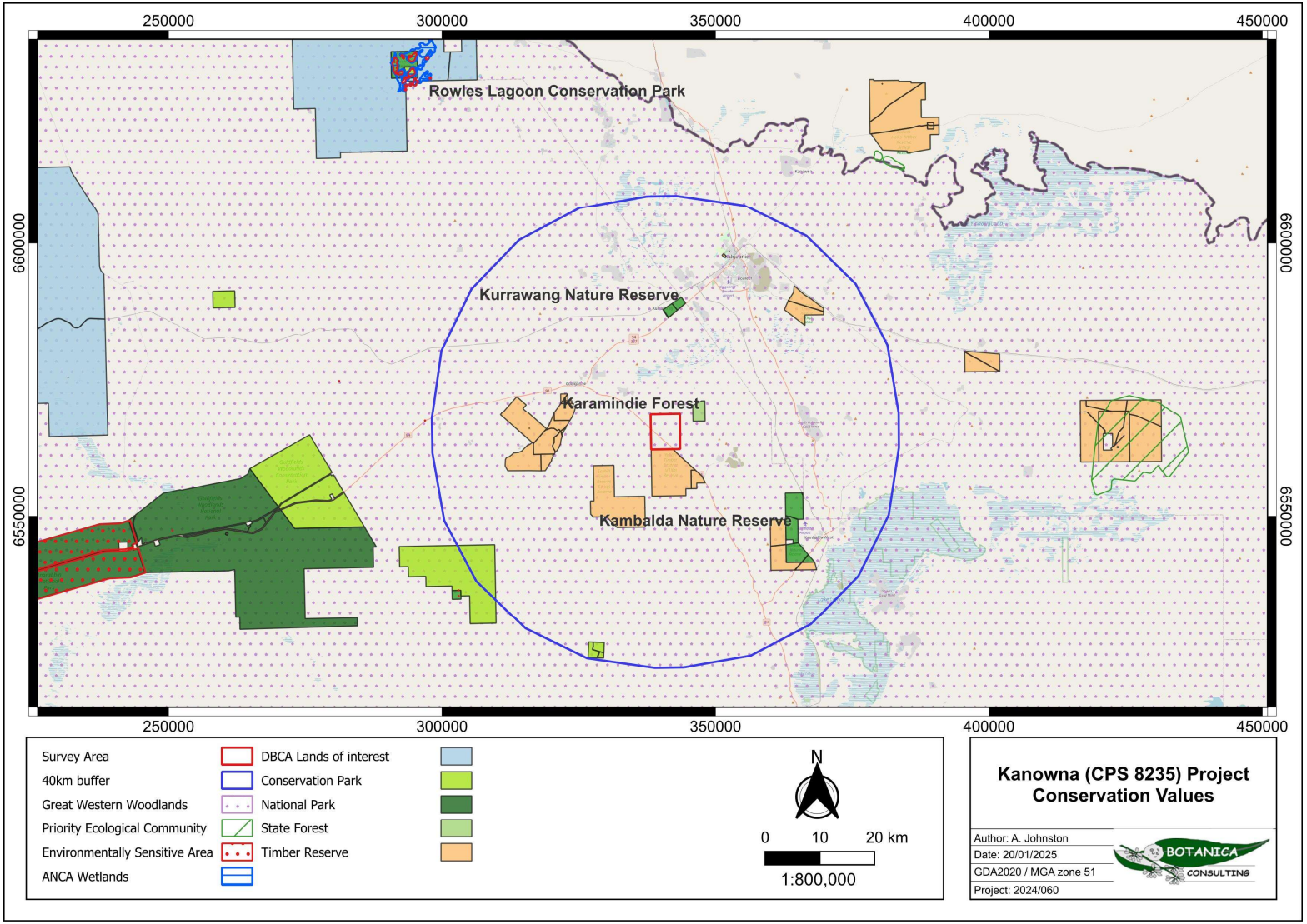


Figure 2-77: Conservation values in relation to the survey area

2.6.1 Great Western Woodlands

The survey area lies within the Great Western Woodlands, located approximately 50 km from the northern boundary. The Great Western Woodlands is considered by the Wilderness Society of WA to be of global biological and conservation importance as one of the largest and healthiest temperate woodlands on Earth, containing many endemic taxa. The region covers almost 16 million hectares, 160,000 square kilometres, from the southern edge of the Western Australian Wheatbelt to the pastoral lands of the Mulga country in the north, the inland deserts to the northeast, and the treeless Nullarbor Plain to the east (Figure 2-1).

The area provides an eastward connection between southwest forests and inland deserts (Gondwana Link) as well as linking the north-west passage to Shark Bay. The majority of the Great Western Woodlands is unallocated crown land (61.1%) with other interests including pastoral leases (20.4%), conservation reserves (15.4%), unallocated crown land ex-pastoral managed by the DBCA (2%) and private land (approximately 1%) (Watson *et. al.,* 2008).

No specific management strategy or formal conservation status applies to the Great Western Woodlands. The Great Western Woodlands currently includes towns, highways, roads, railways, private property, Crown Reserves, agricultural activities and mining tenements.

2.7 Hydrology

According to the Geoscience Australia database (2015), there are no permanent/ perennial inland waters or drainage lines within the survey area. There are two minor ephemeral drainage lines within the survey area.

Groundwater Dependent Ecosystems (GDE) includes biological assemblages of species such as wetlands or vegetation that use groundwater either opportunistically or as their primary water source. For the purposes of this report, a GDE is defined as any vegetation community that derives part of its water budget from groundwater and must be assumed to have some degree of groundwater dependency. According to the *Atlas of Groundwater Dependent Ecosystems* database (BoM, 2019), there are no potential terrestrial GDEs located within the survey area (Figure 2-8). There is one high potential GDE occurring 2 km north of the survey area.

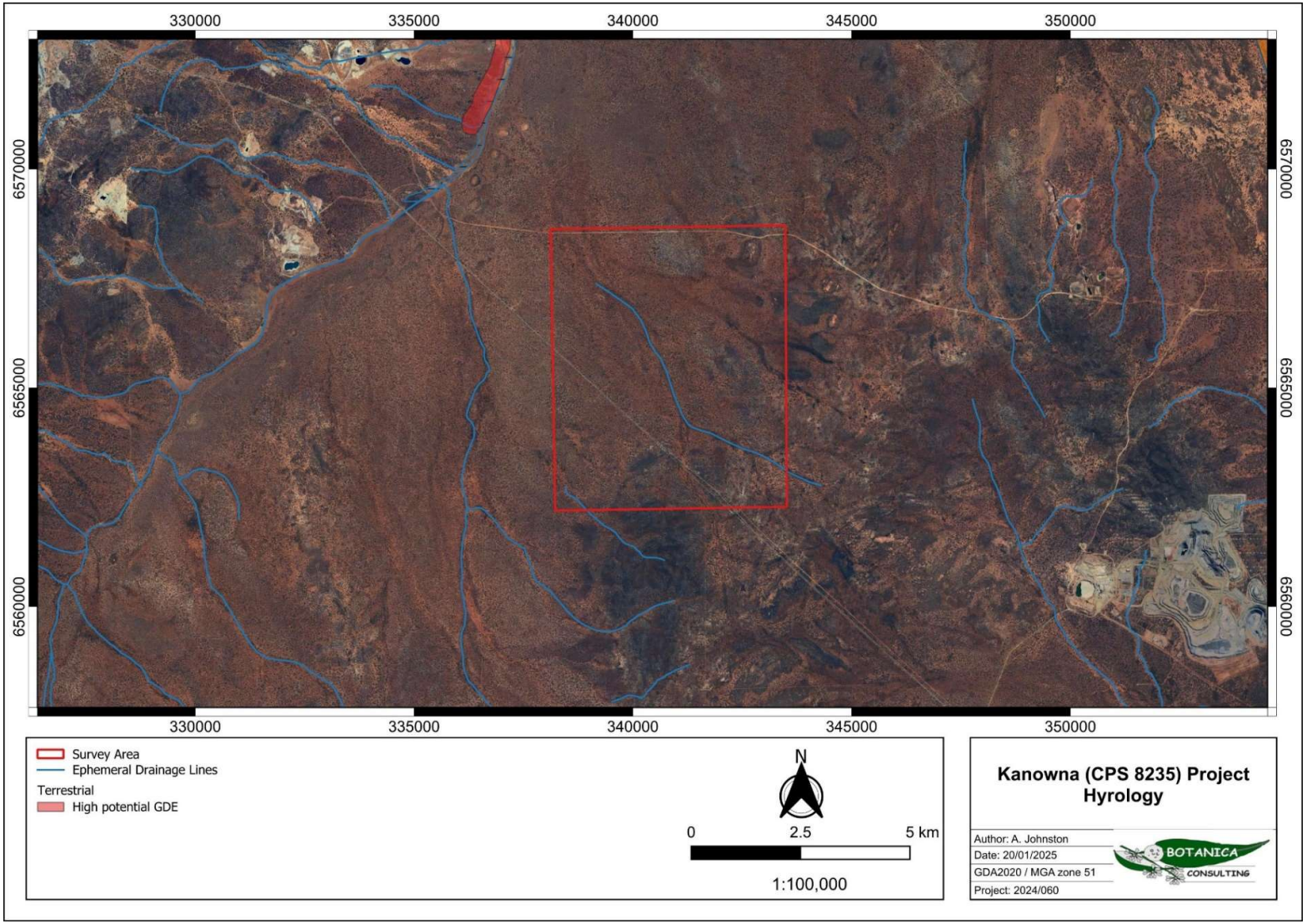


Figure 2-88: Potential GDEs of the survey area

3 SURVEY METHODOLOGY

3.1 Desktop Assessment

3.1.1 Literature Review

Prior to the field assessment a literature review was undertaken of previous flora and fauna assessments conducted within the local region. Documents reviewed included:

- Botanica Consulting (2022a). *Baker Project: Detailed Flora and Basic Fauna Assessment*. Prepared for Lunnon Metals Ltd. November 2022.
- Botanica Consulting (2022b). *Kalgoorlie East Gold Project Powerline – Majestic Timber Reserve Corridor Options and Drill Lines: Reconnaissance Flora and Basic Fauna Assessment*. Prepared for Black Cat Syndicate Ltd. March 2022.
- Botanica Consulting (2022c). *Greenfields Mill: Reconnaissance Flora/Vegetation and Basic Fauna Assessment*. Prepared for FMR Investments Pty Ltd, July 2022.
- Botanica Consulting (2023a). *Kalgoorlie Nickel Smelter: Reconnaissance Flora/Vegetation and Basic Fauna Assessment*. Prepared for BHP Nickel West Pty Ltd., April 2023.
- Botanica Consulting (2023b). *North Dam Project: Reconnaissance Flora/Vegetation Survey and Targeted Flora Survey*. Prepared for CuFe Ltd, December 2023.
- Botanica Consulting (2023c). *South Kalgoorlie Operations Detailed Flora/Vegetation Survey and Basic Fauna Assessment.* Prepared for Northern Star Resources Limited.
- Keighery, G.J., Milewski, A.V. and Hnatiuk, R.J. (1992). Vegetation and flora. In: N.L. McKenzie and N.J. Hall (eds) *The Biological Survey of the Eastern Goldfields of Western Australia: Part 8 Kurnalpi-Kalgoorlie Study Area*. Records of the Western Australian Museum, Supplement No. 41.
- Meissner R.A. & Coppen R. (2014). *Flora and vegetation of the greenstone ranges of the Yilgarn Craton: Kangaroo Hills and surrounding area.* Article in Conservation Science, Western Australia, 9 (2): 169-179.
- Native Vegetation Solutions (2012). *Location Lease 48 and 50. Level 2 Flora and Vegetation Survey*. Prepared for Alacer Gold Corporation, September 2012.
- Waddell, P. A., and Galloway, P. D. (2023). *Land systems, soils and vegetation of the southern Goldfields and Great Western Woodlands of Western Australia.* Technical bulletin 99, vol 1, Department of Primary Industries and Regional Development, Western Australian Government.

3.1.2 Database Searches

In addition to the literature review, searches of the following databases were undertaken to aid in the compilation of a list of flora and fauna taxa and communities within the survey area:

- DBCA's Threatened and Priority Flora Database (Ref: 08-0224FL) (DBCA, 2024a)
- DBCA's Threatened and Priority Ecological Communities Database (Ref: 39-0124EC) (DBCA, 2024b)
- DBCA's Threatened and Priority Fauna Database (Ref: 8141) (DBCA, 2024c)
- NatureMap Search (Ref: 68-0124) (DBCA, 2024d)
- EPBC Act online Matters of National Environmental Significance (MNES) database (Department of Climate Change, Energy, the Environment, and Water [DCCEEW], 2025).

The database searches were conducted for an area encompassing a 40 km buffer around the survey area (*i.e.*, the assessment area).

It should be noted that these lists are sometimes based on observations from a broader area than the assessment area (40 km radius) and therefore may include taxa not present. The databases also often include very old records that may be incorrect or in some cases the taxa in question have become locally or regionally extinct. Information from these sources should therefore be taken as indicative only and local knowledge and information also needs to be taken into consideration when determining the actual species which may be present within the specific area being investigated.

The conservation significance of flora and fauna taxa was assessed using data from the following sources:

- EPBC Act. Administered by the Australian Government (DCCEEW);
- BC Act. Administered by the WA Government (DBCA);
- Red List produced by the Species Survival Commission (SSC) of the World Conservation Union (also known as the IUCN Red List – the acronym derived from its former name of the International Union for Conservation of Nature and Natural Resources). The Red List has no legislative power in Australia but is used as a framework for State and Commonwealth categories and criteria; and
- Priority Flora and Fauna lists. A non-legislative list maintained by DBCA for management purposes: Priority flora list released 8th August 2024 (DBCA, 2024e); Priority fauna list released 30th August 2024 (DBCA, 2024f).

3.1.3 Likelihood of Occurrence

Significant flora species identified by the desktop review were assessed with regards to their population extent and distribution and preferred habitat to determine their likelihood of occurrence within the survey area. The assessment categorised flora species as follows:

- **Unlikely:** Suitable habitat is not expected to occur and/or the survey area is outside the known range of the species.
- **Possible:** Suitable habitat may be present, and the area is within the known range of the species. This option is also used when there is insufficient information to determine the preferred habitat of a species.
- **Likely:** Suitable habitat is expected to occur and there are records within 10 km of the survey area.
- **Previously Recorded:** A record for this species is located within the survey area. Field survey will ground truth currently occurring individuals and populations.

Significant fauna species identified by the desktop review were assessed with regards to their distribution and preferred habitat to determine their likelihood of occurrence within the survey area. The assessment categorised fauna species as follows:

- **Would Not Occur:** There is no suitable habitat for the species in the survey area and/or there is no documented record of the species in the general area since records have been kept and/or the species is generally accepted as being locally/regionally extinct (supported by a lack of recent records).
- **Unlikely to Occur:** The survey area is outside of the currently documented distribution for the species in question, or no suitable habitat (type, quality and extent) was identified as being present during the desktop review or field assessment. Individuals of some species may occur occasionally as vagrants/transients especially if suitable habitat is located nearby but the site itself would not support a population or part population of the species.
- **Possibly Occurs:** Survey area is within the known distribution of the species in question and habitat of at least marginal quality was identified as likely to be present during the desktop review or field survey, supported in some cases by recent records being documented in literature from within or near the survey area. In some cases, while a species may be classified as possibly being present at times, habitat may be marginal (e.g. poor quality, fragmented, limited in extent) and therefore the frequency of occurrence and/or population levels may be low.
- **Known to Occur:** The species in question has been positively identified as being present (for sedentary species) or as using the survey area as habitat for some other purpose (for non-sedentary/mobile species) within the survey area. This information may have been obtained by direct observation of individuals or by way of secondary evidence (e.g., tracks, foraging debris, and scats). In some cases, while a species may be classified as known to occur, habitat may be marginal (e.g., poor quality, fragmented, limited in extent) and therefore the frequency of occurrence and/or population levels may be low.

Descriptions of conservation significant species and communities are provided in Appendix A.

3.2 Field Assessment

3.2.1 Flora and Vegetation Field Assessment

Botanica conducted a reconnaissance flora and vegetation survey of the survey area on the 15th of October 2024.

The survey area was traversed using a 4WD vehicle, all-terrain vehicle and on foot by Jim Williams (Director/Principal Botanist, Diploma of Horticulture) and Tent Matherson (Field Technician). The GPS track log of the flora and vegetation survey effort is shown in Figure 3-1.

Prior to the commencement of field work, aerial photography was inspected and obvious differences in the vegetation assemblages were identified. The different vegetation communities identified were then inspected during the field survey to assess their validity. A handheld GPS unit was used to record the coordinates of the boundaries between existing vegetation communities.

The survey was conducted using 75 survey sites (relevés) (Figure 3-1). At each relevé site, the area was walked on foot to observe and record all flora species. The distance surveyed at each relevé varied dependent on the diversity/ variability of species and landforms/ vegetation types.

At each relevé, the following information was recorded:

- GPS location;
- Photograph of vegetation;
- Dominant taxa for each stratum;
- All vascular taxa (including annual taxa);
- Landform classification;
- Vegetation condition rating;
- Collection and documentation of unknown plant specimens; and
- GPS location, photograph and collection of flora of conservation significance (if encountered).

Unknown specimens collected during the survey were identified with the aid of samples housed at the Botanica Herbarium and the Western Australian Herbarium (WAH). Vouchering of the specimens with the WAH was not required as none of the specimens were of significance (i.e. conservation flora, novel taxa, range extensions etc.).

Structural vegetation classification was used to characterise the different vegetation types identified within the survey area. Vegetation types were described in accordance with NVIS classifications - Vegetation Types (Level V).

The vegetation condition rating scale adapted from Keighery (1994) and Trudgen (1988), as specified in the *Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016a), for the Southwest and Interzone botanical provinces was used to rate the condition of vegetation within the survey area. Vegetation condition rating descriptions are listed in Appendix F.

3.2.1.1 Data Analysis

Following the field assessment, vegetation types and condition were mapped using the GIS program QGIS, and the hectare area/ percentage area of each vegetation type and condition within the survey area was calculated. Spatial maps illustrating the location of vegetation types and any significant flora/ vegetation were generated using QGIS.

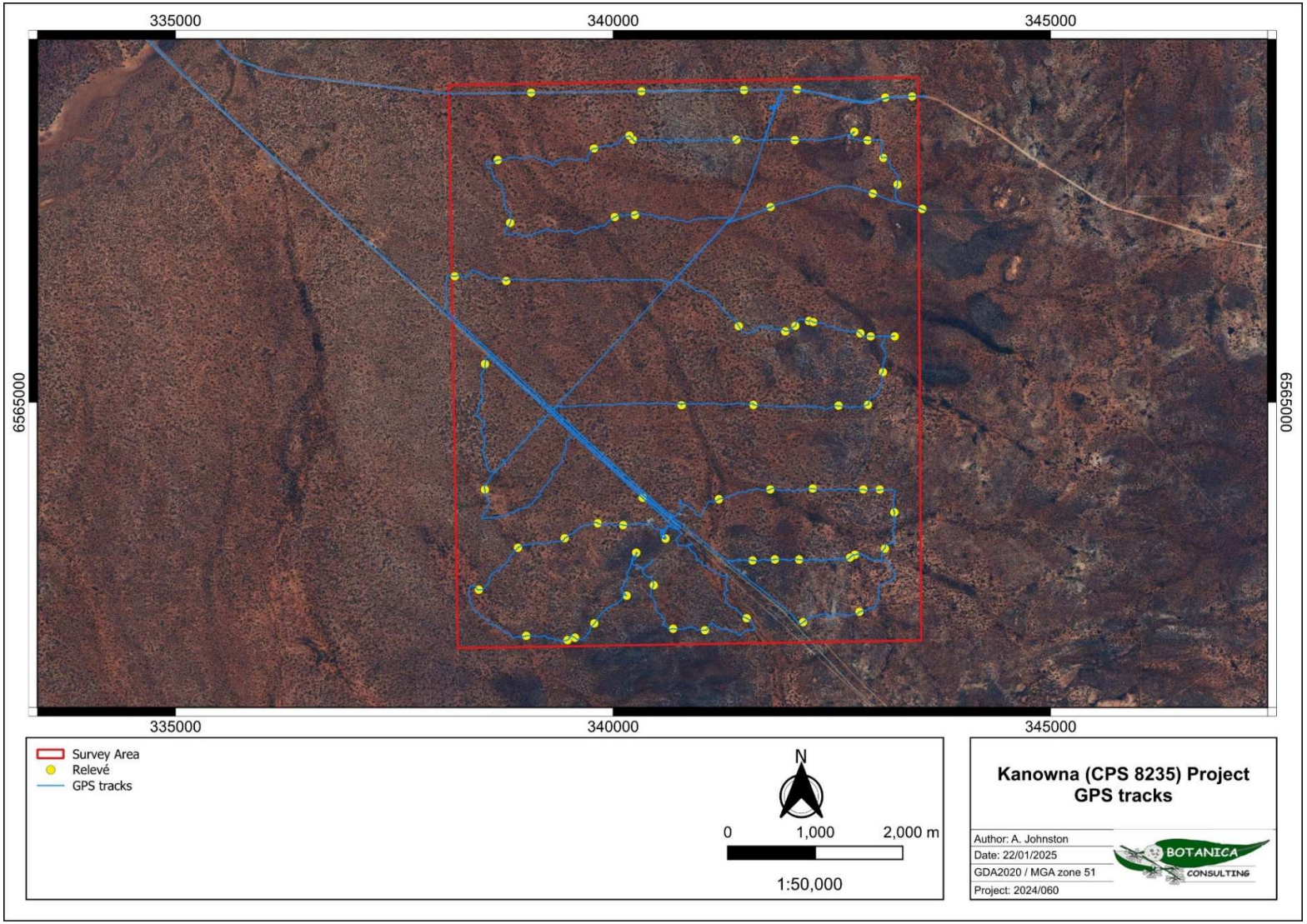


Figure 3-1: GPS track log of the flora and vegetation survey effort and locations of relevés

3.2.1.2 Scientific Licences

Table 3-1: Scientific Licenses of Botanica Staff Coordinating the Survey

Licensed Staff	Permit Number	Date of Expiry
Jim Williams	FB62000457 – Flora Taking (Biological Assessment) Licence	04/08/2025

3.2.1.3 Flora Survey Limitations and Constraints

The flora/vegetation assessment was designed and carried out to conform to a reconnaissance survey as defined in *Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016a). The assessment included a desktop assessment aimed at providing a list of expected species, and targeted and opportunistic flora collections via relevé sites and traverses. It is important to note that flora surveys will entail limitations notwithstanding careful planning and design. Potential limitations of the survey, as stipulated within the *Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016a), are listed in Table 3-2.

The conclusions presented in this report are based upon field data and environmental assessments and/or testing carried out over a limited period of time and are therefore merely indicative of the environmental condition of the site at the time of the field assessments. Also, it should be recognised that site conditions can change with time. Information not available at the time of this assessment which may subsequently become available may alter the conclusions presented.

Some species are reported as potentially occurring based on there being suitable habitat (quality and extent) within the survey area or immediately adjacent. The habitat requirements and ecology of many of the species known to occur in the wider area are however, often not well understood or documented. It can therefore be difficult to exclude species from the potential list based on a lack of a specific habitats or microhabitats within the survey area. As a consequence of this limitation, the potential species list produced is most likely an overestimation of those species that actually are present in the survey area.

In recognition of survey limitations, a precautionary approach has been adopted for this assessment. Any flora species that would possibly occur within the survey area (or immediately adjacent), as identified through ecological databases, publications, discussions with local experts/residents and the habitat knowledge of the author, has been listed as having the potential to occur.

Table 3-2: Flora Survey Limitations and Constraints

Potential Constraint	Potential Impact on Survey	Comments on Survey Outcomes
Access problems	Not a constraint	The survey was conducted via 4WD and on foot. Numerous access tracks were present within the survey area providing ease of access and good coverage of vegetation types.

Potential Constraint	Potential Impact on Survey	Comments on Survey Outcomes
Competency/ Experience	Not a constraint	The Botanist that conducted the survey was regarded as suitably qualified and experienced. **Coordinating and Field Staff**: Jim Williams (Director/ Principal Botanist, Diploma of Horticulture). Jim has over 30 years' experience in biological surveying across Western Australia. **Data Interpretation**: Amy Johnston (Graduate Environmental Consultant)
Timing of survey, weather & season	Not a constraint	Fieldwork was undertaken within the EPA's recommended survey period (September - November) for the Southwest and Interzone Province. The survey was conducted in October 2024, with the preceding months of June and July receiving above average rainfall whilst May and August received well below average rainfall.
Area disturbance	Major constraint	The area has been heavily disturbed by ongoing mining operations and other human impacts. The extent of disturbance within the survey area may have affected the results of survey e.g., species that would normally occur were not found in all areas of the survey area.
Survey Effort/ Extent	Not a constraint	Survey intensity was appropriate for the size/ significance of the area with a reconnaissance flora/ vegetation survey completed to identify vegetation types and target searches for significant flora taxa.
Availability of contextual information at a regional and local scale	Not a constraint	Conservation significant flora and ecological community database searches provided by the DBCA were used to identify any potential locations of Threatened/Priority flora species and/or Threatened/Priority ecological communities. BoM, DWER, DPIRD, DBCA and DCCEEW databases were reviewed to obtain appropriate regional desktop information on the biophysical environment of the local region. Jim Williams and Botanica Consulting have conducted numerous surveys within the Coolgardie bioregion and were also able to obtain information about the area from previous research conducted within the area. Results of previous assessments in the local area were reviewed to provide context on the local environment.
Completeness	Not a constraint	In the opinion of Botanica, the survey area was covered sufficiently in order to identify vegetation assemblages and significant flora taxa. Survey work was conducted within the EPA's recommended approximate timing (September - November). Some taxa were flowering and all taxa were able to be identified to species level. The vegetation associations for this study were based on visual descriptions of locations in the field. Vegetation associations identified were categorised via comparison to vegetation distributions throughout WA given on NVIS (DotEE, 2017).

3.2.2 Terrestrial Fauna Field Assessment

A basic terrestrial vertebrate fauna survey was completed in conjunction with the reconnaissance flora survey on the 15th of October 2024.

The survey area was traversed using a 4WD vehicle, all-terrain vehicle and on foot by Jim Williams (Director/Principal Botanist, Diploma of Horticulture) and Trent Matheson (field technician). The GPS track log of the survey effort for terrestrial fauna survey is shown in Figure 3-1.

Fauna habitat types were identified across the survey area based on broad vegetation groups and associated landform. A handheld GPS unit was used to record the coordinates of the boundaries between fauna habitats and each habitat was photographed. During the course of the survey work non-systematic opportunistic observations of fauna species were made and recorded. Secondary evidence of fauna such as tracks, diggings and scats were also noted.

As part of the desktop assessment, available information on the habitat requirements of the species of conservation significance listed as possibly occurring in the area was researched. During the field survey, the habitats within the survey area were assessed and specific elements identified, if present, to determine the likelihood of listed Threatened and Priority fauna species utilising area and its importance to them.

3.2.2.1 Data Analysis

Following the field assessment, fauna habitats were mapped using the GIS program QGIS, and the hectare area/ percentage area of each habitat within the survey area was calculated. Spatial maps illustrating the location of habitats and any significant fauna were generated using QGIS.

3.2.2.2 Fauna Survey Limitations and Constraints

The fauna assessment was designed and carried out to conform to a basic terrestrial vertebrate fauna survey as defined in *Technical Guidance - Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment* (EPA, 2020). The assessment included a desktop assessment aimed at providing a list of expected species and opportunistic fauna observations. It is important to note that fauna surveys will entail limitations notwithstanding careful planning and design.

As discussed above for flora, the conclusions presented in this report are indicative of the environmental condition of the site at the time of the field assessments, and it should be recognised that site conditions can change with time.

Fauna species are indicated within this report as potentially present based on there being suitable (quality and extent) habitat within the study area or immediately adjacent. The habitat requirements of species known to occur in the wider area are not always well understood or documented, and therefore it can be difficult to exclude species from the potential list based on a lack of a specific habitats or microhabitats within the survey area. As a consequence of this limitation, the potential species list produced is most likely an overestimation of those species that actually utilise the survey area for some purpose. With respect to trapping, targeted and opportunistic observations, the possibility exists that certain species may not have been detected during field investigations due to:

- seasonal inactivity during field survey;
- species present within micro habitats not surveyed;

- cryptic species able to avoid detection; and
- transient wide-ranging species not present during survey period.

The lack of observational data on some species should therefore not be taken as necessarily indicating that a species is absent from the site.

In recognition of survey limitations a precautionary approach has been adopted for this assessment. Any fauna species that would possibly occur within the study area as identified through ecological databases, publications, discussions with local experts/residents and the habitat knowledge of the zoologist that executed the survey has been assumed to potentially occur in the study area.

4 RESULTS

4.1 Desktop Assessment

4.1.1 Flora

According to the results of the NatureMap search (DBCA, 2024d), a total of 697 vascular flora taxa have been recorded within 40 km of the survey area. Dominant genera include *Acacia* (48 species), *Eucalyptus* (49 species), and *Eremophila* (35 species); which represent ~19% of the vascular flora species recorded within 40 km of the survey area.

The full list of vascular flora identified by the NatureMap search (DBCA, 2024d) is contained in Appendix B.

4.1.1.1 Introduced Flora

The desktop review identified 104 introduced flora (weed) species as potentially occurring within 40 km of the survey area. Of these, eight are listed as Declared Pests on the Western Australian Organism List (WAOL) under the *Biosecurity and Agriculture Management Act 2007* (BAM Act), and eight are also listed as a Weed of National Significance (WoNS).

A summary of the potentially occurring Declared Pests and WoNS occurring within 40 km of the survey area are listed in Table 4-1.

The full list of potential weed species occurring within 40 km of the survey area is contained in Appendix C.

Table 4-1: Potentially occurring Declared Pests and WoNS within 40 km of the survey area

Family	Taxon	Common Name	WAOL Status	Control Category	WoNS
Boraginaceae	*Echium plantagineum*	Paterson's Curse	Declared Pest - s22(2)		No
Cactaceae	*Cylindropuntia fulgida* var. *mamillata*	Coral Cactus, Boxing Glove Cactus	Declared Pest - s22(2)	C3 Management	Yes
Cactaceae	*Cylindropuntia imbricata*	Tree Cholla, Devils rope	Declared Pest - s22(2)	C3 Management	Yes
Cactaceae	*Cylindropuntia kleiniae*	Klein's Cholla	Declared Pest - s22(2)	C3 Management	Yes
Cactaceae	*Cylindropuntia tunicata*	Sheathed Cholla, Hudson Pear	Declared Pest - s22(2)	C3 Management	Yes
Cactaceae	*Opuntia elata*	Riverian pear	Declared Pest - s22(2)		Yes
Cactaceae	*Opuntia ficus-indica*	Indian Fig	Declared Pest - s22(2)		Yes
Solanaceae	*Lycium ferocissimum*	African Boxthorn	Permitted - s11		Yes
Verbenaceae	*Lantana camara*	Common Lantana	Declared Pest - s22(2)	C3 Management	Yes

4.1.1.2 Significant Flora

The desktop assessment of the DBCA's Threatened and Priority flora database (DBCA, 2024a), NatureMap search (DBCA, 2024d), Protected Matters search (DCCEEW, 2025) and previous relevant literature identified 63 significant flora species recorded within a 40 km radius of the survey area. These are comprised of three Threatened, 20 Priority 1, 12 Priority 2, 24 Priority 3, and five Priority 4 taxa; according to DBCA conservation codes (Table 4-2). The EPBC Protected Matters Search Tool identified *Thelymitra stellata* as 'species or species habitat likely to occur within the area', however this is only known to occur in the Swan Coastal Plain, Jarrah Forest and Geraldton Sandplains IBRA regions (WA Herbarium, 1998-).

The locations of DBCA database records for significant flora in relation to the survey area is shown in Figure 4-1.

The significant flora species identified to occur within 40 km of the survey area were assessed for distribution and known habitat to determine their likelihood of occurrence within the survey area (Table 4-2). Nil species were previously recorded within the survey area, and three were previously recorded within 10 km of the survey area. Of the 63 significant flora species previously recorded within 40 km of the survey area, none were assessed as being likely to occur within the survey area, 50 were assessed as possibly occurring within the survey area, and the remaining 13 were assessed as being unlikely to occur within the survey area due to unsuitable habitat or being outside the known range of the species (Table 4-2).

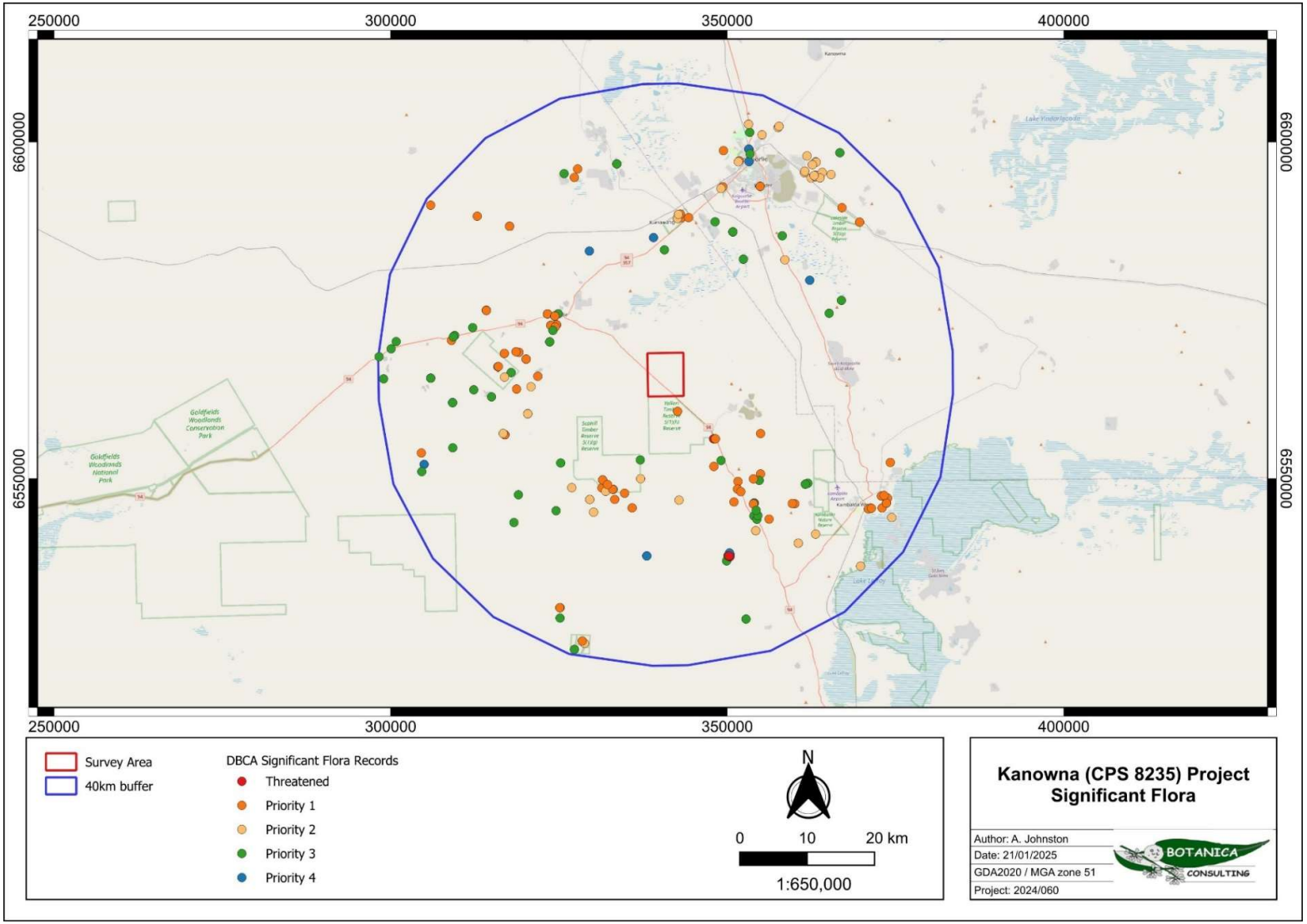


Figure 4-1: Significant flora records (DBCA, 2024a) in relation to the survey area

Table 4-2: Significant flora within a 40 km radius of the survey area

Taxon	Conservation Status			Habitat Description (WA Herbarium, 1998-)	Likelihood of occurrence
	EPBC	BC Act	DBCA		
Acacia coatesii			P1	Rocky red soil on slope.	Possible
Acacia crenulata			P3	Clay, sandy clay, yellow sand. Rocky rises, granite outcrops, breakaways.	Unlikely
Acacia kerryana			P2	Granitic loamy sand, stony clayey loam or clayey sand. Low stony ridges, undulating plains.	Possible
Acacia sclerophylla var. *teretiuscula*			P1	Clay & loamy soils.	Possible
Acacia websteri			P1	Red sand, clay or loam. Low-lying areas, flats.	Possible
Allocasuarina eriochlamys subsp. *grossa*			P3	Stony loam, laterite clay. Granite outcrops.	Unlikely
Alyxia tetanifolia			P3	Sandy clay, loam, concretionary gravel. Drainage lines, near lakes.	Unlikely
Austrostipa frankliniae			P2	Level crest of basalt and minor calcrete with red-brown skeletal light medium clay soils.	Possible
Austrostipa turbinata			P3	Basalt lower slope with red-brown sandy clay soil.	Possible
Bossiaea celata			P3	Deep sand. Open mallee.	Unlikely
Bossiaea laxa			P2	Brown loam over deep granite. Sheltered positions around outcrops.	Unlikely
Calandrinia lefroyensis			P1	Gentle hillslope/ plain on orangey-red sand with quartzite rocks	Possible
Chamelaucium sp. Parker Range (B.H. Smith 1255)			P1	Sandplain.	Unlikely
Chrysocephalum apiculatum subsp. *norsemanense*			P3	Red sand.	Unlikely
Cratystylis centralis			P3	Red sandy loam with ironstone gravel. Flat plains, breakaway country.	Possible
Cyathostemon divaricatus			P1	Rocky hillslope. Red loam over laterite.	Possible
Cyathostemon verrucosus			P3	Low heath on yellow sandplain.	Unlikely
Dampiera plumosa			P1	Red sandy soils.	Possible
Elachanthus pusillus			P2	Eucalypt open woodland over open heath on sandy soil.	Unlikely
Eremophila acutifolia			P3	Clay loam, gravelly loam. Undulating flats.	Possible
Eremophila caerulea subsp. *merrallii*			P4	Sand, clay or loam. Undulating plains.	Possible
Eremophila microphylla			P3	Open Eucalypt woodland on light red-brown clay loam	Possible

Taxon	Conservation Status			Habitat Description (WA Herbarium, 1998-)	Likelihood of occurrence
	EPBC	BC Act	DBCA		
Eremophila praecox			P2	Red/brown sandy loam. Undulating plains.	Possible
Eremophila succinea			P3	Clay, sand over clay.	Possible
Eremophila veronica			P3	Stony clay, clay loam. Lateritic breakaways.	Possible
Eremophila xantholaemus			P1	Hill. Stony brown loam.	Unlikely
Eucalyptus jutsonii subsp. *jutsonii*			P4	Red to pale orange deep sands. Undulating areas and on dunes.	Unlikely
Eucalyptus websteriana subsp. *norsemanica*			P1	Rocky rises on greenstone basalt.	Possible
Eucalyptus x brachyphylla			P4	Sandy loam. Granite outcrops.	Unlikely
Frankenia glomerata			P4	White sand. Margins of large salt lakes.	Unlikely
Gastrolobium graniticum	EN	EN		Sand, sandy loam, granite. Margins of rock outcrops, along drainage lines.	Unlikely
Goodenia salina			P2	Low gypseous dunes near salt pans.	Unlikely
Grevillea georgeana			P3	Stony loam/clay. Ironstone hilltops & slopes.	Possible
Hakea rigida			P2	Sandy soils, yellow sand on a rise.	Unlikely
Isolepis australiensis			P3	Silty sand, sandy clay. Lake margins, pools.	Unlikely
Lepidium fasciculatum			P3	Chenopod shrubland on flat alluvial plain with red clayey loam soils.	Unlikely
Lepidium merrallii			P2	Clay loam.	Possible
Lepidosperma sp. Kambalda (A.A. Mitchell 5156)			P2	Ridge/slope. Well-drained. Dry brown clay loam over granite. Loose rock on soil surface.	Possible
Lepidosperma sp. Parker Range (N. Gibson & M. Lyons 2094)			P1	Rocky slope, mallee woodland.	Possible
Melaleuca coccinea			P3	Sandy loam over granite. Granite outcrops, sandplain, river valleys.	Possible
Melaleuca macronychia subsp. *trygonoides*			P3	Sandy soils. Granite outcrops.	Unlikely
Melichrus sp. Coolgardie (K.R. Newbey 8698)			P1	Yellow sandplain.	Unlikely
Notisia intonsa			P3	Plain with brown loam, iron stone gravel and quartz. Eucalyptus woodlands.	Possible
Phebalium appressum			P1	Mid slope between mallee woodland and sandplain heath. Brown/ Yellow sandy loam.	Unlikely

Taxon	Conservation Status			Habitat Description (WA Herbarium, 1998-)	Likelihood of occurrence
	EPBC	BC Act	DBCA		
Phebalium clavatum			P2	Sandy soils. Sandplains.	Unlikely
Phlegmatospermum eremaeum			P3	Stony loam.	Possible
Pityrodia scabra subsp. *dendrotricha*			P3	Sandplain. Yellow Sand.	Unlikely
Prostanthera splendens			P1	Stony loam, shallow soils with ironstone pebbles. Breakaways.	Possible
Pterostylis xerampelina			P1	Rocky areas, granite or ironstone.	Possible
Ptilotus procumbens			P1	Red clay.	Unlikely
Ptilotus rigidus			P1	Rocky outcrop.	Unlikely
Ricinocarpos digynus			P1	Rocky hillslopes	Possible
Sowerbaea multicaulis			P4	Yellow-brown sand.	Unlikely
Stylidium choreanthum			P3	White/yellow or red sand. Plains.	Unlikely
Styphelia rectiloba			P3	Granite outcrops and breakaways. granite.	Unlikely
Styphelia saxicola			P3	Red brown loamy clay. Granite rocks with occasional quartz ground cover.	Unlikely
Tecticornia flabelliformis	VU		P2	Salt Lake playa. Quartz on soil surface. Brown clay.	Unlikely
Tecticornia mellarium			P1	Pale yellow to white sand over clay next to salt lakes.	Unlikely
Tetratheca spenceri		VU		Gentle slope on duricrust breakaway.	Unlikely
Thryptomene planiflora			P1	Sandplain, Acacia shrubland.	Unlikely
Thryptomene sp. Coolgardie (E. Kelso s.n. 1902)			P1	No habitat data available	Unlikely
Xanthoparmelia dayiana			P3	*Eucalypt* woodland with *Acacia*, shrubs and laterite outcrops.	Possible
Xanthoparmelia xanthomelanoides			P2	Hill with bare to stoney dry clay.	Unlikely

4.1.2 Fauna

According to the results of the NatureMap search (DBCA, 2024d), a total of 268 terrestrial vertebrate fauna taxa have been recorded within 40 km of the survey area comprising three amphibians, 149 bird species, 28 mammals and 88 reptiles.

The full list of terrestrial vertebrate fauna identified by the NatureMap search (DBCA, 2024d) is contained in Appendix B.

4.1.2.1 Introduced Fauna

The desktop review identified seven introduced vertebrate fauna (feral) species as potentially occurring within 40 km of the survey area (Table 4-3).

Table 4-3: Potentially occurring introduced fauna within 40 km of the survey area

Family	Taxon	Common Name
Bovidae	*Bos taurus*	Cattle
Canidae	*Canis familiaris*	Dingo; Dog
Columbidae	*Columba livia*	Domestic Pigeon
Felidae	*Felis catus*	Cat
Gekkonidae	*Hemidactylus frenatus*	Asian House Gecko
Muridae	*Mus musculus Linnaeus*	House Mouse
Leporidae	*Oryctolagus cuniculus*	Rabbit

4.1.2.2 Significant Fauna

The desktop assessment of the DBCA's Threatened and Priority fauna database (DBCA, 2024b), NatureMap search (DBCA, 2024d), Protected Matters searches (DCCEEW, 2025) and previous relevant literature identified 15 significant terrestrial vertebrate fauna species and two significant invertebrate fauna species recorded within 40 km of the survey area. These comprised of 12 Threatened, three Priority and nine migratory bird taxa (four of which are also listed as Threatened).

The locations of DBCA database records for significant fauna in relation to the survey area is shown in Figure 4-2.

Habitat and distribution data was used to determine the likelihood of occurrence within the survey area. The assessment identified four significant fauna species as Possibly Occurs and one as Known to Occur in the survey area (Table 4-4). The remaining 12 species were assessed as unlikely to occur or would not occur within the survey area.

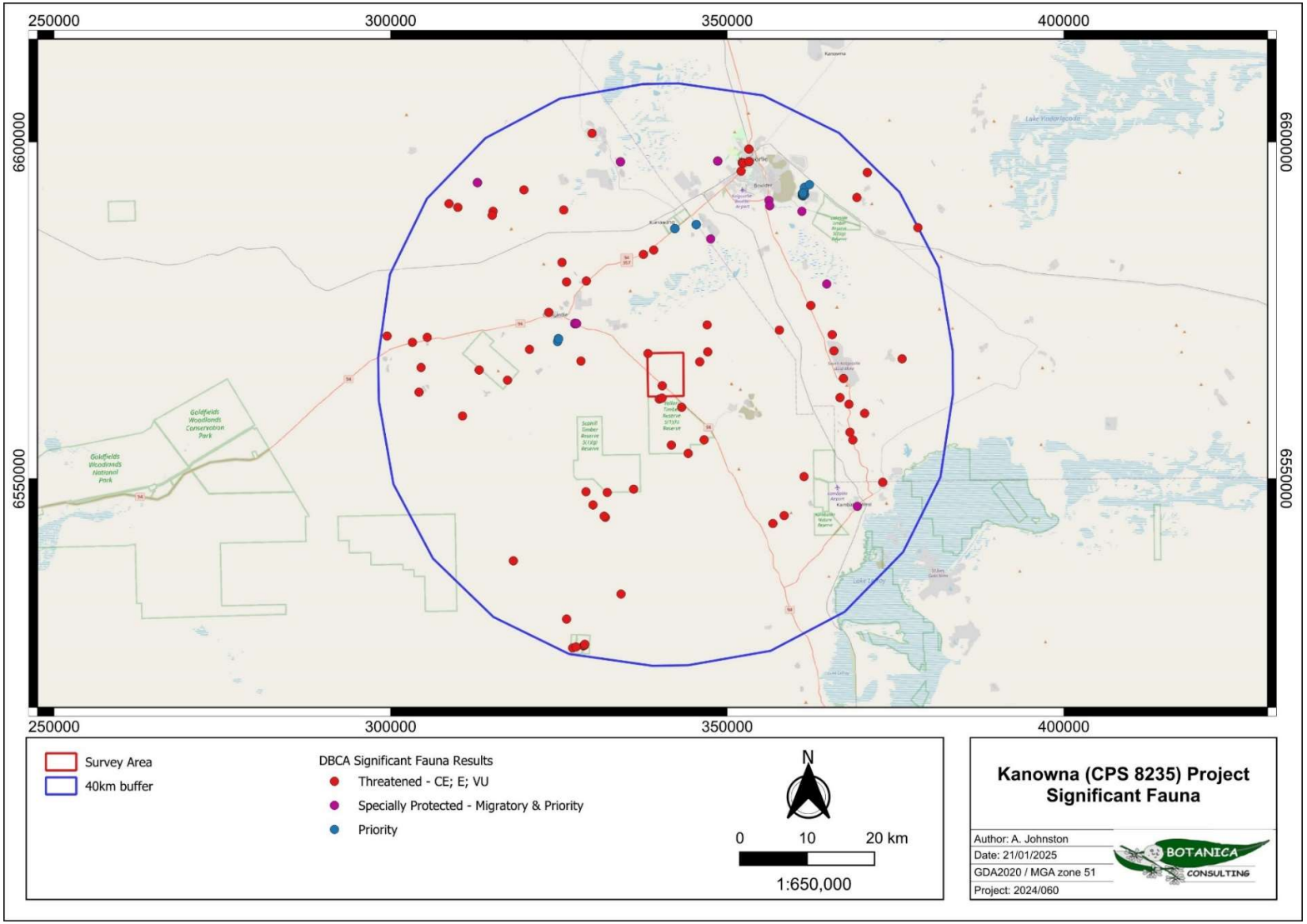


Figure 4-2: Significant fauna records (DBCA, 2024c) in relation to the survey area

Table 4-4: Significant fauna within a 40 km radius of the survey area

Class	Taxon	Conservation Status			Habitat Description	Likelihood of occurrence
		EPBC	BC Act	DBCA		
Aves	Carnaby's cockatoo, *Zanda latirostris*	EN	EN	-	Found in Eucalyptus woodland, most commonly *Eucalyptus wandoo* or *E. salmonophloia*. It is also found nearby pine plantations and sandplains or kwongan heath with abundant Hakea, Banksia, and Grevillea shrubs.	Unlikely to Occur
	Common greenshank *Tringa nebularia*	EN / MI	MI	-	Found in a wide variety of inland wetlands (e.g. claypans and saltflats) and sheltered coastal habitats of varying salinity. It will also use artificial wetlands (e.g., sewage farms). The edges of the wetlands used are generally of mud or clay,	Unlikely to Occur
	Curlew sandpiper, *Calidris ferruginea*	CR / MI	CR	-	Inland, where they are rarely seen, around ephemeral and permanent lakes, dams, waterholes and bore drains, usually with bare edges of mud or sand (DCCEEW, 2023).	Unlikely to Occur
	Grey Falcon, *Falco hypoleucos*	VU	VU	-	Occurs at low densities across inland Australia. The species frequents timbered lowland plains, particularly acacia shrublands that are crossed by tree-lined water courses. Observed hunting in treeless areas and frequents tussock grassland and open woodland, especially in winter.	Possibly Occurs
	Grey -Tailed Tattler, *Tringa brevipes*	MI	-	P4	Prefers muddy edges of shallow fresh or brackish wetlands, with inundated or emergent sedges, grass, saltmarsh or other low vegetation. This includes lagoons, swamps, lakes and pools near the coast, and dams, waterholes, soaks, bore drains and bore swamps, saltpans and hypersaline salt lakes inland (DCCEEW, 2023b).	Unlikely to Occur
	Malleefowl, *Leipoa ocellata*	VU	VU	-	Scrublands and woodlands dominated by mallee and wattle species (DCCEEW, 2023b).	Has previously been recorded in the survey area
	Migratory Shorebirds*	MI	MI	-	Prefers muddy edges of shallow fresh or brackish wetlands, with inundated or emergent sedges, grass, saltmarsh or other low vegetation. This includes lagoons, swamps, lakes and pools near the coast, and dams, waterholes, soaks, bore drains and bore swamps, saltpans and hypersaline salt lakes inland (DCCEEW, 2023b).	Unlikely to Occur
	Night Parrot, *Pezoporus occidentalis*	EN	CR	-	Broad habitat requirements include areas of old-growth spinifex (*Triodia*) for roosting and nesting, together with foraging habitats that are likely to include various native grasses and herbs and may or may not contain shrubs or low trees (DBCA, 2017).	Would Not Occur

Class	Taxon	Conservation Status			Habitat Description	Likelihood of occurrence
		EPBC	BC Act	DBCA		
	Sharp-tailed Sandpiper, *Calidris acuminata*	VU / MI	MI	-	In Australasia, the Sharp-tailed Sandpiper prefers muddy edges of shallow fresh or brackish wetlands, with inundated or emergent sedges, grass, saltmarsh or other low vegetation (DCCEEW, 2024b).	Unlikely to Occur
	Southern Whiteface, *Aphelocephala leucopsis*	VU	-	-	Occur across most of mainland Australia south of the tropics, Southern Whitefaces live in a wide range of open woodlands and shrublands where there is an understorey of grasses or shrubs, or both (DCCEEW, 2024).	Possibly Occurs
	Western Rosella (inland), Platycercus icterotis xanthogenys	-	-	P4	The only rosella found in southwestern WA, where it inhabits open woodland habitats and parks, usually feeding on the ground (Cornell University, 2024).	Would Not Occur
Reptile	Western Spiny-tailed Skink, *Egernia stokesii badia*	EN	VU		Known to occur in a broad semi-arid area in south-west WA, between Shark Bay and Minnivale and east to Cue. This record is from 1930.	Unlikely to Occur
Invertebrate	Arid bronze azure butterfly, *Ogyris subterrestris petrina*	CR	CR	-	The potential distribution is extensive and encompasses much of the semi-arid zone (rainfall <325mm), south of approximately 26 degrees latitude, amongst smooth-barked Eucalypts (in particular *Eucalyptus salubris*, *E. salmonophloia*, *E. capillosa* and *E. loxophleba* subsp. *lissophloia*) (DEMIRS, 2022). Many flowering plants of the lower, mid and upper storey are likely to be nectar sources for the adult butterfly. In woodlands, many plants such as Eucalyptus, Acacia, Grevillea, Hakea, and annual species would be probable nectar plants (DEMIRS, 2022). This butterfly is obligately dependent on a sugar ant species (*Camponotus* sp. nr. *terebrans*). Floristically diverse habitats are also needed to sustain high densities of the host ant which nests at the base of eucalypts (DEMIRS, 2022).	Possibly Occurs
	Inland hairstreak, *Jalmenus aridus*	-	-	P1	Open woodland with mature *Senna artemisioides* ssp. *filifolia* as well as mixed flowering shrubs with open areas of well drained exposed ground adjoining the hostplants (Eastwood et al, 2023).	Possibly Occurs
Mammal	Bilby, *Macrotis lagotis*	VU	VU	-	Widespread in arid, semi-arid and relatively fertile areas covering 70 per cent of mainland Australia. Prefers arid habitats because of spinifex grass and acacia shrubs.	Would not occur. Considered to be regionally extinct.
	Chuditch, *Dasyurus geoffroii*	VU	VU	-	Deserts, woodlands, eucalypt shrubland, open forests and coastal areas. It is now found only in the southwest corner of Western Australia (ALA, 2024).	Would not occur. Considered to be regionally extinct.

Class	Taxon	Conservation Status			Habitat Description	Likelihood of occurrence
		EPBC	BC Act	DBCA		
	Numbat, *Myrmecobius fasciatus*	EN	EN	-	Naturally found only in areas of eucalypt forest, but they were once more widespread in other types of semiarid woodland, spinifex grassland, and in terrain dominated by sand dune.	Would not occur. Considered to be regionally extinct.

* Migratory Shorebirds include: *Actitis hypoleucos* (Common Sandpiper), *Apus pacificus* (Fort-tailed swift), *Calidris alba* (Sanderling), *Calidris melanotos* (Pectoral Sandpiper*), Plegadis falcinellus* (Glossy Ibis), *Calidris ruficollis* (Red-Necked Stint*), Tringa glareola* (Wood Sandpiper) and *Motacilla cinerea* (Grey Wagtail).

4.2 Field Assessment

4.2.1 Flora

The field survey identified 186 vascular flora taxa within the survey area. These taxa represented 88 genera across 28 families, with the most diverse families being Chenopodiaceae, Fabaceae and Myrtaceae. Dominant genera include *Eremophila* (18 species), *Acacia* (15 species), *Eucalyptus* (15 species) and *Maireana* (11 species). The full field species inventory is listed in Appendix D.

4.2.1.1 Introduced Flora

Thirteen introduced (weed) species were identified within the survey area (Table 4-5). No species are listed as a WoNS or as a Declared Pest in Western Australia.

All of the weed species were observed in disturbed areas and along tracks, and their locations were not marked.

The full field species inventory is listed in Appendix D, which includes the species of weeds recorded in each vegetation type.

Table 4-5: Introduced flora (weed) species within the survey area

Family	Taxon	Common Name	Declared Pest	WoNS
Aizoaceae	**Mesembryanthemum nodiflorum*	Slenderleaf Iceplant	N	N
Asparagaceae	**Asphodelus fistulosus*	Onion weed	N	N
Asteraceae	**Carthamus lanatus*	Saffron Thistle	N	N
Asteraceae	**Centaurea melitensis*	Maltese Cockspur	N	N
Asteraceae	**Dittrichia graveolens*	Stinkwort	N	N
Asteraceae	**Gazania linearis*	Gazania	N	N
Asteraceae	**Oncosiphon suffruticosum*	Calomba Daisy	N	N
Brassicaceae	**Brassica tournefortii*	Mediterranean Turnip	N	N
Brassicaceae	**Carrichtera annua*	Ward's Weed	N	N
Lamiaceae	**Salvia verbenaca*	Wild Sage	N	N
Malvaceae	**Malva parviflora*	Marshmallow	N	N
Poaceae	**Hordeum leporinum*	Barley Grass	N	N
Poaceae	**Cynodon dactylon*	Couch	N	N

4.2.1.2 Significant Flora

According to the EPA *Environmental Factor Guideline for Flora and Vegetation* (EPA, 2016b) significant flora includes:

- flora being identified as threatened or priority species;

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

No Threatened or Priority Flora taxa were identified within the survey area.

4.2.1.3 Vegetation Communities

A total of 13 broad-scale vegetation types were identified within the survey area; plus disturbed areas which were predominately cleared of native vegetation and contained numerous weed species. These vegetation types were located within four different landform types (not including the disturbed areas).

Vegetation community descriptions and extent are detailed below in Table 4-6 and illustrated spatially in Figure 4-33. Vegetation community descriptions and extents were determined from field survey results, aerial imagery interpretation and extrapolation of the communities.

CLP-EW2 was the most widespread community in the survey area, occupying 1141 ha (33%). CLP-EW4 was the most diverse community, with 62 flora species recorded, dominated by *Eucalyptus clelandiorum* and *E. oleosa* whilst RH-AFW1 was the least diverse with 28 flora species dominated by *Acacia, Senna* and *Dodonaea.*

Table 4-66: Vegetation communities within the survey area

Landform	NVIS Vegetation Group	Veg Code	Vegetation Community	Area (ha)	Area (%)	Condition Rating	Image
Drainage Depression	Eucalypt Woodlands	DD-EW1	Low open woodland of *Eucalyptus salmonophloia*/ *Eucalyptus griffithsii* over mid open shrubland of *Atriplex nummularia* and low open shrubland of *Tecticornia disarticulata*/ *Atriplex vesicaria* in drainage depression.	821	24%	Very Good	
Clay-Loam Plain	Acacia Forests and Woodlands	CLP-AFW1	Low open woodland of *Acacia acuminata* over mid open shrubland of *Scaevola spinescens* and low open shrubland of *Ptilotus obovatus* on clay-loam plain.	14	0.4%	Very Good	

Landform	NVIS Vegetation Group	Veg Code	Vegetation Community	Area (ha)	Area (%)	Condition Rating	Image
	Eucalypt Woodlands	CLP-EW1	Low open woodland of *Eucalyptus salmonophloia* over mid open shrubland of *Eremophila scoparia/ Atripex nummularia* and low open shrubland of *Atriplex vesicaria* on clay-loam plain.	560	16%	Very Good	
	Eucalypt Woodlands	CLP-EW2	Low open woodland *of Eucalyptus clelandiorum* over mid open shrubland of *Senna artemisioides subsp. filifolia* over sparse samphire shrubland of *Tecticornia disarticulata* on clay-loam plain.	1141	33%	Very Good	

Landform	NVIS Vegetation Group	Veg Code	Vegetation Community	Area (ha)	Area (%)	Condition Rating	Image
	Eucalypt Woodlands	CLP-EW3	Low open woodland of *Eucalyptus ravida* over mid open shrubland of *Eremophila ionantha* and low sparse shrubland of *Ptilotus obovatus* on clay-loam plain.	36	1%	Very Good	
	Eucalypt Woodlands	CLP-EW4	Low open woodland of *Eucalyptus clelandiorum/ E. oleosa* over mid sparse shrubland of *Melaleuca sheathiana* and low shrubland of *Cratystylis conocephala* on clay-loam plain.	204	6%	Very Good	

Landform	NVIS Vegetation Group	Veg Code	Vegetation Community	Area (ha)	Area (%)	Condition Rating	Image
	Mallee Woodlands and Shrublands	CLP-MW1	Open mallee forest of *Eucalyptus griffithsii* over mid open shrubland of *Eremophila ionantha/ Santalum acuminatum* and low shrubland of *Triodia irritans*, on clay loam plain.	19	0.6%	Very Good	
	Mallee Woodlands and Shrublands	CLP-MW2	Low open mallee woodland of *Eucalyptus griffithsii* over mid open shrubland of *Senna artemisioides subsp. filifolia* and sparse shrubland of *Atriplex vesicaria* on a clay loam plain.	75	2%	Very Good	

Landform	NVIS Vegetation Group	Veg Code	Vegetation Community	Area (ha)	Area (%)	Condition Rating	Image
Rocky Hillslope	Acacia Forests and Woodlands	RH-AFW1	Low open woodland of *Acacia collegialis* over mid open shrubland of *Eremophila clarkei* and low open shrubland of *Dodonaea microzyga* on rocky hillslope.	65	2%	Very Good	
	Eucalypt Woodlands	RH-EW1	Low open woodland of *Eucalyptus clelandiorum* over mid open shrubland of *Melaleuca sheathiana* and understory *of Scaevola spinescens* on rocky hillslope.	308	9%	Very Good	

Landform	NVIS Vegetation Group	Veg Code	Vegetation Community	Area (ha)	Area (%)	Condition Rating	Image
	Eucalypt Woodlands	RH-EW2	Low open woodland of *Eucalyptus torquata* over mid sparse shrubland of *Atriplex nummularia* and low open shrubland of *Westringia rigida* on rocky hillslope.	109	3%	Very Good	
	Mallee Woodlands and Shrublands	RH-MW1	Low open mallee woodland of *Eucalyptus griffithsii* over low open shrubland of *Acacia acuminata* and sparse shrubland of *Scaevola spinescens*/ *Westringia rigida* on rocky hillslope.	33	1%	Very Good	

Landform	NVIS Vegetation Group	Veg Code	Vegetation Community	Area (ha)	Area (%)	Condition Rating	Image
Sand Plain	Mallee Woodlands and Shrublands	SP-MAFW1	*Eucalyptus loxophleba subsp. lissophloia* and *Melaleuca hamata* open woodland over *Ericomyrtus serpyllifolia*, *Glischrocaryon aureum* shrubland over *Triodia irritans, Mirbelia microphylla* and *Lomandra effusa* low open shrubland/sedgeland/hummock grassland.	9	0.25 %	Very Good	
Disturbed	Disturbed	Disturbed	Areas cleared for infrastructure e.g. roads.	39	0.3%	Degraded	

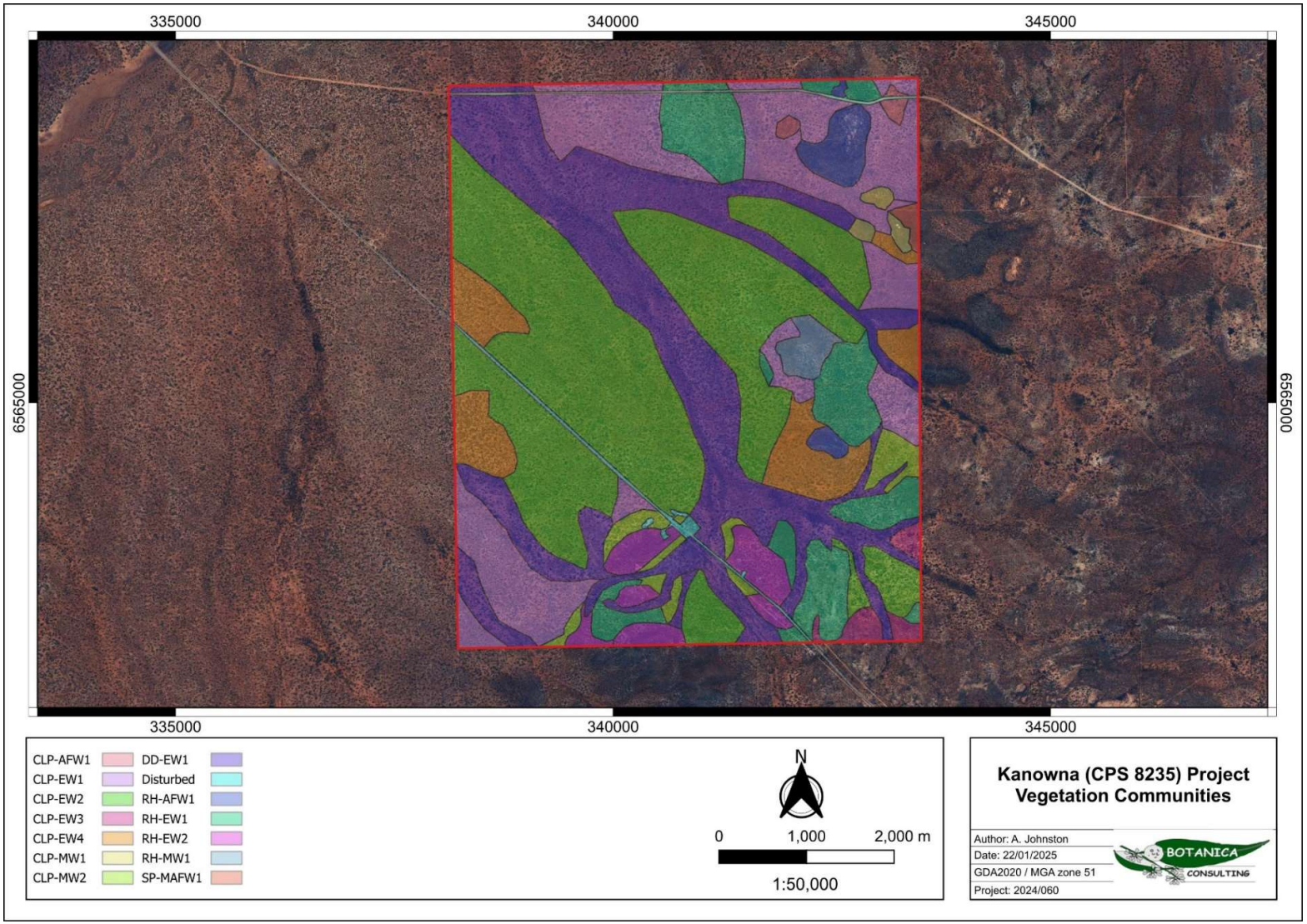


Figure 4-33: Vegetation communities within the survey area

4.2.1.4 Vegetation Condition

Based on the vegetation condition rating scale adapted from Keighery (1994) and Trudgen, (1988), as specified in the EPA *Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016a) for the South West and Interzone botanical provinces, native vegetation within the survey area was rated as 'Degraded' to 'Very Good' (Table 4-7 and Figure 4-4). Vegetation condition rating descriptions are listed in Appendix F. Disturbances within the survey area were the result of clearing for roads.

Table 4-77: Vegetation condition rating within the survey area

Condition Rating	Description (EPA, 2016)	Area (ha)	Area (%)
Very Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and grazing.	3390	99%
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds at high density, partial clearing, dieback and grazing.	39	1%

4.2.1.5 Significant Vegetation

According to the EPA *Environmental Factor Guideline for Flora and Vegetation* (EPA, 2016b) significant vegetation includes:

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

No TECs or PECs as listed under State or Commonwealth legislation were identified within the survey area. No other significant vegetation (as described above) was recorded within the survey area.

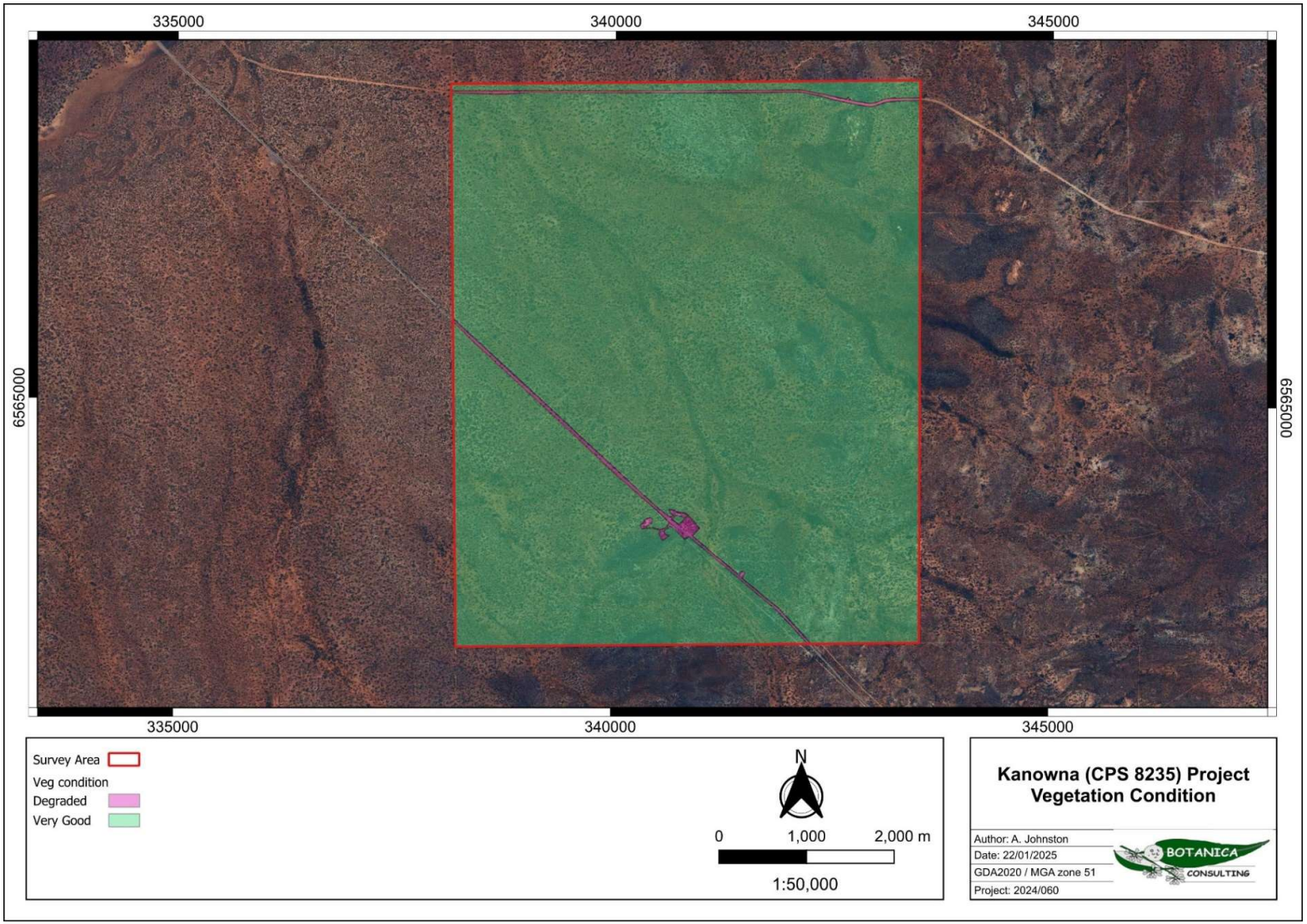


Figure 4-44: Vegetation condition within the survey area

4.2.2 Fauna

During the field survey a total of 19 vertebrate fauna taxa were identified within the survey area. These taxa represented 15 families across two classes, including Reptilia (3 families, 3 species) and Aves (12 families, 16 species). The full field species inventory is listed in Appendix E.

4.2.2.1 Introduced Fauna

Five introduced fauna species were identified within the survey area:

1. **Bos taurus* (European Cattle)
2. **Capra hircus* (Goat)
3. **Canis familiaris* (Wild Dog)
4. **Felis catus* (Cat)
5. **Oryctolagus cuniculus* (Rabbit).

These species were identified during the field survey via secondary evidence (*e.g.*, scats and tracks).

4.2.2.2 Fauna Habitat

Based on vegetation and associated landforms identified during the flora and vegetation assessment, five broad scale terrestrial fauna habitats were identified as occurring within the survey area including disturbed areas which were predominately cleared of native vegetation to create roads and tracks.

Table 4-8 provides a description, the area and a visual representation of fauna habitat types, and the extent of fauna habitats is shown spatially in Figure 4-5.

Table 4-88: Main terrestrial fauna habitats within the survey area

Fauna Habitat	Description	Representative Fauna Attributes	Example Image
Drainage Depression Eucalypt Woodlands Extent in Survey Area: 821ha (24%)	Open *Eucalypt* Woodland over *Atriplex* and *Tecticornia* in a drainage depression.	• Ground has low suitability to burrowing species • Potential refuge for small fauna (e.g., reptiles) under shrub • Moderate diversity vegetation strata supporting avifauna assemblage • Moderate vegetation density and leaf litter, providing good refuge for reptiles	
Clay Loam Plain *Acacia*, *Eucalypt* and *Mallee* woodlands and forests Extent in survey area: 2048ha (60%)	Low open *Acacia*/*Eucalyptus*/*Mallee* woodlands over mixed shrublands of *Eremophila*/*Senna*/*Melaleuca*/*Atriplex*/*Scaevola* over sparse/open shrublands on clay loam plains.	• Ground not well suited to burrowing species. • Moderate to high diversity vegetation strata supporting avifauna assemblage. • Moderate vegetation density and leaf litter, providing good refuge for reptiles.	

Fauna Habitat	Description	Representative Fauna Attributes	Example Image
Rocky Hillslope Acacia, Eucalypt and Mallee woodlands and forests Extent is Survey Area: 511ha (15%)	Low open *Acacia*/*Mallee*/*Eucalyptus* woodlands over mixed shrublands of *Eremophila*/*Acacia*/*Melaleuca*/*Atriplex* over sparse/open shrublands of *Dodonaea*/*Scaevola*/*Westringia* on rocky hillslopes.	• Ground not suited to burrowing species. • Moderate diversity vegetation strata supporting avifauna assemblage. • Low vegetation density and rocks providing good refuge for reptiles.	
Sandplain Mallee woodland Extent in Survey Area: 9ha (<1%)	Open woodland of *Mallee* and *Melaleuca* over low shrubland/ sedgeland/ hummock grassland of *Triodia*/ *Mirbelia*/*Lomandra* on a sandplain	• Ground suited to burrowing species • Moderate diversity vegetation strata supporting avifauna • Moderate vegetation density and leaf litter providing good refuge for reptiles and mammals	
Disturbed Extent in Survey Area: 39ha (1%)	Areas cleared for infrastructure e.g. roads.	• Ground not well suited to burrowing species • Low value foraging habitat for mammals and avifauna due to lack of native vegetation	

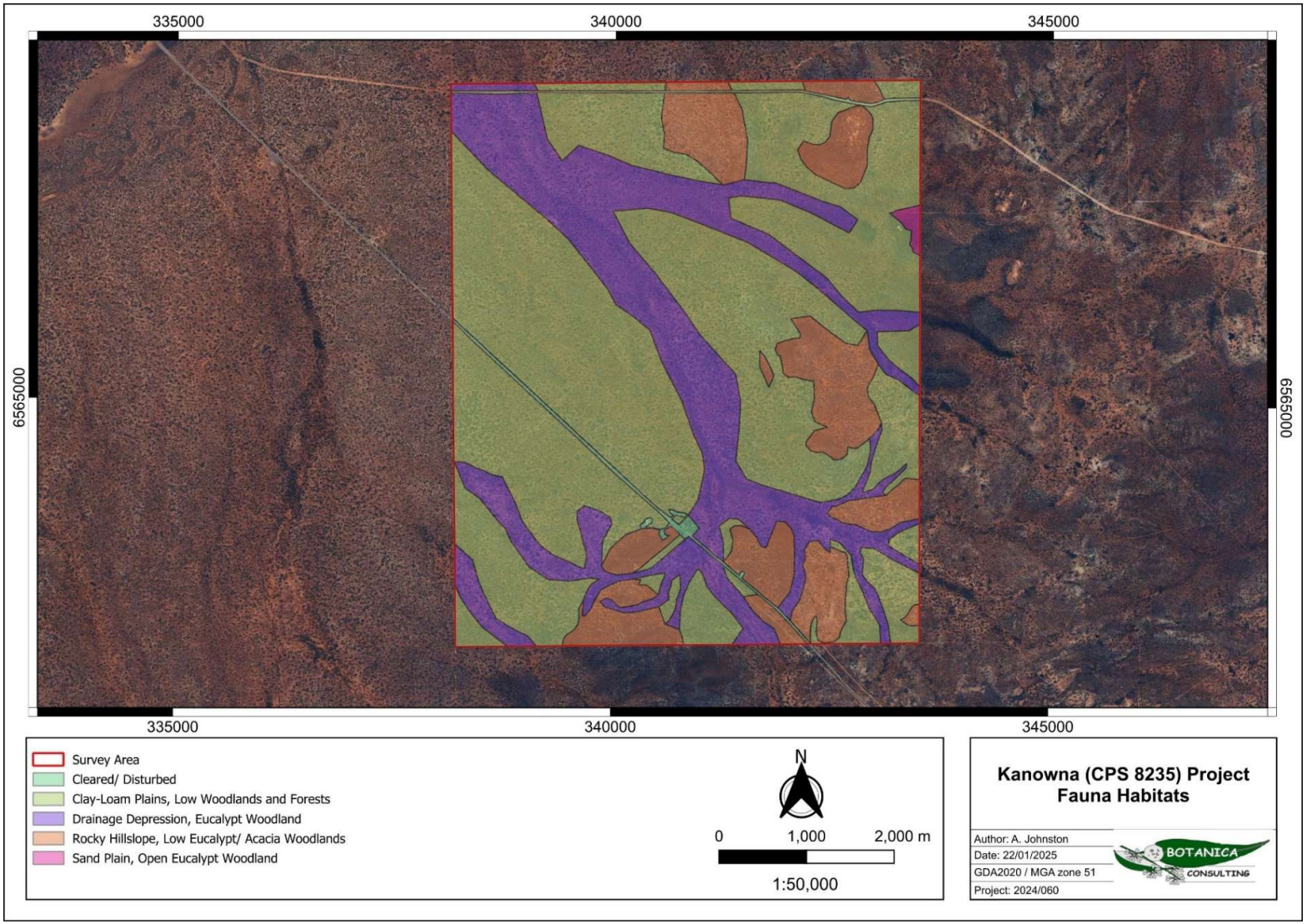


Figure 4-55: Terrestrial fauna habitats within the survey area

4.2.2.3 Significant Fauna

According to the EPA *Environmental Factor Guideline for Terrestrial Fauna* (EPA, 2016c) significant fauna includes:

- Fauna being identified as a Threatened or Priority species;
- Fauna species with restricted distribution;
- Fauna subject to a high degree of historical impact from threatening processes; and
- Fauna providing an important function required to maintain the ecological integrity of a significant ecosystem.

No vertebrate fauna species of conservation significance were recorded within the survey area during the field survey.

The fauna species of conservation significance that were classified as "Known to Occur" or as "Possibly Occurs" within the survey area during the desktop review were further assessed below for the likelihood of them utilising the survey area based on direct on ground observations.

- **Malleefowl (*Leipoa ocellata*) - Vulnerable (EPBC Act and BC Act)**

  This species is occasionally recorded in the Eastern Goldfields subregion.

  No active Malleefowl mounds or other evidence of Malleefowl activity (tracks, feathers or bird observations etc.) were observed during the field survey. Available information suggests that a breeding population of this species is unlikely to be present in the survey area, though transient non-breeding individuals may occasionally occur if present in the surrounding area.

- **Grey Falcon (*Falco hypoleucos*) - Vulnerable (EPBC Act and BC Act)**

  This species is sparsely recorded throughout inland Australia and very rarely in the Eastern Goldfields. While some vegetation within the survey area appears superficially suitable for this species to utilise it is very unlikely to represent critical habitat. This species is considered as being very unlikely to occur under normal circumstances.

- **Southern Whiteface (*Aphelocephala leucopsis*) - Vulnerable (EPBC Act)**

  Suitable habitat for this species may be present within the survey area but is unlikely to represent critical habitat. Additionally, the survey area is at the extent of this species' range. This species is considered as being very unlikely to occur under normal circumstances.

- **Arid bronze azure butterfly (*Ogyris subterrestris petrina)* - Critically Endangered (EPBC Act and BC Act)**

This species potentially has an extensive distribution which encompasses much of the semi-arid zone (rainfall <325 mm), south of approximately 26 degrees latitude. Vegetation superficially resembling the documented preferred habitat requirements of this species (such as woodlands smooth-barked Eucalypts) was identified within the survey area (i.e., *E. salmonophloia*).

While it is unlikely that this species occurs, its presence within the survey area is difficult to discount without a more detailed/targeted and appropriately timed survey of suitable habitat.

- **Inland Hairstreak (*Jalmenus aridus)* - Priority 1 (DBCA)**

Could possibly utilise the area, however surveys nearby have found no evidence of this butterfly in the area. A number of smooth bark *Eucalyptus* trees were inspected for *Froggattella kirbii*, the attendant ant of the *J. aridus*, and none were located.

It should be noted that while habitats onsite for one or more of the species listed above are considered possibly suitable, some or all may be marginal in extent/quality and therefore the fauna species considered as possibly occurring may in fact only visit the area for short periods as infrequent vagrants.

4.3 Matters of National Environmental Significance

4.3.1 Environment Protection and Biodiversity Conservation Act 1999

The EPBC Act protects Matters of National Environmental Significance (MNES) and is used by the Commonwealth DCCEEW to list threatened taxa and ecological communities into categories based on the criteria set out in the EPBC Act (www.environment.gov.au/epbc/index.html). The EPBC Act provides a national environmental assessment and approval system for proposed developments and enforces strict penalties for unauthorised actions that may affect MNES.

The EPBC Act covers 9 protected matters:

- world heritage areas
- national heritage places
- wetlands of international importance (listed under the Ramsar Convention)
- listed threatened species and ecological communities
- listed migratory species (protected under international agreements)
- Commonwealth marine areas
- Great Barrier Reef Marine Park

- nuclear actions (including uranium mines)
- water resources (that relate to unconventional gas development and large coal mining development).

No MNES as defined by the Commonwealth EPBC Act were identified within the survey area.

4.4 Matters of State Environmental Significance

4.4.1 Environmental Protection Act 1986 (WA)

The EP Act provides for the prevention, control and abatement of pollution and environmental harm, for the conservation, preservation, protection, enhancement and management of the environment. The Act is administered by The Department of Water and Environment Regulation (DWER), which is the State Government's environmental regulatory agency.

Under Section 51C of the EP Act and the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* (Clearing Regulations) any clearing of native vegetation in Western Australia that is not eligible for exemption under Schedule 6 of the EP Act or under the Clearing Regulations requires a clearing permit from the DWER or the Department of Energy, Mines, Industry Regulation and Safety (DEMIRS). Under Section 51A of the EP Act native vegetation includes aquatic and terrestrial vegetation indigenous to Western Australia, and intentionally planted vegetation declared by regulation to be native vegetation, but not vegetation planted in a plantation or planted with commercial intent. Section 51A of the EP Act defines clearing as "the killing or destruction of; the removal of; the severing or ringbarking of trunks or stems of; or the doing of substantial damage to some or all of the native vegetation in an area, including the flooding of land, the burning of vegetation, the grazing of stock or an act or activity that results in the above".

Environmentally sensitive areas (ESAs) are classes or areas of native vegetation as declared in the *Environmental Protection (Environmentally Sensitive Areas) Notice 2005* for the purposes of Part V Division 2 of the EP Act, where the exemptions for clearing vegetation under the Clearing Regulations do not apply.

The following areas are declared to be ESAs:

- a declared World Heritage property as defined in section 13 of the EPBC Act;
- an area that is included on the Register of the National Estate, because of its natural heritage value, under the Australian Heritage Council Act 2003 of the Commonwealth;
- a defined wetland and the area within 50 m of the wetland. Defined wetlands include Ramsar wetlands, conservation category wetlands and nationally important wetlands;
- the area covered by vegetation within 50 m of rare flora, to the extent to which the vegetation is continuous with the vegetation in which the rare flora is located;

- the area covered by a TEC;
- a Bush Forever site listed in "Bush Forever" Volumes 1 and 2 (2000), published by the Western Australia Planning Commission, except to the extent to which the site is approved to be developed by the Western Australia Planning Commission;
- the areas covered by the following policies –
  - *Environmental Protection (Gnangara Mound Crown Land) Policy 1992*;
  - *Environmental Protection (Western Swamp Tortoise Habitat) Policy 2002*;
- the areas covered by the lakes to which the *Environmental Protection (Swan Coastal Plain Lakes) Policy 1992* applies; and
- protected wetlands as defined in the *Environmental Protection (South West Agricultural Zone Wetlands) Policy 1998*.

No evidence of the survey area containing any TECs or Threatened flora or fauna was found during the survey. The survey area is not located within an ESA.

4.4.2 Biodiversity Conservation Act 2016

The BC Act is administered by the DBCA to conserve and protect biodiversity and to promote the ecologically sustainable use of biodiversity components in the State of Western Australia. Under the BC Act, native species are listed as Threatened when they face a high to very high risk of extinction in the wild, and ecological communities are listed as Threatened when they face a high to very high risk of collapse. Whilst all native flora and fauna are protected throughout the State, special protection is afforded to threatened flora and ecological communities, with the authorisation of the Minister being required before such flora can be taken or communities modified.

Furthermore, The Minister may list vegetation as a 'critical habitat' if it is critical to the survival of a threatened species or ecological community. Under Section 54(1) of the BC Act, habitat is eligible for listing as critical habitat if:

a) it is critical to the survival of a threatened species or a threatened ecological community; and
b) its listing is otherwise in accordance with the ministerial guidelines.

No TECs or Threatened species or critical habitat listed under the BC Act were recorded within the survey area.

4.5 Other Areas of Conservation Significance

The DBCA lists 'Priority' species and communities which are under consideration for declaration as 'Threatened' under the BC Act. These Priority species/ communities have no formal legal protection until they are endorsed by the Minister as being Threatened.

No Priority species or PECs as listed by DBCA were identified within the survey area.

There are no wetlands of international importance (Ramsar Wetlands) or national importance (Australian Nature Conservation Agency Wetlands) within the survey area.

There are no proposed nor gazetted conservation reserves within the survey area. The survey area borders the Yallari Timber Reserve (Section 5(g) reserve, Class C) and the Karamindie Forest (State Forest, Class A) lies 2.4 km to the east (Figure 2-77).

4.6 Native Vegetation Clearing Principles

Based on the outcomes from the survey undertaken, Botanica assessed the results of the desktop and field survey with regards to the native vegetation clearing principles listed under Schedule 5 of the EP Act (Table 4-9). The assessment found that the proposed vegetation clearing activities are not at variance with any of the clearing principles.

Table 4-9: Assessment against native vegetation clearing principles

Letter	Principle	Assessment	Outcome
Native vegetation should not be cleared if it:			
(a)	comprises a high level of biological diversity.	Vegetation identified within the survey area is not considered to be of high biological diversity and is well represented outside of the survey area.	Clearing is not at variance with this principle
(b)	comprises the whole or part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to WA.	No significant fauna or fauna habitat were observed within the survey area. Fauna habitats are well represented outside of the survey area.	Clearing is not at variance with this principle
(c)	includes, or is necessary for the continued existence of rare flora.	No Threatened Flora taxa, pursuant to the BC Act and the EPBC Act were identified within the survey area.	Clearing is not at variance with this principle
(d)	comprises the whole or part of or is necessary for the maintenance of a threatened ecological community (TEC).	No TEC listed under the EPBC Act or by the BC Act occur within the survey area.	Clearing is not at variance with this principle
(e)	is significant as a remnant of native vegetation in an area that has been extensively cleared	Vegetation within the survey area retains >96% of its pre-European extent, and development within the survey area will not significantly reduce the current extent.	Clearing is not at variance with this principle
(f)	is growing, in, or in association with, an environment associated with a watercourse or wetland	There are no inland waters or perennial drainage lines within the survey area. One minor ephemeral drainage line intersects the survey area.	Clearing is not at variance with this principle
(g)	Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	The survey area and surrounding region has not been extensively cleared. Clearing within the survey area is not considered likely to lead to land degradation issues such as salinity, water logging or acidic soils.	Clearing is unlikely to be at variance with this principle

Letter	Principle Native vegetation should not be cleared if it:	Assessment	Outcome
(h)	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.	The survey area is not located within a conservation area. The survey area borders the Yallari Timber Reserve and the Karamindie Forest lies 2.4 km to the east.	Clearing is not at variance with this principle
(i)	Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.	No surface water bodies are located within the survey area. One minor ephemeral drainage line intersects the survey area however clearing within the survey area is unlikely to result in deterioration to water quality.	Clearing is not at variance with this principle
(j)	Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding.	Rainfall in the Eastern Goldfields subregion has an average rainfall of 200 to 300mm. Rainfall events are unlikely to result in localised flooding. Clearing within the survey area is not likely to increase the incidence or intensity of flooding within the survey area or surrounds.	Clearing is unlikely to be at variance with this principle

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APPENDIX A:
CONSERVATION CATEGORIES (BC ACT AND EPBC ACT)

Definitions of Conservation Significant Species

Code	Category
State categories of Threatened and Priority species	
Threatened Species (T) 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 BC Act.	
CR	**Critically Endangered** 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 2 Division 1 of the *Biodiversity Conservation (Listing of Native Species) (Fauna) Order 2024* for critically endangered fauna or Schedule 1 Division 1 of the *Biodiversity Conservation (Listing of Native Species) (Flora) Order 2024* for critically endangered flora.
EN	**Endangered** 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 Division 2 of the *Biodiversity Conservation (Listing of Native Species) (Fauna) Order 2024* for endangered fauna or Schedule 1 Division 2 of the *Biodiversity Conservation (Listing of Native Species) (Flora) Order 2024* for endangered flora.
VU	**Vulnerable** 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 2 Division 3 of the *Biodiversity Conservation (Listing of Native Species) (Fauna) Order 2024* for vulnerable fauna or Schedule 1 Division 3 of the *Biodiversity Conservation (Listing of Native Species) (Flora) Order 2024* 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 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 3 of the *Biodiversity Conservation (Listing of Native Species) (Fauna) Order 2024* for extinct fauna or Schedule 2 the *Biodiversity Conservation (Listing of Native Species) (Flora) Order 2024* for extinct flora.
EW	**Extinct in the Wild** Species that *"is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form*", and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act). Currently there are no Threatened fauna or Threatened flora species listed as extinct in the wild. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice.
Specially protected species Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection. Species that are listed as Threatened species (critically endangered, endangered or vulnerable) or extinct species under the BC Act cannot also be listed as Specially Protected species.	
CD	**Species of special conservation interest**

Code	Category
	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 1 Division 1 of the *Biodiversity Conservation (Listing of Native Species) (Fauna) Order 2024*.
IA	**International Agreement/ Migratory** 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 1 Division 2 of the *Biodiversity Conservation (Listing of Native Species) (Fauna) Order 2024*.
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 1 Division 3 of the *Biodiversity Conservation (Listing of Native Species) (Fauna) Order 2024*.
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.

Code	Category
	(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.
Commonwealth categories of Threatened species	
EX	**Extinct** Taxa where there is no reasonable doubt that the last member of the species has died.
EW	**Extinct in the Wild** Taxa where it 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.
CR	**Critically Endangered** Taxa that are facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
EN	**Endangered** Taxa which are not critically endangered and is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
VU	**Vulnerable** Taxa which are not critically endangered or endangered and is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.
CD	**Conservation Dependent** Taxa which are the focus of a specific conservation program the cessation of which would result in the species becoming vulnerable, endangered or critically endangered; or (b) the following subparagraphs are satisfied: (i) the species is a species of fish; (ii) the species is the focus of a plan of management that provides for actions necessary to stop the decline of, and support the recovery of, the species so that its chances of long term survival in nature are maximised; (iii) the plan of management is in force under a law of the Commonwealth or of a State or Territory; (iv) cessation of the plan of management would adversely affect the conservation status of the species.

Definitions of Conservation Significant Communities

Category Code	Category
State categories of Threatened Ecological Communities (TEC)	
PD	**Presumed Totally Destroyed**
	An ecological community will be listed as Presumed Totally Destroyed if there are no recent records of the community being extant and either of the following applies: • records within the last 50 years have not been confirmed despite thorough searches or known likely habitats or; • all occurrences recorded within the last 50 years have since been destroyed.
CR	**Critically Endangered**
	An ecological community will be listed as Critically Endangered when it has been adequately surveyed and is found to be facing an extremely high risk of total destruction in the immediate future, meeting any one of the following criteria:
	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;
	The current distribution is limited i.e. highly restricted, having very few small or isolated occurrences, or covering a small area;
	The ecological community is highly modified with potential of being rehabilitated in the immediate future.
EN	**Endangered**

Category Code	Category
	An ecological community will be listed as Endangered when it has been adequately surveyed and is not Critically Endangered but is facing a very high risk of total destruction in the near future. The ecological community must meet any one of the following criteria:
	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;
	The current distribution is limited i.e. highly restricted, having very few small or isolated occurrences, or covering a small area;
	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 Vulnerable when it has been adequately surveyed and is not Critically Endangered or Endangered but is facing high risk of total destruction in the medium to long term future. The ecological community must meet any one of the following criteria:
	The ecological community exists largely as modified occurrences that are likely to be able to be substantially restored or rehabilitated;
	The ecological community may already be modified and would be vulnerable to threatening process, and restricted in range or distribution;
	The ecological community may be widespread but has potential to move to a higher threat category due to existing or impending threatening processes.
Commonwealth categories of Threatened Ecological Communities (TEC)	
CE	**Critically Endangered** If, at that time, an ecological community is facing an extremely high risk of extinction in the wild in the immediate future (indicative timeframe being the next 10 years).
EN	**Endangered** If, at that time, an ecological community is not critically endangered but is facing a very high risk of extinction in the wild in the near future (indicative timeframe being the next 20 years).
VU	**Vulnerable** If, at that time, an ecological community is not critically endangered or endangered, but is facing a high risk of extinction in the wild in the medium–term future (indicative timeframe being the next 50 years).
Priority Ecological Communities	
P1	**Poorly-known ecological communities**
	Ecological communities with apparently few, small occurrences, all or most not actively managed for conservation (e.g. within agricultural or pastoral lands, urban areas, active mineral leases) and for which current threats exist.
P2	**Poorly-known ecological communities**
	Communities that are known from few small occurrences, all or most of which are actively managed for conservation (e.g. within national parks, conservation parks, nature reserves, State forest, un-allocated Crown land, water reserves, etc.) and not under imminent threat of destruction or degradation.
P3	**Poorly known ecological communities**
	Communities that are known from several to many occurrences, a significant number or area of which are not under threat of habitat destruction or degradation or:
	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;
	Communities made up of large, and/or widespread occurrences, that may or not be represented in the reserve system, but are under threat of modification across much of their range from processes such as grazing and inappropriate fire regimes.
P4	**Ecological communities that are adequately known, rare but not threatened** or meet criteria for near threatened, or that have been recently removed from the threatened list. These communities require regular monitoring.
P5	**Conservation Dependent ecological communities**
	Ecological communities that are not threatened but are subject to a specific conservation program, the cessation of which would result in the community becoming threatened within five years.

APPENDIX B:
NATUREMAP SEARCH RESULTS (DBCA, 2024D)

Vascular Flora

CLASS	TAXON	CONS
DICOT	*Acacia acuminata*	
DICOT	*Acacia andrewsii*	
DICOT	*Acacia aneura*	
DICOT	*Acacia aptaneura*	
DICOT	*Acacia burkittii*	
DICOT	*Acacia calcarata*	
DICOT	*Acacia camptoclada*	
DICOT	*Acacia chrysella*	
DICOT	*Acacia collegialis*	
DICOT	*Acacia colletioides*	
DICOT	*Acacia coolgardiensis*	
DICOT	*Acacia crenulata*	P3
DICOT	*Acacia dempsteri*	
DICOT	*Acacia donaldsonii*	
DICOT	*Acacia eremophila var. eremophila*	
DICOT	*Acacia erinacea*	
DICOT	*Acacia gibbosa*	
DICOT	*Acacia hemiteles*	
DICOT	*Acacia inaequiloba*	
DICOT	*Acacia inamabilis*	
DICOT	*Acacia inceana subsp. inceana*	
DICOT	*Acacia jennerae*	
DICOT	*Acacia kalgoorliensis*	
DICOT	*Acacia kerryana*	P2
DICOT	*Acacia lasiocalyx*	
DICOT	*Acacia ligulata*	
DICOT	*Acacia longispinea*	
DICOT	*Acacia masliniana*	
DICOT	*Acacia merrallii*	
DICOT	*Acacia mulganeura*	
DICOT	*Acacia murrayana*	
DICOT	*Acacia nyssophylla*	
DICOT	*Acacia oswaldii (Narrow phyllode variant)*	
DICOT	*Acacia pachypoda*	
DICOT	*Acacia Plurinerves -*	
DICOT	*Acacia prainii*	
DICOT	*Acacia pritzeliana*	
DICOT	*Acacia rendlei*	
DICOT	*Acacia resinimarginea*	
DICOT	*Acacia resinistipulea*	
DICOT	*Acacia resinosa*	
DICOT	*Acacia sp.*	
DICOT	*Acacia sp. narrow phyllode*	
DICOT	*Acacia sp. Norseman*	
DICOT	*Acacia synchronicia*	
DICOT	*Acacia tetragonophylla*	
DICOT	*Acacia warramaba*	
DICOT	*Acacia websteri*	P1
DICOT	*Acacia xerophila var. brevior*	
DICOT	*Acacia yorkrakinensis subsp. acrita*	
DICOT	*Actinobole uliginosum*	
DICOT	*Alectryon oleifolius subsp. canescens*	
DICOT	*Allocasuarina acutivalvis subsp. acutivalvis*	
DICOT	*Allocasuarina campestris*	
DICOT	*Allocasuarina campestris / eriochlamys subsp. grossa*	
DICOT	*Allocasuarina cf. campestris*	
DICOT	*Allocasuarina eriochlamys subsp. eriochlamys*	
DICOT	*Allocasuarina eriochlamys subsp. grossa*	P3
DICOT	*Allocasuarina helmsii*	
DICOT	*Alternanthera denticulata*	
DICOT	*Alyogyne hakeifolia*	
DICOT	*Alyssum linifolium*	
DICOT	*Alyxia buxifolia*	
DICOT	*Alyxia tetanifolia*	P3
DICOT	*Amyema benthamii*	
DICOT	*Amyema gibberula var. gibberula*	
DICOT	*Amyema miquelii*	
DICOT	*Amyema preissii*	
DICOT	*Androcalva luteiflora*	
DICOT	*Angianthus tomentosus*	
DICOT	*Anthotroche pannosa*	
DICOT	*Arabidella chrysodema*	
DICOT	*Arabidella trisecta*	
DICOT	*Arctotheca calendula*	
DICOT	*Argemone ochroleuca subsp. ochroleuca*	
DICOT	*Asteridea athrixioides*	
DICOT	*Asteridea chaetopoda*	
DICOT	*Atriplex acutibractea*	
DICOT	*Atriplex acutibractea subsp. acutibractea*	
DICOT	*Atriplex amnicola*	
DICOT	*Atriplex codonocarpa*	
DICOT	*Atriplex eardleyae*	
DICOT	*Atriplex holocarpa*	
DICOT	*Atriplex nana*	
DICOT	*Atriplex nummularia*	
DICOT	*Atriplex nummularia subsp. spathulata*	
DICOT	*Atriplex quadrivalvata var. quadrivalvata*	
DICOT	*Atriplex semibaccata*	
DICOT	*Atriplex stipitata*	
DICOT	*Atriplex suberecta*	
DICOT	*Atriplex vesicaria*	
DICOT	*Bertya dimerostigma*	
DICOT	*Beyeria lechenaultii*	
DICOT	*Beyeria sulcata var. brevipes*	
DICOT	*Beyeria sulcata var. sulcata*	
DICOT	*Boronia coerulescens subsp. spinescens*	
DICOT	*Boronia inornata subsp. leptophylla*	
DICOT	*Bossiaea cucullata*	
DICOT	*Brachychiton gregorii*	
DICOT	*Brachyscome ciliaris*	
DICOT	*Brachyscome lineariloba*	
DICOT	*Brachyscome perpusilla*	
DICOT	*Brassica sp.*	
DICOT	*Brunonia australis*	
DICOT	*Brunonia sp. Goldfields*	
DICOT	*Bryophyllum delagoense*	
DICOT	*Calandrinia calyptrata*	
DICOT	*Calandrinia eremaea*	
DICOT	*Calandrinia lefroyensis*	P1
DICOT	*Calandrinia polyandra*	
DICOT	*Calandrinia sculpta*	
DICOT	*Calandrinia sp. Blackberry*	
DICOT	*Calandrinia translucens*	
DICOT	*Calothamnus gilesii*	
DICOT	*Calotis hispidula*	
DICOT	*Calotis multicaulis*	
DICOT	*Calytrix amethystina*	
DICOT	*Carduus tenuiflorus*	
DICOT	*Carrichtera annua*	
DICOT	*Carthamus lanatus*	
DICOT	*Cassytha melantha*	
DICOT	*Casuarina obesa*	
DICOT	*Casuarina obesa x pauper*	
DICOT	*Casuarina pauper*	
DICOT	*Centaurea melitensis*	
DICOT	*Cephalipterum drummondii*	
DICOT	*Ceratogyne obionoides*	
DICOT	*Chamelaucium ciliatum*	
DICOT	*Chenopodium album*	
DICOT	*Chenopodium curvispicatum*	
DICOT	*Chrysocephalum apiculatum subsp. norsemanense*	P3
DICOT	*Chrysocephalum puteale*	
DICOT	*Citrullus amarus*	
DICOT	*Citrullus colocynthis*	
DICOT	*Codonocarpus cotinifolius*	
DICOT	*Commersonia craurophylla*	
DICOT	*Convolvulus remotus*	
DICOT	*Coopernookia strophiolata*	
DICOT	*Crassula colorata var. acuminata*	
DICOT	*Crassula colorata var. colorata*	
DICOT	*Cratystylis centralis*	P3
DICOT	*Cratystylis conocephala*	
DICOT	*Cratystylis conocephala x microphylla*	
DICOT	*Cratystylis microphylla*	
DICOT	*Cratystylis subspinescens*	

CLASS	TAXON	CONS
DICOT	*Cryptandra aridicola*	
DICOT	*Cryptandra graniticola*	
DICOT	*Cryptandra recurva*	
DICOT	*Cryptandra sp.*	
DICOT	*Cullen cinereum*	
DICOT	*Cyanostegia angustifolia*	
DICOT	*Cyanostegia microphylla*	
DICOT	*Cyathostemon divaricatus*	P1
DICOT	*Cyathostemon heterantherus*	
DICOT	*Cylindropuntia fulgida var. mamillata*	
DICOT	*Dampiera latealata*	
DICOT	*Dampiera luteiflora*	
DICOT	*Dampiera stenostachya*	
DICOT	*Dampiera tenuicaulis var. curvula*	
DICOT	*Dampiera tenuicaulis var. tenuicaulis*	
DICOT	*Darwinia sp. Karonie*	
DICOT	*Dasymalla terminalis*	
DICOT	*Daucus glochidiatus*	
DICOT	*Daviesia aphylla*	
DICOT	*Daviesia croniniana*	
DICOT	*Daviesia grahamii*	
DICOT	*Daviesia pachyloma*	
DICOT	*Dicrastylis brunnea*	
DICOT	*Dicrastylis parvifolia*	
DICOT	*Didymanthus roei*	
DICOT	*Dillwynia sp.*	
DICOT	*Diocirea acutifolia*	
DICOT	*Diocirea violacea*	
DICOT	*Diocirea x Eremophila violacea x clavata*	
DICOT	*Disphyma crassifolium subsp. clavellatum*	
DICOT	*Dodonaea adenophora*	
DICOT	*Dodonaea boroniifolia*	
DICOT	*Dodonaea cf. microzyga/adenophora*	
DICOT	*Dodonaea lobulata*	
DICOT	*Dodonaea lobulata x microzyga*	
DICOT	*Dodonaea microzyga*	
DICOT	*Dodonaea microzyga var. acrolobata*	
DICOT	*Dodonaea stenozyga*	
DICOT	*Dodonaea viscosa subsp. angustissima*	
DICOT	*Drummondita hassellii*	
DICOT	*Duboisia hopwoodii*	
DICOT	*Dysphania kalpari*	
DICOT	*Echium plantagineum*	
DICOT	*Enchylaena tomentosa*	
DICOT	*Enekbatus eremaeus*	
DICOT	*Eremaea zonospila*	
DICOT	*Eremophila alternifolia*	
DICOT	*Eremophila arachnoides subsp. tenera*	P3
DICOT	*Eremophila acutifolia*	P3
DICOT	*Eremophila caerulea subsp. caerulea*	
DICOT	*Eremophila caerulea subsp. merrallii*	P4
DICOT	*Eremophila caperata*	
DICOT	*Eremophila cf. deserti*	
DICOT	*Eremophila clarkei*	
DICOT	*Eremophila clavata*	
DICOT	*Eremophila decipiens*	
DICOT	*Eremophila decipiens subsp. decipiens*	
DICOT	*Eremophila dempsteri*	
DICOT	*Eremophila deserti*	

CLASS	TAXON	CONS
DICOT	*Eremophila georgei*	
DICOT	*Eremophila gibbosa*	
DICOT	*Eremophila glabra subsp. glabra*	
DICOT	*Eremophila granitica*	
DICOT	*Eremophila interstans subsp. interstans*	
DICOT	*Eremophila interstans subsp. virgata*	
DICOT	*Eremophila ionantha*	
DICOT	*Eremophila longifolia*	
DICOT	*Eremophila maculata subsp. brevifolia*	
DICOT	*Eremophila miniata*	
DICOT	*Eremophila oblonga*	
DICOT	*Eremophila oldfieldii subsp. angustifolia*	
DICOT	*Eremophila oppositifolia subsp. angustifolia*	
DICOT	*Eremophila pantonii*	
DICOT	*Eremophila parvifolia subsp. auricampa*	
DICOT	*Eremophila praecox*	P2
DICOT	*Eremophila psilocalyx*	
DICOT	*Eremophila pustulata*	
DICOT	*Eremophila rugosa*	
DICOT	*Eremophila saligna*	
DICOT	*Eremophila scoparia*	
DICOT	*Eremophila sp.*	
DICOT	*Eremophila succinea*	P3
DICOT	*Eremophila veronica*	P3
DICOT	*Eremophila xantholaema*	P1
DICOT	*Eriochiton sclerolaenoides*	
DICOT	*Erodium cicutarium*	
DICOT	*Erodium crinitum*	
DICOT	*Erodium cygnorum*	
DICOT	*Erymophyllum glossanthus*	
DICOT	*Erymophyllum ramosum subsp. ramosum*	
DICOT	*Eucalyptus campaspe*	
DICOT	*Eucalyptus celastroides subsp. celastroides*	
DICOT	*Eucalyptus ceratocorys*	
DICOT	*Eucalyptus cf. ravida*	
DICOT	*Eucalyptus clelandiorum*	
DICOT	*Eucalyptus clelandiorum x torquata*	
DICOT	*Eucalyptus comitae-vallis*	
DICOT	*Eucalyptus concinna / planipes*	
DICOT	*Eucalyptus cylindrocarpa*	
DICOT	*Eucalyptus flocktoniae*	
DICOT	*Eucalyptus gracilis*	
DICOT	*Eucalyptus griffithsii*	
DICOT	*Eucalyptus horistes*	
DICOT	*Eucalyptus hypolaena*	
DICOT	*Eucalyptus incrassata*	
DICOT	*Eucalyptus jutsonii subsp. jutsonii*	P4
DICOT	*Eucalyptus leptophylla*	
DICOT	*Eucalyptus leptopoda subsp. subluta*	
DICOT	*Eucalyptus lesouefii*	
DICOT	*Eucalyptus livida*	
DICOT	*Eucalyptus longicornis*	
DICOT	*Eucalyptus longissima*	
DICOT	*Eucalyptus loxophleba subsp. lissophloia*	
DICOT	*Eucalyptus oleosa*	
DICOT	*Eucalyptus oleosa subsp. oleosa*	
DICOT	*Eucalyptus petraea*	
DICOT	*Eucalyptus pileata*	
DICOT	*Eucalyptus planipes*	

CLASS	TAXON	CONS
DICOT	*Eucalyptus platycorys*	
DICOT	*Eucalyptus prolixa*	
DICOT	*Eucalyptus ravida*	
DICOT	*Eucalyptus rigidula*	
DICOT	*Eucalyptus salicola*	
DICOT	*Eucalyptus salmonophloia*	
DICOT	*Eucalyptus salubris*	
DICOT	*Eucalyptus stricklandii*	
DICOT	*Eucalyptus torquata*	
DICOT	*Eucalyptus transcontinentalis*	
DICOT	*Eucalyptus trichopoda*	
DICOT	*Eucalyptus urna*	
DICOT	*Eucalyptus vittata*	
DICOT	*Eucalyptus websteriana*	
DICOT	*Eucalyptus websteriana subsp. norsemanica*	P1
DICOT	*Eucalyptus websteriana subsp. websteriana*	
DICOT	*Eucalyptus x brachyphylla*	P4
DICOT	*Eucalyptus yilgarnensis*	
DICOT	*Euphorbia drummondii*	
DICOT	*Euphorbia tannensis subsp. eremophila*	
DICOT	*Euryomyrtus maidenii*	
DICOT	*Exocarpos aphyllus*	
DICOT	*Frankenia cinerea*	
DICOT	*Frankenia desertorum*	
DICOT	*Frankenia glomerata*	P4
DICOT	*Frankenia interioris*	
DICOT	*Frankenia interioris var. interioris*	
DICOT	*Frankenia interioris var. parviflora*	
DICOT	*Frankenia pauciflora*	
DICOT	*Frankenia setosa*	
DICOT	*Gastrolobium spinosum*	
DICOT	*Gazania linearis*	
DICOT	*Glischrocaryon angustifolium*	
DICOT	*Glischrocaryon flavescens*	
DICOT	*Glycyrrhiza acanthocarpa*	
DICOT	*Gnephosis angianthoides*	
DICOT	*Gnephosis brevifolia*	
DICOT	*Gompholobium gompholobioides*	
DICOT	*Gonocarpus confertifolius var. helmsii*	
DICOT	*Goodenia cf. xanthosperma*	
DICOT	*Goodenia elderi*	
DICOT	*Goodenia havilandii*	
DICOT	*Goodenia mimuloides*	
DICOT	*Goodenia pusilliflora*	
DICOT	*Goodenia salina*	P2
DICOT	*Goodenia xanthosperma*	
DICOT	*Grevillea acacioides*	
DICOT	*Grevillea acuaria*	
DICOT	*Grevillea didymobotrya subsp. didymobotrya*	
DICOT	*Grevillea excelsior*	
DICOT	*Grevillea haplantha subsp. haplantha*	
DICOT	*Grevillea hookeriana subsp. apiciloba*	
DICOT	*Grevillea hookeriana subsp. hookeriana*	
DICOT	*Grevillea huegelii*	
DICOT	*Grevillea nematophylla subsp. nematophylla*	
DICOT	*Grevillea obliquistigma subsp. obliquistigma*	
DICOT	*Grevillea oncogyne*	
DICOT	*Grevillea sarissa subsp. bicolor*	
DICOT	*Grevillea sarissa subsp. sarissa*	

CLASS	TAXON	CONS
DICOT	*Grevillea teretifolia*	
DICOT	*Gunniopsis glabra*	
DICOT	*Gunniopsis quadrifida*	
DICOT	*Gunniopsis rodwayi*	
DICOT	*Gyrostemon racemiger*	
DICOT	*Hakea erecta*	
DICOT	*Hakea francisiana*	
DICOT	*Hakea minyma*	
DICOT	*Hakea preissii*	
DICOT	*Halgania andromedifolia*	
DICOT	*Halgania cyanea var. Allambi Stn*	
DICOT	*Halgania cyanea var. Charleville*	
DICOT	*Haloragis gossei*	
DICOT	*Haloragis trigonocarpa*	
DICOT	*Hannafordia bissillii subsp. latifolia*	
DICOT	*Helianthus annuus*	
DICOT	*Heliotropium curassavicum*	
DICOT	*Heliotropium europaeum*	
DICOT	*Heliotropium supinum*	
DICOT	*Hemiphora elderi*	
DICOT	*Hibbertia glomerosa var. glomerosa*	
DICOT	*Homalocalyx thryptomenoides*	
DICOT	*Hyalosperma demissum*	
DICOT	*Hyalosperma glutinosum*	
DICOT	*Hyalosperma glutinosum subsp. glutinosum*	
DICOT	*Hyalosperma zacchaeus*	
DICOT	*Hybanthus epacroides*	
DICOT	*Hybanthus floribundus subsp. curvifolius*	
DICOT	*Hydrocotyle pilifera var. glabrata*	
DICOT	*Hypertelis cerviana*	
DICOT	*Hysterobaeckea petraea*	
DICOT	*Isoetopsis graminifolia*	
DICOT	*Jacksonia arida*	
DICOT	*Kennedia prorepens*	
DICOT	*Kippistia suaedifolia*	
DICOT	*Lachnostachys coolgardiensis*	
DICOT	*Lantana camara*	
DICOT	*Lawrencia chrysoderma*	
DICOT	*Lawrencia glomerata*	
DICOT	*Lawrencia helmsii*	
DICOT	*Lawrencia repens*	
DICOT	*Lawrencia squamata*	
DICOT	*Leiocarpa websteri*	
DICOT	*Lemooria burkittii*	
DICOT	*Leontodon rhagadioloides*	
DICOT	*Lepidium africanum*	
DICOT	*Lepidium oxytrichum*	
DICOT	*Lepidium platypetalum*	
DICOT	*Leptosema cervicorne*	
DICOT	*Leptospermum fastigiatum*	
DICOT	*Leptospermum subtenue*	
DICOT	*Leucochrysum fitzgibbonii*	
DICOT	*Leucopogon sp. Boorabbin*	
DICOT	*Leucopogon sp. Clyde Hill*	
DICOT	*Leucopogon sp. Coolgardie*	
DICOT	*Leucopogon sp. Kambalda*	
DICOT	*Lobelia cf. winfrindae*	
DICOT	*Lycium australe*	
DICOT	*Lysimachia arvensis*	

CLASS	TAXON	CONS
DICOT	*Maireana aff. planifolia*	
DICOT	*Maireana amoena*	
DICOT	*Maireana appressa*	
DICOT	*Maireana eriosphaera*	
DICOT	*Maireana eriosphaera*	
DICOT	*Maireana georgei*	
DICOT	*Maireana glomerifolia*	
DICOT	*Maireana marginata*	
DICOT	*Maireana oppositifolia*	
DICOT	*Maireana pentatropis*	
DICOT	*Maireana platycarpa*	
DICOT	*Maireana pyramidata*	
DICOT	*Maireana radiata*	
DICOT	*Maireana sedifolia*	
DICOT	*Maireana suaedifolia*	
DICOT	*Maireana tomentosa subsp. tomentosa*	
DICOT	*Maireana trichoptera*	
DICOT	*Maireana triptera*	
DICOT	*Malva preissiana*	
DICOT	*Malva weinmanniana*	
DICOT	*Marsdenia australis*	
DICOT	*Medicago polymorpha*	
DICOT	*Melaleuca acuminata subsp. acuminata*	
DICOT	*Melaleuca coccinea*	P3
DICOT	*Melaleuca exuvia*	
DICOT	*Melaleuca fulgens subsp. fulgens*	
DICOT	*Melaleuca hamata*	
DICOT	*Melaleuca lanceolata*	
DICOT	*Melaleuca lateriflora*	
DICOT	*Melaleuca pauperiflora subsp. fastigiata*	
DICOT	*Melaleuca sheathiana*	
DICOT	*Melaleuca thyoides*	
DICOT	*Melaleuca uncinata*	
DICOT	*Melaleuca zeteticorum*	
DICOT	*Mesembryanthemum crystallinum*	
DICOT	*Mesembryanthemum nodiflorum*	
DICOT	*Micromyrtus erichsenii*	
DICOT	*Micromyrtus monotaxis*	
DICOT	*Micromyrtus stenocalyx*	
DICOT	*Millotia myosotidifolia*	
DICOT	*Minuria cunninghamii*	
DICOT	*Mirbelia depressa*	
DICOT	*Mirbelia microphylla*	
DICOT	*Mirbelia multicaulis*	
DICOT	*Mirbelia sp. 1*	
DICOT	*Monoculus monstrosus*	
DICOT	*Monotaxis grandiflora var. obtusifolia*	
DICOT	*Myoporum montanum*	
DICOT	*Myoporum platycarpum*	
DICOT	*Myoporum platycarpum subsp. platycarpum*	
DICOT	*Myosurus australis*	
DICOT	*Nicotiana glauca*	
DICOT	*Nicotiana occidentalis subsp. obliqua*	
DICOT	*Notisia intonsa*	P3
DICOT	*Olearia homolepis*	
DICOT	*Olearia muelleri*	
DICOT	*Olearia pimeleoides*	
DICOT	*Olearia trifurcata*	
DICOT	*Oligocarpus calendulaceus*	

CLASS	TAXON	CONS
DICOT	*Omphalolappula concava*	
DICOT	*Oncosiphon suffruticosum*	
DICOT	*Opercularia vaginata*	
DICOT	*Opuntia sp.*	
DICOT	*Orbea variegata*	
DICOT	*Persicaria prostrata*	
DICOT	*Persoonia helix*	
DICOT	*Petrophile arcuata*	
DICOT	*Phebalium canaliculatum (hybrid)*	
DICOT	*Phebalium canaliculatum / tuberculosum*	
DICOT	*Phebalium clavatum*	P2
DICOT	*Phebalium filifolium*	
DICOT	*Phebalium filifolium - tuberculosum*	
DICOT	*Phebalium lepidotum*	
DICOT	*Phebalium tuberculosum*	
DICOT	*Philotheca apiculata*	P1
DICOT	*Phlegmatospermum eremaeum*	P3
DICOT	*Phyllangium sulcatum*	
DICOT	*Physopsis viscida*	
DICOT	*Pimelea angustifolia*	
DICOT	*Pimelea microcephala subsp. microcephala*	
DICOT	*Pittosporum angustifolium*	
DICOT	*Pityrodia lepidota*	
DICOT	*Pityrodia scabra subsp. dendrotricha*	P3
DICOT	*Plantago debilis*	
DICOT	*Plantago drummondii*	
DICOT	*Platysace effusa*	
DICOT	*Platysace trachymenioides*	
DICOT	*Podolepis aristata subsp. affinis*	
DICOT	*Podolepis capillaris*	
DICOT	*Podolepis kendallii*	
DICOT	*Podolepis lessonii*	
DICOT	*Podolepis rugata*	
DICOT	*Podotheca wilsonii*	
DICOT	*Pomaderris forrestiana*	
DICOT	*Portulacaria afra*	
DICOT	*Prostanthera althoferi / campbellii*	
DICOT	*Prostanthera althoferi subsp. althoferi*	
DICOT	*Prostanthera campbellii*	
DICOT	*Prostanthera grylloana*	
DICOT	*Prostanthera incurvata*	
DICOT	*Prostanthera splendens*	P1
DICOT	*Psammomoya choretroides*	
DICOT	*Pterocaulon sphacelatum*	
DICOT	*Ptilotus aervoides*	
DICOT	*Ptilotus carlsonii*	
DICOT	*Ptilotus eremita*	
DICOT	*Ptilotus exaltatus*	
DICOT	*Ptilotus exaltatus var. villosus*	
DICOT	*Ptilotus gaudichaudii var. parviflorus*	
DICOT	*Ptilotus helichrysoides*	
DICOT	*Ptilotus holosericeus*	
DICOT	*Ptilotus obovatus*	
DICOT	*Ptilotus procumbens*	P1
DICOT	*Ptilotus rigidus*	P1
DICOT	*Pultenaea sp.*	
DICOT	*Radyera farragei*	
DICOT	*Ranunculus pentandrus var. platycarpus*	
DICOT	*Reseda luteola*	

CLASS	TAXON	CONS
DICOT	*Rhagodia drummondii*	
DICOT	*Rhagodia eremaea*	
DICOT	*Rhagodia sp.*	
DICOT	*Rhodanthe battii*	
DICOT	*Rhodanthe chlorocephala subsp. rosea*	
DICOT	*Rhodanthe floribunda*	
DICOT	*Rhodanthe haigii*	
DICOT	*Rhodanthe laevis*	
DICOT	*Rhodanthe oppositifolia subsp. oppositifolia*	
DICOT	*Rhodanthe pygmaea*	
DICOT	*Rhodanthe rubella*	
DICOT	*Rhodanthe stricta*	
DICOT	*Ricinocarpus digynus*	P1
DICOT	*Ricinocarpos sp. Eastern Goldfields*	
DICOT	*Ricinocarpos stylosus*	
DICOT	*Roepera apiculata*	
DICOT	*Roepera aurantiaca subsp. aurantiaca*	
DICOT	*Roepera compressa*	
DICOT	*Roepera eremaea*	
DICOT	*Roepera glauca*	
DICOT	*Roepera halophila*	
DICOT	*Roepera ovata*	
DICOT	*Roepera reticulata*	
DICOT	*Rumex vesicarius*	
DICOT	*Salsola australis*	
DICOT	*Salvia verbenaca*	
DICOT	*Santalum acuminatum*	
DICOT	*Santalum spicatum*	
DICOT	*Scaevola spinescens*	
DICOT	*Schoenia cassiniana*	
DICOT	*Sclerolaena brevifolia*	
DICOT	*Sclerolaena cuneata*	
DICOT	*Sclerolaena diacantha*	
DICOT	*Sclerolaena drummondii*	
DICOT	*Sclerolaena eurotioides*	
DICOT	*Sclerolaena fusiformis*	
DICOT	*Sclerolaena obliquicuspis*	
DICOT	*Sclerolaena parviflora*	
DICOT	*Senecio glossanthus*	
DICOT	*Senecio lacustrinus*	
DICOT	*Senna artemisioides*	
DICOT	*Senna artemisioides subsp. filifolia*	
DICOT	*Senna artemisioides subsp. x artemisioides*	
DICOT	*Senna pleurocarpa var. angustifolia*	
DICOT	*Senna sp.*	
DICOT	*Senna stowardii*	
DICOT	*Seringia velutina*	
DICOT	*Sida calyxhymenia*	
DICOT	*Sida intricata*	
DICOT	*Sida sp.*	
DICOT	*Sida spodochroma*	
DICOT	*Sisymbrium erysimoides*	
DICOT	*Sisymbrium irio*	
DICOT	*Sisymbrium orientale*	
DICOT	*Solanum lasiophyllum*	
DICOT	*Solanum nummularium*	
DICOT	*Solanum plicatile*	
DICOT	*Solanum simile*	
DICOT	*Sonchus oleraceus*	
DICOT	*Spartothamnella sp. Helena & Aurora Range*	
DICOT	*Spergularia marina*	
DICOT	*Stackhousia sp. Mt Keith*	
DICOT	*Stenanthemum stipulosum*	
DICOT	*Stenopetalum filifolium*	
DICOT	*Stenopetalum lineare*	
DICOT	*Stenopetalum lineare var. lineare*	
DICOT	*Stenopetalum pedicellare*	
DICOT	*Streptoglossa liatroides*	
DICOT	*Stylidium arenicola*	
DICOT	*Stylidium choreanthum*	P3
DICOT	*Stylidium induratum*	
DICOT	*Styphelia sp.*	
DICOT	*Styphelia rectiloba*	P3
DICOT	*Surreya diandra*	
DICOT	*Swainsona affinis*	
DICOT	*Swainsona beasleyana*	
DICOT	*Swainsona canescens*	
DICOT	*Swainsona colutoides*	
DICOT	*Swainsona kingii*	
DICOT	*Swainsona oliveri*	
DICOT	*Swainsona oroboides*	
DICOT	*Symphyotrichum squamatum*	
DICOT	*Tecticornia arborea*	
DICOT	*Tecticornia disarticulata*	
DICOT	*Tecticornia doliiformis*	
DICOT	*Tecticornia flabelliformis*	P2
DICOT	*Tecticornia halocnemoides*	
DICOT	*Tecticornia halocnemoides subsp. halocnemoides*	
DICOT	*Tecticornia indica subsp. bidens*	
DICOT	*Tecticornia indica subsp. leiostachya*	
DICOT	*Tecticornia lepidosperma*	
DICOT	*Tecticornia lylei*	
DICOT	*Tecticornia mellarium*	P1
DICOT	*Tecticornia moniliformis*	
DICOT	*Tecticornia peltata*	
DICOT	*Tecticornia pergranulata subsp. pergranulata*	
DICOT	*Tecticornia pruinosa*	
DICOT	*Tecticornia pterygosperma subsp. pterygosperma*	
DICOT	*Tecticornia sp.*	
DICOT	*Tecticornia syncarpa*	
DICOT	*Tecticornia triandra*	
DICOT	*Tecticornia undulata*	
DICOT	*Templetonia ceracea*	
DICOT	*Templetonia incrassata*	
DICOT	*Tetragonia eremaea*	
DICOT	*Tetratheca spenceri*	VU
DICOT	*Thiseltonia gracillima*	
DICOT	*Thryptomene australis subsp. brachyandra*	
DICOT	*Thryptomene planiflora*	P1
DICOT	*Thryptomene sp. Londonderry*	
DICOT	*Trachymene cyanopetala*	
DICOT	*Trachymene ornata*	
DICOT	*Tribulus terrestris*	
DICOT	*Trichanthodium skirrophorum*	
DICOT	*Trichodesma zeylanicum*	
DICOT	*Triptilodiscus pygmaeus*	
DICOT	*Trymalium myrtillus subsp. myrtillus*	
DICOT	*Velleia rosea*	
DICOT	*Vincetoxicum lineare*	
DICOT	*Vittadinia dissecta var. hirta*	
DICOT	*Vittadinia humerata*	
DICOT	*Vittadinia sp.*	
DICOT	*Vittadinia sulcata*	
DICOT	*Wahlenbergia gracilenta*	
DICOT	*Waitzia acuminata var. acuminata*	
DICOT	*Waitzia fitzgibbonii*	
DICOT	*Westringia rigida*	
DICOT	*Zygophyllum apiculatum*	
DICOT	*Zygophyllum aurantiacum*	
DICOT	*Zygophyllum compressum*	
DICOT	*Zygophyllum eremaeum*	
DICOT	*Zygophyllum fruticulosum*	
DICOT	*Zygophyllum glaucum*	
DICOT	*Zygophyllum ovatum*	
FERN	*Cheilanthes adiantoides*	
FERN	*Cheilanthes austrotenuifolia*	
FERN	*Cheilanthes lasiophylla*	
FERN	*Cheilanthes sieberi subsp. sieberi*	
FUNGUS	*Battarrea stevenii*	
FUNGUS	*Colletotrichum sp.*	
FUNGUS	*Hysterographium sp.*	
FUNGUS	*Puccinia saccardoi*	
FUNGUS	*Trechispora sp.*	
FUNGUS	*Ustilago comburens*	
FUNGUS	*Venturia inaequalis*	
FUNGUS	*Xanthoparmelia dayiana*	P3
FUNGUS	*Xanthoparmelia xanthomelanoides*	P2
GYMNO	*Callitris columellaris*	
GYMNO	*Callitris preissii*	
GYMNO	*Callitris verrucosa*	
LIVERWORT	*Riccia crinita*	
MONOCOT	*Aristida contorta*	
MONOCOT	*Austrodanthonia sp.*	
MONOCOT	*Austrostipa blackii*	
MONOCOT	*Austrostipa drummondii*	
MONOCOT	*Austrostipa elegantissima*	
MONOCOT	*Austrostipa eremophila*	
MONOCOT	*Austrostipa nitida*	
MONOCOT	*Austrostipa nodosa*	
MONOCOT	*Austrostipa platychaeta*	
MONOCOT	*Austrostipa scabra*	
MONOCOT	*Austrostipa sp. Carlingup Road*	
MONOCOT	*Austrostipa sp. indet.*	
MONOCOT	*Austrostipa trichophylla*	
MONOCOT	*Austrostipa turbinata*	P3
MONOCOT	*Bromus arenarius*	
MONOCOT	*Bromus diandrus*	
MONOCOT	*Bulbine semibarbata*	
MONOCOT	*Cenchrus ciliaris*	
MONOCOT	*Cenchrus setaceus*	
MONOCOT	*Centrolepis polygyna*	
MONOCOT	*Chloris truncata*	
MONOCOT	*Dactyloctenium radulans*	
MONOCOT	*Danthonia caespitosa*	
MONOCOT	*Eleocharis acutangula*	
MONOCOT	*Enneapogon caerulescens*	
MONOCOT	*Enneapogon cylindricus*	

CLASS	TAXON	CONS
MONOCOT	*Enteropogon ramosus*	
MONOCOT	*Hordeum glaucum*	
MONOCOT	*Hordeum sp.*	
MONOCOT	*Isolepis australiensis*	P3
MONOCOT	*Lepidosperma aff. diurnum*	
MONOCOT	*Lepidosperma diurnum*	
MONOCOT	*Lepidosperma sp.*	
MONOCOT	*Lepidosperma sp. Kambalda*	P2
MONOCOT	*Lepidosperma sp. Parker Range*	P1
MONOCOT	*Panicum effusum*	
MONOCOT	*Paspalidium gracile*	
MONOCOT	*Pterostylis sp. dainty brown*	
MONOCOT	*Pterostylis sp. inland*	
MONOCOT	*Pterostylis tryphera*	
MONOCOT	*Pterostylis xerampelina*	P1
MONOCOT	*Rostraria pumila*	
MONOCOT	*Ruppia polycarpa*	
MONOCOT	*Rytidosperma acerosum*	
MONOCOT	*Rytidosperma caespitosum*	
MONOCOT	*Schoenus hexandrus*	
MONOCOT	*Sowerbaea multicaulis*	P4
MONOCOT	*Stipa eremophila*	
MONOCOT	*Stipa nitida*	
MONOCOT	*Stipa sp.*	
MONOCOT	*Thysanotus manglesianus*	
MONOCOT	*Thysanotus sp.*	
MONOCOT	*Thysanotus speckii*	
MONOCOT	*Triodia irritans*	
MONOCOT	*Triodia scariosa*	
MONOCOT	*Typha orientalis*	
MONOCOT	*Wurmbea tenella*	
MOSS	*Aloina bifrons*	
MOSS	*Barbula luteola*	
MOSS	*Bryum lanatum*	
MOSS	*Crossidium davidai*	
MOSS	*Didymodon torquatus*	
MOSS	*Fissidens megalotis*	
MOSS	*Grimmia laevigata*	
MOSS	*Rosulabryum billarderii*	
MOSS	*Syntrichia pagorum*	
MOSS	*Tortula atrovirens*	
MOSS	*Tortula muralis*	

Vertebrate Fauna

CLASS	TAXON	CONS
AMPHI	*Neobatrachus kunapalari*	
AMPHI	*Neobatrachus sutor*	
AMPHI	*Pseudophryne occidentalis*	
BIRD	*Acanthagenys rufogularis*	
BIRD	*Acanthiza apicalis*	
BIRD	*Acanthiza chrysorrhoa*	
BIRD	*Acanthiza robustirostris*	
BIRD	*Acanthiza uropygialis*	
BIRD	*Accipiter cirrocephalus*	
BIRD	*Accipiter fasciatus*	
BIRD	*Aegotheles cristatus*	
BIRD	*Anas gracilis*	
BIRD	*Anas rhynchotis*	
BIRD	*Anas superciliosa*	
BIRD	*Anthochaera carunculata*	
BIRD	*Anthus australis subsp. australis*	
BIRD	*Aphelocephala leucopsis*	VU
BIRD	*Aphelocephala leucopsis subsp. castaneiventris*	
BIRD	*Aquila audax*	
BIRD	*Aquila morphnoides subsp. morphnoides*	
BIRD	*Ardea pacifica*	
BIRD	*Artamus cinereus*	
BIRD	*Artamus cyanopterus*	
BIRD	*Artamus personatus*	
BIRD	*Aythya australis*	
BIRD	*Barnardius zonarius*	
BIRD	*Biziura lobata*	
BIRD	*Cacatua sanguinea*	
BIRD	*Cacomantis flabelliformis*	
BIRD	*Cacomantis pallidus*	
BIRD	*Calidris acuminata*	VU/MI
BIRD	*Calidris alba*	MI
BIRD	*Chenonetta jubata*	
BIRD	*Cheramoeca leucosterna*	
BIRD	*Cheramoeca leucosternus*	
BIRD	*Chrysococcyx basalis*	
BIRD	*Chrysococcyx osculans*	
BIRD	*Cincloramphus cruralis*	
BIRD	*Cincloramphus mathewsi*	
BIRD	*Cinclosoma castanotus*	
BIRD	*Cladorhynchus leucocephalus*	
BIRD	*Climacteris rufa*	
BIRD	*Colluricincla harmonica*	
BIRD	*Columba livia*	
BIRD	*Coracina maxima*	
BIRD	*Coracina novaehollandiae*	
BIRD	*Corvus bennetti*	
BIRD	*Corvus coronoides*	
BIRD	*Corvus orru*	
BIRD	*Coturnix pectoralis*	
BIRD	*Coturnix ypsilophora*	
BIRD	*Cracticus nigrogularis*	
BIRD	*Cracticus tibicen*	
BIRD	*Cracticus torquatus*	
BIRD	*Cuculus pallidus*	
BIRD	*Cygnus atratus*	
BIRD	*Daphoenositta chrysoptera*	
BIRD	*Dicaeum hirundinaceum*	
BIRD	*Dromaius novaehollandiae*	
BIRD	*Egretta novaehollandiae*	
BIRD	*Elanus axillaris*	
BIRD	*Elseyornis melanops*	
BIRD	*Eolophus roseicapillus*	
BIRD	*Eopsaltria australis subsp. griseogularis*	
BIRD	*Epthianura albifrons*	
BIRD	*Epthianura tricolor*	
BIRD	*Erythrogonys cinctus*	
BIRD	*Eurostopodus argus*	
BIRD	*Falco berigora*	
BIRD	*Falco cenchroides*	
BIRD	*Falco longipennis*	
BIRD	*Fulica atra*	
BIRD	*Gerygone fusca*	
BIRD	*Glossopsitta porphyrocephala*	
BIRD	*Grallina cyanoleuca*	
BIRD	*Haliastur sphenurus*	
BIRD	*Hieraaetus morphnoides*	
BIRD	*Himantopus himantopus*	
BIRD	*Hirundo neoxena*	
BIRD	*Hirundo nigricans*	
BIRD	*Hylacola cauta*	
BIRD	*Hylacola cauta subsp. whitlocki*	
BIRD	*Leipoa ocellata*	VU
BIRD	*Lichenostomus leucotis*	
BIRD	*Lichenostomus ornatus*	
BIRD	*Lichenostomus plumulus*	
BIRD	*Lichenostomus virescens*	
BIRD	*Lichmera indistincta*	
BIRD	*Lophoictinia isura*	
BIRD	*Malacorhynchus membranaceus*	
BIRD	*Malurus leucopterus*	
BIRD	*Malurus pulcherrimus*	
BIRD	*Malurus splendens*	
BIRD	*Manorina flavigula*	
BIRD	*Melanodryas cucullata*	
BIRD	*Melithreptus brevirostris*	
BIRD	*Melopsittacus undulatus*	
BIRD	*Merops ornatus*	
BIRD	*Microcarbo melanoleucos*	
BIRD	*Microeca fascinans*	
BIRD	*Microeca fascinans subsp. assimilis*	
BIRD	*Ninox novaeseelandiae*	
BIRD	*Nycticorax caledonicus subsp. hilli*	
BIRD	*Ocyphaps lophotes*	
BIRD	*Oreoica gutturalis*	
BIRD	*Oreoica gutturalis subsp. gutturalis*	
BIRD	*Pachycephala inornata*	
BIRD	*Pachycephala pectoralis*	
BIRD	*Pachycephala rufiventris*	
BIRD	*Pardalotus punctatus*	
BIRD	*Pardalotus striatus*	
BIRD	*Pardalotus striatus subsp. westraliensis*	
BIRD	*Petrochelidon ariel*	
BIRD	*Petrochelidon nigricans*	
BIRD	*Petroica cucullata*	
BIRD	*Petroica goodenovii*	
BIRD	*Phalacrocorax carbo*	
BIRD	*Phalacrocorax sulcirostris*	
BIRD	*Phaps chalcoptera*	
BIRD	*Phylidonyris albifrons*	
BIRD	*Platycercus icterotis xanthogenys*	P4
BIRD	*Platycercus varius*	
BIRD	*Platycercus zonarius*	
BIRD	*Podargus strigoides*	
BIRD	*Poliocephalus poliocephalus*	
BIRD	*Pomatostomus superciliosus*	
BIRD	*Pomatostomus superciliosus subsp. ashbyi*	
BIRD	*Porzana fluminea*	
BIRD	*Ptilotula ornatus*	
BIRD	*Purnella albifrons*	

CLASS	TAXON	CONS
BIRD	*Pyrrholaemus brunneus*	
BIRD	*Recurvirostra novaehollandiae*	
BIRD	*Rhipidura albiscapa*	
BIRD	*Rhipidura fuliginosa*	
BIRD	*Rhipidura leucophrys*	
BIRD	*Smicrornis brevirostris*	
BIRD	*Stictonetta naevosa*	
BIRD	*Strepera versicolor*	
BIRD	*Streptopelia senegalensis*	
BIRD	*Tachybaptus novaehollandiae*	
BIRD	*Tadorna tadornoides*	
BIRD	*Taeniopygia guttata*	
BIRD	*Threskiornis spinicollis*	
BIRD	*Todiramphus pyrrhopygius*	
BIRD	*Todiramphus sanctus*	
BIRD	*Tribonyx ventralis*	
BIRD	*Tringa brevipes*	MI/ P4
BIRD	*Tringa glareola*	MI
BIRD	*Turnix velox*	
BIRD	*Vanellus tricolor*	
BIRD	*Zanda latirostris*	EN
BIRD	*Zosterops lateralis*	
INVERT	*Acarina 002*	
INVERT	*Acarina 003*	
INVERT	*Acarina 004*	
INVERT	*Acarina 005*	
INVERT	*Acarina 006*	
INVERT	*Acarina 007*	
INVERT	*Acarina 008*	
INVERT	*Acarina 009*	
INVERT	*Acarina 010*	
INVERT	*Acarina 011*	
INVERT	*Acarina 012*	
INVERT	*Acarina 013*	
INVERT	*Aganippe sp. indet.*	
INVERT	*Aname armigera*	
INVERT	*Aname mainae*	
INVERT	*Aname tepperi*	
INVERT	*ant 009*	
INVERT	*ant 037*	
INVERT	*Araneae 022 juv*	
INVERT	*Araneae 036*	
INVERT	*Araneae 044*	
INVERT	*Araneae sp.*	
INVERT	*Araneus eburneiventris*	
INVERT	*Araneus senicaudatus*	
INVERT	*Argiope trifasciata*	
INVERT	*Austracantha minax*	
INVERT	*Backobourkia heroine*	
INVERT	*beetle 001*	
INVERT	*beetle 002*	
INVERT	*beetle 003*	
INVERT	*beetle 005*	
INVERT	*beetle 006*	
INVERT	*beetle 007*	
INVERT	*beetle 008*	
INVERT	*beetle 010*	
INVERT	*beetle 012*	
INVERT	*beetle 015*	

CLASS	TAXON	CONS
INVERT	*beetle 016*	
INVERT	*beetle 018*	
INVERT	*beetle 019*	
INVERT	*beetle 020*	
INVERT	*beetle 021*	
INVERT	*beetle larva 001*	
INVERT	*beetle sp. indet.*	
INVERT	*Bothriembryon sp. indet.*	
INVERT	*Branchinella nana*	
INVERT	*Branchinella nichollsi*	
INVERT	*Buddelundia cf. frontosa*	
INVERT	*Calamoecia ampulla var. b01*	
INVERT	*Calamoecia sp.*	
INVERT	*Clynotis albobarbatus*	
INVERT	*Corasoides australis*	
INVERT	*Cormocephalus turneri*	
INVERT	*Daphnia carinata*	
INVERT	*Daphnia carinata s.l.*	
INVERT	*Diaprograpta peterandrewsi*	
INVERT	*Eriophora biapicata*	
INVERT	*fly 003*	
INVERT	*fly 004*	
INVERT	*fly 005*	
INVERT	*fly 008*	
INVERT	*fly 009*	
INVERT	*fly sp.*	
INVERT	*Hemiptera 001*	
INVERT	*Hemiptera 007*	
INVERT	*Hemiptera 009*	
INVERT	*Hemiptera 020*	
INVERT	*Hemiptera 024*	
INVERT	*Hemiptera 025*	
INVERT	*Hemiptera juvenile 001*	
INVERT	*Hoggicosa castanea*	
INVERT	*Hoggicosa storri*	
INVERT	*Hogna salifodina*	
INVERT	*Holconia nigrigularis*	
INVERT	*Indolpium sp. indet.*	
INVERT	*Isometroides vescus*	
INVERT	*Isopedella saundersi*	
INVERT	*Jalmenus aridus*	P1
INVERT	*Jalmenus icilius*	
INVERT	*Kwonkan sp. indet.*	
INVERT	*Lampona cylindrata*	
INVERT	*Lamponina scutata*	
INVERT	*Latrodectus hasseltii*	
INVERT	*Longrita grasspatch*	
INVERT	*Lychas 'adonis'*	
INVERT	*Lychas annulatus*	
INVERT	*Lychas jonesae*	
INVERT	*Lychas splendens*	
INVERT	*Mainosa longipes*	
INVERT	*Maratus 'pes0340'*	
INVERT	*Missulena occatoria*	
INVERT	*Myandra bicincta*	
INVERT	*Nephila edulis*	
INVERT	*Nicodamus mainae*	
INVERT	*Ogyris subterrestris subsp. petrina*	
INVERT	*Pardosa pexa*	

CLASS	TAXON	CONS
INVERT	*pseudoscorpion sp. indet.*	
INVERT	*Scolopendra laeta*	
INVERT	*Scolopendra morsitans*	
INVERT	*Storena sinuosa*	
INVERT	*Synsphyronus dorothyae*	
INVERT	*Synsphyronus lathrius*	
INVERT	*Synsphyronus mimulus*	
INVERT	*Tamopsis circumvidens*	
INVERT	*Tasmanicosa leuckartii*	
INVERT	*Tetralycosa alteripa*	
INVERT	*Thereuopoda lesueurii*	
INVERT	*Trichocyclus balladong*	
INVERT	*Triops australiensis*	
INVERT	*Urodacus novaehollandiae*	
INVERT	*Venator yalkara*	
INVERT	*white ant 001*	
INVERT	*white ant 002*	
INVERT	*white ant 003*	
MAMMAL	*Bos taurus*	
MAMMAL	*Capra hircus*	
MAMMAL	*Cercartetus concinnus*	
MAMMAL	*Chalinolobus gouldii*	
MAMMAL	*Chalinolobus morio*	
MAMMAL	*Dasyurus geoffroii*	VU
MAMMAL	*Felis catus*	
MAMMAL	*Macropus fuliginosus*	
MAMMAL	*Mormopterus planiceps*	
MAMMAL	*Mus musculus*	
MAMMAL	*Ningaui yvonneae*	
MAMMAL	*Notomys mitchellii*	
MAMMAL	*Nyctophilus geoffroyi*	
MAMMAL	*Oryctolagus cuniculus*	
MAMMAL	*Pseudomys bolami*	
MAMMAL	*Pseudomys hermannsburgensis*	
MAMMAL	*Scotorepens balstoni*	
MAMMAL	*Sminthopsis crassicaudata*	
MAMMAL	*Sminthopsis dolichura*	
MAMMAL	*Sminthopsis gilberti*	
MAMMAL	*Sminthopsis murina*	
MAMMAL	*Sminthopsis ooldea*	
MAMMAL	*Sminthopsis sp.*	
MAMMAL	*Tachyglossus aculeatus*	
MAMMAL	*Tadarida australis*	
MAMMAL	*Vespadelus baverstocki*	
MAMMAL	*Vespadelus finlaysoni*	
MAMMAL	*Vespadelus regulus*	
REPTILE	*Scotorepens balstoni*	
REPTILE	*Brachyurophis fasciolatus subsp. fasciolatus*	
REPTILE	*Brachyurophis semifasciata*	
REPTILE	*Brachyurophis semifasciatus*	
REPTILE	*Christinus marmoratus*	
REPTILE	*Crenadactylus ocellatus subsp. ocellatus*	
REPTILE	*Cryptoblepharus buchananii*	
REPTILE	*Cryptoblepharus plagiocephalus*	
REPTILE	*Ctenophorus caudicinctus*	
REPTILE	*Ctenophorus cristatus*	
REPTILE	*Ctenophorus fordi*	
REPTILE	*Ctenophorus nuchalis*	
REPTILE	*Ctenophorus ornatus*	

CLASS	TAXON	CONS
REPTILE	*Ctenophorus reticulatus*	
REPTILE	*Ctenophorus salinarum*	
REPTILE	*Ctenophorus scutulatus*	
REPTILE	*Ctenotus atlas*	
REPTILE	*Ctenotus leonhardii*	
REPTILE	*Ctenotus schomburgkii*	
REPTILE	*Ctenotus uber*	
REPTILE	*Ctenotus uber subsp. uber*	
REPTILE	*Cyclodomorphus melanops subsp. elongatus*	
REPTILE	*Delma australis*	
REPTILE	*Delma butleri*	
REPTILE	*Delma fraseri*	
REPTILE	*Demansia psammophis*	
REPTILE	*Demansia psammophis subsp. psammophis*	
REPTILE	*Diplodactylus granariensis*	
REPTILE	*Diplodactylus granariensis subsp. granariensis*	
REPTILE	*Diplodactylus maini*	
REPTILE	*Diplodactylus pulcher*	
REPTILE	*Echiopsis curta*	
REPTILE	*Egernia depressa*	
REPTILE	*Egernia formosa*	
REPTILE	*Egernia inornata*	
REPTILE	*Egernia stokesii subsp. badia*	EN
REPTILE	*Eremiascincus richardsonii*	
REPTILE	*Furina ornata*	
REPTILE	*Gehyra purpurascens*	
REPTILE	*Gehyra variegata*	
REPTILE	*Hemiergis initialis subsp. initialis*	
REPTILE	*Hemiergis peronii subsp. peronii*	
REPTILE	*Heteronotia binoei*	
REPTILE	*Lerista distinguenda*	
REPTILE	*Lerista kingi*	
REPTILE	*Lerista muelleri*	
REPTILE	*Lerista picturata*	
REPTILE	*Lerista rhodonoides*	
REPTILE	*Lerista taeniata*	
REPTILE	*Lerista timida*	
REPTILE	*Lialis burtonis*	
REPTILE	*Liopholis inornata*	
REPTILE	*Liopholis multiscutata*	
REPTILE	*Lucasium damaeum*	
REPTILE	*Lucasium maini*	
REPTILE	*Menetia greyii*	
REPTILE	*Moloch horridus*	
REPTILE	*Morelia spilota subsp. imbricata*	
REPTILE	*Morethia butleri*	
REPTILE	*Morethia obscura*	
REPTILE	*Neelaps bimaculatus*	
REPTILE	*Nephrurus laevissimus*	
REPTILE	*Nephrurus milii*	
REPTILE	*Oedura reticulata*	
REPTILE	*Parasuta gouldii*	
REPTILE	*Parasuta monachus*	
REPTILE	*Pogona minor*	
REPTILE	*Pogona minor subsp. minor*	
REPTILE	*Pseudechis australis*	
REPTILE	*Pseudonaja affinis subsp. affinis*	
REPTILE	*Pseudonaja mengdeni*	
REPTILE	*Pseudonaja modesta*	
REPTILE	*Pseudonaja nuchalis*	
REPTILE	*Pygopus lepidopodus*	
REPTILE	*Ramphotyphlops australis*	
REPTILE	*Ramphotyphlops bicolor*	
REPTILE	*Ramphotyphlops bituberculatus*	
REPTILE	*Ramphotyphlops hamatus*	
REPTILE	*Rhynchoedura ornata*	
REPTILE	*Simoselaps bertholdi*	
REPTILE	*Strophurus assimilis*	
REPTILE	*Strophurus elderi*	
REPTILE	*Strophurus sp.*	
REPTILE	*Suta fasciata*	
REPTILE	*Tiliqua rugosa*	
REPTILE	*Tympanocryptis cephalus*	
REPTILE	*Underwoodisaurus milii*	
REPTILE	*Varanus gouldii*	
REPTILE	*Varanus tristis*	

APPENDIX C:
POTENTIALLY OCCURRING INTRODUCED (WEED) FLORA SPECIES

Family	Taxon	Common Name	WAOL Status	WoNS
Asparagaceae	*Agave americana*	Century Plant	NA	
Poaceae	*Aira caryophyllea*	Silvery Hairgrass	Permitted - s11	
Aizoaceae	*Aizoon pubescens*	Coastal Galenia	unlisted	
Brassicaceae	*Alyssum linifolium*	Flax-leaf Alyssum	Permitted - s11	
Asteraceae	*Arctotheca calendula*	Capeweed	Permitted - s11	
Apocynaceae	*Asclepias curassavica*	Redhead Cottonbush	Permitted - s11	
Poaceae	*Avena fatua*	Wild Oat	Permitted - s11	
Brassicaceae	*Brassica tournefortii*	Mediterranean Turnip	Permitted - s11	
Poaceae	*Bromus diandrus*	Great Brome	Unlisted	
Poaceae	*Bromus madritensis*	Madrid Brome	Permitted - s11	
Poaceae	*Bromus rubens*	Red Brome	Permitted - s11	
Crassulaceae	*Bryophyllum delagoense*	Mother-of-millions	Permitted - s11	
Boraginaceae	*Buglossoides arvensis*	Corn Gromwell	Permitted - s11	
Dicranaceae	*Campylopus introflexus*	Tambookie Grass	NA	
Asteraceae	*Carduus tenuiflorus*	Slender Thistle	Permitted - s11	
Brassicaceae	*Carrichtera annua*	Ward's Weed	Permitted - s11	
Asteraceae	*Carthamus lanatus*	Saffron Thistle	Permitted - s11	
Poaceae	*Cenchrus ciliaris*	Buffel Grass	Permitted - s11	
Poaceae	*Cenchrus longisetus*	Feathertop	Permitted - s11	
Asteraceae	*Centaurea melitensis*	Maltese Cockspur	Permitted - s11	
Chenopodiaceae	*Chenopodium album*	Fat Hen	Permitted - s11	
Asteraceae	*Cichorium intybus*	Chicory	Permitted - s11	
Cucurbitaceae	*Citrullus amarus*	Paddy melon	Unlisted	
Cucurbitaceae	*Citrullus colocynthis*	Bitter apple	Permitted - s11	

Family	Taxon	Common Name	WAOL Status	WoNS
Cucurbitaceae	*Cucumis myriocarpus*	Prickly Paddy Melon	Permitted - s11	
Cucurbitaceae	*Cucumis myriocarpus subsp. myriocarpus*	Paddy Melon	Disa bracteata	
Cactaceae	*Cylindropuntia fulgida var. mamillata*	Coral Cactus, Boxing Glove Cactus	Declared Pest - s22(2)	YES
Cactaceae	*Cylindropuntia imbricata*	Tree Cholla, Devils rope	Declared Pest - s22(2)	YES
Cactaceae	*Cylindropuntia kleiniae*	Klein's Cholla	Declared Pest - s22(2)	YES
Cactaceae	*Cylindropuntia tunicata*	Sheathed Cholla, Hudson Pear	Declared Pest - s22(2)	YES
Poaceae	*Cynodon dactylon*	Couch	Permitted - s11	
Solanaceae	*Datura ferox*	Fierce Thornapple	Permitted - s11	
Boraginaceae	*Echium plantagineum*	Patersons Curse	Declared Pest - s22(2)	No
Poaceae	*Eragrostis curvula*	African Lovegrass	Permitted - s11	
Asteraceae	*Erigeron bonariensis*	Hairy Horseweed	Unlisted	
Asteraceae	*Erigeron sumatrensis*	Fleabane	Unlisted	
Geraniaceae	*Erodium aureum*	0	Permitted - s11	
Geraniaceae	*Erodium botrys*	Long Storksbill	Permitted - s11	
Geraniaceae	*Erodium cicutarium*	Common Storksbill	Permitted - s11	
Asteraceae	*Gazania linearis*	Gazania	Permitted - s11	
Asteraceae	*Helianthus annuus*	Sunflower	Permitted - s11	
Boraginaceae	*Heliotropium europaeum*	Common Heliotrope	Permitted - s11	
Poaceae	*Hordeum glaucum*	Northern Barleygrass	Permitted - s11	
Poaceae	*Hordeum leporinum*	Barley Grass	Permitted - s11	
Poaceae	*Hyparrhenia hirta*	Tambookie Grass	Permitted - s11	
Iridaceae	*Ixia polystachya*	Variable Ixia	Permitted - s11	
Juncaceae	*Juncus capitatus*	NA	Permitted - s11	
Asteraceae	*Lactuca serriola*	Prickly Lettuce	Permitted - s11	
Verbenaceae	*Lantana camara*	Common Lantana	Declared Pest - s22(2) (C3)	Yes
Asteraceae	*Leontodon rhagadioloides*	Cretan Weed	Unlisted	
Brassicaceae	*Lepidium africanum*	Rubble Peppercress	Permitted - s11	
Plumbaginaceae	*Limonium sinuatum*	Perennial Sea Lavender	Permitted - s11	
Solanaceae	*Lycium ferocissimum*	African Boxthorn	Permitted - s11	YES
Primulaceae	*Lysimachia arvensis*	Pimpernel	Permitted - s11	

Family	Taxon	Common Name	WAOL Status	WoNS
Lythraceae	*Lythrum hyssopifolia*	Lesser Loosestrife	Permitted - s11	
Malvaceae	*Malva parviflora*	Marshmallow	Permitted - s11	
Lamiaceae	*Marrubium vulgare*	Horehound	Permitted - s11	
Fabaceae	*Medicago laciniata*	Cutleaf Medic	Permitted - s11	
Fabaceae	*Medicago minima*	Small Burr Medic	Permitted - s11	
Fabaceae	*Medicago polymorpha*	Burr Medic	Permitted - s11	
Aizoaceae	*Mesembryanthemum crystallinum*	Ice Plant, Common Iceplant	Permitted - s11	
Aizoaceae	*Mesembryanthemum nodiflorum*	Slenderleaf Iceplant	Permitted - s11	
Asteraceae	*Monoculus monstrosus*	Stinking Roger	Permitted - s11	
Solanaceae	*Nicotiana glauca*	Tree Tobacco	Permitted - s11	
Asteraceae	*Oligocarpus calendulaceus*	NA	Unlisted	
Asteraceae	*Oncosiphon suffruticosum*	Calomba Daisy	Permitted - s11	
Cactaceae	*Opuntia elata*	Riverian pear	Declared Pest - s22(2)	YES
Cactaceae	*Opuntia ficus-indica*	Indian Fig	Declared Pest - s22(2)	YES
Apocynaceae	*Orbea variegata*	Toad plant	Permitted - s11	
Oxalidaceae	*Oxalis pes-caprae*	Soursob	Permitted - s11	
Papaveraceae	*Papaver hybridum*	Rough Poppy	Permitted - s11	
Orobanchaceae	*Parentucellia latifolia*	Common Bartsia	Permitted - s11	
Poaceae	*Pentameris airoides*	False Hairgrass	Permitted - s11	
Poaceae	*Pentameris airoides subsp. airoides*	NA	Permitted - s11	
Poaceae	*Phalaris minor*	Lesser Canary Grass	Permitted - s11	
Poaceae	*Phalaris paradoxa*	Paradoxa Grass	Permitted - s11	
Polygonaceae	*Polygonum aviculare*	Wireweed	Permitted - s11	
Polygonaceae	*Polypogon monspeliensis*	Annual beardgrass	Permitted - s11	
Didiereaceae	*Portulacaria afra*	Elephant Bush	Permitted - s11	
Poaceae	*Puccinellia ciliata*	Puccinellia	Permitted - s11	
Resedaceae	*Reseda luteola*	Wild mingonette	Permitted - s11	
Poaceae	*Rostraria pumila*	Roughtail	Permitted - s11	

Family	Taxon	Common Name	WAOL Status	WoNS
Polygonaceae	*Rumex hypogaeus*	Double-gee	Permitted - s11	
Polygonaceae	*Rumex vesicarius*	Ruby Dock	Unlisted	
Lamiaceae	*Salvia reflexa*	Mintweed	Permitted - s11	
Lamiaceae	*Salvia verbenaca*	Wild Sage	Permitted - s11	
Anacardiaceae	*Schinus molle var. areira*	[no common name]	Unlisted	
Poaceae	*Schismus arabicus*	Araby Grass	Permitted - s11	
Caryophyllaceae	*Silene gallica var. gallica*	French Catchfly	Unlisted	
Brassicaceae	*Sinapis arvensis*	Charlock	Permitted - s11	
Boraginaceae	*Sisymbrium erysimoides*	smooth mustard	Permitted - s11	
Brassicaceae	*Sisymbrium irio*	London Rocket	Permitted - s11	
Brassicaceae	*Sisymbrium orientale*	Indian Hedge Mustard	Permitted - s11	
Solanaceae	*Solanum ellipticum*	Potato Bush	N/A	
Solanaceae	*Solanum hystrix*	Afghan Thistle	Unlisted	
Solanaceae	*Solanum nigrum*	Black Berry Nightshade	Permitted - s11	
Asteraceae	*Sonchus oleraceus*	Common Sowthistle	Permitted - s11	
Poaceae	*Sorghum halepense*	Johnson Grass	Permitted - s11	
Caryophyllaceae	*Spergularia diandra*	Lesser Sand Spurry	Permitted - s11	
Asteraceae	*Symphyotrichum squamatum*	Bushy Starwort	Permitted - s11	
Zygophyllaceae	*Tribulus terrestris*	Caltrop	Permitted - s11	
Poaceae	*Urochloa panicoides*	Liverseed Grass	Permitted - s11	
Asteraceae	*Verbesina encelioides*	Crownbeard, Wild Sunflower	Permitted - s11	
Poaceae	*Vulpia myuros*	Rat's Tail Fescue	Permitted - s11	

APPENDIX D:
LIST OF FLORA SPECIES IDENTIFIED WITHIN THE SURVEY AREA

Family	Species	Drainage Depression	Clay Loam Plain							Rocky Hill Slope				Sand Plain	Disturbed
		DD-EW1	CLP-AFW1	CLP-EW1	CLP-EW2	CLP-EW3	CLP-EW4	CLP-MW2	CLP-MW1	RH-AFW1	RH-MW1	RH-EW1	RH-EW2	SP-MAFW1	Disturbed
Aizoaceae	*Disphyma crassifolium*				x										
Aizoaceae	*Mesembryanthemum nodiflorum (W)*														x
Amaranthaceae	*Ptilotus exaltatus (A)*	x					x							x	
Amaranthaceae	*Ptilotus holosericeus*						x	x			x			x	
Amaranthaceae	*Ptilotus obovatus*		x			x		x		x		x	x		x
Apocynaceae	*Alyxia buxifolia*	x	x		x			x			x	x		x	
Araliaceae	*Trachymene ornata*									x					
Asparagaceae	*Asphodelus fistulosus (W)*														x
Asparagaceae	*Lomandra effusa*							x	x						
Asparagaceae	*Thysanotus manglesianus (A)*									x		x			
Asteraceae	*Asteridea athrixioides (A)*				x										
Asteraceae	*Brachyscome ciliaris (A)*						x								
Asteraceae	*Carthamus lanatus (W)*													x	x
Asteraceae	*Centaurea melitensis (W)*														x
Asteraceae	*Cephalipterum drummondii*	x						x							
Asteraceae	*Chrysocephalum eremaeum (A)*			x			x			x					
Asteraceae	*Cratystylis conocephala*			x			x						x		
Asteraceae	*Cratystylis microphylla*				x		x		x						
Asteraceae	*Cratystylis subspinescens*	x							x						
Asteraceae	*Dittrichia graveolens (W)*														x
Asteraceae	*Gazania linearis (W)*														x
Asteraceae	*Olearia muelleri*	x				x	x	x	x		x	x		x	
Asteraceae	*Oncosiphon suffruticosum (W)*						x								x
Asteraceae	*Waitzia acuminata (A)*									x				x	
Boraginaceae	*Halgania andromedifolia*					x	x								
Boraginaceae	*Halgania integerrima*							x	x		x			x	
Brassicaceae	*Brassica tournefortii (W)*														x
Brassicaceae	*Carrichtera annua (W)*			x	x	x	x								x
Casuarinaceae	*Allocasuarina campestris*								x	x				x	
Casuarinaceae	*Allocasuarina helmsii*									x		x		x	
Casuarinaceae	*Casuarina pauper*		x		x		x		x		x	x	x		x
Chenopodiaceae	*Atriplex codonocarpa (A)*													x	x
Chenopodiaceae	*Atriplex lindleyi*	x							x						x
Chenopodiaceae	*Atriplex nummularia*	x		x	x			x			x	x	x		
Chenopodiaceae	*Atriplex quadrivalvata*	x		x			x		x						
Chenopodiaceae	*Atriplex stipitata*			x	x		x								
Chenopodiaceae	*Atriplex vesicaria*	x		x	x		x	x			x	x	x		x
Chenopodiaceae	*Chenopodium curvispicatum*	x	x	x	x		x						x	x	
Chenopodiaceae	*Didymanthus roei*	x							x						
Chenopodiaceae	*Enchylaena tomentosa*	x			x		x	x	x	x	x	x			

Family	Species	Drainage Depression	Clay Loam Plain							Rocky Hill Slope				Sand Plain	Disturbed
		DD-EW1	CLP-AFW1	CLP-EW1	CLP-EW2	CLP-EW3	CLP-EW4	CLP-MW2	CLP-MW1	RH-AFW1	RH-MW1	RH-EW1	RH-EW2	SP-MAFW1	Disturbed
Chenopodiaceae	*Eriochiton sclerolaenoides (A)*						x								x
Chenopodiaceae	*Maireana brevifolia*														x
Chenopodiaceae	*Maireana carnosa*	x					x		x						
Chenopodiaceae	*Maireana georgei*				x			x		x		x	x		
Chenopodiaceae	*Maireana glomerifolia*	x			x				x			x		x	
Chenopodiaceae	*Maireana oppositifolia*							x	x			x			
Chenopodiaceae	*Maireana pentatropis*	x					x				x	x			x
Chenopodiaceae	*Maireana platycarpa*									x	x			x	
Chenopodiaceae	*Maireana pyramidata*	x					x	x	x						
Chenopodiaceae	*Maireana sedifolia*				x		x					x			x
Chenopodiaceae	*Maireana tomentosa*	x							x						
Chenopodiaceae	*Maireana trichoptera*						x	x				x	x		
Chenopodiaceae	*Maireana triptera*	x	x	x		x					x		x		
Chenopodiaceae	*Rhagodia drummondii*						x								
Chenopodiaceae	*Rhagodia eremaea*							x					x	x	
Chenopodiaceae	*Salsola australis (A)*														x
Chenopodiaceae	*Sclerolaena diacantha*			x		x				x			x		x
Chenopodiaceae	*Sclerolaena eriacantha*	x				x		x	x						x
Chenopodiaceae	*Sclerolaena eurotioides*			x				x			x			x	
Chenopodiaceae	*Sclerolaena uniflora*	x	x		x		x	x	x						
Chenopodiaceae	*Tecticornia disarticulata*	x			x		x		x					x	
Chenopodiaceae	*Tecticornia doliiformis*													x	
Chenopodiaceae	*Tecticornia halocnemoides*								x						
Chenopodiaceae	*Tecticornia indica*								x						
Cupressaceae	*Callitris preissii*		x								1			x	
Euphorbiaceae	*Beyeria sulcata*												x	x	
Fabaceae	*Acacia acanthoclada subsp. acanthoclada*					x								x	
Fabaceae	*Acacia acuminata*	x	x		x				x	x	x				x
Fabaceae	*Acacia colletioides*				x		x	x	x					x	
Fabaceae	*Acacia duriuscula*					x					x				
Fabaceae	*Acacia erinacea*	x				x	x		x			x		x	
Fabaceae	*Acacia hemiteles*	x			x	x	x	x			x	x	x		
Fabaceae	*Acacia jennerae*	x			x				x					x	
Fabaceae	*Acacia kalgoorliensis*				x		x				x	x		x	
Fabaceae	*Acacia collegialis*		x							x	x	x			
Fabaceae	*Acacia merrallii*						x								
Fabaceae	*Acacia rendlei*			x	x							x			
Fabaceae	*Acacia tetragonophylla*	x		x						x	x		x		
Fabaceae	*Acacia camptoclada*													x	
Fabaceae	*Acacia nyssophylla*				x	x						x			
Fabaceae	*Acacia oswaldii*				x										
Fabaceae	*Dillwynia acerosa*					x						x			
Fabaceae	*Glycyrrhiza acanthocarpa*	x		x	x	x	x		x						
Fabaceae	*Jacksonia arida*								x		1				
Fabaceae	*Mirbelia granitica*		x							x		x			
Fabaceae	*Senna artemisioides subsp. x artemisioides*		x		x					x	x			x	x
Fabaceae	*Senna artemisioides subsp. filifolia*	x			x		x	x		x	x	x	x		

Family	Species	Drainage Depression	Clay Loam Plain							Rocky Hill Slope				Sand Plain	Disturbed
		DD-EW1	CLP-AFW1	CLP-EW1	CLP-EW2	CLP-EW3	CLP-EW4	CLP-MW2	CLP-MW1	RH-AFW1	RH-MW1	RH-EW1	RH-EW2	SP-MAFW1	Disturbed
Fabaceae	*Senna cardiosperma*		x				x	x							
Fabaceae	*Senna pleurocarpa var. angustifolia*				x					x		x			
Fabaceae	*Swainsona canescens*	x		x	x	x	x								
Fabaceae	*Swainsona colutoides*	x			x		x		x						
Fabaceae	*Templetonia sulcata*						x	x							
Fabaceae	*Trigonella suavissima (A)*	x													
Frankeniaceae	*Frankenia interioris*		x				x						x		
Frankeniaceae	*Frankenia setosa*	x													
Goodeniaceae	*Scaevola spinescens*	x	x	x	x		x			x		x	x		
Hemerocallidaceae	*Dianella revoluta*		x		x			x			x			x	
Lamiaceae	*Prostanthera althoferi*		x										x	x	
Lamiaceae	*Prostanthera grylloana*		x									x	x	x	
Lamiaceae	*Salvia verbenaca (W)*			x						x					
Lamiaceae	*Teucrium sessiliflorum*			x	x				x						x
Lamiaceae	*Westringia rigida*		x			x	x					x	x	x	
Lamiaceae	*Westringia cephalantha var. cephalantha*			x		x								x	
Malvaceae	*Brachychiton gregorii*	x	x									x	x		
Malvaceae	*Malva parviflora (W)*														x
Malvaceae	*Radyera farragei*	x		x			x								
Malvaceae	*Sida calyxhymenia*			x		x						x	x		
Malvaceae	*Sida fibulifera*	x		x							x				
Malvaceae	*Sida intricata*	x			x	x	x				x	x		x	
Malvaceae	*Sida spodochroma*	x		x							x				
Myrtaceae	*Darwinia sp. Karonie*										0			x	
Myrtaceae	*Eucalyptus oleosa*	x		x			x		x	x		x		x	
Myrtaceae	*Eucalyptus clelandiorum*	x		x	x		x	x			x	x	x		x
Myrtaceae	*Eucalyptus calycogona*			x	x										
Myrtaceae	*Eucalyptus celastroides*	x				x						x	x		
Myrtaceae	*Eucalyptus gracilis*	x					x								
Myrtaceae	*Eucalyptus griffithsii*	x	x	x				x			x	x	x		
Myrtaceae	*Eucalyptus longissima*		x					x	x	x	x			x	
Myrtaceae	*Eucalyptus loxophleba subsp. lissophloia*													x	
Myrtaceae	*Eucalyptus moderata*	x		x	x	x									
Myrtaceae	*Eucalyptus ravida*					x	x	x							
Myrtaceae	*Eucalyptus salmonophloia*	x		x	x	x	x						x		
Myrtaceae	*Eucalyptus salubris*	x			x		x				x	x	x		
Myrtaceae	*Eucalyptus torquata*												x		
Myrtaceae	*Eucalyptus urna*						x								
Myrtaceae	*Eucalyptus yilgarnensis*						x								
Myrtaceae	*Melaleuca hamata*		x							x				x	
Myrtaceae	*Melaleuca lateriflora*			x	x						x		x		
Myrtaceae	*Melaleuca pauperiflora*	x		x											
Myrtaceae	*Melaleuca sheathiana*	x		x			x				x	x	x	x	
Myrtaceae	*Melaleuca zeteticorum*	x													
Pittosporaceae	*Pittosporum angustifolium*	x			x		x	x				x			
Poaceae	*Amphipogon caricinus*					x						x		x	
Poaceae	*Aristida contorta (A)*									x					

Family	Species	Drainage Depression	Clay Loam Plain							Rocky Hill Slope				Sand Plain	Disturbed
		DD-EW1	CLP-AFW1	CLP-EW1	CLP-EW2	CLP-EW3	CLP-EW4	CLP-MW2	CLP-MW1	RH-AFW1	RH-MW1	RH-EW1	RH-EW2	SP-MAFW1	Disturbed
Poaceae	*Austrostipa elegantissima*	x	x	x	x	x							x		
Poaceae	*Austrostipa nitida (A)*														x
Poaceae	*Cynodon dactylon (W)*													x	x
Poaceae	*Enneapogon caerulescens (A)*									x					
Poaceae	*Enteropogon ramosus*		x	x	x	x									
Poaceae	*Eragrostis setifolia (A)*			x	x				x					x	x
Poaceae	*Eriachne pulchella*									x		x			
Poaceae	*Hordeum leporinum (W)*	x							x						x
Poaceae	*Triodia rigidissima*									x	x			x	
Poaceae	*Triodia scariosa*										x	x		x	
Proteaceae	*Grevillea acuaria*				x	x	x						x	x	
Proteaceae	*Grevillea nematophylla*	x	x					x			x			x	
Proteaceae	*Hakea preissii*				x										
Rhamnaceae	*Cryptandra aridicola*									x					
Rhamnaceae	*Pomaderris forrestiana*											x	x		
Rhamnaceae	*Trymalium myrtillus*	x										x	x		
Santalaceae	*Exocarpos aphyllus*			x			x			x		x	x		
Santalaceae	*Santalum acuminatum*		x									x		x	
Santalaceae	*Santalum spicatum*	x					x	x			x				
Sapindaceae	*Alectryon oleifolius*		x	x	x		x								
Sapindaceae	*Dodonaea adenophora*									x		x			
Sapindaceae	*Dodonaea lobulata*	x		x	x					x	x	x	x		
Sapindaceae	*Dodonaea microzyga*									x	x				
Sapindaceae	*Dodonaea stenozyga*				x			x					x	x	
Sapindaceae	*Dodonaea viscosa*	x			x		x		x					x	
Scrophulariaceae	*Eremophila alternifolia*		x					x					x		
Scrophulariaceae	*Eremophila clarkei*												x		
Scrophulariaceae	*Eremophila decipiens*						x					x			
Scrophulariaceae	*Eremophila georgei*	x								x					
Scrophulariaceae	*Eremophila gibbosa*	x											x		
Scrophulariaceae	*Eremophila glabra*			x								x			
Scrophulariaceae	*Eremophila interstans subsp. virgata*				x		x	x			x	x			
Scrophulariaceae	*Eremophila ionantha*	x				x	x								
Scrophulariaceae	*Eremophila longifolia*	x		x	x										
Scrophulariaceae	*Eremophila maculata*			x	x										
Scrophulariaceae	*Eremophila metallicorum*						x					x			
Scrophulariaceae	*Eremophila miniata*						x		x						
Scrophulariaceae	*Eremophila oldfieldii*					x					x	x		x	
Scrophulariaceae	*Eremophila oldfieldii subsp. angustifolia*				x							x	x		x
Scrophulariaceae	*Eremophila oppositifolia*		x	x			x								
Scrophulariaceae	*Eremophila paisleyi*						x					x			
Scrophulariaceae	*Eremophila parvifolia subsp. auricampi*	x			x		x								
Scrophulariaceae	*Eremophila scoparia*			x		x	x	x	x		x	x	x		
Scrophulariaceae	*Myoporum platycarpum*						x		x						
Solanaceae	*Duboisia hopwoodii*										0			x	
Solanaceae	*Lycium australe*	x							x						
Solanaceae	*Nicotiana rosulata (A)*								x						

Family	Species	Drainage Depression	Clay Loam Plain							Rocky Hill Slope				Sand Plain	Disturbed
		DD-EW1	CLP-AFW1	CLP-EW1	CLP-EW2	CLP-EW3	CLP-EW4	CLP-MW2	CLP-MW1	RH-AFW1	RH-MW1	RH-EW1	RH-EW2	SP-MAFW1	Disturbed
Solanaceae	*Solanum hoplopetalum*			x	x		x								x
Solanaceae	*Solanum lasiophyllum*		x					x		x	x				x
Solanaceae	*Solanum orbiculatum*			x	x										
Solanaceae	*Solanum plicatile*			x	x									x	x
Thymelaeaceae	*Pimelea microcephala*						x				x			x	

(A) Annual Species (W) Weed Species

APPENDIX E:
LIST OF VERTEBRATE FAUNA SPECIES IDENTIFIED WITHIN THE SURVEY AREA

Class	Family	Species	Common Name	Conservation Status
Aves	Accipitridae	*Aquila audax*	Wedge-tailed Eagle	LC
Aves	Accipitridae	*Hamirostra isura*	Square-tailed Kite	LC
Aves	Campephagidae	*Coracina novaehollandiae*	Black-faced Cuckoo-shrike	LC
Aves	Casuariidae	*Dromaius novaehollandiae*	Emu	LC
Aves	Cinclosomatidae	*Cinclosoma clarum*	Copper-backed Quail-thrush	LC
Aves	Columbidae	*Ocyphaps lophotes*	Crested Pigeon	LC
Aves	Columbidae	*Phaps chalcoptera*	Common Bronzewing	LC
Aves	Cracticidae	*Cracticus torquatus*	Grey Butcherbird	LC
Aves	Cracticidae	*Strepera versicolor*	Grey Currawong	LC
Aves	Dicruridae	*Rhipidura leucophrys*	Willie Wagtail	LC
Aves	Estrilidae	*Taeniopygia guttata*	Zebra Finch	LC
Aves	Meliphagidae	*Anthochaera carunculata*	Red Wattlebird	LC
Aves	Meliphagidae	*Lichmera indistincta*	Brown Honeyeater	LC
Aves	Pachycephalidae	*Oreoica gutturalis*	Crested Bellbird	LC
Aves	Pardalotidae	*Pardalotus striatus*	Striated Pardalote	LC
Aves	Psittacidae	*Platycercus zonarius*	Australian Ringneck Parrot	LC
Reptilia	Agamidae	*Ctenophorus cristatus*	Crested Bicycle Dragon	LC
Reptilia	Scincidae	*Tiliqua rugosa*	Bobtail	LC
Reptilia	Varanidae	*Varanus gouldii*	Gould's Sand Monitor	LC

BC Act Status/EPBC Act Status - CR = Critically Endangered, EN = Endangered, VU = Vulnerable, EX = Extinct, MI = Migratory, DBCA Priority Status - P1 to P4, Int. Agmts - CA = CAMBA, JA = JAMBA, RK = ROKAMBA, IUCN Red List Category Definitions LC = Least Concern, NT = Near Threatened - see https://www.iucnredlist.org/resourc es/categories-and-criteria for others

APPENDIX F:
VEGETATION CONDITION RATING

Vegetation Condition Rating	Southwest and Interzone Botanical Provinces	Eremaean and Northern Botanical Provinces
Pristine	Pristine or nearly so, no obvious signs of disturbance or damage caused by human activities since European settlement.	
Excellent	Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species. Damage to trees caused by fire, the presence of non-aggressive weeds and occasional vehicle tracks.	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.
Very Good	Vegetation structure altered, obvious signs of disturbance. Disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and grazing.	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and grazing.	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.
Poor		Still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds at high density, partial clearing, dieback and grazing.	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.
Completely Degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees and shrubs.	Areas that are completely or almost completely without native species in the structure of their vegetation; i.e., areas that are cleared or ‘parkland cleared’ with their flora comprising weed or crop species with isolated native trees or shrubs.

APPENDIX G:
EPBC PROTECTED MATTERS SEARCH (40KM BUFFER)

Australian Government
Department of Climate Change, Energy, the Environment and Water

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: 16-Jan-2025

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:	1
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	12
Listed Migratory Species:	7

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:	80
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:	10
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	7
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

National Heritage Places [Resource Information]

Name	State	Legal Status
Historic		
Goldfields Water Supply Scheme, Western Australia	WA	Listed place

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		
Aphelocephala leucopsis		
Southern Whiteface [529]	Vulnerable	Species or species habitat known to occur within area
Calidris acuminata		
Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat known to occur within area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area
Falco hypoleucos		
Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area
Leipoa ocellata		
Malleefowl [934]	Vulnerable	Species or species habitat known to occur within area
Pezoporus occidentalis		
Night Parrot [59350]	Endangered	Species or species habitat may occur within area
Tringa nebularia		
Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area
INSECT		
Ogyris subterrestris petrina		
Arid Bronze Azure [77743]	Critically Endangered	Species or species habitat may occur within area
MAMMAL		
Dasyurus geoffroii		
Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat may occur within area
PLANT		
Gastrolobium graniticum		
Granite Poison [14872]	Endangered	Species or species habitat known to occur within area
Tecticornia flabelliformis		
Bead Glasswort, Bead Samphire [82664]	Vulnerable	Species or species habitat may occur within area
Thelymitra stellata		
Star Sun-orchid [7060]	Endangered	Species or species habitat may occur within area

Listed Migratory Species [Resource Information]

Scientific Name	Threatened Category	Presence Text
Migratory Marine Birds		
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
Migratory Wetlands Species		
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat may occur within area
Calidris acuminata		
Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area
Calidris melanotos		
Pectoral Sandpiper [858]		Species or species habitat may occur within area
Tringa nebularia		
Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to 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 - AIRTC KALGOORLIE [50111]	WA
Defence - AIRTC KALGOORLIE [50110]	WA
Defence - KALGOORLIE RIFLE RANGE [50156]	WA
Defence - KALGOORLIE TRAINING DEPOT [50199]	WA
Defence - KALGOORLIE TRAINING DEPOT [50198]	WA
Unknown	
Commonwealth Land - [52233]	WA
Commonwealth Land - [51765]	WA
Commonwealth Land - [51060]	WA
Commonwealth Land - [52230]	WA
Commonwealth Land - [51061]	WA
Commonwealth Land - [51430]	WA
Commonwealth Land - [50329]	WA
Commonwealth Land - [50332]	WA
Commonwealth Land - [50333]	WA
Commonwealth Land - [50331]	WA
Commonwealth Land - [51406]	WA
Commonwealth Land - [51759]	WA
Commonwealth Land - [51961]	WA
Commonwealth Land - [51960]	WA
Commonwealth Land - [51963]	WA
Commonwealth Land - [51962]	WA
Commonwealth Land - [52183]	WA
Commonwealth Land - [52184]	WA
Commonwealth Land - [51059]	WA
Commonwealth Land - [51758]	WA
Commonwealth Land - [51954]	WA
Commonwealth Land - [50310]	WA
Commonwealth Land - [51764]	WA
Commonwealth Land - [51766]	WA
Commonwealth Land - [51767]	WA
Commonwealth Land - [51760]	WA
Commonwealth Land - [51761]	WA
Commonwealth Land - [51762]	WA
Commonwealth Land - [51763]	WA
Commonwealth Land - [51949]	WA
Commonwealth Land - [51768]	WA
Commonwealth Land - [51788]	WA
Commonwealth Land - [51769]	WA
Commonwealth Land - [51784]	WA
Commonwealth Land - [51785]	WA
Commonwealth Land - [51985]	WA

Commonwealth Land Name	State
Commonwealth Land - [51781]	WA
Commonwealth Land - [51780]	WA
Commonwealth Land - [51787]	WA
Commonwealth Land - [51786]	WA
Commonwealth Land - [51789]	WA
Commonwealth Land - [51783]	WA
Commonwealth Land - [51782]	WA
Commonwealth Land - [51959]	WA
Commonwealth Land - [51958]	WA
Commonwealth Land - [51955]	WA
Commonwealth Land - [51770]	WA
Commonwealth Land - [51956]	WA
Commonwealth Land - [51957]	WA
Commonwealth Land - [51950]	WA
Commonwealth Land - [51951]	WA
Commonwealth Land - [51952]	WA
Commonwealth Land - [51777]	WA
Commonwealth Land - [52211]	WA
Commonwealth Land - [51791]	WA
Commonwealth Land - [51790]	WA
Commonwealth Land - [51793]	WA
Commonwealth Land - [51792]	WA
Commonwealth Land - [51953]	WA
Commonwealth Land - [51062]	WA
Commonwealth Land - [51063]	WA
Commonwealth Land - [51778]	WA
Commonwealth Land - [51779]	WA

Commonwealth Land Name	State
Commonwealth Land - [51794]	WA
Commonwealth Land - [51795]	WA
Commonwealth Land - [51773]	WA
Commonwealth Land - [51772]	WA
Commonwealth Land - [50335]	WA
Commonwealth Land - [50336]	WA
Commonwealth Land - [50337]	WA
Commonwealth Land - [51771]	WA
Commonwealth Land - [50334]	WA
Commonwealth Land - [51775]	WA
Commonwealth Land - [51776]	WA
Commonwealth Land - [51774]	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
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area overfly marine 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
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
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]	Endangered	Species or species habitat likely to occur within area overfly marine area

Extra Information

State and Territory Reserves [Resource Information]

Protected Area Name	Reserve Type	State
Burra	Conservation Park	WA
Goldfields Woodlands	Conservation Park	WA
Kalgoorlie Arboretum	5(1)(h) Reserve	WA
Kambalda	Nature Reserve	WA
Kangaroo Hills Timber Reserve	5(1)(g) Reserve	WA
Kurrawang	Nature Reserve	WA
Lakeside Timber Reserve	5(1)(g) Reserve	WA
Ngadju	Indigenous Protected Area	WA
Scahill Timber Reserve	5(1)(g) Reserve	WA
Yallari Timber Reserve	5(1)(h) Reserve	WA

EPBC Act Referrals [Resource Information]

Title of referral	Reference	Referral Outcome	Assessment Status
Controlled action			
Goldfields Water Supply Scheme Project	2019/8547	Controlled Action	Post-Approval
Nava-1 Cable System	2001/510	Controlled Action	Completed
Not controlled action			
Focus, Greenfields and Carins Intersection Upgrade,Great Eastern Highway, WA	2014/7171	Not Controlled Action	Completed
Gold Mining Developments on Lake Lefroy	2010/5402	Not Controlled Action	Completed
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed
Lynas Kalgoorlie Rare Earths Processing Facility	2020/8719	Not Controlled Action	Completed
Sale of Post Office, Hannan Street	2006/3084	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 is 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 on the contents of this report.

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 point locations and environmental data layers.

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 when time permits.

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 breeding sites; and
- 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.

Department of Climate Change, Energy, the Environment and Water
GPO Box 3090
Canberra ACT 2601 Australia
+61 2 6274 1111