CPS2404 PROJECT

Reconnaissance Flora and Basic Fauna Survey

Prepared for Northern Star Resources Ltd January 2025







Document Information

Prepared for: Northern Star Resources Ltd

Project Name: CPS2404

Job Reference: Reconnaissance Flora and Basic Fauna Survey

Job Number: 2024/057

Date: 30 January 2025

Version FINAL

Disclaimer

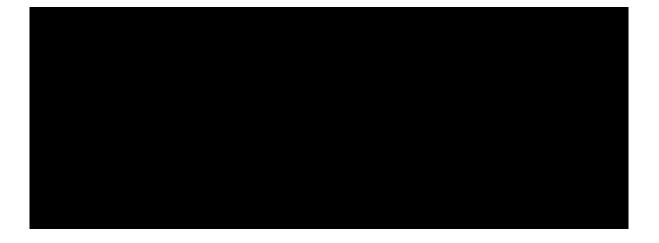
This document and its contents are to be treated as confidential and are published in accordance with and subject to an agreement between Botanica Consulting (BC) and the client for whom it has been prepared and is restricted to those issues that have been raised by the client in its engagement of BC. Neither this document nor its contents may be referred to or quoted in any manner (report or other document) nor reproduced in part or whole by electronic, mechanical or chemical means, including photocopying, recording or any information storage system, without the express written approval of the client and/or BC.

This document and its contents have been prepared utilising the standard of care and skill ordinarily exercised by Environmental Scientists in the preparation of such documents. All material presented in this document is published in good faith and is believed to be accurate at the time of writing. Any person or organisation who relies on or uses the document and its contents for purposes or reasons other than those agreed by BC and the client without primarily obtaining the prior written consent of BC, does so entirely at their own risk. BC denies all liability in tort, contract or otherwise for any loss, damage or injury of any kind whatsoever (whether in negligence or otherwise) that may be endured as a consequence of relying on this document and its contents for any purpose other than that agreed with the client.

Quality Assurance

An internal quality review process has been implemented to each project task undertaken by BC. Each document and its contents is carefully reviewed by core members of the Consultancy team and signed off at Director Level prior to issue to the client. Draft documents are submitted to the client for comment and acceptance prior to final production.

Cover Photo: Eucalypt Woodland on a Clay Loam Plain, taken on the 9th of October 2024.





Contents

Ε	xecutive Summary	iv
1	Introduction	7
	1.1 Objectives	7
2	Biophysical Environment	10
	2.1 Regional Environment	10
	2.2 Land Use	10
	2.3 Soils and Landscape Systems	12
	2.4 Pre-European Vegetation	14
	2.5 Climate	16
	2.6 Conservation Values	17
	2.6.1 Great Western Woodlands	20
	2.7 Hydrology	20
3	Survey Methodology	22
	3.1 Desktop Assessment	22
	3.1.1 Literature Review	22
	3.1.2 Database Searches	23
	3.1.3 Likelihood of Occurrence	24
	3.2 Field Assessment	25
	3.2.1 Flora and Vegetation Field Assessment	25
	3.2.2 Terrestrial Fauna Field Assessment	28
	3.2.3 Data Analysis	28
	3.2.4 Scientific Licences	28
	3.2.5 Survey Limitations and Constraints	28
4	Results	31
	4.1 Desktop Assessment	31
	4.1.1 Flora	31
	4.1.2 Fauna	36
	4.2 Field Assessment	40
	4.2.1 Flora	40
	4.2.2 Fauna	52
	4.3 Matters of National Environmental Significance	59
	4.3.1 Environment Protection and Biodiversity Conservation Act 1999 (Cth)	59
	4.4 Matters of State Environmental Significance	60
	4.4.1 Environmental Protection Act 1986 (WA)	60
	4.4.2 Biodiversity Conservation Act 2016 (WA)	61
	4.5 Other Areas of Conservation Significance	62
	4.6 Native Vegetation Clearing Principles	62
5	Bibliography	65



Tables

Table 2-1: Soil landscape systems within the survey area	12
Table 2-2: Pre-European vegetation associations within the survey area	14
Table 3-1: Scientific Licenses of Botanica Staff Coordinating the Survey	28
Table 3-2: Flora Survey Limitations and Constraints	29
Table 4-1: Potentially occurring Declared Pests and WoNS within 40 km of the survey area	31
Table 4-2: Significant flora within a 40 km radius of the survey area	34
Table 4-3: Potentially occurring introduced fauna within 40 km of the survey area	36
Table 4-4: Significant fauna within a 40 km radius of the survey area	38
Table 4-5: Introduced flora (weed) species within the survey area	40
Table 4-6: Priority flora found in the survey area	41
Table 4-7: Vegetation communities within the survey area	43
Table 4-8: Vegetation condition rating within the survey area	50
Table 4-9: Main terrestrial fauna habitats within the survey area	53
Table 4-10: Assessment against native vegetation clearing principles	62
Figures	
Figure 1-1: Regional location of the survey area	9
Figure 2-1: Map of the IBRA subregions and boundary of the Great Western Woodlands in relation	to the
survey area	11
Figure 2-2: Map of soil landscape systems within the survey area	13
Figure 2-3: Pre-European vegetation associations within the survey area	15
Figure 2-4: Climate data for Kalgoorlie-Boulder Airport (#12038) (BoM, 2025)	16
Figure 2-5: Monthly rainfall data for Kalgoorlie-Boulder Airport (#12038) (BoM, 2025)	17
Figure 2-6: Annual rainfall data for Kalgoorlie-Boulder Airport (#12038) (BoM, 2025)	17
Figure 2-7: Conservation values in relation to the survey area	19
Figure 2-8: Regional hydrology of the survey area	21
Figure 3-1: GPS track log of the survey effort and locations of relevés	27
Figure 4-1: Significant flora records (DBCA, 2024a) in relation to the survey area	33
Figure 4-2: Significant fauna records (DBCA, 2024c) in relation to the survey area	37
Figure 4-3: Vegetation communities within the survey area	48
Figure 4-4: Priority flora within the Survey Area	49
Figure 4-5: Vegetation condition within the survey area	51
Figure 4-6: Terrestrial fauna habitats within the survey area	57
Annondices	

Appendices

- Appendix A: Conservation Ratings BC Act and EPBC Act
- Appendix B: NatureMap Search Results (DBCA, 2024d)
- Appendix C: Potentially Occurring Introduced (Weed) Flora Species
- Appendix D: List of Flora Species Identified within the Survey Area
- Appendix E: List of Terrestrial Vertebrate Fauna Species Identified within the Survey Area
- Appendix F: Vegetation Condition Rating
- Appendix G: EPBC Protected Matters Search (40km buffer)



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 of the CPS2404 Project (referred to as the 'survey area'). The survey area encompassed two sections, totalling an area of 3268 ha and are located approximately 23 km and 38 km south of Kalgoorlie in the Eastern Goldfields region of Western Australia.

Botanica conducted a reconnaissance flora and basic terrestrial vertebrate fauna survey of the survey area on the 9th and 10th 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). Five pre-European Beard vegetation associations occur within the survey area, all of which retain at least 93% 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 52 significant flora species previously recorded within 40 km of the survey area; seven of which were previously recorded within 10 km of the survey area. Nil species were previously recorded within the survey area. Of the 52 significant flora species



previously recorded within 40 km of the survey area 41 were assessed as possibly occurring within the survey area, and the remaining 11 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 42 km northeast of the survey area.

The desktop assessment identified 19 significant fauna species (16 terrestrial vertebrates and three 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 14 species were assessed as unlikely to occur or would not occur within the survey area.

The field survey identified 194 vascular flora taxa within the survey area. 90 genera across 28 families, with the most diverse families being Chenopodiaceae, Fabaceae and Myrtaceae. Dominant genera include *Eremophila, Acacia* and *Eucalyptus*.

A total of 17 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, infrastructure and mining activities.

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 Act 2016* (BC Act) or Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) were found within the survey area. Two Priority flora, *Eremophila praecox* (P2) and *Melaleuca coccinea* (P3), 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 seven broad-scale terrestrial fauna habitats occurring within the survey area (including areas defined as cleared/disturbed). A total of 16 terrestrial vertebrate fauna taxa were identified within the survey area. These taxa represented 14 families across two classes, including Reptilia (two families, two species) and Aves (14 families, 14 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 clearing of native vegetation within the survey area may be at variance with clearing principle (f).



1 INTRODUCTION

Botanica Consulting Pty Ltd (Botanica) was commissioned by Northern Star Resources Ltd (NSR) to undertake a reconnaissance flora/vegetation and basic terrestrial vertebrate fauna survey of the CPS2404 Project. The Project covers two sections, approximately 13 km apart, for the purpose of this report the sections are referred to as the 'survey area'. The survey area encompasses a total area of approximately 3268 ha and is located approximately 23 km to 38 km south of Kalgoorlie-Boulder, in the City of Kalgoorlie-Boulder and in the Eastern Goldfields region of Western Australia (Figure 1-1).

Botanica conducted a reconnaissance flora/vegetation and basic terrestrial vertebrate fauna survey of the survey area on the 9th and 10th 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).

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 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 EPBC Act databases for presence of Threatened and Priority listed fauna species within the survey area.



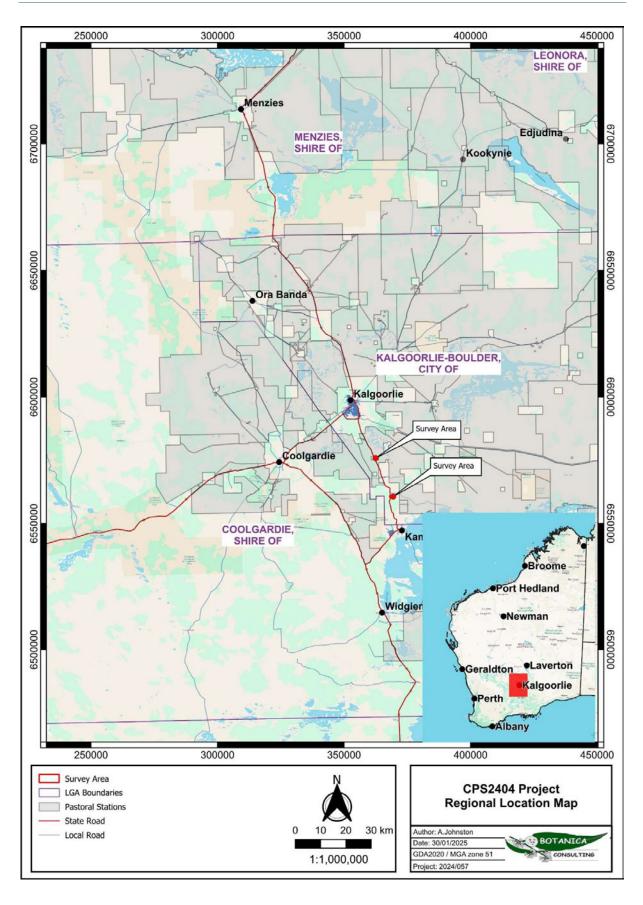


Figure 1-1: Regional location of the survey area



2 BIOPHYSICAL ENVIRONMENT

2.1 Regional Environment

Based on the Interim Biogeographic Regionalisation of Australia (IBRA), Version 7 (DCCEEW, 2012), the survey area is located within the Coolgardie Bioregion of WA. The Coolgardie Bioregion is further divided into three subregions; Mardabilla, Southern Cross and Eastern Goldfield subregion with the survey area located within the Eastern Goldfields (COO3) subregion (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 a freehold/ leasehold area; located within the City of Kalgoorlie-Boulder.



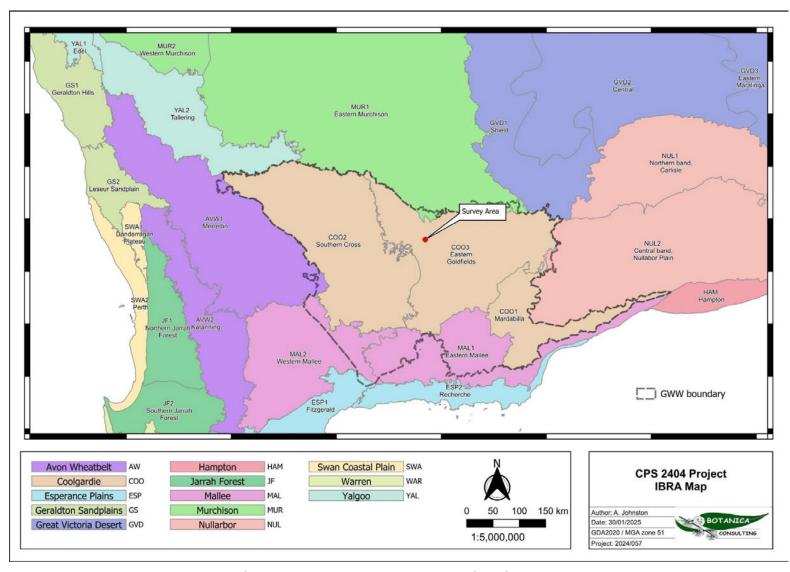


Figure 2-1: Map of the IBRA subregions and boundary of the Great Western Woodlands in relation to the survey area

Prepared by Botanica Consulting



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 Kambalda Zone (265) in the south-eastern Goldfields between Menzies and Norseman.

The Kambalda Zone contains flat to undulating plains (with hills, ranges and some salt lakes and stony plains) on greenstone and granitic rocks of the Yilgarn Craton. Soils consist of calcareous loamy earths and red loamy earths with salt lakes soils and some red brown hardpan shallow loams and red sandy duplexes. Vegetation includes red mallee, blackbutt-salmon gum-gimlet woodlands with mulga and halophytic shrublands and some 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 five 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
	2065GM – Gumland	Extensive pediplains supporting eucalypt woodlands with halophytic and non-halophytic shrub understoreys.	1854 (57%)
	265Gu – Gundockerta	Extensive, gently undulating calcareous stony plains supporting bluebush shrublands.	2 (0.06%)
Kambalda Zone (265)	265Lf – Lefroy	Salt lakes and fringing saline plains, sandy plains and dunes with chenopod low shrublands.	507 (16%)
2010 (200)	265Mo – Moriarty	Low greenstone rises and stony plains supporting chenopod shrublands with patchy eucalypt overstoreys.	165 (5%)
	265Rh – Red Hill	Basalt hills and ridges supporting acacia shrublands and patchy eucalypt woodlands with mainly non-halophytic undershrubs.	742 (23%)



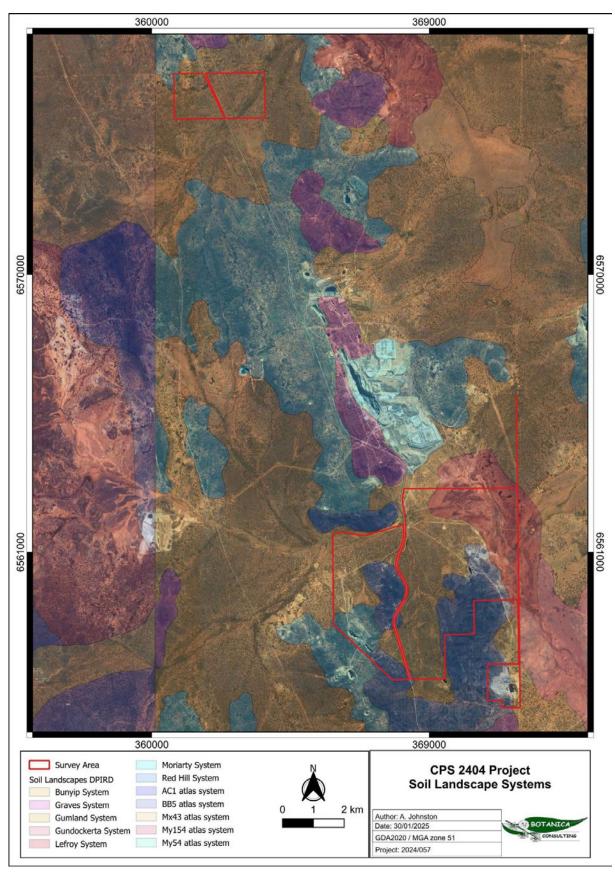


Figure 2-2: Map of soil landscape systems within the survey area



2.4 Pre-European Vegetation

The survey area lies within the Coolgardie Botanical District of the South-West Province of WA. The Coolgardie Botanical District consists of predominantly mulga low woodland on plains and reduces to scrub on hills (Beard, 1990).

The pre-European Vegetation spatial mapping dataset 'DPIRD-006' (DPIRD, 2018) indicates that the survey area is located in five pre-European Beard vegetation associations within the Coolgardie and Binneringe systems in the Eastern Goldfields subregion (Figure 2-3). The vegetation association descriptions and their remaining extent, as specified in Report 3b of the 2018 Statewide Vegetation Statistics (Government of Western Australia, 2019), 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 93% 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	Description	Pre-European Extent Remaining (%)	Current Extent Reserved for Conservation (%)	Extent within Survey Area
Coolgardie 9	Wheatbelt; York gum, salmon gum etc. Eucalyptus loxophleba, E. salmonophloia. Goldfields; gimlet, redwood etc. E. salubris, E. oleosa. Riverine; rivergum E. camaldulensis. Tropical; messmate, woolybush.	96.88	0.53	429 (13%)
Coolgardie 468	Woodland other: Wheatbelt; York gum, salmon gum etc. Eucalyptus loxophleba, E. salmonophloia. Goldfields; gimlet, redwood etc. E. salubris, E. oleosa. Riverine; rivergum E. camaldulensis. Tropical; messmate, woolybush.	93.6	0.001	1416ha (43%)
Binneringe 9	Woodland other: Wheatbelt; York gum, salmon gum etc. Eucalyptus loxophleba, E. salmonophloia. Goldfields; gimlet, redwood etc. E. salubris, E. oleosa. Riverine; rivergum E. camaldulensis. Tropical; messmate, woolybush.	98.82	2.47	747ha (23%)
Binneringe 221	Saltbush & bluebush: Atriplex spp. Maireana spp. communities on alkaline soils.	97.77		589ha (18%)
Binneringe 468	Woodland other: Wheatbelt; York gum, salmon gum etc. Eucalyptus loxophleba, E. salmonophloia. Goldfields; gimlet, redwood etc. E. salubris, E. oleosa. Riverine; rivergum E. camaldulensis. Tropical; messmate, woolybush.	99.85		90ha (2.7%)



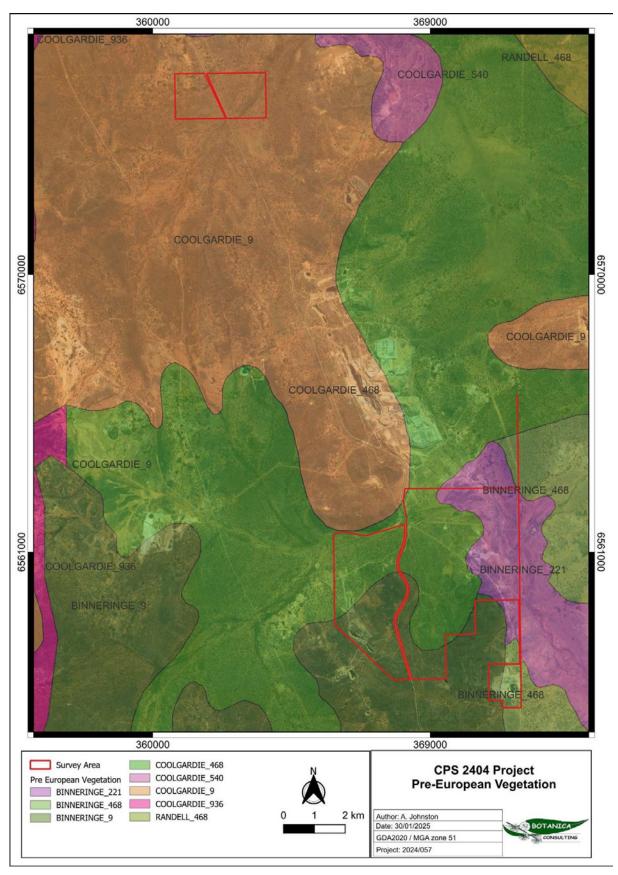


Figure 2-3: Pre-European vegetation associations within the survey area



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 the Kalgoorlie-Boulder Airport weather station (#12038), located approximately 22 km north of the survey area.

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

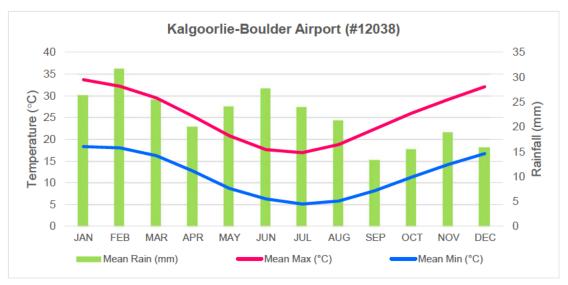


Figure 2-4: Climate data for Kalgoorlie-Boulder Airport (#12038) (BoM, 2025)



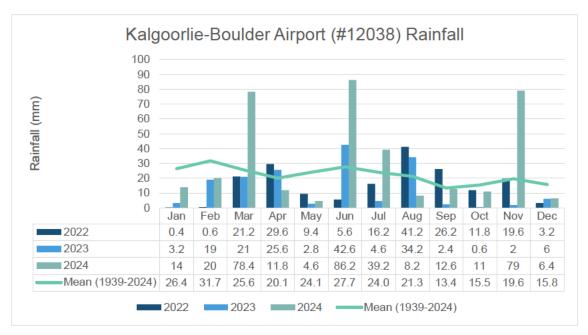


Figure 2-5: Monthly rainfall data for Kalgoorlie-Boulder Airport (#12038) (BoM, 2025)

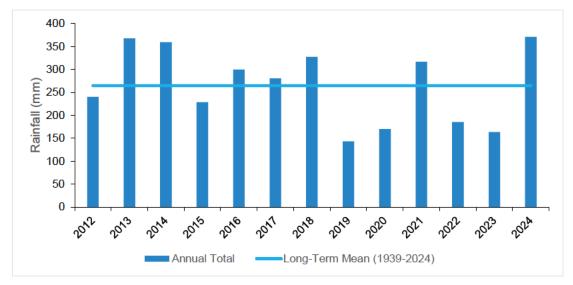


Figure 2-6: Annual rainfall data for Kalgoorlie-Boulder Airport (#12038) (BoM, 2025)

2.6 Conservation Values

No Threatened Ecological Communities (TECs) listed under the Commonwealth EPBC Act or the Western Australian BC Act are known to occur within the survey area or within 40 km of the survey area. The nearest known TEC is located more than 200 km west of the survey area in the Avon Wheatbelt bioregion.

No Priority Ecological Communities (PECs) as listed by DBCA occur within the survey area or within 40 km of the survey area. The nearest PECs are Mount Belches BIF (Priority 3) located 47 km east



of the survey area, and the Emu Land System (Priority 3) located 42 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 83 km northwest of the survey area. The nearest Ramsar wetland: Lake Ballard, is located approximately 162 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 Act 1986* (EP Act).

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 Kambalda Nature Reserve which is located approximately 5 km southwest of the survey area.

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



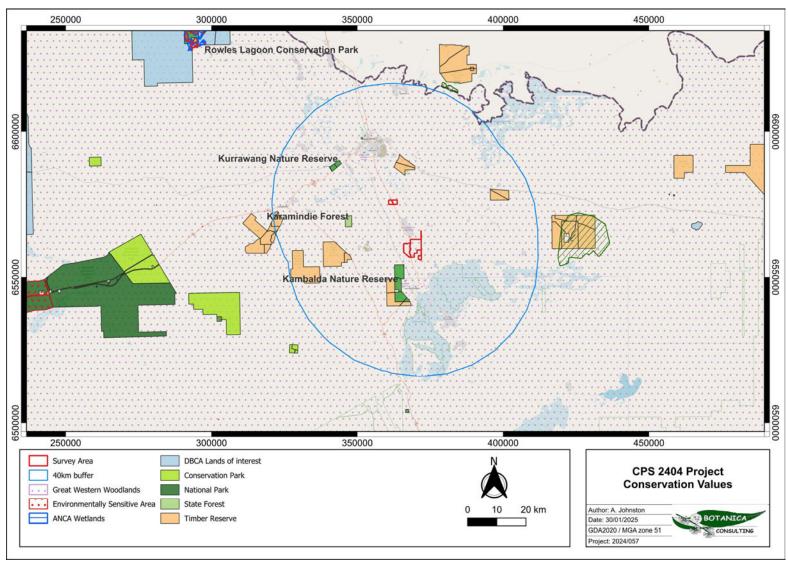


Figure 2-7: Conservation values in relation to the survey area

Prepared by Botanica Consulting



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

The survey area is located approximately 7 km from Lake Lefroy, one of the larger salt lakes in the Coolgardie bioregion. According to the Geoscience Australia database (2015), there are no permanent/ perennial inland waters or drainage lines within the survey area. Two major and three minor ephemeral drainage lines intersect the survey area (Figure 2-8).

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 BoM *Atlas of Groundwater Dependent Ecosystems* database (BoM, 2019), there is one moderate potential terrestrial GDE located within the southern survey area (Figure 2-8).



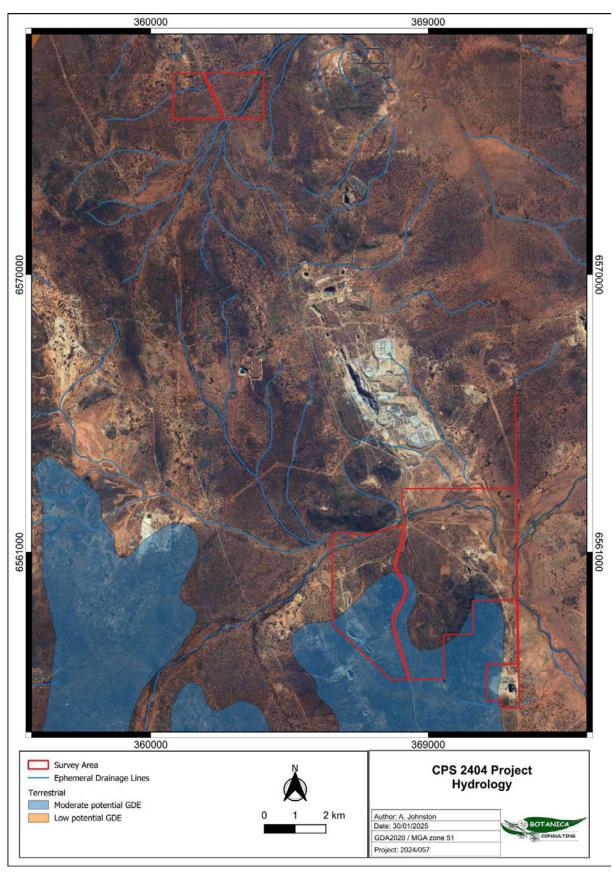


Figure 2-8: Regional hydrology of the survey area



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, online database search requests were also undertaken (using the survey area as centre-point and 40 km buffer) to aid in the compilation of a list of potential significant flora and fauna 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).

It should be noted that these lists are sometimes based on observations from a broader area than the 40 km buffer (*i.e.*, assessment area) 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).



The EPBC Act also requires the compilation of a list of migratory species that are recognised under international treaties including the:

- Japan Australia Migratory Bird Agreement 1981 (JAMBA)¹;
- China Australia Migratory Bird Agreement 1998 (CAMBA);
- Republic of Korea-Australia Migratory Bird Agreement 2007 (ROKAMBA); and
- Bonn Convention 1979 (The Convention on the Conservation of Migratory Species of Wild Animals).

Most but not all migratory bird species listed in the annexes to these bilateral agreements are protected in Australia as Matters of National Environmental Significance (MNES) under the EPBC Act. Descriptions of conservation significant species and communities are provided in Appendix A

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

¹ Most but not all species listed under JAMBA are also specially protected under Specially Protected Species of the BC Act.



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.

3.2 Field Assessment

3.2.1 Flora and Vegetation Field Assessment

Botanica conducted a reconnaissance flora/ vegetation survey of the survey area on the 9th and 10th 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 .

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. Vouchering of the specimens with the Western Australian Herbarium was not required as none of the specimens were of significance (*i.e.* conservation flora, novel taxa, range extensions *etc.*). A complete species list was generated from the relevé data for each of the vegetation types identified within the survey area (Appendix D).

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.



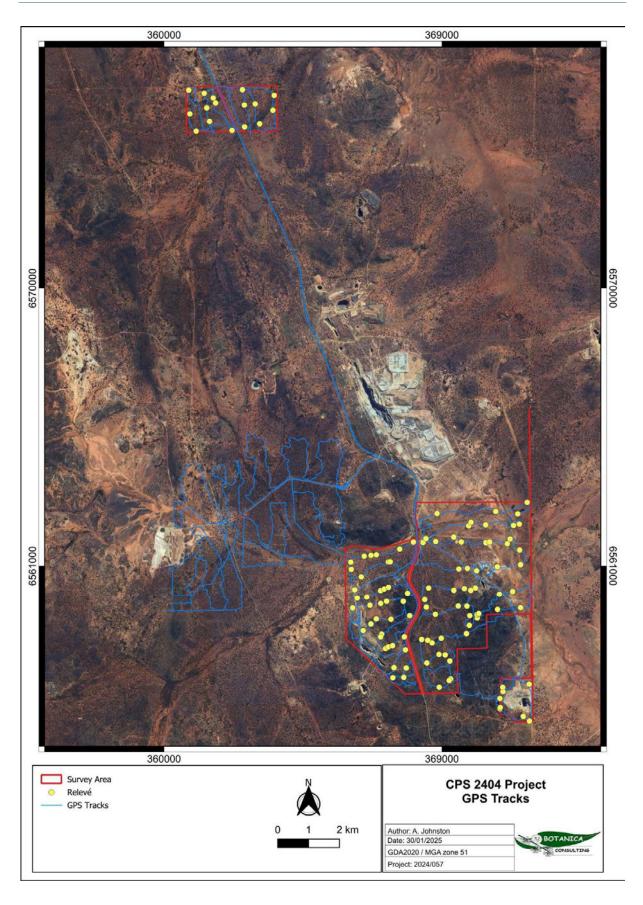


Figure 3-1: GPS track log of the survey effort and locations of relevés



3.2.2 Terrestrial Fauna Field Assessment

Botanica conducted a basic terrestrial vertebrate fauna survey in conjunction with the reconnaissance flora/ vegetation survey on the 9th and 10th 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 Matheson (field technician). The GPS track log of the survey effort for terrestrial vertebrate fauna survey is shown in Figure 3-1.

Fauna habitat types were identified across the survey area based on broad major 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.

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.

Opportunistic observations of fauna species were made during all field survey work. Secondary evidence of fauna such as tracks, diggings and scats were also noted.

3.2.3 Data Analysis

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

3.2.4 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	

3.2.5 Survey Limitations and Constraints

The flora and 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.



Similarly, the fauna assessment included a desktop assessment aimed at providing a list of expected species and opportunistic fauna observations.

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.
Competency/ Experience	Not a constraint Botanist Dinloma of Horticulture) Jim has over 30 years	
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.



Potential Constraint	Potential Impact on Survey	Comments on Survey Outcomes
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 has 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).



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), EPBC Protected Matters search (DCCEEW, 2025) and previous relevant literature identified 52 significant flora species recorded within a 40 km radius of the survey area. These are comprised of two Threatened, 15 Priority 1, nine Priority 2, 21 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 seven were previously recorded within 10 km of the survey area. Of the 52 significant flora species previously recorded within 40 km of the survey area, 41 were assessed as possibly occurring within the survey area, and the remaining 11 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).



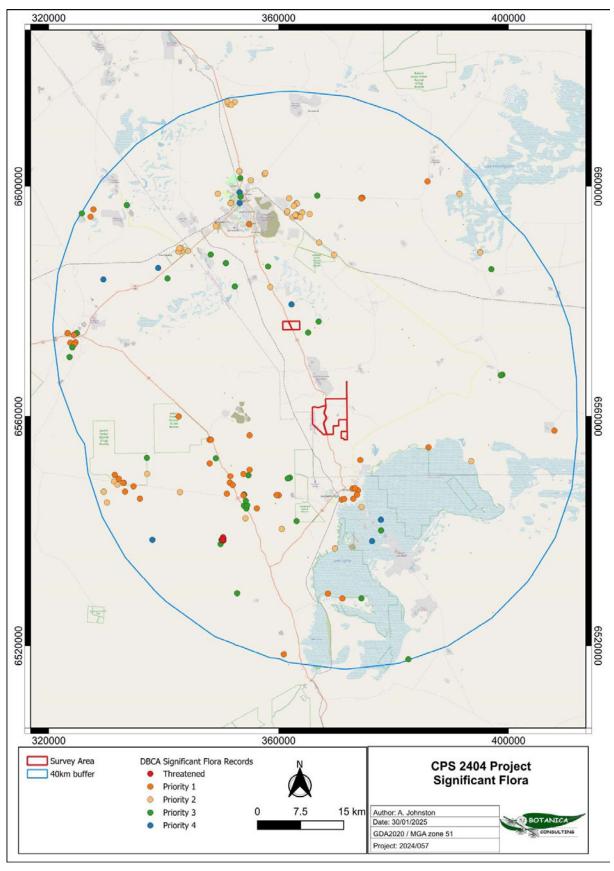


Figure 4-1: Significant flora records (DBCA, 2024a) in relation to the survey area



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

Taxon		Conservation Status			Likelihood of
		EPBC BC Act DBCA		Habitat Description (WA Herbarium, 1998-)	occurrence
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 websteri			P1	Red sand, clay or loam. Low-lying areas, flats.	Possible
Allocasuarina eriochlamys subsp. grossa			P3	Stony loam, laterite clay. Granite outcrops.	Possible
Alyxia tetanifolia			P3	Sandy clay, loam, concretionary gravel. Drainage lines, near lakes.	Possible
Austrostipa turbinata			P3	Basalt lower slope with red-brown sandy clay soil.	Possible
Calandrinia lefroyensis			P1	Gentle hillslope/ plain on orangey-red sand with quartzite rocks	Possible
Chrysocephalum apiculatum subsp. norsemanense			P3	Red sand.	Possible
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.	Possible
Elachanthus pusillus			P2	Eucalypt open woodland over open heath on sandy soil.	Possible
Eremophila acutifolia			P3	Clay loam, gravelly loam. Undulating flats.	Possible
Eremophila arachnoides subsp. tenera			P3	Flat calcareous plain.	Unlikely
Eremophila caerulea subsp. merrallii			P4	Sand, clay or loam. Undulating plains.	Unlikely
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. Open mallee woodland.	Possible
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.	Possible
Goodenia salina			P2	Low gypseous dunes near salt pans.	Unlikely
Grevillea georgeana			P3	Stony loam/clay. Ironstone hilltops & slopes.	Possible
Isolepis australiensis			P3	Silty sand, sandy clay. Lake margins, pools.	Possible

Prepared by Botanica Consulting 34



Taxon		Conservation Status		Habitat Danasiation (IMA Habaritan 4000)	Likelihood of
		BC Act	DBCA	Habitat Description (WA Herbarium, 1998-)	occurrence
Lepidium fasciculatum			P3	Chenopod shrubland on flat alluvial plain with red clayey loam soils.	Possible
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
Notisia intonsa			P3	Plain with brown loam, iron stone gravel and quartz. Eucalyptus woodlands.	Possible
Phebalium clavatum			P2	Sandy soils. Sandplains.	Possible
Philotheca apiculata			P1	Orange-brown loam/clay on a hill slope.	Possible
Phlegmatospermum eremaeum			P3	Stony loam.	Possible
Pityrodia scabra subsp. dendrotricha			P3	Sandplain. Yellow sand.	Possible
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.	Possible
Ptilotus rigidus			P1	Rocky outcrop.	Possible
Ricinocarpos digynus			P1	Rocky hillslopes	Possible
Sowerbaea multicaulis			P4	Yellow-brown sand.	Possible
Stylidium choreanthum			P3	White/yellow or red sand. Plains.	Possible
Styphelia rectiloba			P3	Granite outcrops and breakaways. granite.	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.	Possible
Thryptomene sp. Coolgardie (E. Kelso s.n. 1902)			P1	No habitat data available	Possible
Xanthoparmelia dayiana			P3	Eucalypt woodland with Acacia, shrubs and laterite outcrops.	Possible
Xanthoparmelia xanthomelanoides			P2	Hill with bare to stoney dry clay.	Possible

Prepared by Botanica Consulting 35



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 terrestrial 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	Wild 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 (DBCA, 2024b; 2024d), DCCEEW, 2025) identified 19 significant terrestrial vertebrate fauna species and three significant terrestrial invertebrate fauna species recorded within 40 km of the survey area. These comprised of 15 Threatened, five Priority and nine migratory bird taxa (four of which are also listed as Threatened).

The locations of DBCA database records for significant fauna (DBCA, 2024b) in relation to the survey area is shown in Figure 4-2.

Habitat and distribution data were used to determine the likelihood of occurrence within the survey area (Table 4-4). The assessment identified four significant fauna species as Possibly Occurs and one as Known to Occur in the survey area The remaining 14 species were assessed as unlikely to occur or would not occur within the survey area.



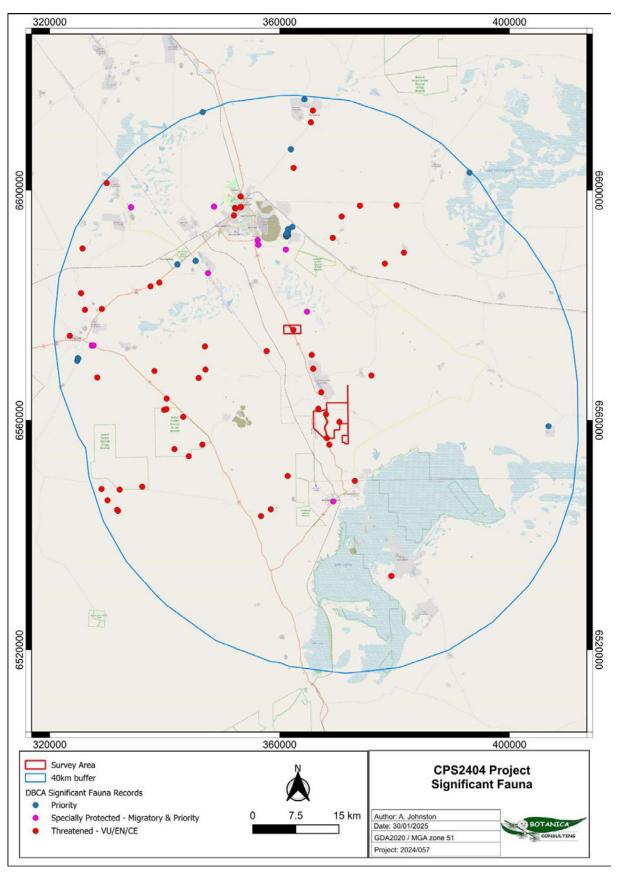


Figure 4-2: Significant fauna records (DBCA, 2024c) in relation to the survey area



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

Class	Tawan	Cons	ervation St	atus	Habitat Dannintian	Likelihood of
Class	Taxon	EPBC	BC Act	DBCA	Habitat Description	Occurrence
	Carnaby's cockatoo, Zanda latirostris	EN	EN	-	Found in Eucalyptus woodland, most commonly <i>Eucalyptus wandoo</i> or <i>E. salmonophloia</i> . 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	МІ	-	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	· · CB/MI CB		-	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 Grey -Tailed Tattler, Tringa brevipes MI		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
			Failed Tattler, MI - P4 emergent sedges, grass, saltmarsh or other low vegetation lagoons, swamps, lakes and pools near the coast, and determined to the coast, a		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
Aves	Hooded Plover, Thinornis cucullatus	-	 P4 Inhabit freshwater lakes, freshwater marshes, coastal saline lagoons and sandy beaches (DCCEEW, 2024b). 		Would Not Occur	
	Malleefowl, Leipoa ocellata			Scrublands and woodlands dominated by mallee and wattle species (DCCEEW, 2023b).	Has previously been recorded in the survey area	
	Migratory Shorebirds*	MI	МІ	-	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 (<i>Triodia</i>) 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
	Sharp-tailed Sandpiper, Calidris acuminata	VU / MI	MI - or brackish wetlands, with inundated or emergent sedges, grass, saltmarsh or		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 Ieucopsis	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



Class	Tayon	Conse	ervation St	tatus	Habitet Description	Likelihood of
Class	Taxon	EPBC	BC Act	DBCA	Habitat Description	Occurrence
	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 <i>Eucalyptus salubris</i> , <i>E. salmonophloia</i> , <i>E. capillosa</i> and <i>E. loxophleba</i> subsp. <i>lissophloia</i>) (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
	Fairy Shrimp, Branchinella denticulata	-	-	P3	Freshwater lakes (ALA,2025).	Would not occur. No suitable habitat in the area.
	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
	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.	Unlikely to Occur
Mammal	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.
	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.	Unlikely to Occur

^{*} 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 194 vascular flora taxa within the survey area. These taxa represented 90 genera across 28 families, with the most diverse families being Chenopodiaceae, Fabaceae and Myrtaceae. Dominant genera include *Eremophila* (19 species), *Acacia* (15 species), and *Eucalyptus* (15 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 but one of the weed species were recorded in areas defined as disturbed (Figure 4-3). Five weed species were recorded in areas of native vegetation. The full field species inventory is listed in Appendix D, which includes the species of weeds recorded in each vegetation type.

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

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

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 Flora taxa listed under Commonwealth or State legislation were identified within the survey area. Two Priority flora species were recorded in the survey area (Figure 4-4, Table 4-6).

- Eremophila praecox (P2)
 Recorded within the CLP-EW4 vegetation community. This was previously not recorded within the survey area and only one plant was observed.
- Melaleuca coccinea (P3)
 This was recorded within the RH-AFW1 and RH-EW1 vegetation communities. This was previously not recorded in the survey area and 6 plants were observed.

Taxon Description Image (WA Herbarium, 1988-) Many branched shrub, 1.5-2.6 m high, leaf Melaleuca blade elliptic to ovate, 1.5-2.2 times as long as coccinea wide. Fl. red, Sep to Nov or Jan. Sandy loam over granite. Granite outcrops, sandplain, river Priority 3 valleys. Eremophila Broom-like shrub, 1.5-3 m high. Fl. purple, praecox Oct or Dec. Red/brown sandy loam. Undulating plains. Priority 2

Table 4-6: Priority flora found in the survey area

4.2.1.3 Vegetation Communities

A total of 17 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 4-7 and illustrated spatially in Figure 4-3. 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 740 ha (22.7%). CLP-EW4 was the most diverse community, with 70 flora species recorded, dominated by *Eucalyptus clelandiorum* and *E. oleosa*, whilst CLP-AFW1 and CLP-EW3 were the least diverse communities.



Table 4-7: Vegetation communities within the survey area

Landform	NVIS Vegetation Group	Veg Code	Vegetation Community	Area (ha)	Area (%)	Condition Rating	Image
	Acacia Forests and Woodlands	DD-AFW1	Low open woodland of Acacia acuminata over mid open shrubland of Scaevola spinescens and low open shrubland of Ptilotus obovatus in a drainage depression	41.9	1.3	Good	
Open Depression	Chenopod Shrublands	DD-CS1	Very sparse shrubland of Acacia kalgoorliensis over low open shrubland of Tecticornia pergranulata in open depression.	304.2	9.3	Good	
	Eucalypt Woodlands	DD-EW1	Low open woodland of Eucalyptus salmonophloial Eucalyptus griffithsii over mid open shrubland of Atriplex nummularia and low open shrubland of Tecticornia disarticulatal Atriplex vesicaria in drainage depression.	250.9	7.7	Very Good	
Clay-Loam Plain	Acacia Forests and Woodlands	CLP-AFW1	Low open woodland of <i>Acacia acuminata</i> over mid open shrubland of <i>Scaevola spinescens</i> and low open shrubland of <i>Ptilotus obovatus</i> on clay-loam plain.	176.8	5.4	Very Good	



Landform	NVIS Vegetation Group	Veg Code	Vegetation Community	Area (ha)	Area (%)	Condition Rating	Image
	Eucalypt Woodlands	CLP-EW1	Low open woodland of <i>Eucalyptus salmonophloia</i> over mid open shrubland of <i>Eremophila scoparia</i> / <i>Atriplex nummularia</i> and low open shrubland of <i>Atriplex vesicaria</i> on clay-loam plain.	440.8	13.5	Very Good	
	Eucalypt Woodlands	CLP-EW2	Low open woodland of Eucalyptus lesouefii over mid open shrubland of Senna artemisioides subsp. filifolia over sparse samphire shrubland of Tecticornia disarticulata on clay-loam plain.	740.3	22.7	Very Good	
	Eucalypt Woodlands	CLP-EW3	Low open woodland of <i>Eucalyptus ravida</i> over mid open shrubland of <i>Eremophila ionantha</i> and low sparse shrubland of <i>Ptilotus obovatus</i> on clay-loam plain.	4.3	0.1	Very Good	
	Eucalypt Woodlands	CLP-EW4	Low open woodland of <i>Eucalyptus oleosa</i> over mid sparse shrubland of <i>Melaleuca</i> sheathiana and low shrubland of <i>Cratystylis conocephala</i> on clay-loam plain.	19.9	0.6	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.	119.7	3.7	Very Good	
	Chenopod Shrublands	CLP-CS1	Low open shrubland of <i>Cratystylis subspinescens</i> on a clay plain.	130.5	4.0	Very Good	
	Casuarina Woodlands	CLP-CW1	Tall open shrubland of Pittosporum angustifolium over low open shrubland of Cratystylis subspinescens/Atriplex vesicaria on a clay plain.	31.2	1.0	Good	
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.	298.3	9.1	Very Good	



Landform	NVIS Vegetation Group	Veg Code	Vegetation Community	Area (ha)	Area (%)	Condition Rating	Image
	Eucalypt Woodlands	RH-EW1	Low open woodland of Eucalyptus lesouefii over mid open shrubland of Melaleuca sheathiana and understory of Scaevola spinescens on rocky hillslope.	145.7	4.5	Very Good	
	Eucalypt Woodlands	RH-EW2	Low open woodland of <i>Eucalyptus torquata</i> over mid sparse shrubland of <i>Atriplex nummularia</i> and low open shrubland of <i>Westringia rigida</i> on rocky hillslope.	63.6	2.0	Very Good	
	Mallee Woodlands and Shrublands	RH-MW1	Low open mallee woodland of <i>Eucalyptus griffithsii</i> over low open shrubland of <i>Acacia acuminata</i> and sparse shrubland of <i>Scaevola spinescens/ Westringia rigida</i> on rocky hillslope.	34.6	1.1	Very Good	
Sand Plain	Eucalypt Woodlands	SP-EW1	Low open mallee woodland of <i>Eucalyptus salicola</i> over mid open shrubland of <i>Acacia kalgoorliensis</i> and sparse hummock grassland of <i>Triodia scariosa</i> on sand dune.	89.3	2.7	Good	



Landform	NVIS Vegetation Group	Veg Code	Vegetation Community	Area (ha)	Area (%)	Condition Rating	Image
	Acacia Forests and Woodlands	SD-AFW1	Tall shrubland of <i>Acacia kalgoorliensis</i> over low open shrubland over <i>Scaevola spinescens</i> on a sand dune.	106.7	3.3	Good	
Disturbed	Disturbed	Disturbed	Areas cleared for infrastructure e.g. roads, powerlines, buildings.	263.3	8.1	Degraded	



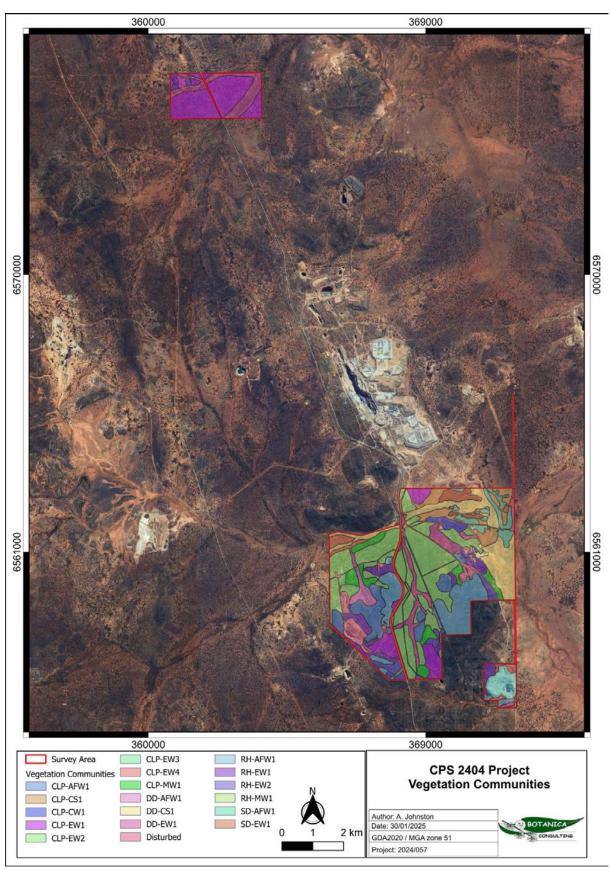


Figure 4-3: Vegetation communities within the survey area



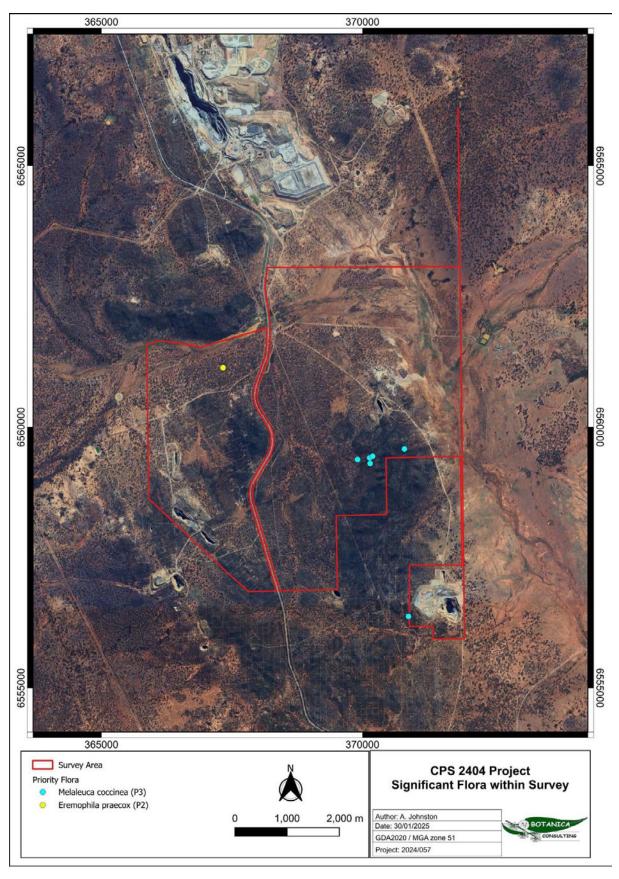


Figure 4-4: Priority flora within the Survey Area



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, Table 4-8, and Figure 4-5). Vegetation condition rating descriptions are listed in Appendix F. Disturbances within the survey area were the result of clearing for roads.

Table 4-8: 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.	2433.5	74.5		
Good	Good More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds.				
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive				
Total		3268	100		

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 was identified within the survey area.



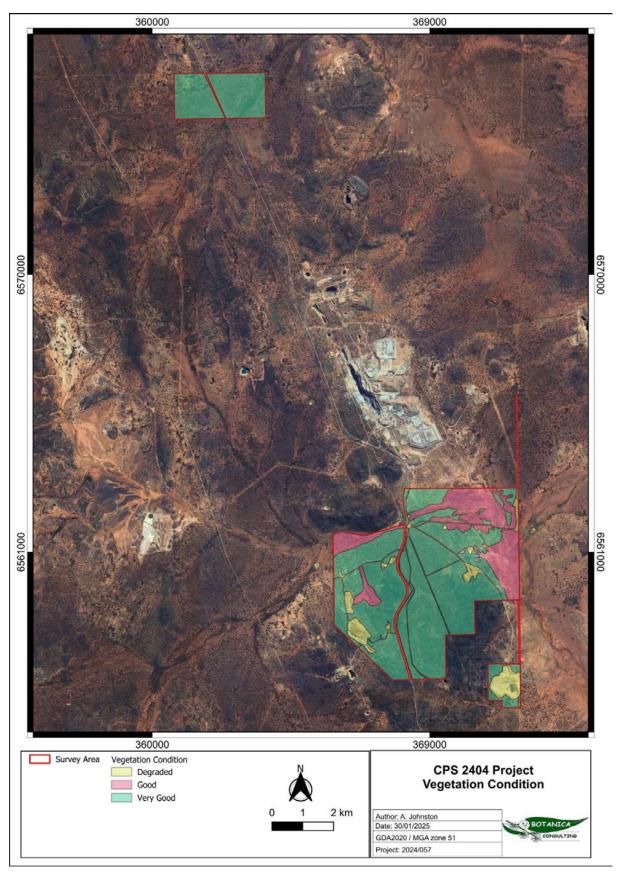


Figure 4-5: Vegetation condition within the survey area



4.2.2 Fauna

During the field survey a total of 16 terrestrial vertebrate fauna taxa were identified within the survey area. These taxa represented 14 families across two classes, including Reptilia (two families, two species) and Aves (14 families, 14 species).

The full field species inventory is listed in Appendix E.

4.2.2.1 Introduced Fauna

Four introduced fauna species were identified within the survey area:

- 1. *Bos taurus (European Cattle)
- 2. *Capra hircus (Goat)
- 3. *Felis catus (Cat)
- 4. *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, seven 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 4-9 provides a description, the area and a visual representation of fauna habitat types, and the extent of fauna habitats is shown spatially in Figure 4-6.



Table 4-9: Main terrestrial fauna habitats within the survey area

Fauna Habitat	Description	Representative Fauna Attributes	Example Image
Drainage Depression Eucalypt/Acacia Forests and Woodlands Extent in Survey Area: 292.8ha (9%)	Low open Eucalyptus/Acacia woodlands over open shrubland of Atriplex/Scaevola over open shrubland of Tecticornia/Atriplex in drainage depression.	Ground has low suitability to burrowing species. Potential refuge for small fauna (e.g., reptiles) under shrubs. Low diversity vegetation strata	
Drainage Depression Chenopod Shrublands Extent in Survey Area: 304.2ha (9.3%)	Low open shrublands of Tecticornia on open depression.	Ground has low suitability to burrowing species. Potential refuge for small fauna (e.g., reptiles) under shrubs. Low diversity vegetation strata Low vegetation density and leaf litter	



Fauna Habitat	Description	Representative Fauna Attributes	Example Image
Clay Loam Plain Acacia, Eucalypt and Mallee woodlands and forests Extent in survey area: 1533ha (47%)	Low open Acacia/Eucalyptus woodlands over mixed shrublands of Eremophila/Senna/Melaleuca/Atriplex/Scaevola over sparse/open shrublands of Ptilotus/Atriplex/Tecticornia/Cratystylis 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.	
Clay Loam Plain Chenopod Shrublands Extent in survey area: 130.5 (4%)	Low sparse/open Chenopod/Atriplex shrublands sometimes over sparse Atriplex on clay loam plains.	Ground not well suited to burrowing species. Potential refuge for small fauna (e.g., reptiles) under shrubs. Low diversity vegetation strata Low vegetation density and leaf litter Chenopod shrubs provide a food source to avifauna during drought conditions.	



Fauna Habitat	Description	Representative Fauna Attributes	Example Image
Rocky Hillslope Acacia, Eucalypt and Mallee woodlands and forests Extent is Survey Area: 542.2ha (16.6%)	Low open Acacia/Mallee/Eucalyptus woodlands over mixed shrublands of Eremophila/Acacia/Melaleuca/ Atriplex over sparse/open shrublands of Dodonaea/Scaevola/Westringi a 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.	
Sand Dune Mallee woodlands Extent in Survey Area: 195.9ha (6%)	Low open Acacia/ Mallee woodlands over Shrublands of Acacia/ Scaevola over hummock grassland of Triodia on sand dunes.	Ground suited to burrowing species Moderate diversity vegetation strata supporting avifauna Moderate vegetation density and leaf litter providing good refuge for reptiles and mammals	



Fauna Habitat	Description	Representative Fauna Attributes	Example Image
Disturbed Extent in Survey Area: 263.3ha (8.1%)	Areas which have been subject to high levels of disturbance activities, predominately cleared of native vegetation and contain numerous weed species.	Ground not well suited to burrowing species. Low value foraging habitat for mammals and avifauna due to lack of native vegetation.	



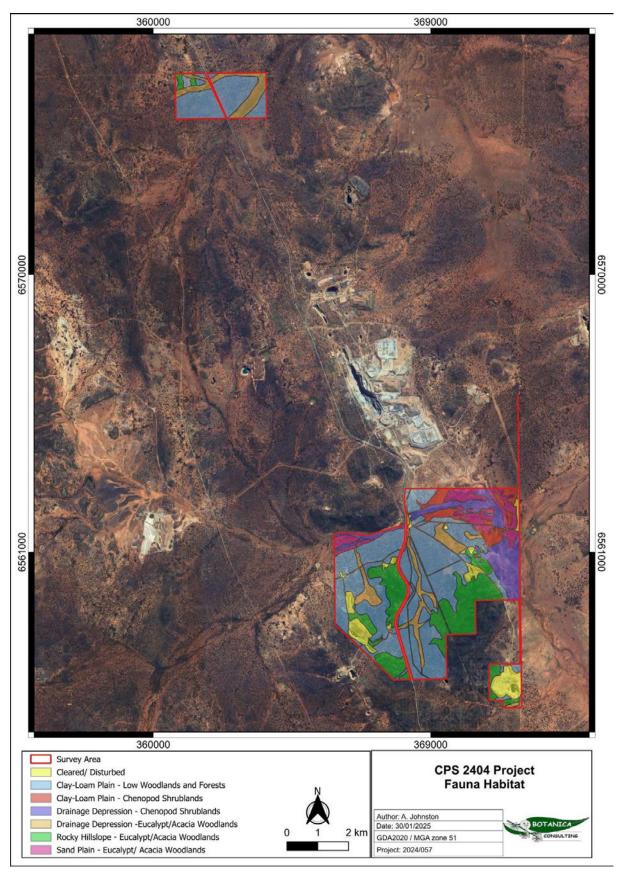


Figure 4-6: Terrestrial fauna habitats within the survey area



4.2.2.3 Significant Fauna

According to the EPA *Environmental Factor Guideline for Terrestrial Fauna* (EPA, 2020) 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 terrestrial 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 (Cth)

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 ESAs declared under the EP Act were identified within the survey area. No evidence of the survey area containing any TECs or Threatened flora or fauna was found during the survey.

Additionally, in accordance with Schedule 1, Clause 4 of the Clearing Regulations, clearing of native vegetation in a 'Schedule One Area' for mining purposes is not permitted without a clearing permit.

The survey area is located within land classified as Exempted East Locations 48 and 62 which are Schedule One Areas. Water Reserve R2954 is also located within the survey area and is a Schedule One Area.

4.4.2 Biodiversity Conservation Act 2016 (WA)

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 PECs were identified within the survey area.

Two Priority flora species were identified within the survey area. No Priority fauna species 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 closest reserve is the Kambalda Nature Reserve, which occurs 3 km southeast of the survey area (Figure 2-7).

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 4-10). The assessment found that clearing of native vegetation within the survey area may be at variance with clearing principle (f).

Table 4-10: Assessment against native vegetation clearing principles

Letter	Principle		
Native vegetation should not be cleared if it:		Assessment	Outcome
(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



Letter	Principle		
Native v	egetation should not be cleared if it:	Assessment	Outcome
(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 >93% 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. Two major and three minor ephemeral drainage lines intersect the survey area. These drainage lines are dry for most of the year, only flowing briefly following significant rainfall events. Two vegetation communities were associated with ephemeral drainage which represent 18.3% of the total survey area: • DD-AFW1: Low open woodland of Acacia acuminata over mid open shrubland of Scaevola spinescens and low open shrubland of Ptilotus obovatus in a drainage depression • DD-CS1: Very sparse shrubland of Acacia kalgoorliensis over low open shrubland of Tecticornia pergranulata in open depression. • DD-EW1: Low open woodland of Eucalyptus salmonophloia/ Eucalyptus griffithsii over mid open shrubland of Atriplex nummularia and low open shrubland of Tecticomia disarticulata/ Atriplex vesicaria in drainage depression.	Clearing may be 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.	Approximately 8% of the survey area has been extensively cleared. Further clearing within the survey area is unlikely to lead to land degradation issues such as salinity, water logging or acidic soils.	Clearing is unlikely to be at variance with this principle
(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.	There are no proposed nor gazetted conservation reserves within the survey area. The closest reserve is the Kambalda Nature Reserve, which occurs 3 km southeast of the survey area.	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. Two major and three minor ephemeral drainage lines intersect the survey area. However, clearing within the survey area is unlikely to result in deterioration to water quality.	Clearing is unlikely to be at variance with this principle



Letter	Principle		
Native vegetation should not be cleared if it:		Assessment	Outcome
(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



5 BIBLIOGRAPHY

Atlas of Living Australia (2025). Spatial Portal. Accessed January 2025.

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

Benshemesh, J. (2007). *Department of Environment and Heritage*. National Recovery Plan for Malleefowl.

BirdLife Australia (2025). *Bird Profiles*. Available https://birdlife.org.au/bird-profiles/page/12/. Accessed 20/01/2025.

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 Botanica Consulting (2023). Kalgoorlie Nickel Smelter: Reconnaissance Flora and Vegetation Survey and Basic Terrestrial Fauna Survey. Prepared for BHP Nickel West Pty Ltd. April 2023.

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.

Botanica Consulting (2024). *Kambalda Operations: Reconnaissance Flora and Vegetation Survey and Basic Terrestrial Fauna Survey.* Prepared for BHP Nickel West Pty Ltd. February 2023.

Bureau of Meteorology [BoM] (2019). *Groundwater Dependent Ecosystems Atlas*. Bureau of Meteorology. Available: http://www.bom.gov.au/water/groundwater/gde/map.shtml

Bureau of Meteorology [BoM] (2025). *Climate Data*. Bureau of Meteorology. Available: http://www.bom.gov.au/climate. Accessed 16 January 2025.

Chapman, A., Kealley, I., McMillan, D., McMillan, P. and Rolland, G. (1991). *Biological Surveys of Four Goldfields Reserves*. Landnote 1/91 Department of Conservation and Land Management.

Cowan, M. (2001). A Biodiversity Audit of Western Australia's 53 Biogeographical Region in 2001; Coolgardie 3 (COO3 – Eastern Goldfields subregion). pp 156-169, Department of Conservation and Land Management, September 2001.

DBCA (2016). Fauna profiles: Malleefowl Leipoa ocellata. Available:

https://www.dpaw.wa.gov.au/images/documents/plants-

animals/animals/animal profiles/Malleefowl profile.pdf. Last updated: December 2016.

DBCA (2020). Guideline for the survey of arid bronze azure butterfly (ABAB) in Western Australia. Department of Biodiversity, Conservation and Attractions, WA.

DBCA (2024a). *Threatened/ Priority Flora Database Search [Ref: 08-0224FL]*. Obtained from Department of Biodiversity, Conservation and Attractions. February 2024.

DBCA (2024b). *Threatened/ Priority Ecological Communities Database Search* [Ref: 39-0124EC]. Obtained from Department of Biodiversity, Conservation and Attractions. February 2024.

DBCA (2024c). *Threatened/ Priority Fauna Database Search [Ref: 8141]*. Obtained from Department of Biodiversity, Conservation and Attractions. February 2024.

DBCA (2024d). *NatureMap Database search [Ref: 68-0124NM]*. Obtained from Department of Biodiversity, Conservation and Attractions, January 2024.



DBCA (2024d). Document: *Threatened and Priority Flora List - November 2024.xlsx*. Department of Biodiversity, Conservation and Attractions. Available: https://www.dbca.wa.gov.au/wildlife-and-ecosystems/plants/list-threatened-and-priority-flora. Last updated: 8th August 2024. Accessed: 20 January 2025.

DBCA (2024e). Document: *Threatened and Priority Fauna List Nov 2024.xlsx*. Department of Biodiversity, Conservation and Attractions. Available: https://www.dbca.wa.gov.au/wildlife-and-ecosystems/animals/list-threatened-and-priority-fauna. Last updated: 30th August 2024. Accessed: 20 January 2025.

DBCA (2025). *Dandjoo Database Search*. Obtained from Department of Biodiversity, Conservation and Attractions. January 2025.

Department of Climate Change, Energy, the Environment and Water [DCCEEW] (2012). *Interim Biogeographic Regionalisation for Australia (IBRA), Version 7.*

Department of Climate Change, Energy, the Environment and Water [DCCEEW] (2014). Conservation Advice: Ogyris subterrestris petrina, Arid bronze azure (a butterfly). Threatened Species Scientific Committee, 3/9/2014.

Department of Climate Change, Energy, the Environment and Water [DCCEEW] (2024). *Calidris acuminata* in Species Profile and Threats Database, Department of the Environment, Canberra. Available https://www.environment.gov.au/sprat. Accessed 15/01/2024.

Department of Climate Change, Energy, the Environment and Water [DCCEEW] (2025). *Protected Matters Search Tool.* Environment Protection and Biodiversity Conservation Act 1999 (Cth).

Department of Energy, Mines, Industry Resources and Safety [DEMIRS] (28 September 2022). Critically endangered butterfly species a consideration in native vegetation clearing. Available: https://www.dmp.wa.gov.au/News/Critically-endangered-butterfly-30633.aspx Accessed 15/01/2024.

DotEE (2017). National Vegetation Information System (NVIS) Major Vegetation Groups, Version 4.2. Department of the Environment and Energy.

DPIRD (2019). *Pre-European Vegetation (DPIRD_006)*. Department of Primary Industries and Regional Development, Western Australia, 24 July 2019.

Department of Primary Industries and Regional Development [DPIRD] (2024). *Western Australian Organism List (WAOL) database search*. Available: http://www.biosecurity.wa.gov.au/. Accessed 17/01/2025.

Eastwood R, Jacks A, Williams, A A.E., Petersen L. and Cameron J (2023). *Current distribution, preferred habitat, behaviour, and biology of the Inland Hairstreak, Jalmenus aridus Graham & Moulds, 1988 (Lepidoptera: Lycaenidae) in the Eastern Goldfields region of Western Australia.* Records of the Western Australian Museum, 068–075 (2023) DOI: 10.18195/issn.0312-3162.38.2023.068-075.

EPA (2000). Position Statement No. 2 Environmental Protection of Native Vegetation in Western Australia. Environmental Protection Authority.

EPA (2016a). Technical Guide - Flora and Vegetation Surveys for Environmental Impact Assessment – December 2016. Environmental Protection Authority.

EPA (2016b). *Environmental Factor Guideline for Flora and Vegetation – December 2016*. Environmental Protection Authority.

EPA (2016c). *Environmental Factor Guideline for Terrestrial Fauna – December 2016.* Environmental Protection Authority.

EPA (2020). Technical Guide – Terrestrial Fauna Surveys for Environmental Impact Assessment – June 2020. Environmental Protection Authority.

Geoscience Australia (2015). Surface Hydrology GIS. Australian Government.



Government of Western Australia (2019a). *Soil Landscape Mapping – Systems (DPIRD-064)*. GIS data obtained from data.wa.gov.au, last updated 27 June 2019.

Government of Western Australia (2019b). 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis. (Full Report). Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions, Perth.

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.

Keighery, B. J., (1994). Bushland Plant Survey: A guide to plant community survey for the community. Wildflower Society of Western Australia (Inc.), Nedlands.

Native Vegetation Solutions (2012). *Location Lease 48 and 50. Level 2 Flora and Vegetation Survey.* Prepared for Alacer Gold Corporation, September 2012.

McKenzie, N.L., May, J. E. and McKenna, S. (2002). *Bioregional Summary of the 2002 Biodiversity Audit of Western Australia*. Department of Conservation and Land Management, Perth.

Phoenix Environmental Sciences (2014). *Biological Survey for the Tycho Gold Prospect*. Prepared for MacPhersons Resources Ltd

Tille, P. (2006). Soil Landscapes of Western Australia's Rangelands and Arid Interior. Department of Agriculture and Food Western Australia

Western Australian Herbarium (1998–). *Florabase—the Western Australian Flora*. Department of Biodiversity, Conservation and Attractions. Available: https://florabase.dpaw.wa.gov.au/



APPENDIX A: CONSERVATION RATINGS 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	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 4 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018 for extinct fauna or the Wildlife Conservation (Rare Flora) Notice 2018 for extinct flora.		
EW	Extinct in the Wild Species 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.



Code	Category	
CD	Species of special conservation interest 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), are fauna subject to the Convention on the Conservation of Migratory Species of Wild Animals (Bor Convention), an environmental treaty under the United Nations Environment Program. Migrator species listed under the BC Act are a subset of the migratory animals, that are known to visit Weste 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	
OS Priority species	Division 2 of the Biodiversity Conservation (Listing of Native Species) (Fauna) Order 2024. 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.

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



Code	Category	
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)		
	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:	
PD	 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.	
	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	
CR	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.	
	Endangered	
EN	An ecological community will be listed as Endangered when it has been adequately surveyed and is not Critically Endangered but is facing a very high risk of total destruction in the near future. 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;	



Category	Catagoria
Code	Category
	The ecological community is highly modified with potential of being rehabilitated in the short-term future.
	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:
VU	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.
Commonwe	alth categories of Threatened Ecological Communities (TEC)
	Critically Endangered
CE	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).
	Endangered
EN	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).
	Vulnerable
VU	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 Eco	logical Communities
_	Poorly-known ecological communities
P1	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.
	Poorly-known ecological communities
	Communities that are known from few small occurrences, all or most of which are actively
P2	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.
	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
P3	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.
	Conservation Dependent ecological communities
P5	Ecological communities that are not threatened but are subject to a specific conservation program, the cessation of which would result in the community becoming threatened within five
	years.



APPENDIX B: 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	

CLASS	TAXON	CONS
DICOT		33113
DICOT	Acacia tetragonophylla Acacia warramaba	+
DICOT	Acacia warramaba Acacia websteri	P1
DICOT	Acacia websteri Acacia xerophila var. brevior	+
DICOT	Acacia yorkrakinensis subsp. acrita	+
DICOT	Actinobole uliginosum	+
DICOT	Alectryon oleifolius subsp. canescens	+
DICOT	Allocasuarina acutivalvis subsp. acutivalvis	+
DICOT	Allocasuarina acutivalvis subsp. acutivalvis Allocasuarina campestris	+
DICOT	Allocasuarina campestris / eriochlamys subsp. grossa	+
DICOT	Allocasuarina campestris / enochiamys subsp. grossa Allocasuarina cf. campestris	+
DICOT	Allocasuarina eriochlamys subsp. eriochlamys	+
DICOT	Allocasuarina eriochiamys subsp. eriochiamys Allocasuarina eriochiamys 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	1
DICOT	Amyema preissii	1
DICOT	Androcalva luteiflora	+
DICOT	Angianthus tomentosus	
DICOT	Anthotroche pannosa	
DICOT	Arabidella chrysodema	1
DICOT	Arabidella trisecta	1
DICOT	Arctotheca calendula	
DICOT	Argemone ochroleuca subsp. ochroleuca	
DICOT	Asteridea athrixioides	
DICOT	Asteridea chaetopoda	
DICOT	Atriplex acutibractea	
DICOT	Atriplex acutibractea subsp. acutibractea	T
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	

CLASS	TAXON	CONS
DICOT		CONS
	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	
2.001	Oracoula colorata var. acuminata	



CLASS	TAXON	CONS
DICOT	Crassula colorata var. colorata	
DICOT	Cratystylis centralis	P3
DICOT	Cratystylis conocephala	
DICOT	Cratystylis conocephala x microphylla	
DICOT	Cratystylis microphylla	
DICOT	Cratystylis subspinescens	
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 granamiii 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 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		P3
DICOT	Eremophila arachnoides subsp. tenera Eremophila acutifolia	P3
DICOT	· · · · · · · · · · · · · · · · · · ·	
DICOT	Eremophila caerulea subsp. caerulea	P4
DICOT	Eremophila caerulea subsp. merrallii	
DICOT	Eremophila caperata	
DICOI	Eremophila cf. deserti	

CLASS	TAXON	CONS
DICOT	Eremophila clarkei	
DICOT	Eremophila clavata	
DICOT	Eremophila decipiens	
DICOT	Eremophila decipiens subsp. decipiens	
DICOT	Eremophila dempsteri	
DICOT	Eremophila deserti	
DICOT	Eremophila georgei	
DICOT	Eremophila gibbosa	
DICOT	Eremophila glabra subsp. glabra	
DICOT	Eremophila granitica	
DICOT	Eremophila interstans subsp. interstans	-
DICOT		-
DICOT	Eremophila interstans subsp. virgata	
DICOT	Eremophila ionantha	
DICOT	Eremophila longifolia	
DICOT	Eremophila maculata subsp. brevifolia	
DICOT	Eremophila miniata	
	Eremophila oblonga	
DICOT	Eremophila oldfieldii subsp. angustifolia	
DICOT	Eremophila oppositifolia subsp. angustifolia	
DICOT	Eremophila pantonii	
	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	

CLASS	TAXON	CONS
DICOT	Eucalyptus loxophleba subsp. lissophloia	
DICOT	Eucalyptus oleosa	
DICOT	Eucalyptus oleosa subsp. oleosa	
DICOT	Eucalyptus petraea	
DICOT	Eucalyptus pileata	
DICOT	Eucalyptus planipes	
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	<u> </u>



CLASS	TAXON	CONS
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	
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	

CLASS	TAXON	CONS
DICOT	Leucopogon sp. Clyde Hill	
DICOT	Leucopogon sp. Coolgardie	
DICOT	Leucopogon sp. Kambalda	
DICOT	Lobelia cf. winfrindae	
DICOT	Lycium australe	
DICOT	Lysimachia arvensis	
DICOT	Maireana aff. planifolia	
DICOT	Maireana amoena	
DICOT	Maireana appressa	
DICOT	Maireana erioclada	
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	 	
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	P3
DICOT	Melaleuca coccinea	- 173
DICOT	Melaleuca exuvia	+
DICOT	Melaleuca fulgens subsp. fulgens	
DICOT	Melaleuca hamata	
DICOT	Melaleuca lanceolata Melaleuca lateriflora	
DICOT	\ Nielaieuca lateriliora	I
DICOT	Melaleuca pauperiflora subsp. fastigiata	
DICOT	Melaleuca pauperiflora subsp. fastigiata Melaleuca sheathiana	
DICOT	Melaleuca pauperiflora subsp. fastigiata Melaleuca sheathiana Melaleuca thyoides	
DICOT	Melaleuca pauperiflora subsp. fastigiata Melaleuca sheathiana Melaleuca thyoides Melaleuca uncinata	
DICOT DICOT DICOT	Melaleuca pauperiflora subsp. fastigiata Melaleuca sheathiana Melaleuca thyoides Melaleuca uncinata Melaleuca zeteticorum	
DICOT DICOT DICOT DICOT	Melaleuca pauperiflora subsp. fastigiata Melaleuca sheathiana Melaleuca thyoides Melaleuca uncinata Melaleuca zeteticorum Mesembryanthemum crystallinum	
DICOT DICOT DICOT DICOT DICOT	Melaleuca pauperiflora subsp. fastigiata Melaleuca sheathiana Melaleuca thyoides Melaleuca uncinata Melaleuca zeteticorum Mesembryanthemum crystallinum Mesembryanthemum nodiflorum	
DICOT DICOT DICOT DICOT DICOT DICOT DICOT	Melaleuca pauperiflora subsp. fastigiata Melaleuca sheathiana Melaleuca thyoides Melaleuca uncinata Melaleuca zeteticorum Mesembryanthemum crystallinum Mesembryanthemum nodiflorum Micromyrtus erichsenii	
DICOT DICOT DICOT DICOT DICOT DICOT DICOT DICOT	Melaleuca pauperiflora subsp. fastigiata Melaleuca sheathiana Melaleuca thyoides Melaleuca uncinata Melaleuca zeteticorum Mesembryanthemum crystallinum Mesembryanthemum nodiflorum Micromyrtus erichsenii Micromyrtus monotaxis	
DICOT	Melaleuca pauperiflora subsp. fastigiata Melaleuca sheathiana Melaleuca thyoides Melaleuca uncinata Melaleuca zeteticorum Mesembryanthemum crystallinum Mesembryanthemum nodiflorum Micromyrtus erichsenii Micromyrtus monotaxis Micromyrtus stenocalyx	
DICOT	Melaleuca pauperiflora subsp. fastigiata Melaleuca sheathiana Melaleuca thyoides Melaleuca uncinata Melaleuca zeteticorum Mesembryanthemum crystallinum Mesembryanthemum nodiflorum Micromyrtus erichsenii Micromyrtus monotaxis Micromyrtus stenocalyx Millotia myosotidifolia	
DICOT	Melaleuca pauperiflora subsp. fastigiata Melaleuca sheathiana Melaleuca thyoides Melaleuca uncinata Melaleuca zeteticorum Mesembryanthemum crystallinum Mesembryanthemum nodiflorum Micromyrtus erichsenii Micromyrtus stenocalyx Millotia myosotidifolia Minuria cunninghamii	
DICOT	Melaleuca pauperiflora subsp. fastigiata Melaleuca sheathiana Melaleuca thyoides Melaleuca uncinata Melaleuca zeteticorum Mesembryanthemum crystallinum Mesembryanthemum nodiflorum Micromyrtus erichsenii Micromyrtus monotaxis Micromyrtus stenocalyx Millotia myosotidifolia Minuria cunninghamii Mirbelia depressa	
DICOT	Melaleuca pauperiflora subsp. fastigiata Melaleuca sheathiana Melaleuca thyoides Melaleuca uncinata Melaleuca zeteticorum Mesembryanthemum crystallinum Mesembryanthemum nodiflorum Micromyrtus erichsenii Micromyrtus monotaxis Micromyrtus stenocalyx Millotia myosotidifolia Minuria cunninghamii Mirbelia depressa Mirbelia microphylla	
DICOT	Melaleuca pauperiflora subsp. fastigiata Melaleuca sheathiana Melaleuca thyoides Melaleuca uncinata Melaleuca zeteticorum Mesembryanthemum crystallinum Mesembryanthemum nodiflorum Micromyrtus erichsenii Micromyrtus monotaxis Micromyrtus stenocalyx Millotia myosotidifolia Minuria cunninghamii Mirbelia depressa Mirbelia multicaulis	
DICOT	Melaleuca pauperiflora subsp. fastigiata Melaleuca sheathiana Melaleuca thyoides Melaleuca uncinata Melaleuca zeteticorum Mesembryanthemum crystallinum Mesembryanthemum nodiflorum Micromyrtus erichsenii Micromyrtus monotaxis Micromyrtus stenocalyx Millotia myosotidifolia Minuria cunninghamii Mirbelia depressa Mirbelia microphylla Mirbelia multicaulis Mirbelia sp. 1	
DICOT	Melaleuca pauperiflora subsp. fastigiata Melaleuca sheathiana Melaleuca thyoides Melaleuca uncinata Melaleuca zeteticorum Mesembryanthemum crystallinum Mesembryanthemum nodiflorum Micromyrtus erichsenii Micromyrtus monotaxis Micromyrtus stenocalyx Millotia myosotidifolia Minuria cunninghamii Mirbelia depressa Mirbelia microphylla Mirbelia sp. 1 Monoculus monstrosus	
DICOT	Melaleuca pauperiflora subsp. fastigiata Melaleuca sheathiana Melaleuca thyoides Melaleuca uncinata Melaleuca zeteticorum Mesembryanthemum crystallinum Mesembryanthemum nodiflorum Micromyrtus erichsenii Micromyrtus monotaxis Micromyrtus stenocalyx Millotia myosotidifolia Minuria cunninghamii Mirbelia depressa Mirbelia microphylla Mirbelia multicaulis Mirbelia sp. 1 Monoculus monstrosus Monotaxis grandiflora var. obtusifolia	
DICOT	Melaleuca pauperiflora subsp. fastigiata Melaleuca sheathiana Melaleuca thyoides Melaleuca uncinata Melaleuca zeteticorum Mesembryanthemum crystallinum Mesembryanthemum nodiflorum Micromyrtus erichsenii Micromyrtus monotaxis Micromyrtus stenocalyx Millotia myosotidifolia Minuria cunninghamii Mirbelia depressa Mirbelia microphylla Mirbelia multicaulis Mirbelia sp. 1 Monoculus monstrosus Monotaxis grandiflora var. obtusifolia Myoporum montanum	
DICOT	Melaleuca pauperiflora subsp. fastigiata Melaleuca sheathiana Melaleuca thyoides Melaleuca uncinata Melaleuca zeteticorum Mesembryanthemum crystallinum Mesembryanthemum nodiflorum Micromyrtus erichsenii Micromyrtus monotaxis Micromyrtus stenocalyx Millotia myosotidifolia Minuria cunninghamii Mirbelia depressa Mirbelia microphylla Mirbelia multicaulis Mirbelia sp. 1 Monoculus monstrosus Monotaxis grandiflora var. obtusifolia Myoporum montanum Myoporum platycarpum	
DICOT	Melaleuca pauperiflora subsp. fastigiata Melaleuca sheathiana Melaleuca thyoides Melaleuca uncinata Melaleuca zeteticorum Mesembryanthemum crystallinum Mesembryanthemum nodiflorum Micromyrtus erichsenii Micromyrtus monotaxis Micromyrtus stenocalyx Millotia myosotidifolia Minuria cunninghamii Mirbelia depressa Mirbelia microphylla Mirbelia multicaulis Mirbelia sp. 1 Monoculus monstrosus Monotaxis grandiflora var. obtusifolia Myoporum montanum Myoporum platycarpum Myoporum platycarpum subsp. platycarpum	
DICOT	Melaleuca pauperiflora subsp. fastigiata Melaleuca sheathiana Melaleuca thyoides Melaleuca uncinata Melaleuca zeteticorum Mesembryanthemum crystallinum Mesembryanthemum nodiflorum Micromyrtus erichsenii Micromyrtus monotaxis Micromyrtus stenocalyx Millotia myosotidifolia Minuria cunninghamii Mirbelia depressa Mirbelia microphylla Mirbelia multicaulis Mirbelia sp. 1 Monoculus monstrosus Monotaxis grandiflora var. obtusifolia Myoporum platycarpum Myoporum platycarpum subsp. platycarpum Myosurus australis	
DICOT	Melaleuca pauperiflora subsp. fastigiata Melaleuca sheathiana Melaleuca thyoides Melaleuca uncinata Melaleuca zeteticorum Mesembryanthemum crystallinum Mesembryanthemum nodiflorum Micromyrtus erichsenii Micromyrtus monotaxis Micromyrtus stenocalyx Millotia myosotidifolia Minuria cunninghamii Mirbelia depressa Mirbelia microphylla Mirbelia multicaulis Mirbelia sp. 1 Monoculus monstrosus Monotaxis grandiflora var. obtusifolia Myoporum montanum Myoporum platycarpum Myoporum platycarpum subsp. platycarpum	

CLASS	TAXON	CONS
DICOT	Notisia intonsa	P3
DICOT	Olearia homolepis	
DICOT	Olearia muelleri	
DICOT	Olearia pimeleoides	
DICOT	Olearia trifurcata	
DICOT	Oligocarpus calendulaceus	
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	



CLASS	TAXON	CONS
DICOT	Ptilotus procumbens	P1
DICOT	Ptilotus rigidus	P1
DICOT	Pultenaea sp.	
DICOT	Radyera farragei	
DICOT	Ranunculus pentandrus var. platycarpus	
DICOT	Reseda luteola	
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	Ricinocarpos 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		
DICOT	Sclerolaena drummondii Sclerolaena eurotioides	
DICOT	Scierolaena eurotioides Scierolaena fusiformis	
DICOT		
DICOT	Sclerolaena obliquicuspis Sclerolaena parviflora	
DICOT	Scierolaena parvillora Senecio glossanthus	
DICOT	Senecio giossantnus Senecio lacustrinus	
DICOT		
DICOT	Senna artemisioides	
DICOT	Senna artemisioides subsp. filifolia	
DICOT	Senna artemisioides subsp. x artemisioides	
DICOT	Senna pleurocarpa var. angustifolia	
DICOT	Senna stavardii	
DICOT	Senna stowardii	
	Seringia velutina	
DICOT	Sida calyxhymenia	
DICOT	Sida intricata	
DICOT	Sida sp.	
DICOT	Sida spodochroma	
DICOT	Sisymbrium erysimoides	
DICOT	Sisymbrium irio	

CLASS	TAXON	CONS
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		_
DICOT	Swainsona beasleyana	_
DICOT	Swainsona canescens	
DICOT	Swainsona colutoides	
DICOT	Swainsona kingii	
	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 cyanopetala Trachymene ornata	

CLASS	TAXON	CONS
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. caringap Noad Austrostipa sp. indet.	
MONOCOT	Austrostipa sp. indet. Austrostipa trichophylla	
MONOCOT	Austrostipa turbinata	P3
MONOCOT	Bromus arenarius	- · •
MONOCOT	Bromus diandrus	
MONOCOT	Bulbine semibarbata	
MONOCOT	Cenchrus ciliaris	
MONOCOT	Cenchrus setaceus	
MONOCOT	Centrolepis polygyna	
	Commonopio porygynia	



CLASS	TAXON	CONS
MONOCOT	Chloris truncata	
MONOCOT	Dactyloctenium radulans	
MONOCOT	Danthonia caespitosa	
MONOCOT	Eleocharis acutangula	
MONOCOT	Enneapogon caerulescens	
MONOCOT	Enneapogon cylindricus	
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	

Terrestrial Fauna

CLASS	TAXON	CONS
AMPHI	Neobatrachus kunapalari	
AMPHI	Neobatrachus sutor	
AMPHI	Pseudophryne occidentalis	
BIRD	Acanthagenys rufogularis	
BIRD	Acanthiza apicalis	
BIRD	Acanthiza chrysorrhoa	

CLASS	TAXON	CONS
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		
BIRD	Biziura lobata	
DIIAD	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	· · · · · · · · · · · · · · · · · · ·	
BIRD	Eolophus roseicapillus	
BIRD	Eopsaltria australis subsp. griseogularis	-
טוועט	Epthianura albifrons	

CLASS	TAXON	CONS
BIRD		CONC
BIRD	Epthianura tricolor 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		
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	
	Petrochelidon nigricans	
BIRD BIRD	Petroica cucullata	
	Petroica goodenovii	
BIRD	Phalacrocorax carbo	
BIRD	Phalacrocorax sulcirostris	
BIRD	Phaps chalcoptera	
BIRD	Phylidonyris albifrons	D4
BIRD	Platycercus icterotis xanthogenys	P4
BIRD	Platycercus varius	
BIRD	Platycercus zonarius	
BIRD	Podargus strigoides	



CLASS	TAXON	CONS
BIRD	Poliocephalus poliocephalus	
BIRD	Pomatostomus superciliosus	
BIRD	Pomatostomus superciliosus subsp. ashbyi	
BIRD	Porzana fluminea	
BIRD	Ptilotula ornatus	
BIRD	Purnella albifrons	
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 002 Acarina 003	
INVERT	Acarina 003	
INVERT	Acarina 004 Acarina 005	
INVERT	Acarina 005 Acarina 006	
INVERT	Acarina 000 Acarina 007	
INVERT		
INVERT	Acarina 008 Acarina 009	
INVERT		
INVERT	Acarina 010	
INVERT	Acarina 011 Acarina 012	
INVERT	111111111111111111111111111111111111111	
INVERT	Acarina 013	
INVERT	Aganippe sp. indet.	
	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	

CLASS	TAXON	CONS
INVERT	beetle 006	
INVERT	beetle 007	
INVERT	beetle 008	
INVERT	beetle 010	
INVERT	beetle 012	
INVERT	beetle 015	
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		
INVERT	Branchinella nana	
	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		
INVERT	Hoggicosa storri	
INVERT	Hogna salifodina	
INVERT	Holconia nigrigularis	
INVERT	Indolpium sp. indet.	
	Isometroides vescus	
INVERT	Isopedella saundersi	D4
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'	

CLASS	TAXON	CONS
INVERT	Missulena occatoria	
INVERT	Myandra bicincta	
INVERT	Nephila edulis	
INVERT	Nicodamus mainae	
INVERT	Ogyris subterrestris subsp. petrina	
INVERT	Pardosa pexa	
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 MAMMAL	Bos taurus	
MAMMAL	Capra hircus	
MAMMAL	Cercartetus concinnus	
MAMMAL	Chalinolobus gouldii	
MAMMAL	Chalinolobus morio	VU
MAMMAL	Dasyurus geoffroii	V0
MAMMAI	Felis catus	
MAMMAL	Macropus fuliginosus	
MAMMAL	Mormopterus planiceps 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	1
REPTILE	Cryptoblepharus buchananii	



CLASS	TAXON	CONS
REPTILE	Cryptoblepharus plagiocephalus	
REPTILE	Ctenophorus caudicinctus	
REPTILE	Ctenophorus cristatus	
REPTILE	Ctenophorus fordi	
REPTILE	Ctenophorus nuchalis	
REPTILE	Ctenophorus ornatus	
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	Lians purtonis Liopholis inornata	
· ····		
REPTII F	Lionholis multiscutata	ı
REPTILE REPTILE	Liopholis multiscutata	
REPTILE	Lucasium damaeum	
REPTILE REPTILE	Lucasium damaeum Lucasium maini	
REPTILE REPTILE REPTILE	Lucasium damaeum Lucasium maini Menetia greyii	
REPTILE REPTILE REPTILE	Lucasium damaeum Lucasium maini Menetia greyii Moloch horridus	
REPTILE REPTILE REPTILE REPTILE REPTILE	Lucasium damaeum Lucasium maini Menetia greyii Moloch horridus Morelia spilota subsp. imbricata	
REPTILE REPTILE REPTILE REPTILE REPTILE REPTILE	Lucasium damaeum Lucasium maini Menetia greyii Moloch horridus Morelia spilota subsp. imbricata Morethia butleri	
REPTILE REPTILE REPTILE REPTILE REPTILE REPTILE REPTILE REPTILE	Lucasium damaeum Lucasium maini Menetia greyii Moloch horridus Morelia spilota subsp. imbricata Morethia butleri Morethia obscura	
REPTILE REPTILE REPTILE REPTILE REPTILE REPTILE REPTILE REPTILE REPTILE	Lucasium damaeum Lucasium maini Menetia greyii Moloch horridus Morelia spilota subsp. imbricata Morethia butleri Morethia obscura Neelaps bimaculatus	
REPTILE	Lucasium damaeum Lucasium maini Menetia greyii Moloch horridus Morelia spilota subsp. imbricata Morethia butleri Morethia obscura Neelaps bimaculatus Nephrurus laevissimus	
REPTILE	Lucasium damaeum Lucasium maini Menetia greyii Moloch horridus Morelia spilota subsp. imbricata Morethia butleri Morethia obscura Neelaps bimaculatus Nephrurus laevissimus Nephrurus milii	
REPTILE	Lucasium damaeum Lucasium maini Menetia greyii Moloch horridus Morelia spilota subsp. imbricata Morethia butleri Morethia obscura Neelaps bimaculatus Nephrurus laevissimus Nephrurus milii Oedura reticulata	
REPTILE	Lucasium damaeum Lucasium maini Menetia greyii Moloch horridus Morelia spilota subsp. imbricata Morethia butleri Morethia obscura Neelaps bimaculatus Nephrurus laevissimus Nephrurus milii	

CLASS	TAXON	CONS
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	
Aizozceae	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	Com 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	



Family	Taxon	Common Name	WAOL Status	WoNS
Cucurbitaceae	Citrullus colocynthis	Bitter apple	Permitted - s11	
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 Thomapple	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	lxia 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 Permitted -	
Malvaceae	Malva parviflora	Marshmallow	s11	
Lamiaceae	Marrubium vulgare	Horehound	Permitted - s11	
Fabaceae	Medicago laciniata	Cutleaf Medic	Permitted -	
Tabaceae	Wiedicago lacililata	Cutted Wedic	s11 Permitted -	
Fabaceae	Medicago minima	Small Burr Medic	s11	
Fabaceae	Medicago polymorpha	Burr Medic	Permitted -	
			s11 Permitted -	
Aizoaceae	Mesembryanthemum crystallinum	Ice Plant, Common Iceplant	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

		Drair	nage Area / Fl	oodplain				Clay-Los	am Plain					Rocky-H	lillslope		Disturbed	San	d Dune
Family	Species	DD-CS1	DD-EW1	DD-AFW1	CLP-AFW1	CLP-EW1	CLP-EW2	CLP-EW3	CLP-EW4	CLP-MW1	CLP-CS1	CLP-CW1	RH-AFW1	RH-MW1	RH-EW1	RH-EW2	Disturbed	SD-EW1	SD-AFW1
Aizoaceae	Disphyma crassifolium	x		х			х												x
Aizoaceae	Gunniopsis quadrifida	x																х	х
Aizoaceae	Mesembryanthemum nodiflorum (W)																х		
Amaranthaceae	Ptilotus exaltatus (A)		х	х					х			х							
Amaranthaceae	Ptilotus holosericeus								х	х				х					
Amaranthaceae	Ptilotus obovatus	х		х	х			х		x		х	х		х	х	х		
Amaranthaceae	Surreya diandra	х																	х
Apocynaceae	Alyxia buxifolia		x	х	х		х			x				х	х				х
Araliaceae	Trachymene omata												х						
Asparagaceae	Asphodelus fistulosus (W)																х		
Asparagaceae	Thysanotus manglesianus (A)												Х		х				х
Asparagaceae	Lomandra effusa									х	x	х						х	х
Asteraceae	Asteridea athrixioides (A)						Х											х	Х
Asteraceae	Brachyscome ciliaris (A)	х							Х										
Asteraceae	Carthamus Ianatus (W)																х		
Asteraceae	Centaurea melitensis (W)																х		
Asteraceae	Cephalipterum drummondii		x	х						х		х							
Asteraceae	Chrysocephalum eremaeum (A)					Х			Х				Х						
Asteraceae	Cratystylis conocephala					х			х			х				х			
Asteraceae	Cratystylis microphylla	x		х			х		х		х								
Asteraceae	Cratystylis subspinescens	x	x	х							x							x	
Asteraceae	Dittrichia graveolens (W)																х		
Asteraceae	Gazania linearis (W)																х		
Asteraceae	Olearia muelleri		x	х				x	x	x		х		х	x				
Asteraceae	Oncosiphon suffruticosum (W)								x								x	x	Х
Asteraceae	Waitzia acuminata (A)												Х						
Boraginaceae	Halgania andromedifolia							x	x										
Boraginaceae	Halgania integerrima			x						x				x					
Brassicaceae	Brassica tournefortii (W)																х		
Brassicaceae	Carrichtera annua (W)					х	х	x	x								х		
Casuarinaceae	Allocasuarina campestris												x						
Casuarinaceae	Allocasuarina helmsii												х		x				
Casuarinaceae	Casuarina pauper				х		х		x			x		x	x	x	х		
Chenopodiaceae	Atriplex codonocarpa (A)	х										х					х	X	Х
Chenopodiaceae	Atriplex lindleyi		x								x						х		
Chenopodiaceae	Atriplex lindleyi subsp. inflata	x																	
Chenopodiaceae	Atriplex nummularia	x	x	х		x	х			X		x		х	x	x			
Chenopodiaceae	Atriplex quadrivalvata		x			х			x		x	х							
Chenopodiaceae	Atriplex stipitata					х	х		х			х							



		Drair	nage Area / Flo	oodplain				Clay-Los	am Plain					Rocky-H	lillslope		Disturbed	San	nd Dune
Family	Species	DD-CS1	DD-EW1	DD-AFW1	CLP-AFW1	CLP-EW1	CLP-EW2	CLP-EW3	CLP-EW4	CLP-MW1	CLP-CS1	CLP-CW1	RH-AFW1	RH-MW1	RH-EW1	RH-EW2	Disturbed	SD-EW1	SD-AFW1
Chenopodiaceae	Atriplex vesicaria	х	х			х	х		х	х		х		х	х	х	х		
Chenopodiaceae	Chenopodium curvispicatum		х		х	х	х		х							x		х	х
Chenopodiaceae	Didymanthus roei	х	х								х								
Chenopodiaceae	Enchylaena tomentosa		x	x			x		х	x	x	х	х	х	х				
Chenopodiaceae	Eriochiton sclerolaenoides (A)			х					х								х		
Chenopodiaceae	Maireana brevifolia			х													х		
Chenopodiaceae	Maireana carnosa		х	х					х		x	х							
Chenopodiaceae	Maireana georgei	х					х			х		х	х		х	x			
Chenopodiaceae	Maireana glomerifolia	х	х				х				x				х			х	х
Chenopodiaceae	Maireana oppositifolia									x	x				х				
Chenopodiaceae	Maireana pentatropis		х	х					х					х	х		х		
Chenopodiaceae	Maireana platycarpa												х	х				х	х
Chenopodiaceae	Maireana pyramidata		х						х	х	х	х							
Chenopodiaceae	Maireana sedifolia						х		х			х			х		х		
Chenopodiaceae	Maireana tomentosa		х	х							х								
Chenopodiaceae	Maireana trichoptera								х	х		х			х	х			
Chenopodiaceae	Maireana triptera		х		х	х		х						х		х			
Chenopodiaceae	Rhagodia drummondii								х										
Chenopodiaceae	Rhagodia eremaea	x		x						x						x		х	х
Chenopodiaceae	Salsola australis (A)											х					х		
Chenopodiaceae	Sclerolaena diacantha	х				х		x				х	х			x	х		
Chenopodiaceae	Sclerolaena eriacantha		x					x		x	x	x					х		
Chenopodiaceae	Sclerolaena eurotioides					x				x				х					х
Chenopodiaceae	Sclerolaena uniflora		x	x	x		x		x	x	x	x							
Chenopodiaceae	Tecticornia disarticulata	x	х				х		x		x	х							х
Chenopodiaceae	Tecticornia doliiformis	x																x	х
Chenopodiaceae	Tecticornia halocnemoides	x									x								
Chenopodiaceae	Tecticornia indica	x									x								
Chenopodiaceae	Tecticornia pergranulata	х																	
Cupressaceae	Callitris preissii	x			x									2				х	х
Euphorbiaceae	Beyeria sulcata			x												x			
Fabaceae	Acacia acanthoclada subsp. acanthoclada							x										х	х
Fabaceae	Acacia acuminata		х	х	х		х						х	х			х		
Fabaceae	Acacia colletioides						х		х	х									х
Fabaceae	Acacia duriuscula							x						х					
Fabaceae	Acacia erinacea		х	х				х	х						х			х	х
Fabaceae	Acacia hemiteles		х	x			х	х	x	х		х		х	х	х			
Fabaceae	Acacia jennerae	x	x				x												х
Fabaceae	Acacia kalgoorliensis	х		х			х		х					х	х			х	х
Fabaceae	Acacia collegialis				х								х	х	х				
Fabaceae	Acacia merrallii								x										
Fabaceae	Acacia rendlei					x	x								x				
Fabaceae	Acacia tetragonophylla	1	x	x		x						x	x	х		x			
Fabaceae	Acacia camptoclada	1										x							х
Fabaceae	Acacia nyssophylla	1					x	x							х				+
Fabaceae	Acacia oswaldii	1					X	1										x	
Fabaceae	Dillwynia acerosa	1		x			-	x			 				x				



		Draii	nage Area / Fl	oodplain				Clay-Loa	am Plain					Rocky-H	lillslope		Disturbed	San	d Dune
Family	Species	DD-CS1	DD-EW1	DD-AFW1	CLP-AFW1	CLP-EW1	CLP-EW2	CLP-EW3	CLP-EW4	CLP-MW1	CLP-CS1	CLP-CW1	RH-AFW1	RH-MW1	RH-EW1	RH-EW2	Disturbed	SD-EW1	SD-AFW1
Fabaceae	Jacksonia arida										х	х		2				х	х
Fabaceae	Glycyrrhiza acanthocarpa		x			х	х	х	х		х								
Fabaceae	Mirbelia granitica				х								х		х				
Fabaceae	Senna artemisioides (DC.) Randell subsp. ×artemisioides				х		x						х	х			х		x
Fabaceae	Senna artemisioides subsp. filifolia		x	x			х		х	х		x	х	х	х	x			
Fabaceae	Senna cardiosperma				х				х	х								х	
Fabaceae	Senna pleurocarpa var. angustifolia			х			х						х		х				
Fabaceae	Swainsona canescens		x			x	x	x	х			x							
Fabaceae	Swainsona colutoides		x				х		х		х								
Fabaceae	Swainsona kingii (A)	х		Х															
Fabaceae	Templetonia sulcata								x	x		x							
Fabaceae	Trigonella suavissima (A)		х								х								
Frankeniaceae	Frankenia interioris	x			х				х							х		х	х
Frankeniaceae	Frankenia setosa		х															х	х
Goodeniaceae	Scaevola spinescens		x	х	х	х	х		х				х		х	х		х	х
Hemerocallidaceae	Dianella revoluta				х		х			х				х				х	
Lamiaceae	Prostanthera althoferi			х	х											х			
Lamiaceae	Prostanthera grylloana				х							х			х	х			
Lamiaceae	Salvia verbenaca (W)					х							х						
Lamiaceae	Teucrium sessiliflorum					х	X				x						х		
Lamiaceae	Westringia rigida			х	х			х	х						х	х		x	
Lamiaceae	Westringia cephalantha F. Muell. var. cephalantha					х		x										x	
Malvaceae	Brachychiton gregorii		x		х							x			х	х			
Malvaceae	Malva parviflora (W)																х		
Malvaceae	Radyera farragei		x			х			х			x							
Malvaceae	Sida calyxhymenia					x		x							x	x			
Malvaceae	Sida fibulifera		x	x		x								х					
Malvaceae	Sida intricata		x				x	x	x			x		х	х			х	х
Malvaceae	Sida spodochroma		x	x		x						x		x					
Myrtaceae	Darwinia sp. Karonie													0				x	x
Myrtaceae	Eucalyptus dundasii								X										
Myrtaceae	Eucalyptus oleosa		x			x			x		x		х		x				
Myrtaceae	Eucalyptus calycogona					x	x												
Myrtaceae	Eucalyptus celastroides		x					x							x	x			
Myrtaceae	Eucalyptus gracilis		x						x										
Myrtaceae	Eucalyptus griffithsii		x		х	x				x				х	х	x			
Myrtaceae	Eucalyptus longissima				х					x			х	x					
Myrtaceae	Eucalyptus moderata		x			x	x	x											
Myrtaceae	Eucalyptus ravida							x	x	x									
Myrtaceae	Eucalyptus salicola													0				х	
Myrtaceae	Eucalyptus salmonophloia		x			x	x	x	x			x				x		x	x
Myrtaceae	Eucalyptus salubris		x				x		x			x		x	x	x			
Myrtaceae	Eucalyptus torquata															х			
Myrtaceae	Eucalyptus urna								x										
Myrtaceae	Eucalyptus yilgamensis								х										
Myrtaceae	Melaleuca hamata				х								х					x	
Myrtaceae	Melaleuca lateriflora	x				x	х							х		х			



		Drain	age Area / Flo	oodplain				Clay-Loa	m Plain					Rocky-H	illslope		Disturbed	San	d Dune
Family	Species	DD-CS1	DD-EW1	DD-AFW1	CLP-AFW1	CLP-EW1	CLP-EW2	CLP-EW3	CLP-EW4	CLP-MW1	CLP-CS1	CLP-CW1	RH-AFW1	RH-MW1	RH-EW1	RH-EW2	Disturbed	SD-EW1	SD-AFW1
Myrtaceae	Melaleuca pauperiflora		X			X						X							
Myrtaceae	Melaleuca sheathiana		x			x			x					x	x	x			
Myrtaceae	Melaleuca zeteticorum		x																
Myrtaceae	Melaleuca coccinea (P3)												х		х				
Pittosporaceae	Pittosporum angustifolium		х	х			х		х	х					х				
Poaceae	Amphipogon caricinus			х				x							x				х
Poaceae	Aristida contorta (A)												х						
Poaceae	Austrostipa elegantissima		х	х	х	х	x	х				x				х			
Poaceae	Austrostipa nitida (A)																х		
Poaceae	Cynodon dactylon (W)																х		х
Poaceae	Enneapogon caerulescens (A)			х									х						
Poaceae	Enteropogon ramosus				х	х	x	х											
Poaceae	Eragrostis setifolia (A)					Х	х				х						х		х
Poaceae	Eriachne pulchella												x		х				
Poaceae	Hordeum leporinum (W)		х								х						х		
Poaceae	Triodia rigidissima												x	x					
Poaceae	Triodia scariosa													x	x			x	х
Proteaceae	Grevillea acuaria						x	x	x			x				x		х	х
Proteaceae	Grevillea nematophylla		x	x	x					x		x		x				х	
Proteaceae	Hakea preissii						x												
Rhamnaceae	Cryptandra aridicola												x						
Rhamnaceae	Pomaderris forrestiana														x	x			
Rhamnaceae	Trymalium myrtillus		x	x											x	x			
Santalaceae	Exocarpos aphyllus	x				x			x				x		x	x		х	
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	x	x			
Sapindaceae	Dodonaea microzyga			x									x	x					
Sapindaceae	Dodonaea stenozyga						x			x						x			
Sapindaceae	Dodonaea viscosa		x				x		x		x							x	х
Scrophulariaceae	Eremophila alternifolia				x					x						x			
Scrophulariaceae	Eremophila clarkei															x			
Scrophulariaceae	Eremophila decipiens	x							x						x				
Scrophulariaceae	Eremophila georgei		x										x						
Scrophulariaceae	Eremophila gibbosa		x													x			
Scrophulariaceae	Eremophila glabra					x						x			x				
Scrophulariaceae	Eremophila interstans subsp. virgata						x		x	х				x	x				
Scrophulariaceae	Eremophila ionantha		х					x	x										
Scrophulariaceae	Eremophila longifolia	x	x			x	x												
Scrophulariaceae	Eremophila maculata					x	x					x							
Scrophulariaceae	Eremophila metallicorum								x						x				
Scrophulariaceae	Eremophila miniata								x		x								
Scrophulariaceae	Eremophila oldfieldii							x						x	x				х
Scrophulariaceae	Eremophila oldfieldii subsp. angustifolia			х			x								x	x	x	х	
Scrophulariaceae	Eremophila oppositifolia				х	x			x										



		Drain	age Area / Flo	oodplain				Clay-Loa	m Plain					Rocky-H	illslope		Disturbed	Sand	d Dune
Family	Species	DD-CS1	DD-EW1	DD-AFW1	CLP-AFW1	CLP-EW1	CLP-EW2	CLP-EW3	CLP-EW4	CLP-MW1	CLP-CS1	CLP-CW1	RH-AFW1	RH-MW1	RH-EW1	RH-EW2	Disturbed	SD-EW1	SD-AFW1
Scrophulariaceae	Eremophila paisleyi								x						x				
Scrophulariaceae	Eremophila parvifolia subsp. auricampi		x	x			x		x										
Scrophulariaceae	Eremophila praecox (P2)								х										
Scrophulariaceae	Eremophila scoparia	х		x		x		x	x	x	x			x	х	x			
Scrophulariaceae	Myoporum platycarpum								x		х								
Solanaceae	Duboisia hopwoodii													0				X	х
Solanaceae	Lycium australe		x								x	x							
Solanaceae	Nicotiana rosulata (A)										х							Х	
Solanaceae	Solanum hoplopetalum			x		x	x		x								x		
Solanaceae	Solanum lasiophyllum	x			x					x		x	x	x			x		
Solanaceae	Solanum orbiculatum			x		x	x					x							
Solanaceae	Solanum plicatile					x	x										x		
Thymelaeaceae	Pimelea microcephala			x					X					X				х	

(A) Annual Species (W) Weed Species (P) Priority species



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

Class	Family	Species	Common Name	Conservation Status
Aves	Artamidae	Artamus minor	Little Woodswallow	LC
Aves	Campephagidae	Coracina novaehollandiae	Black-faced Cuckoo-shrike	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	Corvidae	Corvus coronoides	Australian Raven	LC
Aves	Cracticidae	Strepera versicolor	Grey Currawong	LC
Aves	Dicruridae	Rhipidura leucophrys	Willie Wagtail	LC
Aves	Pachycephalidae	Oreoica gutturalis	Crested Bellbird	LC
Aves	Pachycephalidae	Colluricincla harmonica	Grey Shrike-thrush	LC
Aves	Pardalotidae	Pardalotus striatus	Striated Pardalote	LC
Aves	Podargidae	Podargus strigoides	Tawny Frogmouth	LC
Aves	Pomatostomidae	Pomatostomus superciliosus	White-browed Babbler	LC
Aves	Psittacidae	Platycercus zonarius	Australian Ringneck Parrot	LC
Reptilia	Agamidae	Ctenophorus cristatus	Crested Bicycle Dragon	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/resources/categories-and-criteria for others

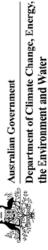


APPENDIX F: VEGETATION CONDITION RATING

Vegetation Condition Rating	South West 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

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 nformation provided here.

Report created: 16-Jan-2025

Summary

Details

Matters of NES

Other Matters Protected by the EPBC Act Extra Information

Acknowledgements

Matters of National Environment Significance

Summary

accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a his 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 significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance

Norld Heritage Properties:	None
National Heritage Places:	_
Metlands of International Importance (Ramsar	None
Sreat Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
.isted Threatened Ecological Communities:	None
isted Threatened Species:	12
isted Migratory Species:	7

Other Matters Protected by the EPBC Act

Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to 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 take an action that is likely to have a significant impact on the environment anywhere.

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 The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

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

Commonwealth Lands:	80
Commonwealth Heritage Places:	None
Listed Marine Species:	7
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

his part of the report provides information that may also be relevant to the area you have None None None None None None Seological and Bioregional Assessments: / Ecological Features (Marine): tionally Important Wetlands: te and Territory Reserves: gional Forest Agreements ogically Important Areas: egional Assessments PBC Act Referra

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

[Resource Information]	xtinct are not MNES under the EPBC Act.	Threatened Category Presence Text		Vulnerable Species or species habitat known to occur within area	Vulnerable Species or species habitat known to occur within area	Critically Endangered Species or species habitat likely to occur within area	Vulnerable Species or species habitat likely to occur within area	Vulnerable Species or species habitat known to occur within area	Endangered Species or species habitat may occur within area	Endangered Species or species habitat likely to occur within area
Listed Threatened Species	Status of Conservation Dependent and Extinct are not MNES under the EPBC Act. Number is the current name ID.	iffic Name	BIRD	Aphelocephala feucopsis Southern Whiteface [529] Vulnerab	Calidris acuminata Sharp-tailed Sandpiper [874] Vulnerab	<u>Calidris ferruginea</u> Curlew Sandpiper [856] Critically	Falco hypoleucos Grey Falcon [929] Vulnerab	Leipoa ocellata Malleefowl [934] Vulnerab	Pezoporus occidentalis Night Parrot [59350] Endange	<u>Tringa nebularia</u> Common Greenshank, Greenshank Endange [832]

	Scientific Name	Threatened Category	Presence Text
	Ogyris subterrestris petrina Arid Bronze Azure [77743]	Critically Endangered	Species or species habitat may occur within area
	MAMMAL		
	<u>Dasyurus geoffroii</u> Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat may occur within area
7	PLANT		
	Gastrolobium graniticum Granite Poison [14872]	Endangered	Species or species habitat known to occur within area
	Tecticornia flabelliformis Bead Glasswort, Bead Samphire [82664] Vulnerable	Vulnerable	Species or species habitat may occur within area
	<u>Thelymitra stellata</u> 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		
	<u>Motacilla cinerea</u> 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

State	WA	WA	WA	WA	WA	WA	WA	WA
	1]	191	[6:	11	[0]	3]	[2]	13]
Commonwealth Land Name	Commonwealth Land - [50331]	Commonwealth Land - [51406]	Commonwealth Land - [51759]	Commonwealth Land - [51961]	Commonwealth Land - [51960]	Commonwealth Land - [51963]	Commonwealth Land - [51962]	Commonwealth Land - [52183]
	U	cur		ø		ø	cur	
Presence Text	Specioen repeige	habitat likely to occur within area		Species or species habitat may occur	within area	Species or species	nabitat likely to occur within area	
Threatened Category Presence Text	Critically Endangered					Endangered		
Scientific Name	Calidris ferruginea		Calidris melanotos	Pectoral Sandpiper [858]		Tringa nebularia Common Greenshank, Greenshank	[832]	

Other Matters Protected by the EPBC Act

Commonwealth Lands	Resource Information]	Comm
The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to	d in this vicinity. Due to	
the unreliability of the data source, all proposals should be checked as to whether it impacts on a	acts on a	Comm
Commonwealth area, before making a definitive decision. Contact the State or Territory government land	government land	
department for further information.		2

-		Commonwealth Land - 151954
Commonwealth Land Name	State	
Defence		Commonwealth Land - [50310]
Defence - AIRTC KALGOORLIE [50111]	WA	
Defence - AIRTC KALGOORUE [50110]	*	Commonwealth Land - [51764]
Control Line of the Control Co	· · · · · · · · · · · · · · · · · · ·	Commonwealth Land - [51766]
Defence - NALGOUNLIE NITLE NANGE (30130)	Ç.	Commonwealth Land - [51767]
Defence - KALGOORLIE TRAINING DEPOT [50199]	WA	
Defence - KALGOORLIE TRAINING DEPOT [50198]	¥××	Commonwealth Land - [51760]
		Commonwealth Land - [51761]
Unknown		•
Commonwealth Land - [52233]	WA	Commonwealth Land - [51762]
Commonwealth Land - [51765]	WA	Commonwealth Land - [51763]
Commonwealth Land - [51060]	WA	Commonwealth Land - [51949]
Commonwealth Land - [52230]	WA	Commonwealth Land - [51768]
Commonwealth Land - [51061]	WA	Commonwealth Land - [51788]
Commonwealth Land - [51430]	WA	Commonwealth Land - [51769]
Commonwealth Land - [50329]	WA	Commonwealth Land - [51784]
Commonwealth Land - [50332]	WA	Commonwealth Land - [51785]
Commonwealth Land - [50333]	WA	Commonwealth Land - [51985]

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]	W
Commonwealth Land - [51762]	WA
Commonwealth Land - [51763]	WA
Commonwealth Land - [51949]	WA
Commonwealth Land - [51768]	W
Commonwealth Land - [51788]	WA
Commonwealth Land - [51769]	WA

§ §

٨

	1			7-10
Commonwealth Land - [51781]	State	Commonwealth Land - [51794]		State
Commonwealth Land - [51780]	WA	Commonwealth Land - [51795]		WA
Commonwealth Land - [51787]	WA	Commonwealth Land - [51773]		WA
Commonwealth Land - [51786]	WA	Commonwealth Land - [51772]		WA
Commonwealth Land - [51789]	WA	Commonwealth Land - [50335]		WA
Commonwealth Land - [51783]	WA	Commonwealth Land - [50336]		WA
Commonwealth Land - [51782]	WA	Commonwealth Land - [50337]		WA
Commonwealth Land - [51959]	WA	Commonwealth Land - [51771]		WA
Commonwealth Land - [51958]	WA	Commonwealth Land - [50334]		WA
Commonwealth Land - [51955]	WA	Commonwealth Land - [51775]		WA
Commonwealth Land - [51770]	WA	Commonwealth Land - [51776]		WA
Commonwealth Land - [51956]	WA	Commonwealth Land - [51774]		WA
Commonwealth Land - [51957]	WA	Listed Marine Species		[Recourse Information]
Commonwealth Land - [51950]	WA	entific Name	Threatened Category	Presence Text
Commonwealth Land - [51951]	WA	Actitis hypoleucos		
Commonwealth Land - [51952]	WA			Species of species habitat may occur within area
Commonwealth Land - [51777]	WA	Apus pacificus		
Commonwealth Land - [52211]	WA	Fork-tailed Swift [678]		Species or species habitat likely to occur
Commonwealth Land - [51791]	WA			within area overfly marine area
Commonwealth Land - [51790]	WA	Bubulcus ibis as Ardea ibis		
Commonwealth Land - [51793]	WA	Cattle Egret [bb3∠1]		Species or species habitat may occur within area overfly
Commonwealth Land - [51792]	WA			marine area
Commonwealth Land - [51953]	WA	Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species
Commonwealth Land - [51062]	WA			habitat known to occur within area
Commonwealth Land - [51063]	WA			
Commonwealth Land - [51778]	WA			
Commonwealth Land - [51779]	WA			

							[Resource Information	Referral Outcome Assessment Status	Post-Approval	Completed		Completed	Completed	Completed	Completed	Completed
pe State	erve WA	erve WA	erve WA	Protected WA	erve WA	erve		Referral Outcome	Controlled Action	Controlled Action Completed		Not Controlled Action	Not Controlled Action	Not Controlled Action	Not Controlled Action	Not Controlled Action
Reserve Type	5(1)(g) Reserve	Nature Reserve	5(1)(g) Reserve	Indigenous Protected Area	5(1)(g) Reserve	5(1)(h) Reserve		Reference	2019/8547 (2001/510		2014/7171	2010/5402 N	2015/7522	2020/8719 N	2006/3084 P
Protected Area Name	Kangaroo Hills Timber Reserve	Kurrawang	Lakeside Timber Reserve	Ngadju	Scahill Timber Reserve	Yallari Timber Reserve	EPBC Act Referrals	Title of referral	Goldfields Water Supply Scheme Project	Nava-1 Cable System	Not controlled action	Focus, Greenfields and Carins Intersection Upgrade, Great Eastern Highway, WA	Gold Mining Developments on Lake Lefroy	Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	Lynas Kalgoorlie Rare Earths Processing Facility	Sale of Post Office, Hannan Street
Presence Text	Species or species	habitat likely to occur within area overfly	marine area	Species or species habitat may occur	within area overfly marine area	Species of species	habitat known to	overfly marine area	Species or species	habitat may occur within area overfly marine area		Species or species habitat may occur within area overfly marine area		habitat may occur within area overfly marine area	Species or species	nabled lively to occur within area overfly marine area
Threatened Category	Critically Endangered sococcyx osculans				•						iornis rubricollis	מפום (כן כס)	enshank Endangered			
Scientific Name	Calidris ferruginea Curlew Sandpiper [856] Calidris melanotos Pectoral Sandpiper [858] Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]						Merops ornatus Rainbow Bee-eater [670]	•	Motacilla cinerea	Grey Wagtail [642]	Thinornis cucullatus as Thinornis rubricollis		Tringa nebularia Common Greenshank, Greenshank	[500]		

State WA

Reserve Type Conservation Park

State and Territory Reserves
Protected Area Name
Burra

Extra Information

٨

Conservation Park

Goldfields Woodlands

Kalgoorlie Arboretum

Kambalda

Α

5(1)(h) Reserve

Α

Nature Reserve



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.

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 or 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.

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 discemed 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.

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
- Online Zoological Collections of Australian Museums Queensland Museum
- 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
- -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.

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