



# Vegetation, Flora, Fauna and Environmental Considerations Report

Government Dams  
Purpose Permit

No. 12 Dam – Truslove Road,  
Grass Patch

Report compiled by:

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## Acknowledgement of country

The Shire of Esperance acknowledges the Kepa Kurl Wudjari people of the Nyungar nation and Ngadju people who are the traditional custodians of this land and their continuing connection to land, waters and community. We pay our respects to Elders past, present and emerging, and we extend that respect to other Aboriginal Australians today.

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## LIST OF ABBREVIATIONS

**BAM Act:** Biosecurity and Agriculture Management Act 2007 (WA)  
**BC Act:** Biodiversity Conservation Act 2016 (WA)  
**BOM:** Bureau of Meteorology  
**DBCA:** Department of Biodiversity, Conservation and Attractions  
**EP Act:** Environmental Protection Act 1986 (WA)  
**EPA:** Environmental Protection Authority  
**EPBC Act:** Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)  
**IBRA:** Interim Biogeographical Regionalisation for Australia  
**IUCN:** International Union of Conservation Nature  
**LGA:** Local Government Area  
**NVIS:** National Vegetation Information System  
**PEC:** Priority Ecological Community  
**PF:** Priority Flora (Under BC Act)  
**SOE:** Shire of Esperance  
**SLK:** Straight Line Kilometres (Main Roads WA)  
**TEC:** Threatened Ecological Community  
**TF:** Threatened Flora (Under BC Act)  
**TPFL:** Threatened and Priority Flora Database (DBCA)  
**TPRF:** Threatened and Priority Flora Report Form  
**WAH:** Western Australian Herbarium (PERTH)  
**WAOL:** Western Australian Organism List  
**WONS:** Weeds of National Significance

## Executive Summary

The Shire of Esperance (SOE) Environmental Team was commissioned by the Shire of Esperance Asset Management department to undertake a review of the vegetation, flora, fauna and environmental values on a number of Government Dams in the north of the Esperance Shire over 2024. The eleven sites will be applied for under the Shire of Esperance's Government Dams Purpose Permit.

The proposed development involves the clearing of 1.895ha of native vegetation for the purpose of dam catchment upgrade.

This report details the results from the Environmental Impact Assessment completed by Shire of Esperance Environmental Services team over spring 2024.

The site contained a single vegetation community described as "Regenerating mallee over Melaleuca shrubland".

Vegetation condition was in Very good condition over the entire site.

One threatened ecological community and one priority ecological community occurred within the 20km buffer of the project site; however no vegetation in the survey area met the requisite criteria for either of these communities.

A total of 100 vascular plant taxa, representative of 44 genera and 33 families, were recorded within No. 12 Dam survey area. Of these 86 were native species and 14 were introduced.

No threatened and 4 priority flora species were recorded within the No. 12 Dam survey area.

Suitable habitat for four threatened fauna species identified in the desktop survey was also present in the project area.

## 1 Introduction

The Shire of Esperance is the responsible land manager for a number of government dams. There are over 50 government dams within the Esperance Shire. The dams were constructed from 1910-1930 by the Public Works Department to provide water for new settlers as they arrived in Salmon Gums, Scaddan, Cascade and Grass Patch districts, where there were no large natural freshwater sources. Most of the dams include a graded catchment, with a dam (sometimes roofed). The dams provide valuable water for road construction, firefighting and can often be used as drought relief dams for stock when farm dams become dry.

All of the dam sites applied for under the Shires Government Dams Purpose Permit have been previously cleared, however due to many of them previously being in the Shire of Dundas, there was not a periodical maintenance program to regrade the catchments and many of the catchments have become overgrown. The dam catchments applied for under this strategic purpose permit would not be exempt under Regulation 5, Item 15, of the Clearing Regulations as these sections have not been cleared in the last 10 years.

## 1.1 Location and Scope of Project

The proposed works are located 10km north-east of the Scaddan townsite, within SOE managed Reserve 21363. Specifically, it is located on Lot 2055 on Plan 91868, Grass Patch. Part of the project area also lies within an undeveloped portion of Turner road reserve. A point within the proposed clearing permit area is 33.35°S, 121.77°E.

No. 12 Dam project is required for drought relief, road construction and firefighting purposes. The project involves clearing and grading the previously cleared catchment as well as some minor widening the access track into the site to allow a semi-trailer to turn around and to prevent damage to water trucks accessing the site. In total 1.895ha is proposed to be cleared. On 13 September 2024, the dam contained no water, however reclearing the catchment should ensure water runoff into the dam is restored.

The Shire of Esperance has attempted to avoid, reduce, minimise impacts by keeping as much as possible to existing cleared areas. To minimise impacts to priority flora species, the Shire of Esperance proposes to only widen along the south-west side of the track (Further details in Section 5.5).

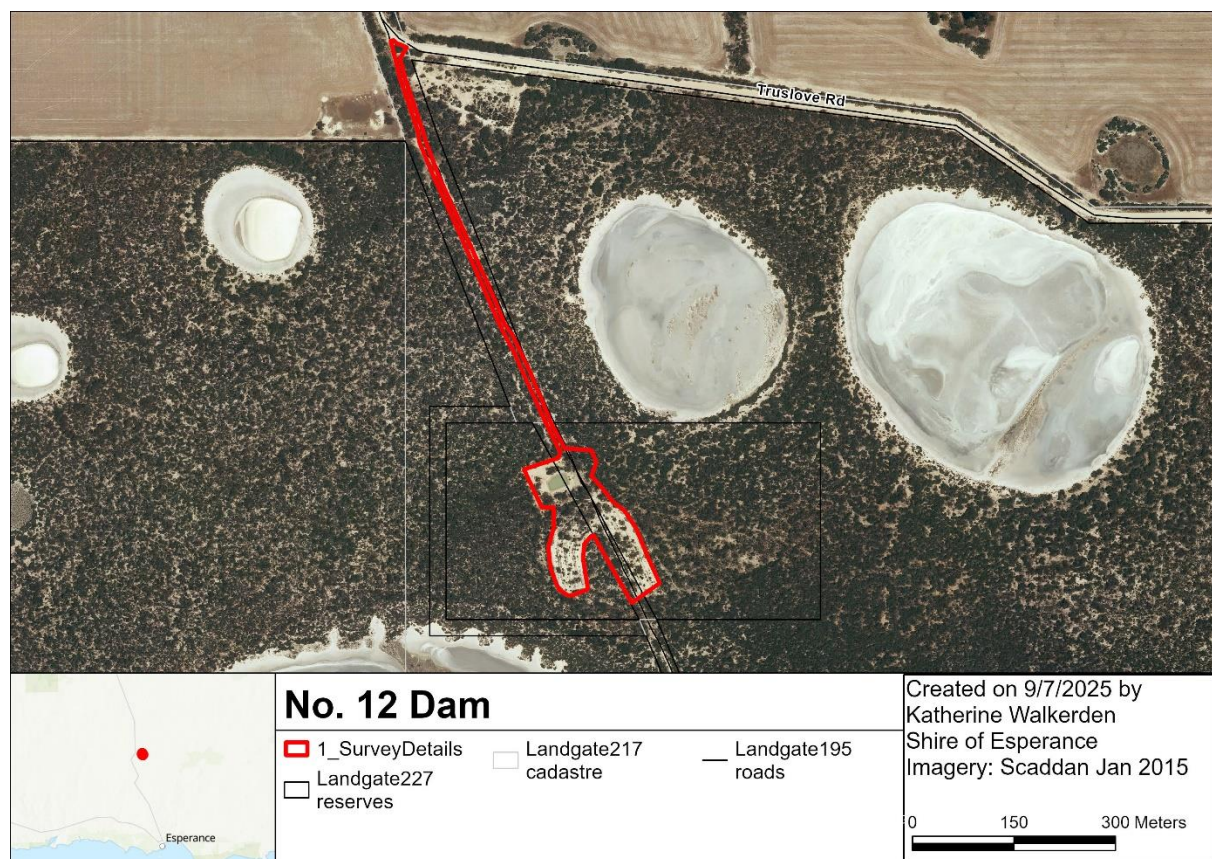


Figure 1. Location of No. 12 Dam.

## 1.2 Environmental Legislation and Guidelines

The following legislation is relevant to this survey:

Commonwealth (Federal):

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

Western Australian (State):

- *Biodiversity Conservation Act 2016* (BC Act);
  - *Biodiversity Conservation Act 2016* Biodiversity Conservation (Listing of Native Species) (Flora) Order 2022;
  - *Biodiversity Conservation Act 2016* Biodiversity Conservation (Listing of Native Species) (Fauna) Order 2022;
- *Biosecurity and Agriculture Management Act 2007* (BAM Act); and
- *Environmental Protection Act 1986* (EP Act).

Western Australian (State) guidelines relevant to this survey are:

- Environmental Factor Guideline: Flora and Vegetation (Environmental Protection Authority (EPA) 2016);
- Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (EPA 2016);
- A guide to the assessment of applications to clear native vegetation, Under Part V Division 2 of the Environmental Protection Act 1986 (DWER, 2014); and
- Technical Guidance - Terrestrial vertebrate fauna surveys for environmental impact assessment (EPA, 2020).

## 2 OBJECTIVES

The objective of this survey was to undertake a vegetation, flora, fauna and environmental assessment of the No. 12 Dam survey area to enable an informed decision to be made in respect to the potential environmental impacts of the project. This is inclusive of the following:

- Undertake a desktop study of the vegetation, flora, fauna, threatened ecological communities, soils, geology, landform, aboriginal heritage, cadastre, important wetlands, soils of the No. 12 Dam survey area using all available resources. This includes spatial interrogation using the Shire of Esperance's Desktop Environmental Impacts Spatial Interrogation Program (DEISIP), aerial photography interpretation and the Commonwealth Protected Matters Search Tool.
- Review available historical literature of the No. 12 Dam survey area;
- Undertake a field survey of the No. 12 Dam survey area, and collect and identify the vascular plant species present;
- Define and map the vegetation communities present and their condition in the No. 12 Dam survey area;
- Define and map the location of any threatened flora (TF) and priority flora (PF), TECs, fauna and priority fauna habitat located within the No. 12 Dam survey area;
- Provide recommendations on the local and regional significance of the vegetation communities;
- Define any management issues related to any environmental values; and
- Provide recommendations to the Shire of Esperance Asset Management department in relation to environmental management of the project.

## 3 METHODS

### 3.7 Desktop Assessment

Desktop information was collated for all areas within a 20 km buffer zone of the site using DBCA datasets sourced under agreement. These data sources are listed below:

- Threatened and Priority Flora Database (TPFL; DBCA 2024a);



- Western Australian Herbarium data (DBCA 2024b)
- DBCA's Esperance District Threatened Flora spatial dataset (DBCA 2024c);
- Threatened and Priority Ecological Communities (TECs & PECs; DBCA 2024d);
- Threatened, Specially Protected and Priority Fauna (DBCA 2024e); and
- Carnaby's black-cockatoo roost and breeding sites (DBCA 2024e).

Additionally, the EPBC Act Protected Matters Search Tool (PMST), was also checked to identify the possible occurrence of Threatened and Priority flora, fauna and ecological communities within the No. 12 Dam area. Search parameters were 'by polygon' and a 20km buffer was applied to the search area; standard used in this IBRA subregion.

Historical and State documentation and datasets consulted include:

- Vegetation mapping of the region, principally the coarse-scale vegetation associations of Beard (1973) (DDIRP-006);
- Vegetation Extent by Statewide Pre-European mapping statistics (Department of Parks and Wildlife 2018);
- Soil landscape mapping (Schoknecht, et al 2004);
- EPBC Act list of TECs; (2024)
- Priority Ecological Communities for Western Australia Version 35 (DBCA 2023c);
- Nomination or listing descriptions of TECs or PECs, where available and relevant (State and Federal);
- Recovery Plans, Approved Conservation Advices, Significant Impact Guidelines and / or other relevant reports or documentation relating to the preferred habitats / distributions of TECs / PECs, Threatened flora and fauna;
- Dieback Information Data Management System (DIDMS 2024; Gaia Resources);
- Shire of Esperance Weed Mapping Data (2024);
- Existing site digital orthophotos (Dundas 2015);
- Atlas of Living Australia database (2024)
- Hydrographic Catchments (DWER-028); and
- Crown Reserves (Landgate-227).
- RAMSAR sites (DBCA-010)
- Directory of Important Wetlands (DBCA-045)

### 3.8 Field Survey

The site was initially inspected on 6 December 2023, by Julie Waters (SOE Environmental Coordinator). A general assessment of possible ecological impacts included historical clearing, impact of fire regimes, regeneration from disturbance, waterlogging, senescence, weeds, erosion, sedimentation, invasive fauna, *Phytophthora* Dieback, and illegal dumping of rubbish.

A detailed field assessment of the flora and vegetation of the No. 12 Dam survey area was undertaken by SOE botanist Katherine Walkerden with assistance from graduate Environmental Scientist Krystle-Jade Brooke on 13 September 2024 in accordance with methods outlined in Technical Guidance – Flora and vegetation surveys for environmental impact assessment (EPA 2016). All botanists held valid collection licences to collect flora for scientific purposes, issued under the BC Act.

The methodology for assessing threatened and priority flora consisted of traversing by foot the entire No. 12 Dam survey area. Botanists used handheld Garmin GPS units loaded with the No. 12 Dam survey area boundary, walking every second graded row to cover the entire area recording all species, and collecting all but the very common, well known species.

For threatened or priority flora species identified in the desktop survey as possible to occur, scans of pressed specimens from either the WAH or local Esperance District Herbarium were taken into the field. Suitable associated habitat for TF or PF identified in the desktop study were particularly focused on, and extensively searched. If suspected or known conservation significant flora species were encountered, a specimen was collected for subsequent identification with GPS coordinates and plant numbers recorded for the population.

All species unknown in the field were collected, pressed and dressed in accordance with WAH instructions, and later identified by the SOE's Botanists, using keys, WA Herbarium's Florabase, literature and reference material from the Esperance District Herbarium. Any species that were unable to be identified were submitted to the WAH for identification.

A supplementary survey was conducted by Julie Waters and Katherine Walkerden on 13 February 2025 to map the distribution of the Priority 3 species *Acacia euthyphylla* and *Micromyrtus elobata* ssp. *scopula*.

The vegetation communities of No. 12 Dam were assessed for the presence a TEC or PEC (DBCA 2023, 2024d) comparing that to descriptions in approved conservation advice for these communities. PEC's do not have published approved conservation advice. Comparison of the vegetation community occurred using 'Priority Ecological Communities for Western Australia, Version 35 (DBCA 2023)' definitions, and other relevant documentation.

Only a basic fauna survey was conducted as per EPA (2020) guidelines. Observations of fauna presence, such as call sounds, footprints and scats were noted, and the area assessed for suitability of habitat within No. 12 Dam for any fauna species identified in the desktop survey.

### **3.9 Survey Timing**

According to Table 3 in the Technical Guidance – Flora and vegetation surveys for Environmental Impact Assessment (EPA 2016), the primary survey timing for the South-west and Interzone Botanical Province is Spring (September-November), which is the peak flowering period for this region. As surveys at No. 12 Dam were conducted in September, survey timing falls within this period.

### **3.10 Vegetation Descriptions**

Vegetation communities present within the survey area were assessed during the field survey. Broad vegetation types defined by structure and composition were recorded and described using the National Vegetation Information System (NVIS; ESCAVI 2003) classification system.

Condition of vegetation was assessed using Table 2 of the Technical Guidance – Flora and vegetation surveys for Environmental Impact Assessment (EPA 2016) categories, as ‘Excellent’, ‘Very Good’, ‘Good’, ‘Degraded’ or ‘Completely Degraded’. This illustrates how healthy vegetation is, determined by vegetation structure, weed cover, presence of dieback, historical clearing, grazing and other signs of disturbance.

Additionally, possible environmentally sensitive areas, such as wetlands or granite, were noted. Overall, an assessment of environmental impacts to Department of Water and Environmental Regulation’s (DWER) 10 Clearing Principles were inspected and evaluated.

### 3.11 Survey Limitations

A general assessment was made of the survey against a range of factors that may have limited the outcomes and conclusions of this report (Table 1). Based on this assessment, the present survey has not been subject to constraints which would affect the thoroughness of the survey, and the conclusions which have been formed.

**Table 1:** Potential limitations affecting the conclusions made in this report.

Potential Survey Limitation	Impact on Current Survey
Availability of contextual information at a regional and local scale	<b>Not a limitation:</b> Reference resources such as Beard’s mapping, together with online flora and vegetation information, have provided an appropriate level of information for the current survey. The vegetation of the Esperance shire has previously been mapped by Beard (1973).
Resources (i.e. were there adequate resources to complete the survey to the required standard).	<b>Not a constraint:</b> Adequate resources were made available by SOE to complete the surveys.
Competency/experience of team carrying out survey; experience in the bioregion surveyed	<b>Not a limitation:</b> Botanists had extensive experience working within the Shire of Esperance and wider areas. Two of the botanists have consistently worked within this bioregion for more than 15 years. Botanists were familiar with flora in the area. Any unknown or potential threatened or priority flora species were collected and identified, utilising resources available at the Western Australian Herbarium and consultation with expert taxonomists. Whilst a work placement student worked on the field component, the area was small and she was well supervised by the lead botanist.
Proportion of flora collected and identification issues	<b>Potential limitation:</b> While many plants were in flower during the survey, a proportion of plants encountered during the survey were sterile and may impact the chance of identification of some specimens to species level. The area was still in recovery from the November 2015 bushfires that burnt through a large area from Cascade to Truslove in an intense fire, as a result many species did not contain adequate material to identify to species level. Although these may affect the completeness of the species list, it is not expected to

	have a significant effect on the identification of threatened and priority species in the area. Surveys were only undertaken in one year.
Effort and extent of survey	<b>Potential limitation:</b> The survey area was thoroughly covered. The threatened and priority flora search undertaken by botanists by means of foot-traverse ensured thorough coverage of the survey area. Flora that was unknown or resembled threatened or priority flora were collected, the location and habitat noted, and the number of plants counted.
Mapping reliability	<b>Not a constraint.</b> Handheld GPS units were used for the survey, which for a majority of field conditions have an accuracy level of $\pm 5\text{m}$ .
Survey timing, rainfall, season of survey	<b>Not a limitation:</b> The EPA (2016a) recommends that flora and vegetation surveys in the South – West Botanical Province be conducted in Spring (September–November). All surveys have been conducted in September which falls within this period.
Disturbances (fire/flood/clearing)	<b>Not a limitation:</b> The No. 12 Dam survey area was still in recovery from the November 2015 bushfires that burnt through a large area from Cascade to Truslove in an intense fire.

## 4 DESKTOP ASSESSMENT RESULTS

### 4.1 Climate

The Scaddan climate is described as Mediterranean, characterised by cool wet winters and dry warm summers (BoM 2024). The Scaddan locality receives an average annual rainfall of 574mm.

### 4.2 Catchment

No. 12 Dam is close to a series of internally drained lake salt chains and occurs at approximately 190m above sea level.

No. 12 Dam project is mapped as being present within the upper parts of the Dalyup River, Lake Gore catchment area, however due to its topography, it is likely to be internally drained rather than draining to the coast.

### 4.3 Geology, Soils and Topography

A single geological unit was identified by Schoknecht et al. (2004). This was described as: “Tertiary sediments. Lacustrine sediments with gypsum and salt in lakes. Bedrock is deep”.

Within the area, the soil has been described by Schoknecht et al. (2004) as: “Alkaline grey deep and shallow sandy duplex soils with associated salt lake soils, pale deep sands and calcareous loamy earths”.

Within the area, the landform unit has been described by Schoknecht et al. (2004) as: “Gently undulating to undulating plain with many small playas. Lunettes and sand dunes are common on eastern side of lakes”.



## 4.4 Regional Vegetation

The site is located within the Eastern Mallee (Mal01) Interim Biogeographic Regionalisation of Australia (Thackway & Cresswell 1995) region. The Mal01 is described as “the south-eastern of Yilgarn Craton is gently undulating, with partially occluded drainage. Mainly Mallee over Myrtaceous-Proteaceous heaths on duplex (sand over clay) soils. Melaleuca shrublands characterize alluvia, and Halosarcia low shrublands occur on saline alluvium. A mosaic of mixed Eucalypt woodlands and Mallee occur on calcareous earth plans, and sandplains overlying the Eocene Limestone strata in the East. Semi-arid (dry) and warm Mediterranean”.

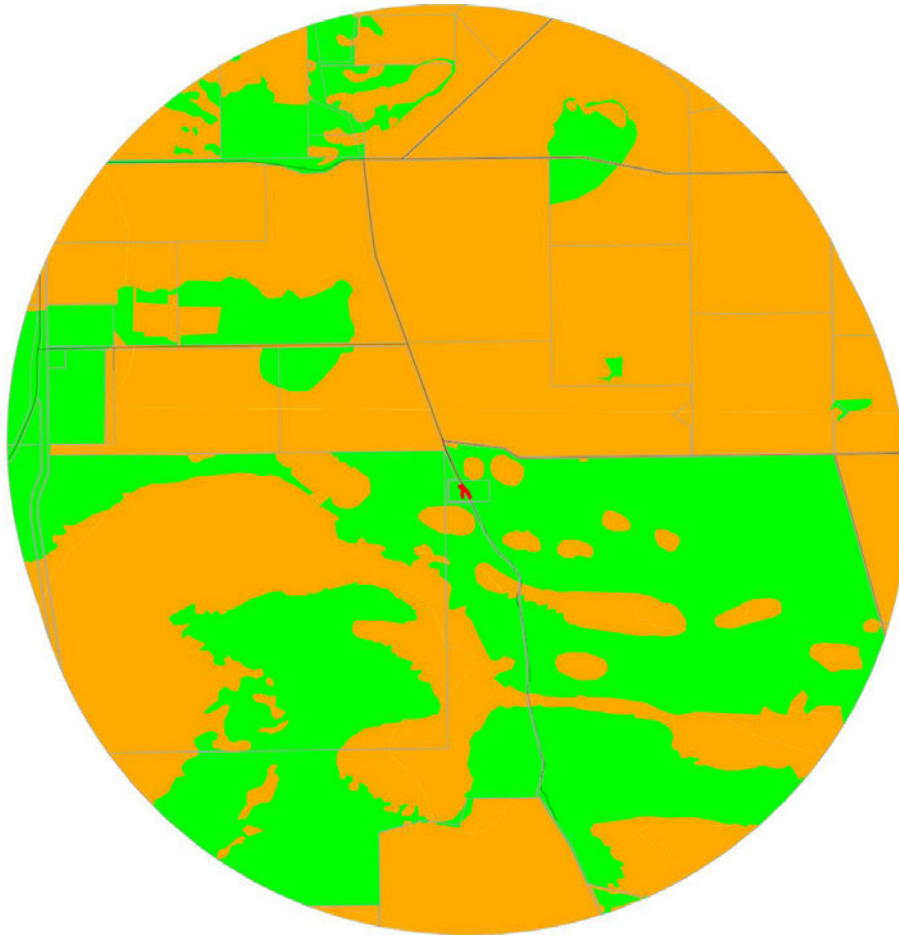
Beard (1973) mapped a single vegetation association (VA) within the No. 12 Dam area – Ridley 1516. (Table 2). 47.15% of this vegetation type is remaining, however only 18.91% of the current extent is in IUCN reserves.

**Table 2.** Vegetation associations mapped by Beard (1973) within the No. 12 Dam area, and statistics on pre-European remaining areas.

Vegetation Association	Ridley_1516
Description	Eucalypt shrubland <i>Eucalyptus eremophila</i> , <i>E. redunca</i> , <i>E. spp.</i>
Pre-European extent in IBRA sub-region Mal01 (%)	47.34
Pre-European extent in LGA (%)	47.15
Current extent conserved in IUCN area (%)	18.91

## 4.5 Surrounding Land Use

The area directly included in the clearing permit application No. 12 Dam is a previously cleared undeveloped (track only) road reserve, catchment and dam surrounded by intact and vegetated ‘water tank’ reserve 21363, managed by SOE. Surrounding Reserve 21363 is Department of Biodiversity Conservation and Attraction’s Truslove Nature Reserve 27985, to the north is broadacre agriculture. The area is within rural zoning. The project area is in a moderately cleared area with 36.5% of vegetation within 5km of the project remaining.



**Figure 2.** Map of remnant vegetation within a 5km buffer produced by DEISIP. Project area is highlighted in red, remnant vegetation is in green and cleared vegetation is in orange, road centrelines are in black and cadastre boundaries are in grey.

The site is immediately adjacent to Truslove Nature Reserve 27985, the closest conservation reserve. It is 4km east of Truslove North Nature Reserve 16801. Ridley South Nature Reserve 27768 & Kendall Road Nature Reserve 28846 are also within 10km of the site.

#### **4.6 Potential Threatened and Priority Flora**

Two threatened flora (TF) and 48 priority flora (PF) were recorded within a 20km radius of the proposed impact site (Appendix 3)). Of these, one TF species and 30 PF species had suitable known associated habitat that corresponded with vegetation communities and soil type of No. 12 Dam project.

#### **4.7 Potential Threatened and Priority Ecological Communities**

The desktop study identified the Priority 3 Ecological Community “Granite outcrop pools with endemic aquatic fauna” 16km away.

The Protected Matters Search Tool identified the Environmental Protection and Biodiversity Conservation (EPBC) Act 1999 listed threatened ecological community (TEC) ‘Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province of Western Australia (Kwongkan)’ likely to occur within the buffer of No. 2 Dam project area.

## 4.8 Potential Threatened and Priority Fauna

10 threatened fauna, and 3 priority fauna were recorded within a 20km radius of the proposed impact site (Appendix 4).

## 4.9 *Phytophthora* Dieback

Dieback Information Delivery and Management System (DIDMS; GAIA Resources, SCNRM & State NRM 2024) data is no longer available, and at time of report writing no new data viewing system was yet available. The Department of Biodiversity, Conservation and Attractions defines the vulnerable zone for Dieback as areas with over 400mm of annual rainfall. Some positive Dieback samples have been retrieved from areas within the 300 - 400mm rainfall zone if they receive high summer rainfall. The rainfall in the area of No. 12 Dam is probably too low.

# 5 FIELD SURVEY RESULTS AND DISCUSSION

## 5.1 Vegetation Communities

A single vegetation community was identified within the No. 12 Dam Site, as defined by structure and composition (Table 3). It is believed that the Beard (1973) vegetation associations identified in Section 4.4 are an appropriate match for the vegetation type observed.

**Table 3.** Vegetation communities identified within proposed No. 12 Dam project area.

Type	Description	Figures	Closest Matching Beard Vegetation Association	Area (ha)	Diversity (native species)
A	Regenerating mallee over <i>Melaleuca</i> shrubland.	3,4,5	Ridley 1516	1.895	86





**Figure 3.** Vegetation type A identified in No. 12 Dam project area within the dam catchment, described as: “Regenerating mallee over *Melaleuca* shrubland”.



**Figure 4.** Vegetation type A identified in No. 12 Dam project area along the track into the dam, described as: “Regenerating mallee over *Melaleuca* shrubland”.





**Figure 5.** Photo of pre-fire vegetation taken in 2005 within No. 12 Dam project area (dam catchment), described as: “Mallee over Melaleuca shrubland”.

## 5.2 Vegetation Condition

Vegetation condition was Very good throughout the entire site. A large intense bushfire burnt through the area in November 2015 and the vegetation is still recovering from this.

### 5.2.1 Weeds

There was minimal weed invasion across the proposed No. 12 Dam area, however the entrance to the site off Truslove Road was highly invaded by agricultural weeds from nearby farmland. In total 14 invasive species were identified within the project area (Appendix 1). None of these were Weed of National Significance (WONS) species / Declared Pest under the Biosecurity and Agriculture Management (BAM) Act of 2007 or priority environmental weeds in the Shire of Esperance’s Environmental Weed Strategy 2009-2018.

### 5.2.2 Phytophthora Dieback

Surveyors were unable to detect any signs of *Phytophthora cinnamomi* dieback disease within the clearing permit area.

## 5.3 Threatened Ecological Communities

The Protected Matters Search Tool identified the Environmental Protection and Biodiversity Conservation (EPBC) Act 1999 listed threatened ecological community (TEC) ‘Proteaceae Dominated Kwongan Shrublands of the Southeast Coastal Floristic Province of Western Australia (Kwongan)’ as likely to

occur within the buffer of No. 12 Dam project area. Two *Grevillea* species were the only proteaceous species recorded within the survey area. Neither of these are considered as diagnostic species as per the approved conservation advice for this community.

The Priority 3 Ecological Community “Granite outcrop pools with endemic aquatic fauna” was detected in the desktop survey as occurring 16km away. No granite outcrops were present at the site and this PEC does not occur here.

## 5.4 Flora

A total of 100 vascular plant taxa, representative of 44 genera and 33 families, were recorded within No. 12 Dam survey area. Of these 86 were native species and 14 were introduced. The plurality of taxa recorded were representative of the Myrtaceae (20 taxa), Asteraceae (10 taxa), Poaceae (9 taxa) and Fabaceae (9 taxa) families (see Appendix 1 for the complete incidental species list).

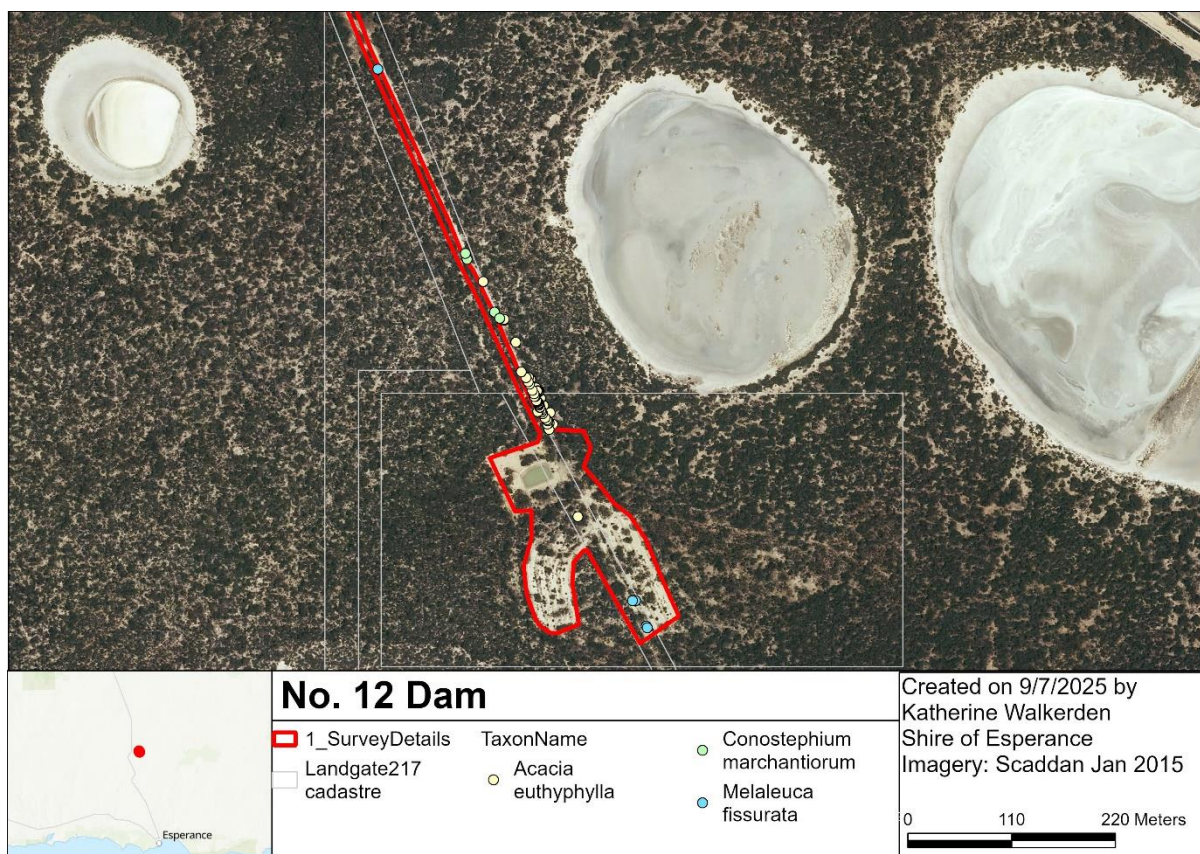
## 5.5 Threatened and Priority Flora

The targeted flora survey identified three Priority 3 species, one Priority 4 species and no threatened species, within the No. 12 Dam survey area. One of these species has since been delisted.

**Table 4:** Summary of Priority flora species recorded in No. 12 Dam project area.

Taxon	BC Act Conservation Status	Total plants counted in population	Total plants impacted
<i>Micromyrtus elobata</i> ssp. <i>scopula</i>	Was P3, (delisted on 23 June 2025)	514	116
<i>Acacia euthyphylla</i>	P3	63	2
<i>Conostephium marchantiorum</i>	P3	5	0
<i>Melaleuca fissurata</i>	P4	4	4





**Figure 6.** Priority flora within No. 12 Dam.

### 5.5.1 *Micromyrtus elobata* ssp. *scopula*, delisted

A specimen of *Micromyrtus elobata* ssp. *scopula* was sent to the WA Herbarium for identification confirmation (KSW06024; Accession 11208 with specimen retained). The identification was confirmed by Mike Hislop on 17 December 2024.

514 plants were mapped within the project area with 94% of these occurring along the edges of the access track. Surveyors also briefly searched into Truslove Nature Reserve but no plants were located.

To minimise impacts to the population, the Shire of Esperance proposes to only widen along the south-west side of the track as there is less *Micromyrtus elobata* ssp. *scopula* plants on this side. If clearing is only done on this side of the track, a total 116 plants would be cleared which accounts for 22.5% of the population.

On 23 June 2025 the Shire of Esperance received e mail notification from Emma Adams (Conservation Officer, Esperance District, Department of Biodiversity Conservation and Attractions) that *Micromyrtus elobata* ssp. *scopula* had been delisted and is no longer priority flora.

### 5.5.2 *Acacia euthyphylla*, Priority 3

A specimen of *Acacia euthyphylla* was sent to the WA Herbarium for identification confirmation (KSW05924; Accession 11208 with specimen retained). The identification was confirmed by Mike Hislop on 17 December 2024.

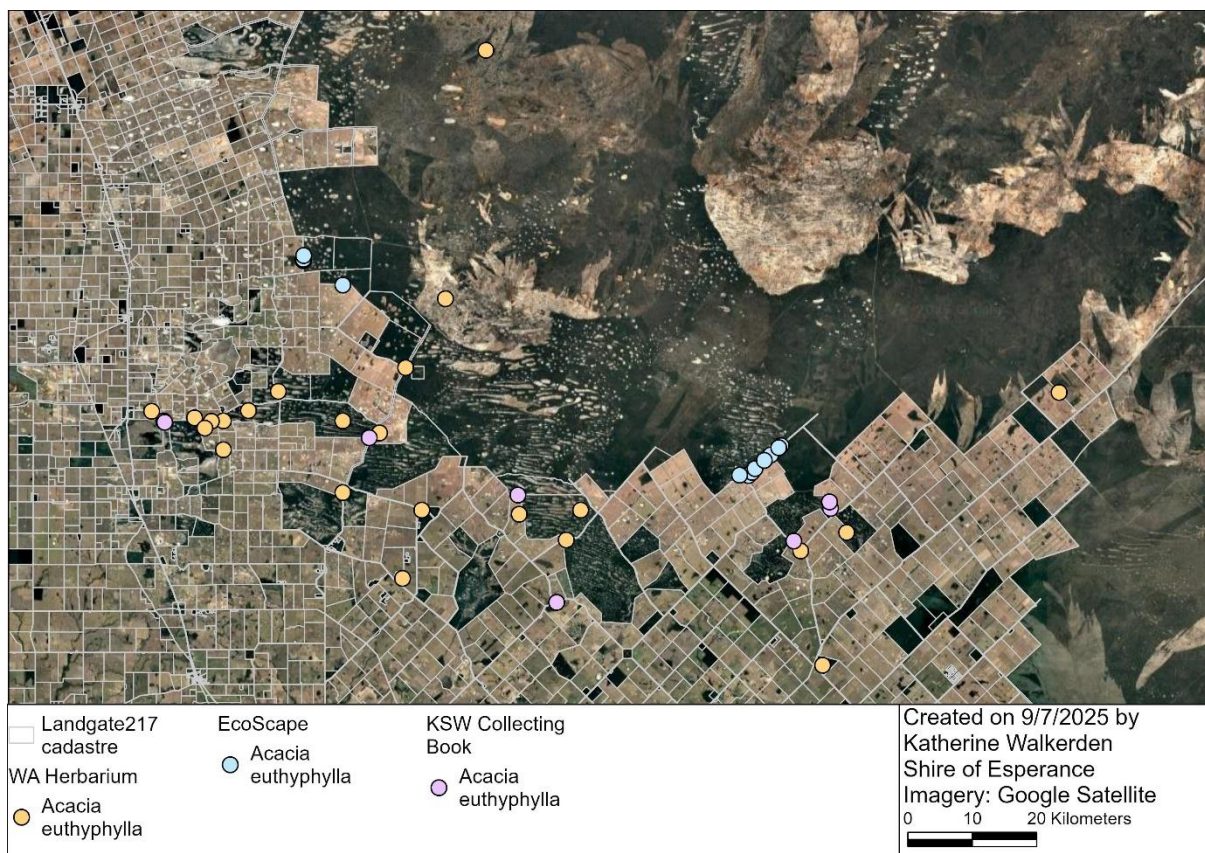


63 *Acacia euthyphylla* plants were found during the survey, almost all of these were within a 150m section of track just north of the dam itself. To minimise impacts to the population, the Shire of Esperance proposes to only widen along the south-west side of the track to avoid the section with the highest density. If proposed works occur, only two plants will be impacted upon, however the track works may cause a germination event and assist this species which is likely a disturbance opportunist.

A Threatened and Priority Flora Reporting Form (TPRF) was completed and sent to Department of Biodiversity, Conservation and Attractions (DBCA) Esperance District Flora Conservation Officer and Species and Communities Branch on 14 July 2025 (Appendix 2).

*Acacia euthyphylla* is an erect shrub to 2 m high; it grows in various substrates generally close to salt lakes and seasonal swamps. Its distribution is scattered from north of Esperance (near Truslove) to east of Esperance (near Cape Arid NP); an east-west range of approximately 120km and north-south range of approximately 80km.

There are 28 WA Herbarium records of *Acacia euthyphylla*, however 20 of these populations have no population estimates. An additional 5 populations have been accessioned to the WA Herbarium by Katherine Walkerden, these populations have not yet been databased at the WA Herbarium. There was no TPFL data for *Acacia euthyphylla*. Ecoscape (2017) during their State Barrier fence extension surveys found 8 populations totalling 907 plants. Give the large number of populations of this species, the disturbance of only two plants proposed as part of this project is unlikely to be a significant impact on the species.



**Figure 7.** Known populations of the Priority 3 species *Acacia euthyphylla*.



### 5.5.3 *Melaleuca fissurata*, Priority 4

A specimen of *Melaleuca fissurata* was sent to the WA Herbarium for identification confirmation (KSW06124; Accession 11208 with specimen retained). The identification was confirmed by Mike Hislop on 17 December 2024.

Four *Melaleuca fissurata* plants were located on the catchment area, with these all occurring in the south-western portion of the catchment. If proposed works occur, all four plants will be impacted upon.

A Threatened and Priority Flora Reporting Form (TPRF) was completed and sent to Department of Biodiversity, Conservation and Attractions (DBCA) Esperance District Flora Conservation Officer and Species and Communities Branch on 14 July 2025 (Appendix 2).

There were 5 TPFL records and 33 WAHerb records for this species. Many of these records mention the species being locally common, with one record stating there was 1000's of plants. A total of 9 new populations had been found by the Shire of Esperance staff. Ecoscape recorded 19 new populations totalling 1605 plants. In total there were 66 known populations of this plant.

The species is widespread located from north of the Stirling Range north to Hyden eastwards to north of Beaumont NR; a north-south range of 170km and an east-west range of over 450km. The species is present in three IBRA subregions (Eastern Mallee, Western Mallee and Recherche) and five local government areas (Shires of Esperance, Lake Grace, Kent, Gnowangerup, and Kulin). Given the species wide distribution and large number of populations the project is unlikely to pose any significant impact to the species.

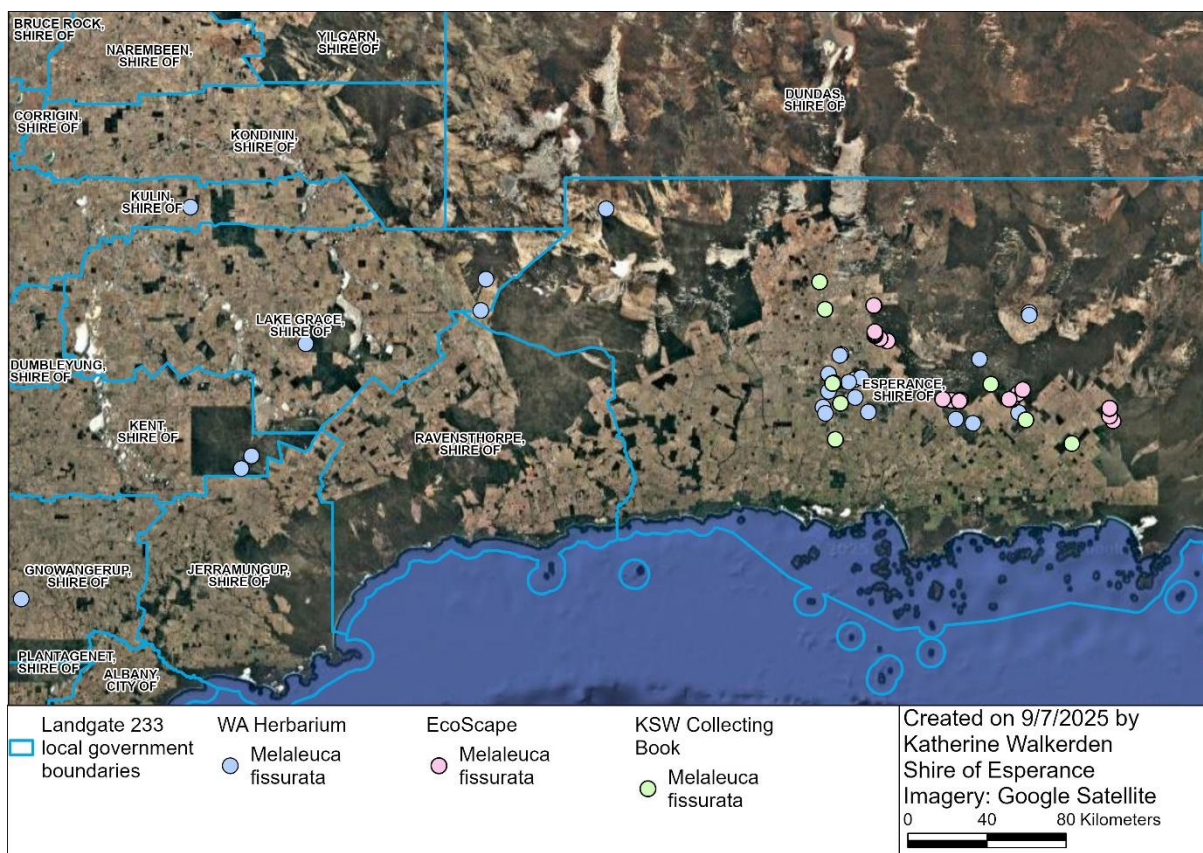


Figure 8. Known populations of Priority 4 species *Melaleuca fissurata*.

#### 5.5.4 *Conostephium marchantiorum*, Priority 4

Five *Conostephium marchantiorum* plants were mapped, all plants occurred on the north-east side of the track. To avoid impacts to the population, the Shire of Esperance proposes to only widen along the south-west side of the track. If clearing is only done on this side of the track all plants can be avoided. No herbarium specimen was taken from this site as all plants were sterile at time of surveying.

A Threatened and Priority Flora Reporting Form (TPRF) was completed and sent to Department of Biodiversity, Conservation and Attractions (DBCA) Esperance District Flora Conservation Officer and Species and Communities Branch on 14 July 2025 (Appendix 2).

### 5.6 Fauna

Of the 14 species identified within the Desktop survey, only the Grey falcon, Common greenshank and Peregrine falcon have suitable habitat within the proposed clearing permit area. The nearby salt lakes may provide habitat for Hooded plover and both the Curlew and Sharp-tailed sandpipers.

## 6 REVIEW OF 10 CLEARING PRINCIPLES FOR NATIVE VEGETATION

The No. 12 Dam project may be at variance to some of the clearing principles that the Department of Water and Environmental Regulations (DWER) assess applications, as listed under Schedule 5 of the Environmental Protection Act 1986 (DWER 2019).

#### 6.1 Principle (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

**Likely at Variance:** Biodiversity at this site is high with 86 native species recorded over a single vegetation community

#### 6.2 Principle (b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

**Not at Variance:** The site may provide suitable habitat for Peregrine falcon, Common greenshank and Grey falcon. However, this is unlikely to be significant given the large range of these species, and they may continue to use the area in a similar manner after clearing.

#### 6.3 Principle (c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

**Not at Variance:** Four priority flora species were located within the project area. One of these has since been downlisted and is no longer priority flora (*Micromyrtus elobata* ssp. *scopula*). Another can be completely avoided (*Conostephium marchantiorum*). Both *Acacia euthyphylla* and *Melaleuca fissurata* are fairly widespread and impacts to these two species is likely to be negligible.

#### 6.4 Principle (d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

**Not at Variance:** No TEC's or PEC's were relevant to the study area.

#### 6.5 Principle (e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

**Not at Variance:** There was 36.5% native vegetation remaining within 5km of the project site. Good ecological linkages remain if the proposed clearing goes ahead.

**6.6 Principle (f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.**

**May be at Variance:** Vegetation in this area is adjacent to two salt lakes.

**6.7 Principle (g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.**

**Not at Variance:** Vegetation within this area will be providing limited function as windbreaks and erosion control for the agricultural areas surrounding it.

**6.8 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.**

**Not at Variance:** The project is immediately adjacent to Truslove Nature Reserve. Upgrading the track into the dam catchment increases accessibility into Truslove Nature Reserve, however access will still likely be very low due to it being off a minor used back road.

**6.9 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.**

**Not at Variance:** Clearing of the catchment will enable more runoff to enter the dam providing a valuable water source in a semi-arid environment. All surface water falling on the dam catchment will be directed into the dam, so there will be no impacts from run-off to the nearby salt lakes.

**6.10 Principle (j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.**

**Not at Variance:** The clearing all feeds into a dam and the area is not susceptible to flooding.

## 7 RECOMMENDATIONS

As Shire Environmental Coordinator signs off on project work packs the following recommendation will be included within the internal SOE approval process for the road project.

- Permit boundaries will be accurately marked out by surveyors prior to clearing.
- All vehicles and construction equipment to be cleaned prior to start of the project to prevent weed introduction into the site.

## 8 LIST OF PERSONNEL

The following Shire of Esperance staff were involved in this project.

<b>Name</b>	Katherine Walkerden
<b>Position</b>	Environmental Officer
<b>Project Involvement</b>	Desktop and Field Survey, Specimen Identification, GIS Mapping, Data Interpretation and Report writing
<b>Qualifications</b>	BSc, MEnvSc
<b>Experience</b>	3.5 years' experience as a Botanist in the region
<b>Scientific Licence</b>	FT61000788-2



<b>Name</b>	Julie Waters
<b>Position</b>	Environmental Coordinator
<b>Project Involvement</b>	Desktop and Field Survey, GIS Mapping Data Interpretation and Report Writing
<b>Qualifications</b>	BEnvSc (Hons)
<b>Experience</b>	20 years working in environmental field including Flora Conservation Officer for previous DBCA, and 15 years' experience as a botanist in the region
<b>Scientific Licence</b>	FT61000787-2

<b>Name</b>	Rosamund Mary Hoggart
<b>Position</b>	Environmental Assistant
<b>Project Involvement</b>	Specimen Identification
<b>Qualifications and Experience</b>	BSc (Hons)Ag
	15 years' experience as a botanist in the region and is highly regarded by Esperance Wildflower Society and her peers in Esperance as one of the best botanists in Esperance.
<b>Scientific Licence</b>	N/A

<b>Name</b>	Krystle-Jade Brooke
<b>Position</b>	Unpaid work placement
<b>Project Involvement</b>	Field Survey Assistant
<b>Qualifications</b>	BEnvSc
<b>Experience</b>	Limited
<b>Scientific Licence</b>	N/A

## REFERENCES

Atlas of Living Australia database (2024), < <https://www.ala.org.au/>>

Beard J.S. (1973), *The vegetation of the Esperance and Malcom areas, Western Australia, 1:250 000 series*, Vegmap Publications Perth

Bureau of Meteorology (2024), Climate statistics for Australian sites.[http://www.bom.gov.au/climate/averages/tables/ca\\_wa\\_names.shtml](http://www.bom.gov.au/climate/averages/tables/ca_wa_names.shtml)

Commonwealth of Australia, *Environmental Protection and Biodiversity Conservation Act 1999* (Cth), <<https://www.legislation.gov.au/Details/C2022C00214>>

Commonwealth of Australia (2012), *EPBC Act referral guidelines for three threatened black cockatoo species: Camaby's cockatoo (endangered) Calyptorhynchus latirostris; Baudin's cockatoo (vulnerable) Calyptorhynchus baudinii; and Forest red-tailed black cockatoo (vulnerable) Calyptorhynchus banksii naso*. Prepared for the Australian Government by the Department of Sustainability, Environment, Water, Population and Communities, Canberra ACT.  
<https://www.agriculture.gov.au/sites/default/files/documents/referral-guidelines-wa-black-cockatoo.pdf>.

Commonwealth of Australia (2014), *Approved Conservation Advice for Proteaceae Dominated Kwongkan Shrublands of the southeast coastal floristic province of Western Australia*, Department of



the Environment, <http://www.environment.gov.au/biodiversity/threatened/communities/pubs/126-conservation-advice.pdf>>

Commonwealth of Australia (2024), *National Recovery Plan for the Malleefowl (Leipoa ocellata)*  
Department of Climate change, Energy the Environment and Water

Department of Agriculture, Water and the Environment (2022) *Referral guideline for 3 WA threatened black cockatoo species, Carnaby's Cockatoo (Zanda latirostris), Baudin's Cockatoo (Zanda baudinii) and the Forest Red-tailed Black-cockatoo (Calyptorhynchus banksii naso)*  
<<https://www.dcceew.gov.au/sites/default/files/documents/referral-guideline-3-wa-threatened-black-cockatoo-species-2022.pdf>>

Department of Biodiversity, Conservation and Attractions (2023a) *List of Threatened Ecological Communities Endorsed by the Western Australian Minister for Environment*  
<<https://www.dbca.wa.gov.au/wildlife-and-ecosystems/threatened-ecological-communities/list-threatened-ecological-communities>>

Department of Biodiversity, Conservation and Attractions (2023b), *Conservation codes for Western Australian flora and fauna*, Government of Western Australia.  
<<https://www.dbca.wa.gov.au/media/792/download> >

Department of Biodiversity, Conservation and Attractions (2023c), *Priority Ecological Communities for Western Australia Version 35*, Government of Western Australia

Department of Biodiversity, Conservation and Attractions (2024a), *Threatened and Priority Flora Database (TPFL) spatial dataset, 36-0624FL*, Government of Western Australia. [13/6/2024]

Department of Biodiversity, Conservation and Attractions (2024b), *Western Australia Herbarium spatial dataset, 36-0624FL*, Government of Western Australia. [13/6/2024]

Department of Biodiversity, Conservation and Attractions (2024c), *Esperance District Threatened and Priority Flora spatial dataset*, Government of Western Australia [February 2024]

Department of Biodiversity, Conservation and Attractions (2024d), *Threatened Ecological Communities and Priority Ecological Communities Search Results, for Boundaries and Buffers, 12-0624EC*  
Government of Western Australia. [11/06/2024].

Department of Biodiversity, Conservation and Attractions (2024e), *Threatened and Priority Fauna Search Results, 13-0624FA* Government of Western Australia. [10/06/2024].

Department of Biodiversity, Conservation and Attractions (2024f) *Black cockatoo / Carnaby's cockatoo roost and breeding sites* [13-0624FA(BC) & 13-0624FA(WTBC)]

Department of Biodiversity, Conservation and Attractions (2024g) *Florabase, The Flora of Western Australia Online* (and collections housed at the WA Herbarium).<<https://florabase.dpaw.wa.gov.au/search/advanced.>>

Department of Climate Change, Energy, the Environment and Water (2024), *EPBC Act Protected Matters Search Tool* <[pmst.environment.gov.au](http://pmst.environment.gov.au)> [17/12/2024]

Department of Climate Change, Energy, the Environment and Water (2024), *EPBC Act List of Threatened Ecological Communities*. < <https://www.environment.gov.au/cgi-bin/sprat/public/publiclookupcommunities.pl>>

Department of Climate Change, Energy, the Environment and Water (2024), *EPBC Act List of Threatened Fauna*, < <https://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=fauna> >

Department of Climate Change, Energy, the Environment and Water (2024), *EPBC Act List of Threatened Flora*. < <https://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=flora>>

Department of Environment and Conservation (2021) *Chuditch (Dasyurus geoffroii) National Recovery Plan*, Western Australian Wildlife Management Program No. 54

Department of Environment and Energy (2022), *National Recovery Plan for the Australasian Bittern, Botaurus poiciloptilus*, Commonwealth Government of Australia < <https://www.dcceew.gov.au/sites/default/files/documents/national-recovery-plan-australasian-bittern.pdf>>

Department of Environment and Energy (2017), *Australian Vegetation Attribute Manual Version 7.0* <<https://www.dcceew.gov.au/sites/default/files/documents/australian-vegetation-attribute-manual-v70.pdf>>

Department of Parks and Wildlife (2013) *Carnaby's Cockatoo (Calyptorhynchus latirostris) Recovery Plan*. Western Australian Wildlife Management Program No. 52. Department of Parks and Wildlife, Perth, Western Australia.

Department of Parks and Wildlife (2018), *2018 Statewide Vegetation Statistics (formerly the CAR Reserve Analysis – Full Report)*, Government of Western Australia

Department of Primary Industries and Regional Development (2024), *Western Australian Organism List*. <<https://www.agric.wa.gov.au/organisms>>

Department of Water and Environmental Regulation (2014) *A guide to the assessment of applications to clear native vegetation, Under Part V Division 2 of the Environmental Protection Act 1986*.

Ecoscope (2015), State Barrier Fence biological surveys: Conservation significant flora, <[https://www.epa.wa.gov.au/sites/default/files/Referral\\_Documentation/Attachment%207.zip](https://www.epa.wa.gov.au/sites/default/files/Referral_Documentation/Attachment%207.zip)>

Environmental Protection Authority (2016), *Technical Guidance, Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia*, Government of Western Australia. <<http://www.epa.wa.gov.au/policies-guidance/technical-guidance-flora-and-vegetation-surveys-environmental-impact-assessment>>

Environmental Protection Authority (2020), *Technical Guidance – Terrestrial vertebrate fauna surveys for Environmental Impact Assessment*, EPA, Western Australia. <[https://www.epa.wa.gov.au/sites/default/files/Policies\\_and\\_Guidance/EPA-Technical-Guidance-Vertebrate-Fauna-Surveys.pdf](https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/EPA-Technical-Guidance-Vertebrate-Fauna-Surveys.pdf)>

Environmental Protection Authority, (2016) *Environmental Factor Guideline: Flora and Vegetation*, EPA, Western Australia.

Field, C (2009) *Environmental Weed Strategy 2009-2018*, Shire of Esperance

GAIA Resources, State NRM and South Coast Natural Resource Management (2024), *Dieback Information Delivery and Management Service, DIDMS*. < <https://didms.gaiaresources.com.au/>>

Groom, C (2011) *Plants used by Carnaby's Black Cockatoo*, Department of Environment and Conservation

Main Roads of Western Australia (2024), *Standard Line Kilometres online application*, Government of Western Australia. < <https://mrapps.mainroads.wa.gov.au/gpsslk>>

Schoknecht, N., Tille, P. and Purdie, B. (2004) *Soil Landscape Mapping in south-western Australia*, Resource Management Technical Report 20, Department of Agriculture WA.

Thackway R, Cresswell ID, Shorthouse D, Ferrier S, Hagar T, Pressey T, Wilson P, Fleming M, Howe D, Morgon G, Young P, Copley P, Peters D, Wells P, Miles I, Parkes D, McKenzie N, Kitchin M & Bullen F (1995), *Interim Biogeographic Regionalisation for Australia: A framework for setting priorities in the National Reserves System Cooperative Program*, Australia Nature Conservation Agency. < <https://www.environment.gov.au/system/files/resources/4263c26f-f2a7-4a07-9a29-b1a81ac85acc/files/libra-framework-setting-priorities-nrs-cooperative-program.pdf> >

Western Australian Government, Biosecurity and Agriculture Management Act 2007, <[https://www.legislation.wa.gov.au/legislation/statutes.nsf/main\\_mrtitle\\_2736\\_homepage.html](https://www.legislation.wa.gov.au/legislation/statutes.nsf/main_mrtitle_2736_homepage.html)>

Western Australian Government, *Biodiversity Conservation Act 2016* [https://www.legislation.wa.gov.au/legislation/statutes.nsf/law\\_a147120.html](https://www.legislation.wa.gov.au/legislation/statutes.nsf/law_a147120.html)

Western Australian Government, *Biodiversity Conservation Act 2016 Biodiversity Conservation (Species) Order 2022*, Government Gazette, WA, 30 September 2022, <<https://www.dpaw.wa.gov.au/images/Biodiversity%20Conservation%20Listing%20of%20Native%20Species%20Flora%20Order%202022.pdf>>

Western Australian Government, *Biodiversity Conservation Regulations 2018*. <[https://www.legislation.wa.gov.au/legislation/statutes.nsf/law\\_s50938.html](https://www.legislation.wa.gov.au/legislation/statutes.nsf/law_s50938.html)>



## Appendix 1: Incidental species list

Family	Taxon	Weed	BC Act (EPBC) Conservation Status	Herbarium Reference
Aizoaceae	<i>Carpobrotus modestus</i>			
Aizoaceae	<i>Disphyma crassifolium</i>			
Aizoaceae	<i>Mesembryanthemum nodiflorum</i>	X		
Amaranthaceae	<i>Ptilotus spathulatus</i>			
Araliaceae	<i>Trachymene pilosa</i>			
Asparagaceae	<i>Thysanotus manglesianus</i>			
Asparagaceae	<i>Thysanotus patersonii</i>			
Asparagaceae	<i>Lomandra mucronata</i>			
Asteraceae	<i>Arctotheca calendula</i>	X		
Asteraceae	<i>Helichrysum leucopsidium</i>			
Asteraceae	<i>Hypochaeris radicata</i>	X		
Asteraceae	<i>Olearia eremicola</i>			
Asteraceae	<i>Rhodanthe pygmaea</i>			
Asteraceae	<i>Senecio glossanthus</i>			
Asteraceae	<i>Sonchus oleraceus</i>	X		
Asteraceae	<i>Ursinia anthemoides</i>	X		
Asteraceae	<i>Vittadinia gracilis</i>			
Asteraceae	<i>Waitzia suaveolens</i>			
Brassicaceae	<i>Brassica</i> sp.	X		
Chenopodiaceae	<i>Enchylaena tomentosa</i>			
Chenopodiaceae	<i>Rhagodia</i> sp.			
Chenopodiaceae	<i>Tecticornia</i> sp.			
Chenopodiaceae	<i>Rhagodia preissii</i>			
Crassulaceae	<i>Crassula exserta</i>			
Cyperaceae	<i>Gahnia ancistrophylla</i>			
Cyperaceae	<i>Lepidosperma</i> sp.			KSW06324; Acc 11211
Dilleniaceae	<i>Hibbertia exasperata</i>			
Dilleniaceae	<i>Hibbertia gracilipes</i>			
Ericaceae	<i>Conostephium marchantiorum</i>		P3	
Ericaceae	<i>Leucopogon obtusatus</i>			
Ericaceae	<i>Lissanthe rubicunda</i>			
Ericaceae	<i>Styphelia subulata</i>			
Fabaceae	<i>Acacia assimilis</i> ssp. <i>assimilis</i>			
Fabaceae	<i>Acacia binata</i>			
Fabaceae	<i>Acacia cyclops</i>			
Fabaceae	<i>Acacia enervia</i> ssp. <i>enervia</i>			
Fabaceae	<i>Acacia euthyphylla</i>		P3	KSW05924 Acc 11208
Fabaceae	<i>Daviesia teretifolia</i>			
Fabaceae	<i>Dillwynia</i> sp. Mallee			


Fabaceae	<i>Mirbelia granitica</i>			
Fabaceae	<i>Pultenaea purpurea</i>			
Goodeniaceae	<i>Cooperhooia strophilata</i>			
Goodeniaceae	<i>Dampiera lavandulacea</i>			
Goodeniaceae	<i>Goodenia concinna</i>			
Haloragaceae	<i>Glischrocaryon augustifolia</i>			
Hemerocallidaceae	<i>Dianella brevicaulis</i>			
Lauraceae	<i>Cassytha melantha</i>			
Malvaceae	<i>Malva</i> sp.	X		
Myrtaceae	<i>Austrobaekea pachyphylla</i>			
Myrtaceae	<i>Chamelaucium ciliatum</i>			
Myrtaceae	<i>Cyathostemon ambiguus</i>			
Myrtaceae	<i>Cyathostemon blackettii</i>			
Myrtaceae	<i>Eucalyptus connexa</i>			
Myrtaceae	<i>Eucalyptus eremophila</i>			
Myrtaceae	<i>Eucalyptus kessellii</i> ssp. <i>kessellii</i>			
Myrtaceae	<i>Eucalyptus leptocalyx</i>			
Myrtaceae	<i>Eucalyptus loxophleba</i> ssp. <i>lissophloia</i>			
Myrtaceae	<i>Eucalyptus rigens</i>			
Myrtaceae	<i>Melaleuca cucullata</i>			
Myrtaceae	<i>Melaleuca fissurata</i>		P4	KSW06124; Acc 11208
Myrtaceae	<i>Melaleuca glaberrima</i>			
Myrtaceae	<i>Melaleuca linguiformis</i>			
Myrtaceae	<i>Melaleuca podiocarpa</i>			
Myrtaceae	<i>Melaleuca pulchella</i>			
Myrtaceae	<i>Melaleuca societatis</i>			
Myrtaceae	<i>Melaleuca subalaris</i>			
Myrtaceae	<i>Micromyrtus elobata</i> ssp. <i>scopula</i>		P3	KSW06024; Acc11208
Myrtaceae	<i>Phymatocarpus maxwellii</i>			
Olacaceae	<i>Olax benthamiana</i>			
Pittosporaceae	<i>Billardiera coriacea</i>			
Pittosporaceae	<i>Billardiera lehmanniana</i>			
Plantaginaceae	<i>Plantago coronopus</i>	X		
Plantaginaceae	<i>Plantago hispida</i>			
Poaceae	<i>Austrostipa elegantissima</i>			
Poaceae	<i>Avena barbata</i>	X		
Poaceae	<i>Lolium</i> sp.	X		
Poaceae	<i>Neurachne</i> sp.			
Poaceae	<i>Austrostipa drummondii</i>			KSW06424; Acc 11208
Poaceae	<i>Hordeum leporinum</i>	X		
Poaceae	<i>Parapholis incurva</i>	X		
Poaceae	<i>Pentachistis airoides</i>	X		

Poaceae	<i>Rytidosperma setaceum</i>			
Polygalaceae	<i>Comesperma spinosum</i>			
Primulaceae	<i>Lysimachia arvensis</i>	X		
Proteaceae	<i>Grevillea oligantha</i>			
Proteaceae	<i>Grevillea plurijuga</i> ssp. <i>plurijuga</i>			
Restionaceae	<i>Desmocladius biformis</i>			
Restionaceae	<i>Hypolaena humilis</i>			
Rhamnaceae	<i>Spyridium mucronatum</i>			
Rutaceae	<i>Boronia inornata</i>			
Rutaceae	<i>Cyanothamnus baeckeaceus</i>			
Rutaceae	<i>Phebalium lepidotum</i>			
Rutaceae	<i>Phebalium pauciflorum</i> ssp. <i>pauciflorum</i>			
Santalaceae	<i>Exocarpos aphyllus</i>			
Santalaceae	<i>Leptomeria pachyclada</i>			
Sapindaceae	<i>Dodonaea amblyophylla</i>			
Sapindaceae	<i>Dodonaea stenozyga</i>			
Scrophulariaceae	<i>Eremophila glabra</i> ssp. <i>glabra</i>			
Stylidiaceae	<i>Stylidium turleyae</i>			
Thymelaeaceae	<i>Pimelea</i> sp.			



## Appendix 2: Threatened and Priority Flora Report Forms

### Acacia euthyphylla – Priority 3



Department of Biodiversity,  
Conservation and Attractions

## Threatened and Priority Flora Report Form

Version 1.4 March 2021

*Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at [www.dbca.wa.gov.au/plants-and-animals/threatened-species-and-communities/threatened-claris](http://www.dbca.wa.gov.au/plants-and-animals/threatened-species-and-communities/threatened-claris)*

<b>TAXON:</b> <u>Acacia euthyphylla</u>		<b>TPFL Pop. No.:</b> <span style="border: 1px solid black; padding: 2px 10px;"> </span>
<b>OBSERVATION DATE:</b> <u>13/02/2025</u>	<b>CONSERVATION STATUS:</b> <u>P3</u>	<b>New population</b> <input checked="" type="checkbox"/>
<b>OBSERVER/S:</b> <u>Katherine Walkerden, Julie Waters</u>		<b>PHONE</b> <u>90831518</u>
<b>ROLE:</b> <u>Environmental Officer, Environmental Coordinator</u>	<b>ORGANISATION:</b> <u>Shire of Esperance</u>	
<b>EMAIL:</b> <u>Katherine.Walkerden@esperance.wa.gov.au</u>		

**DESCRIPTION OF LOCATION** (Provide at least nearest town/named locality, and the distance and direction to that place):  

Turner Road Reserve (undeveloped), south of Truslove Road.  
Reserve 21363 and Reserve 27985 (Truslove Nature Reserve).

**Reserve No.:** 21363, 27985

<b>DBC DISTRICT:</b> <u>Esperance</u>	<b>LGA:</b> <u>Esperance</u>	<b>Land manager present:</b> <input type="checkbox"/>
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**DATUM:** GDA94 / MGA94 ☒ AGD84 / AMG84 ☐ WGS84 ☐ Unknown ☐

**COORDINATE S:** (If UTM coords provided, Zone is also required)  
 DecDegrees ☐ DegMinSec ☐ UTM ☒  
Lat / Northing: 6309124.17  
Long / Easting: 385324.78  
**ZONE:** 51

**METHOD USED:**  
 GPS ☐ Differential GPS ☐ Map ☐  
 No. satellites:   Map used:    
 Boundary polygon captured: ☐ Map scale:

**LAND TENURE:**

Nature reserve <input checked="" type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/>	Shire road reserve <input checked="" type="checkbox"/>
National park <input type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input type="checkbox"/>	Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/>	SLK/Pole <span style="border: 1px solid black; padding: 2px 10px;"> </span> to <span style="border: 1px solid black; padding: 2px 10px;"> </span>	Specify other: <u>Shire Water Tank Reserve</u>

**AREA ASSESSMENT:** Edge survey ☐ Partial survey ☒ Full survey ☐ Area observed (m<sup>2</sup>):  

**EFFORT:** Time spent surveying (minutes):   No. of minutes spent / 100 m<sup>2</sup>:  

**POP'N COUNT ACCURACY:** Actual ☒ Extrapolation ☐ Estimate ☐ Count method:    
(Refer to field manual for list)

**WHAT COUNTED:** Plants ☒ Clumps ☐ Clonal stems ☐

TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:	Totals:
Alive	<span style="border: 1px solid black; padding: 2px 10px;">63</span>	<span style="border: 1px solid black; padding: 2px 10px;"> </span>	<span style="border: 1px solid black; padding: 2px 10px;"> </span>	<span style="border: 1px solid black; padding: 2px 10px;"> </span>
Dead	<span style="border: 1px solid black; padding: 2px 10px;"> </span>	<span style="border: 1px solid black; padding: 2px 10px;"> </span>	<span style="border: 1px solid black; padding: 2px 10px;"> </span>	<span style="border: 1px solid black; padding: 2px 10px;"> </span>

Area of pop (m<sup>2</sup>):    
Note: Pls record count as numbers (not percentages) for database.

**QUADRATS PRESENT:** No.   Size   Data attached ☐ Total area of quadrats (m<sup>2</sup>):  

**Summary Quad. Totals:** Alive  

**REPRODUCTIVE STATE:** Clonal ☐ Vegetative ☐ Flowerbud ☐ Flower ☐  
 Immature fruit ☐ Fruit ☐ Dehiscent fruit ☐ Percentage in flower:  %

**CONDITION OF PLANT:** Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

**COMMENT:**  

THREATS - type, agent and supporting information: <small>Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats &amp; agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (&lt;12mths), M=Medium (&lt;5yrs), L=Long (5yrs+)</small>	Current impact (N-E)	Potential impact (L-E)	Potential Threat Onset (S-L)
• <span style="border: 1px solid black; padding: 2px 10px;"> </span>	<span style="border: 1px solid black; padding: 2px 10px;"> </span>	<span style="border: 1px solid black; padding: 2px 10px;"> </span>	<span style="border: 1px solid black; padding: 2px 10px;"> </span>
• <span style="border: 1px solid black; padding: 2px 10px;"> </span>	<span style="border: 1px solid black; padding: 2px 10px;"> </span>	<span style="border: 1px solid black; padding: 2px 10px;"> </span>	<span style="border: 1px solid black; padding: 2px 10px;"> </span>

Please return completed form to Species And Communities Program DBCA,  
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: [flora.data@dbca.wa.gov.au](mailto:flora.data@dbca.wa.gov.au)  
 RECORDS: Please forward to Flora Administrative Officer, Species and Communities Program.  
 Record entered by:   Sheet No.:   Record Entered In Database ☐



## Threatened and Priority Flora Report Form

Version 1.4 March 2021

### HABITAT INFORMATION:

<b>LANDFORM:</b>	<b>ROCK TYPE:</b>	<b>LOOSE ROCK:</b>	<b>SOIL TYPE:</b>	<b>SOIL COLOUR:</b>	<b>DRAINAGE:</b>
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input checked="" type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input checked="" type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input checked="" type="checkbox"/>	
Flat <input checked="" type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					
	Specific Landform Element: (Refer to field manual for additional values)				
<b>CONDITION OF SOIL:</b>	Dry <input type="checkbox"/>	Moist <input type="checkbox"/>	Waterlogged <input type="checkbox"/>	Inundated <input type="checkbox"/>	

### VEGETATION

#### CLASSIFICATION\*

Eg: 1. Banksia woodland (B. attenuata, B. littoralis);  
2. Open shrubland (Hibbertia sp., Acacia spp.);  
3. Isolated clumps of sedges (M. tetragona)

1. Regenerating mallee over Melaleuca shrubland.

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

### ASSOCIATED

#### SPECIES:

Other (non-dominant) spp \_\_\_\_\_

\* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

**CONDITION OF HABITAT:** Pristine ☐ Excellent ☐ Very good ☒ Good ☐ Degraded ☐ Completely degraded ☐

### COMMENT:

**FIRE HISTORY:** Last Fire: Season/Month: \_\_\_\_\_ Year: \_\_\_\_\_ Fire intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☐

**FENCING:** Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: \_\_\_\_\_

**ROADSIDE MARKERS:** Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: \_\_\_\_\_

**OTHER COMMENTS:** (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**FLORA AUTHORISATION / LICENCE No:** FT61000788-2 Note if only observing plants (i.e. no specimens or plant material is taken) then no authorisation/licence is required. For further information on authorisation and licensing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under authorisations/licences should be recorded above in the OTHER COMMENTS section.

**SPECIMEN:** Collectors No: \_\_\_\_\_ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: \_\_\_\_\_  
KSW05924

**LODGE:** WA Herb  
Lodgement No: 11208

**ATTACHED:** Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: \_\_\_\_\_

**COPY SENT TO:** Regional Office ☐ District Office ☐ Other: \_\_\_\_\_

Submitter of Record: Katherine walkerden Role: Environmental Officer Signed: KW Date: 10/07/2025

Please return completed form to Species And Communities Program DBCA,

Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to Flora Administrative Officer, Species and Communities Program.

Record entered by: \_\_\_\_\_ Sheet No.: \_\_\_\_\_ Record Entered in Database ☐

# *Conostephium marchantiorum* – Priority 3



Department of Biodiversity,  
Conservation and Attractions

## Threatened and Priority Flora Report Form

Version 1.4 March 2021

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at [www.dbca.wa.gov.au/plants-and-animals/threatened-species-and-communities/threatened-plants](http://www.dbca.wa.gov.au/plants-and-animals/threatened-species-and-communities/threatened-plants)

TAXON: <u>Conostephium marchantiorum</u>		TPFL Pop. No: <u>          </u>	
OBSERVATION DATE: <u>13/02/2025</u>		CONSERVATION STATUS: <u>P3</u>	New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Katherine Walkerden, Julie Waters</u>		PHONE <u>90831518</u>	
ROLE: <u>Environmental Officer, Environmental Coordinator</u>		ORGANISATION: <u>Shire of Esperance</u>	
EMAIL: <u>Katherine.Walkerden@esperance.wa.gov.au</u>			

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place): <u>          </u>	
<u>Turner Road Reserve (undeveloped), south of Truslove Road.</u>	
<u>Reserve 27985 (Truslove Nature Reserve).</u>	
Reserve No: <u>21363, 27985</u>	

DBCA DISTRICT: <u>Esperance</u>	LGA: <u>Esperance</u>	Land manager present: <input checked="" type="checkbox"/>
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DATUM: <u>GDA94 / MGA94</u> <input checked="" type="checkbox"/>		COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:	
<u>AGD84 / AMG84</u> <input checked="" type="checkbox"/>	<u>WGS84</u> <input checked="" type="checkbox"/>	<u>Unknown</u> <input checked="" type="checkbox"/>	<u>Lat / Northing: 6309196.8</u>	<u>Long / Easting: 385280.7</u>	<u>Zone: 51</u>
			<u>DecDegrees</u> <input checked="" type="checkbox"/>	<u>DegMinSec</u> <input checked="" type="checkbox"/>	<u>UTMs</u> <input checked="" type="checkbox"/>
			<u>GPS</u> <input checked="" type="checkbox"/>	<u>Differential GPS</u> <input checked="" type="checkbox"/>	<u>Map</u> <input checked="" type="checkbox"/>
			<u>No. satellites:           </u>	<u>Map used:           </u>	<u>Boundary polygon captured:           </u>
			<u>Map scale:           </u>		

LAND TENURE:					
<input checked="" type="checkbox"/> Nature reserve	<input checked="" type="checkbox"/> Timber reserve	<input checked="" type="checkbox"/> Private property	<input checked="" type="checkbox"/> Rail reserve	<input checked="" type="checkbox"/> Shire road reserve	<input checked="" type="checkbox"/> Other Crown reserve
<input checked="" type="checkbox"/> National park	<input checked="" type="checkbox"/> State forest	<input checked="" type="checkbox"/> Pastoral lease	<input checked="" type="checkbox"/> MRWA road reserve	<input checked="" type="checkbox"/> UCL	<input checked="" type="checkbox"/> SLK/Pole
<input checked="" type="checkbox"/> Conservation park	<input checked="" type="checkbox"/> Water reserve	<input checked="" type="checkbox"/> UCL	<input checked="" type="checkbox"/> SLK/Pole	<input checked="" type="checkbox"/> to	<input checked="" type="checkbox"/> Specify other:

AREA ASSESSMENT: <u>Edge survey</u> <input checked="" type="checkbox"/>		<u>Partial survey</u> <input checked="" type="checkbox"/>	<u>Full survey</u> <input checked="" type="checkbox"/>	Area observed (m²): <u>          </u>
EFFORT: Time spent surveying (minutes): <u>          </u>		No. of minutes spent / 100 m²: <u>          </u>		
POP'N COUNT ACCURACY: <u>Actual</u> <input checked="" type="checkbox"/>		<u>Extrapolation</u> <input checked="" type="checkbox"/>	<u>Estimate</u> <input checked="" type="checkbox"/>	Count method: <u>          </u>
(Refer to field manual for list)				

WHAT COUNTED:		<u>Plants</u> <input checked="" type="checkbox"/>	<u>Clumps</u> <input checked="" type="checkbox"/>	<u>Clonal stems</u> <input checked="" type="checkbox"/>	
TOTAL POP'N STRUCTURE:	<u>Mature:</u>	<u>Juveniles:</u>	<u>Seedlings:</u>	<u>Totals:</u>	Area of pop (m²): <u>          </u>
<u>Alive</u>	<u>4</u>	<u>          </u>	<u>          </u>	<u>          </u>	Note: Pls record count as numbers (not percentages) for database.
<u>Dead</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	
QUADRATS PRESENT:	<u>No.           </u>	<u>Size           </u>	<u>Data attached</u> <input checked="" type="checkbox"/>	<u>Total area of quadrats (m²):           </u>	
Summary Quad. Totals: <u>Alive</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	
REPRODUCTIVE STATE:	<u>Clonal</u> <input checked="" type="checkbox"/>	<u>Vegetative</u> <input checked="" type="checkbox"/>	<u>Flowerbud</u> <input checked="" type="checkbox"/>	<u>Flower</u> <input checked="" type="checkbox"/>	Percentage in flower: <u>          </u> %
	<u>Immature fruit</u> <input checked="" type="checkbox"/>	<u>Fruit</u> <input checked="" type="checkbox"/>	<u>Dehiscent fruit</u> <input checked="" type="checkbox"/>		

CONDITION OF PLANT: <u>Healthy</u> <input checked="" type="checkbox"/>	<u>Moderate</u> <input checked="" type="checkbox"/>	<u>Poor</u> <input checked="" type="checkbox"/>	<u>Senescent</u> <input checked="" type="checkbox"/>
COMMENT: <u>          </u>			

THREATS - type, agent and supporting information:	Current Impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (3-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
• <u>          </u>			
• <u>          </u>			

Please return completed form to Species And Communities Program DBCA,  
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: [flora.data@dbca.wa.gov.au](mailto:flora.data@dbca.wa.gov.au)  
RECORDS: Please forward to Flora Administrative Officer, Species and Communities Program.  
Record entered by:            Sheet No.:            Record Entered In Database ☒





## Threatened and Priority Flora Report Form

Version 1.4 March 2021

### HABITAT INFORMATION:

<b>LANDFORM:</b>	<b>ROCK TYPE:</b>	<b>LOOSE ROCK:</b>	<b>SOIL TYPE:</b>	<b>SOIL COLOUR:</b>	<b>DRAINAGE:</b>
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input checked="" type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input checked="" type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input checked="" type="checkbox"/>	
Flat <input checked="" type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					
	Specific Landform Element: _____				
	(Refer to field manual for additional values)				
<b>CONDITION OF SOIL:</b>	Dry <input type="checkbox"/>	Moist <input type="checkbox"/>	Waterlogged <input type="checkbox"/>	Inundated <input type="checkbox"/>	

### VEGETATION CLASSIFICATION\*:

Eg. 1. Banksia woodland (B. attenuata, B. ilicifolia);  
2. Open shrubland (Hibbertia sp., Acacia spp.);  
3. Isolated clumps of sedges (Mitretragona)

1. Regenerating mallee over *Melaleuca* shrubland.

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

### ASSOCIATED SPECIES:

Other (non-dominant) spp \_\_\_\_\_

\* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

**CONDITION OF HABITAT:** Pristine ☐ Excellent ☐ Very good ☒ Good ☐ Degraded ☐ Completely degraded ☐

### COMMENT:

**FIRE HISTORY:** Last Fire: Season/Month: \_\_\_\_\_ Year: \_\_\_\_\_ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☐

**FENCING:** Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: \_\_\_\_\_

**ROAD SIDE MARKER:** Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: \_\_\_\_\_

**OTHER COMMENTS:** (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**FLORA AUTHORISATION / LICENCE No:** FT61000788-2 Note if only observing plants (i.e. no specimens or plant material is taken) then no authorisation/licence is required. For further information on authorisation and licensing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under authorisations/licences should be recorded above in the OTHER COMMENTS section.

**SPECIMEN:** Collectors No: \_\_\_\_\_ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: \_\_\_\_\_

**LODGE:** WA Herb  
Lodgement No: 11208

**ATTACHED:** Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: \_\_\_\_\_

**COPY SENT TO:** Regional Office ☐ District Office ☐ Other: \_\_\_\_\_

Submitter of Record: Katherine walkerden Role: Environmental Officer Signed: KW Date: 11/07/2025

Please return completed form to Species And Communities Program DBCA,

Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to Flora Administrative Officer, Species and Communities Program.

Record entered by: \_\_\_\_\_ Sheet No.: \_\_\_\_\_ Record Entered in Database ☐

# Melaleuca fissurata - Priority 4



Department of Biodiversity,  
Conservation and Attractions

## Threatened and Priority Flora Report Form

Version 1.4 March 2021

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at [www.dbca.wa.gov.au/plants-and-animals/threatened-species-and-communities/threatened-plants](http://www.dbca.wa.gov.au/plants-and-animals/threatened-species-and-communities/threatened-plants)

<b>TAXON:</b> <u>Melaleuca fissurata</u>		<b>TPFL Pop. No.:</b> <u>          </u>	
<b>OBSERVATION DATE:</b> <u>13/02/2025</u>		<b>CONSERVATION STATUS:</b> <u>P4</u> <b>New population</b> <input checked="" type="checkbox"/>	
<b>OBSERVER/S:</b> <u>Katherine Walkerden, Julie Waters</u>		<b>PHONE</b> <u>90831518</u>	
<b>ROLE:</b> <u>Environmental Officer, Environmental Coordinator</u>		<b>ORGANISATION:</b> <u>Shire of Esperance</u>	
<b>EMAIL:</b> <u>Katherine.Walkerden@esperance.wa.gov.au</u>			

<b>DESCRIPTION OF LOCATION</b> (Provide at least nearest town/named locality, and the distance and direction to that place): <u>          </u>	
<u>Turner Road Reserve (undeveloped), south of Truslove Road.</u>	
<b>Reserve No.:</b> <u>          </u>	

<b>DBCA DISTRICT:</b> <u>Esperance</u>	<b>LGA:</b> <u>Esperance</u>	<b>Land manager present:</b> <input type="checkbox"/>
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<b>DATUM:</b>		<b>COORDINATES:</b> (If UTM coords provided, Zone is also required)		<b>METHOD USED:</b>	
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input type="checkbox"/>	DegMinSec <input type="checkbox"/>	UTMs <input checked="" type="checkbox"/>	GPS <input type="checkbox"/>	Differential GPS <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	<b>Lat / Northing:</b> <u>6309196.8</u>			No. satellites: <u>          </u>	Map used: <u>          </u>
WGS84 <input type="checkbox"/>	<b>Long / Easting:</b> <u>385280.7</u>			Boundary polygon captured: <input type="checkbox"/>	Map scale: <u>          </u>
Unknown <input type="checkbox"/>	<b>ZONE:</b> <u>51</u>				

<b>LAND TENURE:</b>	Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/>	Shire road reserve <input checked="" type="checkbox"/>
	National park <input type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input type="checkbox"/>	Other Crown reserve <input type="checkbox"/>
	Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/>	SLK/Pole <u>          </u> to <u>          </u>	Specify other: <u>          </u>

<b>AREA ASSESSMENT:</b>	Edge survey <input type="checkbox"/>	Partial survey <input checked="" type="checkbox"/>	Full survey <input type="checkbox"/>	Area observed (m <sup>2</sup> ): <u>          </u>
<b>EFFORT:</b>	Time spent surveying (minutes): <u>          </u>		No. of minutes spent / 100 m <sup>2</sup> : <u>          </u>	
<b>POP'N COUNT ACCURACY:</b>	Actual <input checked="" type="checkbox"/>	Extrapolation <input type="checkbox"/>	Estimate <input type="checkbox"/>	Count method: <u>          </u>
(Refer to field manual for list)				

<b>WHAT COUNTED:</b>	Plants <input checked="" type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>	
<b>TOTAL POP'N STRUCTURE:</b>	<b>Mature:</b>	<b>Juveniles:</b>	<b>Seedlings:</b>	<b>Totals:</b>
Alive	<u>5</u>	<u>          </u>	<u>          </u>	<u>          </u>
Dead	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
Area of pop (m <sup>2</sup> ): <u>          </u>				
Note: Pls record count as numbers (not percentages) for database.				

<b>QUADRATS PRESENT:</b>	No. <u>          </u>	Size <u>          </u>	Data attached <input type="checkbox"/>	Total area of quadrats (m <sup>2</sup> ): <u>          </u>
<b>Summary Quad. Totals: Alive</b>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>

<b>REPRODUCTIVE STATE:</b>	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/>	Flower <input type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/>	Percentage in flower: <u>          </u> %

<b>CONDITION OF PLANTS:</b>	Healthy <input checked="" type="checkbox"/>	Moderate <input type="checkbox"/>	Poor <input type="checkbox"/>	Senescent <input type="checkbox"/>
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<b>COMMENT:</b> <u>          </u>
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THREATS - type, agent and supporting information:	Current Impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (3-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
• <u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
• <u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>

Please return completed form to Species And Communities Program DBCA,  
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: [flora.data@dbca.wa.gov.au](mailto:flora.data@dbca.wa.gov.au)  
RECORDS: Please forward to Flora Administrative Officer, Species and Communities Program.  
Record entered by:            Sheet No.:            Record Entered In Database ☐



## Threatened and Priority Flora Report Form

Version 1.4 March 2021

### HABITAT INFORMATION:

<b>LANDFORM:</b>	<b>ROCK TYPE:</b>	<b>LOOSE ROCK:</b>	<b>SOIL TYPE:</b>	<b>SOIL COLOUR:</b>	<b>DRAINAGE:</b>
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input checked="" type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input checked="" type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input checked="" type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input checked="" type="checkbox"/>	
Flat <input checked="" type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>	Specific Landform Element: (Refer to field manual for additional values)				
<b>CONDITION OF SOIL:</b>	Dry <input type="checkbox"/>	Moist <input type="checkbox"/>	Waterlogged <input type="checkbox"/>	Inundated <input type="checkbox"/>	

### VEGETATION

#### CLASSIFICATION\*

Eg. 1. Banksia woodland (B. attenuata, B. ilicifolia);  
2. Open shrubland (Hibbertia sp., Acacia spp.);  
3. Isolated clumps of sedges (M. tetragona)

1. Regenerating mallee over Melaleuca shrubland.

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

### ASSOCIATED

#### SPECIES:

Other (non-dominant) spp. \_\_\_\_\_

\* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 Australian Soil and Land Survey Field Handbook guidelines – refer to field manual for further information and structural formation table.

**CONDITION OF HABITAT:** Pristine ☐ Excellent ☐ Very good ☒ Good ☐ Degraded ☐ Completely degraded ☐

### COMMENT:

**FIRE HISTORY:** Last Fire: Season/Month: \_\_\_\_\_ Year: \_\_\_\_\_ Fire intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☐

**FENCING:** Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: \_\_\_\_\_

**ROAD SIDE MARKER 8:** Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: \_\_\_\_\_

**OTHER COMMENTS:** (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**FLORA AUTHORISATION / LICENCE No:** FT61000768-2 Note if only observing plants (i.e. no specimens or plant material is taken) then no authorisation/licence is required. For further information on authorisation and licensing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under authorisations/licences should be recorded above in the OTHER COMMENTS section.

**SPECIMEN:** Collectors No: \_\_\_\_\_ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: \_\_\_\_\_  
KSW08124

**LODGE:** WA Herb  
Lodgement No: 11208

**ATTACHED:** Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: \_\_\_\_\_

**COPY SENT TO:** Regional Office ☐ District Office ☐ Other: \_\_\_\_\_

Submitter of Record: Katherine walkerden Role: Environmental Officer Signed: KW Date: 11/07/2025

Please return completed form to Species And Communities Program DBCA,

Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to Flora Administrative Officer, Species and Communities Program.

Record entered by: \_\_\_\_\_ Sheet No.: \_\_\_\_\_ Record Entered In Database ☐



### Appendix 3: Description of Threatened and Priority Flora Species with the Potential to occur within the No. 12 Dam Survey Area

Threatened or priority flora identified by the desktop study to be present within a 20 km radius of No. 12 Dam project area, using Threatened and Priority Flora Reporting (TPFL; DBCA 2024a), WA Herbarium (DBCA 2024b) and Esperance District Threatened Flora (DBCA 2024c).

Nt. Acronyms used in the table include priority flora (P), threatened flora (TF), Biodiversity Conservation (BC) Act 2018, Critically Endangered (CR) endangered (EN) and Vulnerable (VU).

Taxon	BC Act (EPBC) Conservation Status	Associated Habitat	Likely to occur	Distance from site (km)
<i>Acacia bartlei</i>	P3	Flat or gently undulating landscapes, waterlogged depression in brown/grey sandy loam or clay loam. Commonly associated with <i>Eucalyptus occidentalis</i>	No	5.43
<i>Acacia diminuta</i>	P1	Sandy clay soils. Frequently associated with fire.	Yes	5.73
<i>Acacia euthyphylla</i>	P3	Sand or clay loam in seasonal swamps or margins of salt lakes or marshes. Often in tall myrtaceous shrubland and mallee woodland.	Yes	0.26
<i>Acacia glaucissima</i>	P3	Sand and greyish clay flats and low-lying areas such as salt lakes in mallee woodland, associated with fringing vegetation such as <i>Frankenia</i> sp. and <i>Tecticornia</i> sp.	Yes	9.49
<i>Adenanthos ileticos</i>	P4	Mallee over myrtaceous shrubland in white, yellow or brown sand. Often in association with <i>Eucalyptus merrickiae</i> .	Yes	10.61
<i>Aotus</i> sp. Dundas	P2	Open mallee woodlands and margins of salt lakes on sand, Sandy-loam and loam. Associated with fire and chained firebreaks.	Yes	17.86
<i>Austrobaeckea uncinella</i>	P3	In fringing (often <i>Melaleuca brevifolia</i> dominated) salt lake vegetation	Yes	9.01
<i>Beyeria physaphylla</i>	P1	Mallee woodland over heath bordering lakeside vegetation.	Yes	8.98
<i>Bossiaea flexuosa</i>	P3	Deep sandy soil. Edges of salt lakes. Associated with fire.	Yes	14.13
<i>Conostephium marchantiorum</i>	P3	Sand. Plains, creek lines, edges of salt lakes.	Yes	0.68
<i>Conostephium uncinatum</i>	P2	Sand, Sandy loam. Margins of salt lakes, <i>Eucalyptus</i> woodlands.	Yes	10.43
<i>Cyathostemon</i> sp. Esperance	P1	Salt lakes, saline watercourse. Sandy gravel	Yes	12.72

<i>Dampiera sericantha</i>	P3	Sand, sometimes with gravel. Plains. <i>Nuytsia floribunda</i> / <i>Banksia speciosa</i> / <i>Eucalyptus tetraptera</i> / <i>Lambertia inermis</i> over proteaceae dominated mixed heath	No	17.91
<i>Darwinia polycephala</i>	P4	Sand, clay. Flats, near salt lakes	Yes	0.21
<i>Darwinia</i> sp. Gibson	P1	Grey-brown sandy clay, white sand. Margins salt lakes	Yes	15.74
<i>Daviesia pauciflora</i>	P3	Deep white or grey sand over limestone or laterite on flats.	No	15.53
<i>Eremophila chamaephila</i>	P3	Open mallee woodland with limestone.	Yes	5.79
<i>Eremophila compressa</i>	P3	Mallee woodland. Clay or clay loam, sandy loam, sand. Undulating plains. Often in disturbed areas	Yes	8.86
<i>Eremophila lactea</i>	CR	Open Mallee over melaleuca shrubland. White sandy clay loam	No	19.27
<i>Eucalyptus dissimulata</i> ssp. <i>plauta</i>	P1	Eucalyptus woodland	Yes	7.14
<i>Eucalyptus dolichorhyncha</i>	P4	Flats or slightly rising ground with whitish to yellowish sandy clay soil.	No	4.75
<i>Eucalyptus foliosa</i>	P3	White sand near salt lakes	Yes	10.79
<i>Eucalyptus merrickiae</i>	VU	Margins of salt lakes or near salt lakes.	Yes	0.26
<i>Eucalyptus misella</i>	P1	Occurs away from salt lakes in heath vegetation on sand with gravel high in the profile	No	16.47
<i>Goodenia turleyae</i>	P1	Sandy soil in moist sheltered areas, near salt lakes which may be seasonally inundated in Banksia heath or mallee shrubland	Yes	4.86
<i>Grevillea aneura</i>	P4	Grows in heath or mallee scrub in yellow sand or sandy loam over laterite, usually on rises	No	13.56
<i>Grevillea baxteri</i>	P4	Sandplains in heath and mallee.	No	8.78
<i>Haegiela tatei</i>	P4	Clay, sandy loam, gypsum. Saline habitats	Yes	1.54
<i>Hydrocotyle asterocarpa</i>	P2	Saline habitats with samphires	No	0.24
<i>Hydrocotyle tuberculata</i>	P2	Edge of a salt lakes with low shrubs and samphire, creekline with Mallee and open shrubs	Yes	11.83
<i>Isopogon alpicornis</i>	P3	Sandy brown loams in mallee shrubland. Sandy soils, skeletal loam on granite. Sandhills, salt lakes, sandplains	Yes	4.85
<i>Kunzea salina</i>	P3	Edge of salt lakes	Yes	0.33
<i>Leucopogon remotus</i>	P1	Eucalyptus sp. over Melaleuca shrubland with Banksia media. Saline waterlogged area near salt lake.	Yes	10.07
<i>Melaleuca dempta</i>	P3	Shrubland with scattered mallee in moist soils often near lakes	Yes	7.15

<i>Melaleuca fissurata</i>	P4	White/grey sand, sandy loam. Samphire flats, salt pans	Yes	0.65
<i>Melaleuca viminea ssp. appressa</i>	P2	Shallow sand over clay. Near creeks or wet depressions.	No	18.92
<i>Microseris walteri</i>	P3	White sandy clay over clay on sloped margins of salt lakes, associated with halophytic scrub-heath of Frankenia, Halosarcia, and Atriplex. Also granite rock areas.	No	13.62
<i>Persoonia cymbifolia</i>	P3	Sandy soils. On flats or in rock crevices	No	0.43
<i>Persoonia scabra</i>	P3	White sand or sandy loam. Proteaceae-Myrtaceae shrubland	No	17.40
<i>Pimelea pelinos</i>	P1	Salt lakes	Yes	8.97
<i>Pityrodia chrysocalyx</i>	P3	Variable. Mallee shrubs over mid-open heathland, Eucalyptus woodland, Moderately exposed dunes associated with salt lake system	Yes	3.82
<i>Ptilotus seminudus</i>	P3	Plain near salt lake. Eucalyptus spp. open Low Woodland	Yes	11.58
<i>Stenanthera lacsalaria</i>	P2	Margins salt lakes, saline watercourses and saline drainage lines. Sandy soil.	Yes	11.46
<i>Styphelia rotundifolia</i>	P3	Shrub mallee over heath. Near granite	No	9.19
<i>Tecticornia indefessa</i>	P2	Grows in the low-lying flood zone around the margins of salt lakes in yellow or grey sandy clay	No	2.00
<i>Trachymene anisocarpa var. trichocarpa</i>	P3	Sandy soils, usually recently-disturbed or burnt, in association with woodlands and plains.	Yes	5.63



## Appendix 4: Description of Threatened and Priority Fauna Species with the Potential to occur within the No. 12 Dam Survey Area

Threatened or priority fauna identified by the desktop study to be present within a 20km radius of No. 12 Dam project area, using Threatened and Priority Fauna dataset (DBCA 2024e) and species identified by the EPBC protected matters search tool.

Nt. Acronyms used in the table include priority flora (P), threatened flora (TF), Biodiversity Conservation (BC) Act 2018, EPBC Act (1999), Extinct (EX), Critically Endangered (CR) endangered (EN) and Vulnerable (VU).

Taxon	Common Name	BC Act Status	EPBC Status	Associated Habitat	Likely to occur	Distance from site (km)	EPBC Protected Matters Tool
<i>Calidris acuminata</i>	Sharp-tailed sandpiper	MI	VU	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, salt pans and hypersaline salt lakes inland. They also occur in saltworks and sewage farms. They use flooded paddocks, sedgeland and other ephemeral wetlands, but leave when they dry. They use intertidal mudflats in sheltered bays, inlets, estuaries or seashores, and also swamps and creeks lined with mangroves. They tend to occupy coastal mudflats mainly after ephemeral terrestrial wetlands have dried out, moving back during the wet season. They may be attracted to mats of algae and water weed either floating or washed up around terrestrial wetlands, and coastal areas with much beachcast seaweed. Sometimes they occur on rocky shores and rarely on exposed reefs	Unlikely		May
<i>Calidris ferruginea</i>	Curlew sandpiper	MI	EN	Occasionally occurs in suitable inland wetland environments. Widespread in coastal and subcoastal plains, especially around the Esperance Lakes area.	Unlikely		May

<i>Falco peregrinus</i>	Peregrine falcon	OS		Requires abundance of medium-sized birds such as waterfowl, doves, pigeons, parrots and passerines as prey. Requires open space for hunting, preferring to hunt over marshes, open water bodies, valleys, fields and grasslands. Utilising high perches, such as bare eucalypt stags, to surveil for potential prey.	Likely	11.56	
<i>Leipoa ocellata</i>	Malleefowl	VU	VU	Long-unburnt mallee woodland with abundant leaf litter and debris to build nest mounds and forage for seeds, small invertebrates and lerps. Semi-arid regions across southern Australia.	Unlikely	11.44	
<i>Platycercus ictrotis</i> ssp. <i>xanthogenys</i>	Western rosella (inland)	P4	Not listed	Prefer mature eucalypt woodlands (e.g. <i>E. salmonophloia</i> and <i>E. wandoo</i> ), as well as <i>Allocasuarina heugeliana</i> , mallee and wooded scrub of the low-rainfall inland region. Sighted feeding on <i>Allocasuarina heugeliana</i> , <i>Eucalyptus eremophila</i> , <i>Olearia revoluta</i> , <i>Glischrocaryon flavescens</i> , and <i>Melaleuca acuminata</i> . Breed in small hollows.	Unlikely		
<i>Suta gouldii</i> (prev. <i>Parasuta spectabilis</i> ssp. <i>bushi</i> )	Gould's hooded snake	P1	Not listed	Near-coastal sand dunes, dry sclerophyll forest of mallee and / or woodland, chenopod scrublands, rock outcrops, heathlands, banksia shrublands. Shelters in deep leaf litter in the cooler months and abandoned stick-ant nests, dead Xanthorrhoea trunks and decaying logs, mallee roots and rubbish. Appears to be cold-tolerant and winter-active.	Unlikely	11.02	
<i>Thinornis rubricollis</i>	Hooded plover	P4	Not listed	Inland and near-coastal salt lakes, brackish coastal lagoons, dispersing to the coast during the non-breeding season. Feeds on gastropods, crustaceans and seeds.	Unlikely	0.03	
<i>Falco hypoleucos</i>	Grey falcon	VU	VU	Semi-arid and arid areas where it hunts over timbered lowland plains of mulga scrub and treed watercourses. Favours tussock grasslands and open woodland where it predaes on birds such as doves, ducks, finches, small parrots and small mammals. Nests in largest trees in the landscape, usually mature <i>E. camaldulensis</i> and telecommunication towers.	Likely		May

<i>Tringia nebularia</i>	Common greenshank	MI	EN	Occurs in all types of coastal and inland wetlands.	Likely		May
<i>Aphelocephala leucopsis</i>	Southern whiteface	Not listed	VU	Open woodlands and shrublands usually dominated by Acacia or Eucalyptus with an understorey of grasses and/or shrubs. Feed exclusively on the ground and favour open habitats with herbs in the litter. Nesting birds build bulky domed nests of grass, bark and roots in a hollow, crevice or low bush.	Unlikely		May
<i>Botaurus poicephalus</i>	Australasian bittern	EN	EN	Well-vegetated freshwater wetlands and less commonly estuaries or tidal wetlands, favouring fringes of reeds and rushes where they can camouflage. In south-west Australia can also occur where wetland-associated Melaleucas provide tall cover. Prefers peaty or muddy substrates and shallow water around the fringes.	Unlikely		May
<i>Cereopsis novaehollandiae</i> ssp. <i>grisea</i>	Recherche Cape Barren goose	VU	VU	During winter breeds on the larger vegetated Islands of the Recherche Archipelago. Forages on herbfields (esp. <i>Carpobrotus</i> sp.) and grasslands along the southern coastline between Munglinup and Cape Arid. Prefers beaches, pasture, and rocky outcrops, with known visitation to Pink Lake and Red Islet. Has been observed in town, as well as Cape Arid, Stokes National Park, and Cape le Grand during the summer feeding months.	Unlikely		May
<i>Pezoporus flaviventris</i>	Western ground parrot	CR	CR	Exclusively restricted to coastal proteaceous heathlands in the south-west of WA, preferring long-unburnt habitat on the south coast near Esperance and Cape Arid for provision of shelter and breeding habitat. Previously occurred north to Geraldton. Feed on or near the ground in low shrubs / heath for nuts, seeds, flower buds and plant material.	Unlikely	16.94	
<i>Zanda latirostris</i>	Carnaby's cockatoo	EN	EN	Eucalypt woodlands with abundant foraging species and a reliable fresh water source; breed in large deep hollows in eucalypt trees >200 years old. During the non-breeding season migrate to the coastline to forage on Proteaceous and Myrtaceous shrublands and heath.	Unlikely	15.51	



## Appendix 5: EPBC Act Protected Matters Report

### Listed Threatened Ecological Communities

Community Name	Threatened Category	Presence	
		Rank	Text
Proteaceae Dominated Kwongan Shrublands of the Southeast Coastal Floristic Province of Western Australia	Endangered	Likely	Community may occur within area

### Listed Threatened Species

Scientific Name	Common Name	Simple Presence	Threatened Category	Migratory Status
<i>Aphelocephala leucopsis</i>	Southern whiteface	May	Vulnerable	
<i>Botaurus poiciloptilus</i>	Australasian bittern	May	Endangered	
<i>Calidris acuminata</i>	Sharp-tailed sandpiper	May	Vulnerable	Migratory
<i>Calidris ferruginea</i>	Curlew sandpiper	May	Critically Endangered	Migratory
<i>Cereopsis novaehollandiae grisea</i>	Recherche Cape Barren goose	Likely	Vulnerable	
<i>Falco hypoleucos</i>	Grey falcon	May	Vulnerable	
<i>Leipoa ocellata</i>	Malleefowl	Likely	Vulnerable	
<i>Tringa nebularia</i>	Common greenshank	Likely	Endangered	
<i>Zanda latirostris</i>	Carnaby's black cockatoo	Known	Endangered	
<i>Dasyurus geoffroii</i>	Chuditch, western quoll	May	Vulnerable	
<i>Anigozanthos bicolor</i> ssp. <i>minor</i>	Small Two-coloured Kangaroo Paw	Likely	Endangered	
<i>Eucalyptus merrickiae</i>	Goblet Mallee	Known	Vulnerable	
<i>Lambertia echinata</i> ssp. <i>echinata</i>	Prickly Honeysuckle	May	Endangered	
<i>Ricinocarpus trichophorus</i>	Barrens Wedding Bush	May	Endangered	

## Appendix 6: BC Act Threatened and Priority Flora and Fauna Definitions

Category	Definition
<b>T – Threatened</b>	<p>Taxa that have been adequately searched for and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such (Schedules 1 to 4 of the Wildlife Conservation (Rare Flora) Notice under the WC Act). Threatened flora are further ranked by the DBCA to align with IUCN Red List categories and criteria:</p> <p><b>CR:</b> Critically Endangered – considered to be facing an extremely high risk of extinction in the wild (Schedule 1);</p> <p><b>EN:</b> Endangered – considered to be facing a very high risk of extinction in the wild (Schedule 2); or</p> <p><b>VU:</b> Vulnerable – considered to be facing a high risk of extinction in the wild (Schedule 3).</p> <p><b>EX:</b> Presumed Extinct – taxa that have been adequately searched for and there is no reasonable doubt that the last individual has died (Schedule 4)</p>
<b>P1 – Priority 1</b> (Poorly known taxa)	<p>Taxa that are known from one or a few collections or sight records (generally less than five), all on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, Shire, Westrail and Main Roads WA road, gravel and soil reserves, and active mineral leases and under threat of habitat destruction or degradation.</p> <p>Taxa may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes.</p>
<b>P2 – Priority 2</b> (Poorly known taxa)	<p>Taxa that are known from one or a few collections or sight records, some of which are on lands not under imminent threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves, etc.</p> <p>Taxa may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes.</p>
<b>P3 – Priority 3</b> (Poorly known taxa)	<p>Taxa that are known from collections or sight records from several localities not under imminent threat, or from few but widespread localities with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat.</p> <p>Taxa may be included if they are comparatively well known from several localities but do not meet adequacy of survey requirements and known threatening processes exist that could affect them.</p>
<b>P4 – Priority 4</b> (Rare, Near Threatened and other taxa in need of monitoring)	<ol style="list-style-type: none"> <li><b>1. Rare</b> - Taxa 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.</li> <li><b>2. Near Threatened</b> - Taxa that are considered to have been adequately surveyed and that do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable.</li> <li><b>3.</b> Taxa that have been removed from the list of threatened species during the past five years for reasons other than taxonomy</li> </ol>

## Appendix 7: EPBC Act (1999) Definition of Threatened Flora and Fauna Species

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

## Appendix 8: BC Act Definition of Threatened Ecological Communities

Category Code	Category
<b>PTD</b>	<p><b>Presumed Totally Destroyed</b></p> <p>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:</p> <ul style="list-style-type: none"> <li>(i) records within the last 50 years have not been confirmed despite thorough searches or known likely habitats or;</li> <li>(ii) all occurrences recorded within the last 50 years have since been destroyed.</li> </ul>
<b>CE</b>	<p><b>Critically Endangered</b></p> <p>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:</p> <ul style="list-style-type: none"> <li>(i) The estimated geographic range and distribution has been reduced by at least 90% and is either continuing to decline with total destruction imminent, or is unlikely to be substantially rehabilitated in the immediate future due to modification;</li> <li>(ii) The current distribution is limited ie. highly restricted, having very few small or isolated occurrences, or covering a small area;</li> <li>(iii) The ecological community is highly modified with potential of being rehabilitated in the immediate future.</li> </ul>
<b>E</b>	<p><b>Endangered</b></p> <p>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:</p> <ul style="list-style-type: none"> <li>(i) 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;</li> <li>(ii) The current distribution is limited ie. highly restricted, having very few small or isolated occurrences, or covering a small area;</li> <li>(iii) The ecological community is highly modified with potential of being rehabilitated in the short term future.</li> </ul>
<b>V</b>	<p><b>Vulnerable</b></p> <p>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:</p> <ul style="list-style-type: none"> <li>(i) The ecological community exists largely as modified occurrences that are likely to be able to be substantially restored or rehabilitated;</li> <li>(ii) The ecological community may already be modified and would be vulnerable to threatening process, and restricted in range or distribution;</li> <li>(iii) The ecological community may be widespread but has potential to move to a higher threat category due to existing or impending threatening processes.</li> </ul>



## Appendix 9: BC Act Definition of Priority Ecological Communities

Category Code	Category
P1	<b>Poorly-known ecological communities</b> Ecological communities with apparently few, small occurrences, all or most not actively managed for conservation (e.g. within agricultural or pastoral lands, urban areas, active mineral leases) and for which current threats exist.
P2	<b>Poorly-known ecological communities</b> Communities that are known from few small occurrences, all or most of which are actively managed for conservation (e.g. within national parks, conservation parks, nature reserves, State forest, unallocated Crown land, water reserves, etc.) and not under imminent threat of destruction or degradation.
P3	<b>Poorly known ecological communities</b> (i) Communities that are known from several to many occurrences, a significant number or area of which are not under threat of habitat destruction or degradation or: (ii) Communities known from a few widespread occurrences, which are either large or within Significant remaining areas of habitat in which other occurrences may occur, much of it not under imminent threat, or; (iii) Communities made up of large, and/or widespread occurrences, that may or not be represented in the reserve system, but are under threat of modification across much of their range from processes such as grazing and inappropriate fire regimes.
P4	Ecological communities that are adequately known, rare but not threatened or meet criteria for Near Threatened, or that have been recently removed from the threatened list. These communities require regular monitoring.
P5	<b>Conservation Dependent ecological communities</b> 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 10: EPBC Act Definition of Threatened Ecological Communities

Three categories exist for listing threatened ecological communities under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999.

Listing Code	Category	Explanation of Category
<b>Critically endangered</b>		If, at that time, it is facing an extremely high risk of extinction in the wild in the immediate future.
<b>Endangered</b>		If, at that time, it is not critically endangered and is facing a very high risk of extinction in the wild in the near future.
<b>Vulnerable</b>		If, at that time, it is not critically endangered or endangered, and is facing a high risk of extinction in the wild in the medium term future.

## Appendix 11: BAM Act Categories and Control of Declared (Plant) Pests in Western Australia

Control Category	Control Measures
<p><b>C1 (Exclusion)</b></p> <p>‘(a) Category 1 (C1) — Exclusion: if in the opinion of the Minister introduction of the declared pest into an area or part of an area for which it is declared should be prevented’</p> <p>Pests will be assigned to this category if they are not established in Western Australia and control measures are to be taken, including border checks, in order to prevent them entering and establishing in the State.</p>	<p>In relation to a category 1 declared pest, the owner or occupier of land in an area for which an organism is a declared pest or a person who is conducting an activity on the land must take such of the control measures specified in subregulation</p> <p>(1) as are reasonable and necessary to destroy, prevent or eradicate the declared pest.</p>
<p><b>C2 (Eradication)</b></p> <p>‘(b) Category 2 (C2) — Eradication: if in the opinion of the Minister eradication of the declared pest from an area or part of an area for which it is declared is feasible’</p> <p>Pests will be assigned to this category if they are present in Western Australia in low enough numbers or in sufficiently limited areas that their eradication is still a possibility.</p>	<p>In relation to a category 2 declared pest, the owner or occupier of land in an area for which an organism is a declared pest or a person who is conducting an activity on the land must take such of the control measures specified in subregulation</p> <p>(1) as are reasonable and necessary to destroy, prevent or eradicate the declared pest.</p>
<p><b>C3 (Management)</b></p> <p>‘(c) Category 3 (C3) — Management: if in the opinion of the Minister eradication of the declared pest from an area or part of an area for which it is declared is not feasible but that it is necessary to:</p> <ul style="list-style-type: none"> <li>(i) alleviate the harmful impact of the declared pest in the area; or</li> <li>(ii) reduce the number or distribution of the declared pest in the area; or</li> <li>(iii) prevent or contain the spread of the declared pest in the area.’ <p>Pests will be assigned to this category if they are established in Western Australia but it is feasible, or desirable, to manage them in order to limit their damage. Control measures can prevent a C3 pest from increasing in population size or density or moving from an area in which it is established into an area which currently is free of that pest.</p> </li></ul>	<p>In relation to a category 3 declared pest, the owner or occupier of land in an area for which an organism is a declared pest or a person who is conducting an activity on the land must take such of the control measures specified in subregulation</p> <p>(1) as are reasonable and necessary to —</p> <ul style="list-style-type: none"> <li>(a) alleviate the harmful impact of the declared pest in the area for which it is declared; or</li> <li>(b) reduce the number or distribution of the declared pest in the area for which it is declared; or</li> <li>(c) prevent or contain the spread of the declared pest in the area for which it is declared.</li> </ul>

## Appendix 12: Definition of Vegetation Condition Scale

For the south west and interzone botanical provinces

Condition Rating	Description
Pristine (1)	Pristine or nearly so, no obvious signs of disturbance
Excellent (2)	Vegetation structure intact; disturbance affecting individual species; weeds are non-aggressive species.
Very Good (3)	Vegetation structure altered; obvious signs of disturbance For example, disturbance to vegetation structure caused by repeated fires; the presence of some more aggressive weeds; dieback; logging; & grazing.
Good (4)	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires; the presence of some very aggressive weeds at high density; partial clearing; dieback; & grazing
Degraded (5)	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires; the presence of very aggressive weeds; partial clearing; dieback; & grazing.
Completely Degraded (6)	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 or shrubs.