Vegetation, Flora, Fauna and Environmental Considerations Report

Government Dams Purpose Permit

Field Road Dam, Cascade

Report compiled by:

[redacted]

Shire of Esperance

Together, we make it happen!

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

5 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 the proposed Field Road Dam project in 2024-25 as part of their Strategic Purpose Permit application.

The proposed development involves the clearing of 0.078ha of native vegetation. The Field Road Dam project is required for drought relief, road construction and firefighting purposes. The project involves clearing a track and turning circle to enable access to the dam.

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

The site contained regenerating *Eucalyptus eremophila* and *Eucalyptus tumida* over *Melaleuca* and *Acacia* shrubland.

Vegetation was in an excellent condition.

One Threatened Ecological Community occurred within the 20km buffer of the project site; however, no vegetation in the survey area met the requisite criteria for this community.

A total of 46 vascular plant taxa, representative of 27 genera and 16 families, were recorded within the Field Road Dam survey area. Of these 42 were native species and 4 were introduced. The majority of taxa recorded were representative of the Myrtaceae (15 taxa) and Fabaceae (9 taxa) families (see Appendix 1 for the complete incidental species list).

No threatened and priority flora species were recorded within the Field Road Dam survey area.

Suitable habitat for four 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. 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.

The Field Road Dam currently has poor access, only being accessible via the drains leading into the dam, this leaves the dam inaccessible during wet conditions. A new track and turn around point are required to be constructed to improve access to the dam.

1.7 Location and Scope of Project

The proposed works are located 42km east of Grass Patch, within the SOE managed road reserve of Field Road. Specifically, it is located from 2.4km north of Grass Patch Road, at straight line kilometre (SLK) 30.05 (Main Roads 2024). A point within the proposed clearing permit area is 338608.06m N, 6314980mE (UTM Zone 51 H, GDA94).

The proposed development involves the clearing of 0.078ha of native vegetation. The Field Road Dam project is required for drought relief, road construction and firefighting purposes. The project involves clearing a track and turning circle to enable access to the dam. The Shire of Esperance has attempted to avoid, reduce, minimise impacts by keeping as much as possible to existing cleared areas.

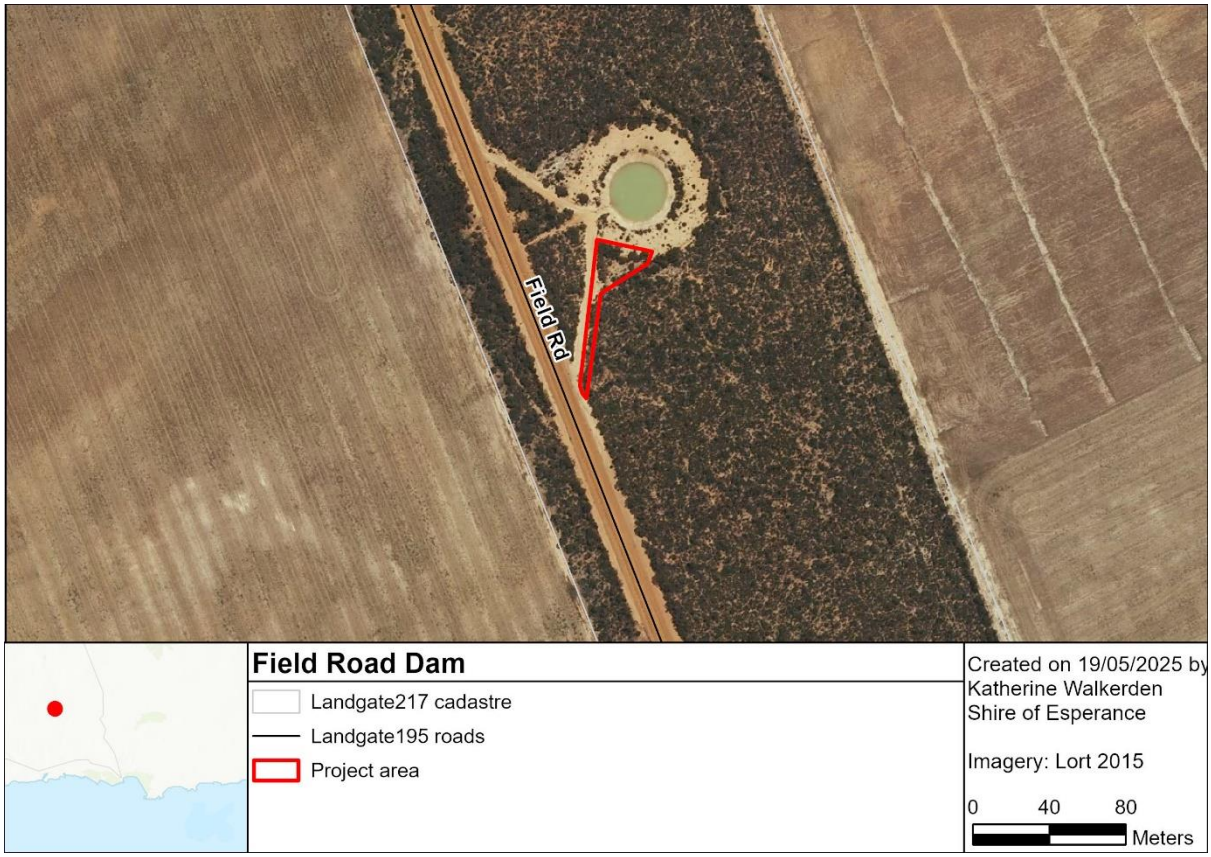

Figure 1. Map of the Field Road Dam project area.

1.8 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 Field Road 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 Field Road 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 Field Road Dam survey area;
- Undertake a field survey of the Field Road Dam survey area, and collect and identify the vascular plant species present;
- Define and map the vegetation communities present and their condition in the Field Road 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 Field Road 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 20km 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
- Black cockatoo / Carnaby's 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 Field Road 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 (Lort 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 targeted survey of the Priority 2 listed *Halgania* sp. Peak Eleanora was conducted by Katherine Walkerden (SOE Environmental Officer) on 12 March 2024. *Halgania* sp. Peak Eleanora has since been delisted.

A detailed field assessment of the flora and vegetation of the Field Road Dam survey area was undertaken by SOE botanists Katherine Walkerden and Julie Waters on 13 August 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 Field Road Dam survey area. The road was used as a continuous transect. Botanists walked in a zig-zag fashion over survey site (at approximately at 100m intervals) 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. During the survey, a field herbarium for Field Road Dam was also constructed.

All species unknown in the field were collected, pressed and dressed in accordance with WAH instructions, and later identified by the SOE's three 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.

The vegetation communities of Field Road Dam was 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 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. Surveys at Field Road Dam were conducted in mid August, slightly outside of the peak flowering period, a large majority of plants were flowering at this time and the timing was deemed suitable.

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	**Not a limitation:** 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).	**Not a constraint:** Adequate resources were made available by SOE to complete the surveys.
Competency/experience of team carrying out survey; experience in the bioregion surveyed	**Not a limitation:** 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.
Proportion of flora collected and identification issues	**Potential limitation:** 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. Orchid species may not emerge each year if conditions are not favourable. Although these may affect the completeness of the species list, it is not expected to have a significant effect on mapping reliability, nor on the identification of threatened and priority species in the area as the majority were perennial species. Surveys were only undertaken in one year

Effort and extent of survey	**Potential limitation:** 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	**Not a constraint.** Handheld GPS units were used for the survey, which for a majority of field conditions have an accuracy level of ± 5 m.
Survey timing, rainfall, season of survey	**Potential limitation:** 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 mid August.
Disturbances (fire/flood/clearing)	**Potential limitation:** The Field Road Dam area had burnt during the intense 2015 Scaddan fires, and due to the low rainfall of the area, the site was still regenerating from this event.

4 DESKTOP ASSESSMENT RESULTS

4.1 Climate

The Salmon Gums climate is described is characterised by cool winters and hot dry summers (BoM 2025). The Salmon Gums locality receives an average annual rainfall of 348 mm.

4.2 Catchment

Field Road Dam is present within the Lort River sub-catchment area.

4.3 Geology, Soils and Topography

A single geological unit was identified by Schoknecht et al. (2004). This was: Tertiary marine sediments with aeolian carbonate rich deposits in places.

Within the area, there has been one soil type recorded by Schoknecht et al. (2004). This was: Alkaline grey shallow sandy duplex soils associated calcareous loamy earths and grey non-cracking clays and minor deep sands and irontone.

Within the area, there has been one landform unit recorded by Schoknecht et al. (2004). This was: Level plain or plateau of low relief and poor drainage Gilgia microrelief is common.

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 one vegetation association (VA) within the Field Road Dam area (Table 2). Lort_512 was present within the clearing permit area, this vegetation association is highly cleared with only 26% of its pre-European extent remaining within the Eastern Mallee IBRA region and 20.14% of its extent remaining within the Shire of Esperance.

Table 2. Vegetation associations mapped by Beard (1973) within the Field Road Dam area, and statistics on pre-European remaining areas.

Vegetation Association	Lort_512
Description	Shrublands; mallee scrub, *Eucalyptus eremophila* & Forrest's marlock (*E. forrestianna*)
Pre-European extent in IBRA sub-region Mal01 (%)	26.07%
Pre-European extent in LGA (%)	20.14%
Current extent conserved in IUCN area (%)	54.77%

4.5 Surrounding Land Use

The area directly included in the clearing permit application is an intact and vegetated 200m wide road reserve, managed by SOE. The surrounding land use is agricultural. The area is within rural zoning. The project area is in a moderately cleared area with 28.89% of vegetation within 5km of the project remaining.

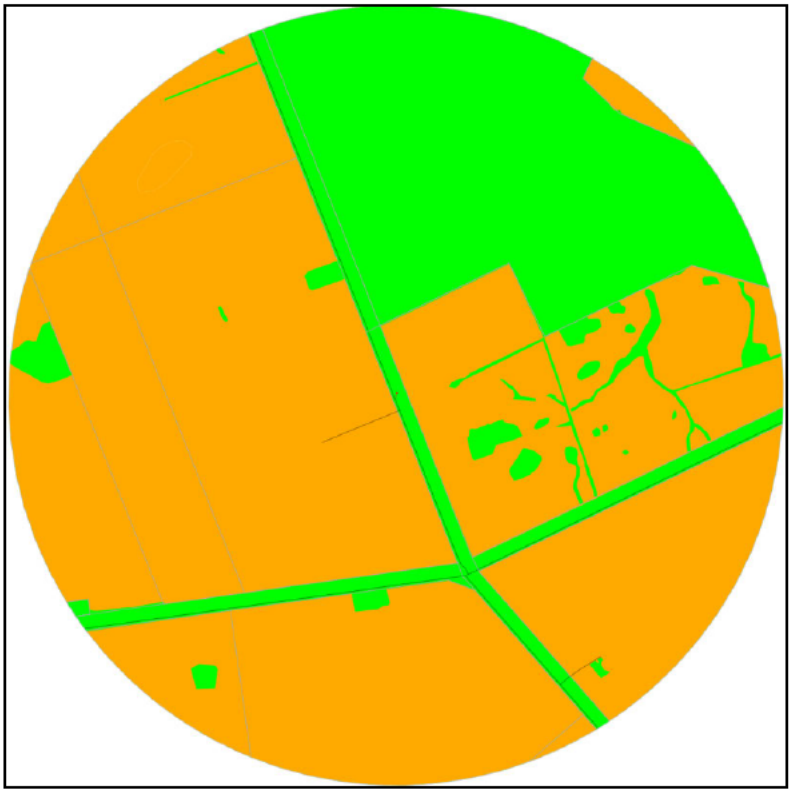

Figure 2. Map of remnant vegetation within a 5km buffer produced by DEISIP. Project area is highlighted in red, remnant vegetation is in green and cleared vegetation is in orange, road centrelines are in black and cadastre boundaries are in grey.

The site was 6.84km from Reserve 30583 the closest conservation reserve. No conservation vested reserves were within 5km of the site.

4.6 Potential Threatened and Priority Flora

One threatened flora (TF) and 21 priority flora (PF) were recorded within a 20km radius of the proposed impact site (Appendix 3). Of these, one TF species and eleven PF species had suitable known associated habitat that corresponded with vegetation communities and soil type of Field Road Dam project.

4.7 Potential Threatened and Priority Ecological Communities

The desktop study 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)' 2.59km from the project area. No other TEC's or priority ecological communities (PEC) were identified by the desktop study as being within a 20km buffer of the site.

4.8 Potential Threatened and Priority Fauna

One threatened fauna, one priority fauna and were recorded within a 20km radius of the proposed impact site (Appendix 4). An additional eight threatened fauna were identified by the Commonwealth Protected Matters Search Tool, two of these were migratory.

4.9 *Phytophthora* Dieback

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

Vegetation within the project area had burned during the 2015 fires and was still regenerating at the time of the survey. Vegetation within the project area was defined as "Regenerating *Eucalyptus eremophila* and *Eucalyptus tumida* over *Melaleuca* and *Acacia* shrubland". It is believed that the Beard (1973) vegetation associations identified in Section 4.4 are an appropriate match for the vegetation observed.

Figure 3. Vegetation type A identified in the Field Road Dam project, described as: Regenerating *Eucalyptus eremophila* and *Eucalyptus tumida* over Melaleuca and Acacia shrubland.

5.2 Vegetation Condition

Vegetation was in an Excellent condition and was regenerating well after the 2015 Scaddan fire, all vegetative strata were well represented and weed presence was minimal, mainly restricted to the edges of the roadside and spoon drains.

5.2.1 Weeds

There was minor weed invasion across the Field Road Dam area, with invasion mainly located within the edges of the roadside and the spoon drains. Overall, four invasive species were identified within the project area (Appendix 1). The weeds present included three Brassicaceae weeds (*Brassica tournefortii, Carrichtera annua, Sisymbrium irio*) and one Poaceae weed (*Schismus barbatus*). None of the weeds present were of serious concern.

5.2.2 Phytophthora Dieback

Given the low rainfall present within the Grass Patch locality Phytophthora dieback is unlikely to be present within the area. However, proposed works will be conducted using appropriate hygiene measures to limit spreading of the disease, including clearing in dry conditions and clean down of vehicles and machinery before entering the site.

5.3 Threatened Ecological Communities

The EPBC listed threatened ecological community (TEC) 'Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province of Western Australia (Kwongkan)' was recorded as occurring 2.59km from the project area. During the field survey only, a single proteaceous species was recorded (*Grevillea pectinata*) which was at a low density, the vegetation could not be considered to be Kwongkan TEC.

5.4 Flora

A total of 46 vascular plant taxa, representative of 27 genera and 16 families, were recorded within the Field Road Dam survey area. Of these 42 were native species and 4 were introduced. The majority of taxa recorded were representative of the Myrtaceae (15 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 *Halgania* sp. Peak Eleanora, within the Field Road Dam survey area and proposed clearing permit footprint. *Halgania* sp. Peak Eleanora was listed as Priority 2 at the time of the survey, with over 1100 plants counted at the site. The species was removed from the priority list in early March 2025. No other priority flora or threatened were identified during the survey.

5.6 Fauna

Of the species identified within the Desktop survey, four species had potentially suitable habitat within the proposed clearing permit area. Due to the area still in recovery from the 2015 bushfires, the site does not currently contain any Malleefowl habitat, however the soil type is suitable and the site will likely contain suitable Malleefowl habitat in another decade or so.

5.6.1 Western brush wallaby, *Notamacropus irma,* P4

The closest known record of this species was 15.66km from the project located at Roberts Swamp (Reserve 26912) which was from 2023. The species habitat was quite broad being described as "Open forest or woodland, favouring open seasonally-wet flats with low grasses and open scrubby thickets. Mallee and heathland." Large areas of suitable habitat are also located nearby in Reserve 31739 which contains the Lort River. Given the large areas of suitable habitat near the project it is likely that the vegetation within the project area is providing habitat connectivity for the species.

5.6.2 Curlew Sandpiper, *Calidris ferruginea,* CR, MI

Calidris ferruginea was identified by the Protected Matters Search Tool, but had no records within 20km of the project area. The species is known to occur inland, including around dams.

The species may utilise the Field Road Dam, though the dam will not be impacted and any potential habitat will be retained.

5.6.3 Grey Falcon, *Falco hypoleucos,* VU

The Grey Falcon was identified by the Protected Matters Search Tool, but had no records within 20km of the project area. The "distribution of this species is restricted largely to areas of the highest annual average temperatures where there is an average annual rainfall of less than 500 mm. It favours lightly timbered and untimbered lowland plains that are crossed by tree-lined watercourses. It uses the abandoned nests of other bird species, particularly corvids."

The project area provided potentially suitable hunting and nesting habitat, Reserve 31739 which contains the Lort River is located in close proximity to the Field Road Dam project site which provides a large area of suitable habitat. Given the large areas of suitable habitat near the project it is likely that the vegetation within the project site is providing habitat connectivity for the species.

5.6.4 Chuditch, *Dasyurus geoffroii,* VU

Given the broad habitat requirements for the Chuditch, the vegetation within the project area provided suitable hunting habitat for the species. Though there was a lack of adequate den recourses for the species. In contrast the nearby Reserve 31739 which contains the Lort River would likely provide adequate den recourses, prey recourses and a suitably sized area for the species. Given the large areas of suitable habitat near the project it is likely that the vegetation within the reserve, and the presence of a water source would provide habitat for the species if it was currently present in the local area.

6 REVIEW OF 10 CLEARING PRINCIPLES FOR NATIVE VEGETATION

The Field Road 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).

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

Not at Variance: Biodiversity at this site is low with 42 native species recorded over one vegetation community.

7.2 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.

May be at Variance: The site currently provided potentially suitable habitat for the Western brush wallaby, Curlew sandpiper, Grey falcon and Chuditch.

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

Not at Variance: *Halgania* sp. Peak Eleanora was detected at the time of the survey, but has been delisted since the surveys occurred. No other priority flora was detected.

7.4 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 or PECs were present within the project area.

7.5 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.

May be at Variance: There was 28.89% of native vegetation remaining within 5km of the project site. The site is part of a 200m wide road reserve which provides important ecological linkages to Reserve 31739 which contains the Lort River. However, given the minimal amount of clearing being undertaken there is unlikely to be any impact of the ecological connectivity within the area.

7.6 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.

Not at Variance: Vegetation in this area was not growing in association with watercourses or wetlands.

7.7 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. However, given the minimal amount of clearing there is unlikely to be any significant impact on erosion.

7.8 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: There was no conservation areas within 5km of the project area.

7.9 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.

Likely/Not at Variance: The clearing was not close to any natural wetlands. Given the minimal amount of clearing being conducted there is unlikely to be any impact to water quality.

7.10 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 was not close to any natural wetlands, and was not in an area where flooding is likely. Given the minimal amount of clearing being conducted there is unlikely to have any significant impacts.

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

- All vehicles and construction equipment to be cleaned prior to start of the project
- Regular washdowns to occur during the project to reduce spread of weed and pathogens within the project area.

8 LIST OF PERSONNEL

The following Shire of Esperance Staff and Esperance Wildflower Society Members were involved in this project.

Name	Julie Waters
Position	Environmental Coordinator
Project Involvement	Field Survey, Report review
Qualifications	BEnvSc (Hons)

Experience	20 years working in environmental field including Flora Conservation Officer for previous DBCA, and 15 years' experience as a botanist in the region
Scientific Licence	FT61000787-2

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

Name	Rosamund Mary Hoggart
Position	Environmental Assistant
Project Involvement	Specimen Identification
Qualifications and Experience	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.
Scientific Licence	N/A

9 REFERENCES

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Appendix 1: Incidental species list

Family	Taxon	Weed	BC Act (EPBC) Conservation Status	Herbarium Reference
Boraginaceae	*Halgania* sp. Peak Eleanora		NT	KSW09124 ACC 11315
Brassicaceae	*Brassica tournefortii*	X		
Brassicaceae	*Carrichtera annua*	X		
Brassicaceae	*Sisymbrium irio*	X		
Chenopodiaceae	*Atriplex semibaccata*			
Chenopodiaceae	*Enchylaena tomentosa*			
Crassulaceae	*Crassula exserta*			
Fabaceae	*Acacia erinacea*			
Fabaceae	*Acacia hadrophylla*			
Fabaceae	*Acacia profusa*			
Fabaceae	*Acacia brachyclada*			
Fabaceae	*Acacia mutabilis* subsp. *mutabilis*			
Fabaceae	*Daviesia aphylla*			
Fabaceae	*Dillwynia* sp. Mallee			
Fabaceae	*Pultenaea purpurea*			
Fabaceae	*Gastrolobium musaceum*			
Hemerocallidaceae	*Dianella revoluta*			
Myrtaceae	*Cyathostemon ambiguus*			
Myrtaceae	*Eucalyptus eremophila*			
Myrtaceae	*Eucalyptus forrestiana*			
Myrtaceae	*Eucalyptus tumida*			
Myrtaceae	*Melaleuca cucullata*			
Myrtaceae	*Melaleuca elliptica*			
Myrtaceae	*Melaleuca glaberrima*			
Myrtaceae	*Melaleuca hamata*			
Myrtaceae	*Melaleuca podiocarpa*			
Myrtaceae	*Melaleuca sapientes*			
Myrtaceae	*Melaleuca societatis*			
Myrtaceae	*Melaleuca phoidophylla*			
Myrtaceae	*Melaleuca pauperiflora* subsp. *pauperiflora*			
Myrtaceae	*Melaleuca uncinata*			
Myrtaceae	*Melaleuca lateriflora*			
Poaceae	*Schismus barbatus*	X		
Polygalaceae	*Comesperma spinosum*			
Proteaceae	*Grevillea pectinata*			
Rhamnaceae	*Cryptandra minutifolia* subsp. *brevistyla*			
Rhamnaceae	*Spyridium mucronatum* subsp. *mucronatum*			

Rutaceae	*Cyanothamnus baeckeoides* subsp. *baeckeoides*			
Santalaceae	*Exocarpos sparteus*			
Santalaceae	*Leptomeria pachyclada*			
Sapindaceae	*Dodonaea bursariifolia*			
Sapindaceae	*Dodonaea concinna*			
Thymelaeaceae	*Pimelea cracens*			
Thymelaeaceae	*Pimelea aeruginosa*			

Appendix 2: Description of Threatened and Priority Flora Species with the Potential to occur within the Field Road Dam Survey Area

Threatened or priority flora identified by the desktop study to be present within a 20 km radius of Field Road 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 Vunerable (VU).

Taxon	BC Act (EPBC) Conservation Status	Associated Habitat	Likely to occur	Distance from site (km)
Acacia diaphana	P1	Clay or sandy loam in waterlogged depressions, often associated with Swamp Yate (*Eucalyptus occidentalis*).	Unlikely	13.23
Acacia diminuta	P1	Sandy clay soils. Frequently associated with fire.	Possible	7.91
Eucalyptus misella	P1	Sandy soil. Highly range restricted.	Unlikely	19.08
Leucopogon rugulosus	P1	Sandplain, saline watercourse. Sand, sandy loam	Unlikely	15.78
Melaleuca similis	P1	Sand, sandy loam. Mallee over heath or low shrubland.	Possible	19.60
Acacia amyctica	P2	Loamy and sandy clay plains in low woodland, mallee and open shrubland.	Possible	8.78
Aotus sp. Dundas (M.A. Burgman 2835)	P2	Open mallee woodlands and margins of salt lakes on sand, Sandy-loam and loam. Associated with fire and chained firebreaks.	Unlikely	13.03
Carpobrotus sp. Lateral Flowers (N. Gibson & M. Lyons 973)	P2	Wide variety of habitats including Eucalyptus (tree) woodland, mallee woodland, coastal dune heath.	Possible	12.93
Poranthera dissecta	P2	Well-drained granitic loamy sand. Near granite outcrops.	Unlikely	17.96
Acacia bartlei	P3	Sandy loam or clay-loam in or near waterlogged depressions, often in association with Swamp Yate (*E. occidentalis*). Also found in mallee over mixed melaleuca.	Possible	10.27
Acacia improcera	P3	Clay, rocky loam or sand in heath and shrub mallee.	Possible	18.79
Bossiaea flexuosa	P3	Deep sandy soil. Edges of salt lakes. Associated with fire.	Unlikely	18.90
Conostephium marchantiorum	P3	Sand. Margins of salt lakes, saline watercourses, sandplains.	Unlikely	18.72

Eremophila chamaephila	P3	Eucalyptus woodland, tall shrubland. Associated with fire and mechanical disturbance.	Possible	11.93
Eremophila compressa	P3	Eucalyptus woodland, Clay, loam, clay loam, sandy loam.	Possible	19.24
Melaleuca dempta	P3	Salt lake margins, near salt lakes, winter wet depressions.	Unlikely	19.53
Opercularia acolytantha	P3	Sand, Sandy loam, gravel. Sandplain.	Unlikely	17.38
Persoonia cymbifolia	P3	Mallee shrubland, mallee heath, *Banksia armata* heath.	Possible	15.09
Eremophila serpens	P4	Salt lake margins. Sand, sandy loam, loam. Frequently associated with fire.	Unlikely	16.16
Eucalyptus dolichorhyncha	P4	Mixed mallee woodland. Sandy loam, loam, clay. Limestone.	Possible	9.71
Eremophila lactea	T	White sandy clay loam. Limestone. Associated with fire.	Possible	4.92

Appendix 3: Description of Threatened and Priority Fauna Species with the Potential to occur within the Field Road Dam Survey Area

Threatened or priority fauna identified by the desktop study to be present within a 20 km radius of Field Road 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), Vunerable (VU) and Migratory (MI).

Taxon	Common Name	BC Act Status	EPBC Status	Associated Habitat	Likely to occur	Distance from site (km)	EPBC Protected Matters Tool
Leipoa ocellata	Malleefowl	VU	VU	Semi-arid to arid, long-unburnt mallee-dominated areas with sandy (can be sandy gravel) substrate and abundant leaf-litter for nest mound building. Occasionally low *Eucalyptus wandoo* or *E. astringens* woodlands and mulga shrublands dominated by Eucalyptus, Callitris, and Acacia sp. Diet consists of Acacia seeds, flower blossoms, buds, fruit and lerps, and soil invertebrates. Construct distinctive nest mounds that can exceed 4m across and 1m high. Threatened by habitat fragmentation, degradation of habitat by feral ungulates and rabbits, altered fire regimes, vehicle strike, and feral predators.	Unlikely at present, possible once area fully recovered from fire	2.55	X
Notamacropus irma	Western brush wallaby	P4		Open forest or woodland, favouring open seasonally-wet flats with low grasses and open scrubby thickets. Mallee and heathland.	Possible	15.66	
Calidris ferruginea	Curlew sandpiper	CR	CR, MI	Intertidal mudflats in sheltered coastal areas, such as estuaries, bays, inlets and lagoons, and also around non-tidal swamps, lakes and lagoons near the coast, and ponds in saltworks and sewage farms. They are also recorded inland, though less often, including around ephemeral and permanent	Possible		X

				lakes, dams, waterholes and bore drains, usually with bare edges of mud or sand. They occur in both fresh and brackish waters.			
Botaurus poiciloptilus	Australasian bittern	EN	EN	Densely-vegetated freshwater and slightly brackish wetlands and lakes across the south coast eat to Cape Arid. Beds of tall bulrush (Typha sp.), Baumea, and sedges in freshwater swamps. Nests in rough platform of bulrush and sticks placed in tea trees or other shrubs just above the waterline. Eggs laid between September to December. Threatened by swamp drainage and development, declining water qualities.	Unlikely		X
Zanda latirostris	Carnaby's black cockatoo	EN	EN	Nomadic, breeding in old-growth (> 250 yrs old) eucalypt woodland along south coast and throughout wheatbelt to Kalbarri, nesting in deep hollows of Salmon Gum, York Gum, Red River Gum, Marri, Jarrah, Karri, Red Morrell and Tuart. Feeds on proteaceous shrubs and heath and adjacent eucalypt woodland; eats seeds of Banksia, Hakea, Grevillea, Allocasuarina and introduced pines, as well as flowers of Eucalyptus, Banksia, Hakea, Melaleuca, Calothamnus, Callistemon, etc. Also known to roost in Swamp Yate (*E. occidentalis*). In non-breeding season most flocks migrate to coastal feeding territories along the south coast, midwest, and south-west; this is the period when most Carnaby's are sighted in Esperance, with numerous roosts known in Tuart, Maritime Pine, and Swamp Yate trees in the region. Not known to breed east of Cocanarup Timber Reserve. Several sighted in Alexander Bay in January 2024.	Unlikely		X
Aphelocephala leucopsis	Southern whiteface		VU	Single Esperance record from 1981, from the North Cascade locality. Wide range of open woodlands and shrublands where there is an understorey of grasses or shrubs, or both. These areas are usually in habitats dominated by acacias or eucalypts on ranges, foothills and lowlands, and plains.	Unlikely		X

				Southern whiteface forage almost exclusively on the ground, favouring habitat with low tree densities and an herbaceous understorey litter cover. Birds mainly feed on insects, spiders, and seeds, largely gleaned from the bare ground or leaf litter			
Falco hypoleucos	Grey falcon	VU	VU	The distribution of this species is restricted largely to areas of the highest annual average temperatures where there is an average annual rainfall of less than 500mm. It favours lightly timbered and untimbered lowland plains that are crossed by tree-lined watercourses. It uses the abandoned nests of other bird species, particularly corvids.	Possible		X
Calidris acuminata	Sharp-tailed sandpiper	MI	VU, MI	Breeds in northern Siberia in June to August, before migrating to Australia and NZ for non-breeding season. Widespread in both inland and coastal locations of fresh and saline habitats. Widespread from Cape Arid to Carnarvon. Utilises fresh to hypersaline aquatic environments; edges of mudflats, sewage ponds, wetlands, and inundated pastures. Roosts on rocky and sandy beaches, and wetland vegetation. Omnivorous; diet of seeds, worms, molluscs, crustaceans, and insects.	Unlikely		X
Cereopsis novaehollandiae grisea	Cape Barren goose	VU	VU	During winter breeds on the larger vegetated Islands of the Recherche Archipelago. Forages on herbfields (especially of *Carpobrotus virescens*) and grasslands along the southern coastline between Munglinup and Israelite Bay / 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, particularly on maintained lawns, golf courses, and ornamental lakes.	Unlikely		X
Dasyurus geoffroii	Chuditch, Western quoll	VU	VU	Currently restricted to south-western WA, with population strongholds in dry sclerophyll forest and dry woodland and mallee-heath, namely in Lake Magenta NR, Southern Forests, Julimar State Forest, and Fitzgerald River NP. Require hollow	Possible		X

				logs, earth burrows, and occasionally hollowed-out termite mounds for daytime shelter / nesting. Hollow tree bases occasionally used. Diet is broad and consists largely of small mammals, amphibians, small reptiles, invertebrates, freshwater crustaceans, small birds. Occupies even high-quality habitats at low densities due to territorial behaviour - female habitats extend over core areas of 55-120ha and don't overlap, whilst male territories extend over 400ha or more and overlap.			

Appendix 4: EPBC Act Protected Matters Report

Listed Threatened Ecological Communities

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

Listed Threatened Species

Scientific Name	Common Name	Simple Presence	Threatened Category	Migratory Status
Calidris ferruginea	Curlew sandpiper	May	CR	Migratory
Botaurus poiciloptilus	Australasian bittern	May	EN	
Anigozanthos bicolor subsp. minor	Little Kangaroo Paw	Likely	EN	
Ricinocarpos trichophorus	Barrens Wedding Bush	May	EN	
Zanda latirostris	Carnaby's black cockatoo	Likely	EN	
Leipoa ocellata	Malleefowl	Likely	VU	
Aphelocephala leucopsis	Southern whiteface	May	VU	
Falco hypoleucos	Grey falcon	May	VU	
Calidris acuminata	Sharp-tailed sandpiper	May	VU	Migratory
Cereopsis novaehollandiae grisea	Recherche cape barren goose	Likely	VU	
Dasyurus geoffroii	Chuditch	May	VU	

Appendix 5: BC Act Threatened and Priority Flora and Fauna Definitions

Category	Definition
T – Threatened	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: **CR:** Critically Endangered – considered to be facing an extremely high risk of extinction in the wild (Schedule 1); **EN:** Endangered – considered to be facing a very high risk of extinction in the wild (Schedule 2); or **VU:** Vulnerable – considered to be facing a high risk of extinction in the wild (Schedule 3). **EX:** Presumed Extinct – taxa that have been adequately searched for and there is no reasonable doubt that the last individual has died (Schedule 4)
P1 – Priority 1 (Poorly known taxa)	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. 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.
P2 – Priority 2 (Poorly known taxa)	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. 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.
P3 – Priority 3 (Poorly known taxa)	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. 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.
P4 – Priority 4 (Rare, Near Threatened and other taxa in need of monitoring)	**1. Rare** - 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. **2. Near Threatened** - 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. **3.** Taxa that have been removed from the list of threatened species during the past five years for reasons other than taxonomy

Appendix 6: EPBC Act (1999) Definition of Threatened Flora and Fauna Species

Category Code	Category
Ex	**Extinct** 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	**Extinct in the Wild** 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	**Critically Endangered** 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	**Endangered** 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	**Vulnerable** 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	**Conservation Dependent** 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 7: BC Act Definition of Threatened Ecological Communities

Category Code	Category
PTD	**Presumed Totally Destroyed** An ecological community will be listed as Presumed Totally Destroyed if there are no recent records of the community being extant and either of the following applies: (i) records within the last 50 years have not been confirmed despite thorough searches or known likely habitats or; (ii) all occurrences recorded within the last 50 years have since been destroyed.
CE	**Critically Endangered** An ecological community will be listed as Critically Endangered when it has been adequately surveyed and is found to be facing an extremely high risk of total destruction in the immediate future, meeting any one of the following criteria: (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; (ii) The current distribution is limited ie. highly restricted, having very few small or isolated occurrences, or covering a small area; (iii) The ecological community is highly modified with potential of being rehabilitated in the immediate future.
E	**Endangered** 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: (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; (ii) The current distribution is limited ie. highly restricted, having very few small or isolated occurrences, or covering a small area; (iii) The ecological community is highly modified with potential of being rehabilitated in the short term future.
V	**Vulnerable** An ecological community will be listed as Vulnerable when it has been adequately surveyed and is not Critically Endangered or Endangered but is facing high risk of total destruction in the medium to long term future. The ecological community must meet any one of the following criteria: (i) The ecological community exists largely as modified occurrences that are likely to be able to be substantially restored or rehabilitated; (ii) The ecological community may already be modified and would be vulnerable to threatening process, and restricted in range or distribution; (iii) The ecological community may be widespread but has potential to move to a higher threat category due to existing or impending threatening processes.

Appendix 8: BC Act Definition of Priority Ecological Communities

Category Code	Category
P1	**Poorly-known ecological communities** Ecological communities with apparently few, small occurrences, all or most not actively managed for conservation (e.g. within agricultural or pastoral lands, urban areas, active mineral leases) and for which current threats exist.
P2	**Poorly-known ecological communities** Communities that are known from few small occurrences, all or most of which are actively managed for conservation (e.g. within national parks, conservation parks, nature reserves, State forest, unallocated Crown land, water reserves, etc.) and not under imminent threat of destruction or degradation.
P3	**Poorly known ecological communities** (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	**Conservation Dependent ecological communities** Ecological communities that are not threatened but are subject to a specific conservation program, the cessation of which would result in the community becoming threatened within five years.

Appendix 9: 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 Category Code	Explanation of Category
Critically endangered	If, at that time, it is facing an extremely high risk of extinction in the wild in the immediate future.
Endangered	If, at that time, it is not critically endangered and is facing a very high risk of extinction in the wild in the near future.
Vulnerable	If, at that time, it is not critically endangered or endangered, and is facing a high risk of extinction in the wild in the medium term future.

Appendix 10: BAM Act Categories and Control of Declared (Plant) Pests in Western Australia

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

Appendix 11: Definition of Vegetation Condition Scale

For the south west and interzone botanical provinces

Condition Rating Description	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.