



mainroads  
WESTERN AUSTRALIA

# Clearing Desktop Report – CPS 818

*We're working for  
Western Australia.*

Driveway 4341 South Western Hwy  
(H009) Sightline Clearing, Kent River

June 2022

EOS 2775

D22#674829

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# Amendments

Report Compilation & Review	Name and Position	Document Revision	Date
Author:	Senior Environment Officer	Draft v1	24 June 2022
Reviewer:	Senior Environment Officer	Rev 0	27/06/2022

## 1 PURPOSE

This Clearing Desktop Report (CDR) is a desktop assessment of native vegetation clearing that is proposed to be cleared using the Statewide Clearing Permit CPS 818 issued to Main Roads Western Australia (Main Roads).

## 2 SCOPE

### 2.1 Project Scope

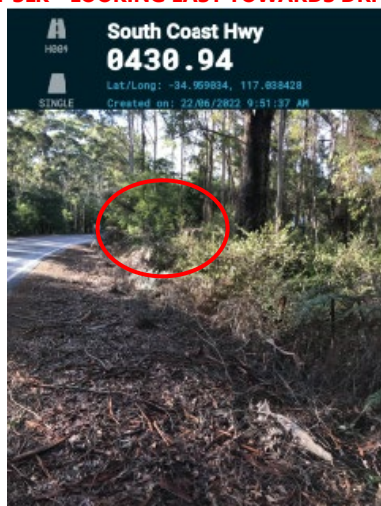
**Project Name:** Driveway 4341 South Western Hwy (H009) Sightline Clearing, Kent River

**Project Purpose / Components:** GSR received a landowner request from 4341 South Western Highway (H009 SLK 431.05) regarding poor sight distance from the Kent River/Sly Fox restaurant driveway in Denmark. A number of environmental site inspections (D22#672943) confirmed there is insufficient line of sight and that pruning and clearing of good quality understorey roadside vegetation within the maintenance zone is required (70m length and 0-4m wide = max. 0.028ha), with the following species mix present and no conservation significant species observed or anticipated to occur based on a desktop search of DBCA/Herbarium shapefiles:

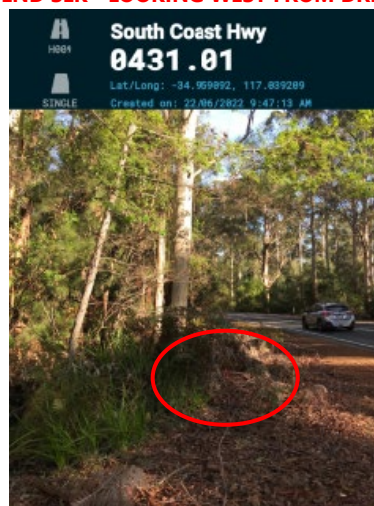
1. *Lepidosperma* sp.
2. *Pteridium esculentum*
3. *Trymalium odoratissimum* subsp. *trifidum*
4. *Chorilaena quercifolia*
5. *Taxandria parviceps*

Mulch/spoil from the cleared vegetation will be spread evenly into the road reserve and any excess removed from site and disposed of by the subcontractor at their private mulch pile. There will be no impact to the large Karri trees within the vicinity.

START SLK - LOOKING EAST TOWARDS DRIVEWAY



END SLK - LOOKING WEST FROM DRIVEWAY



The proposed clearing under CPS 818 is : up to 0.028ha

The proposed temporary clearing under CPS 818 is: 0ha

**Project Location(s):** The Project Area is located on South Western Highway (H009) SLK 430.94-431.01 near Kent River in the Shire of Denmark, as shown in **Figure 1**.

- Latitude: -34.958965      Longitude: 117.039123

### 2.2 Desktop Assessment Scope

The Desktop Study Area is confined to a local area of a 10 km radius, as shown in **Figure 2**.





**Figure 1. Project Area**



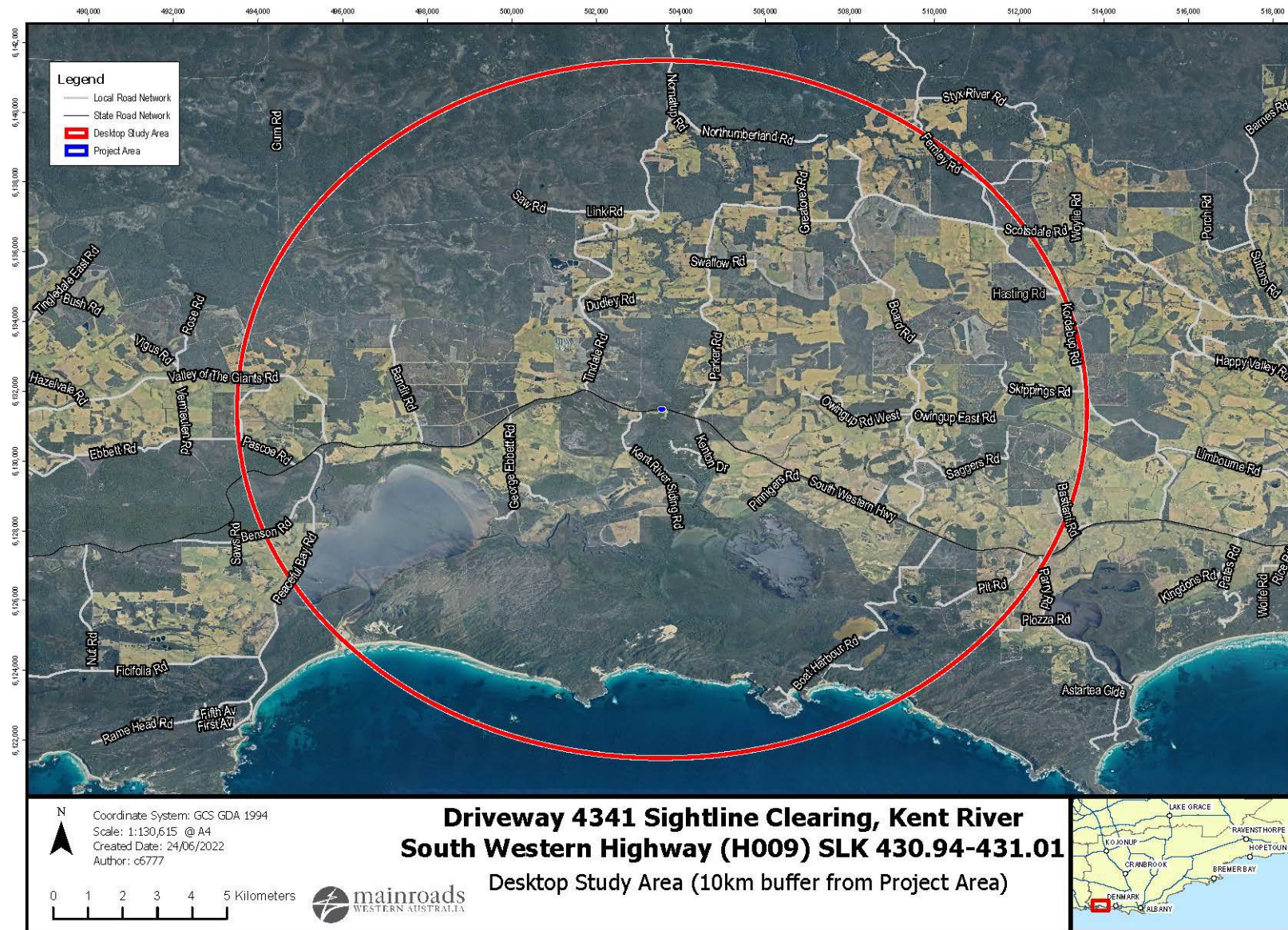


Figure 2. Desktop Study Area (10km buffer from Project Area)

## 2.3 Alternatives to Clearing

There are no reasonable alternatives, since pruning and clearing of the trees is required to achieve an acceptable line of sight for eastbound traffic and vehicles exiting the Sly Fox Diner driveway.

## 2.4 Measures to Avoid, Minimise, Mitigate and Manage Project Clearing Impacts

The design and management measures implemented to avoid and minimise the project clearing impacts are provided in **Table 1**.

The impact of the Works has been reduced to as low as reasonably practicable by undertaking multiple environmental site inspections with suitably qualified officers (D22#672943, see extract in **Appendix 1**) to confirm and refine the minimum line of sight that needs to be achieved and ensure that impacts are avoided to all mature Karri trees in the vicinity.

**Table 1. Justification of Avoiding, Minimising, Mitigating and Managing Project Clearing Impacts**

Design or Management Measure	Discussion and Justification
Steepen batter slopes	N/A – implementing this method of design treatment will not achieve an acceptable line of sight for vehicles.
Installation of safety barriers	N/A – implementing this method of design treatment will not achieve an acceptable line of sight for vehicles.
Alignment to one side of existing road	N/A – implementing this method of design treatment will not achieve an acceptable line of sight for vehicles.
Alternative alignment to follow existing road (or) to preferentially locate within pasture or a degraded areas	N/A – implementing this method of design treatment will not achieve an acceptable line of sight for vehicles.
Installation of kerbing	N/A – implementing this method of design treatment will not achieve an acceptable line of sight for vehicles.
Simplification of design to reduce number of lanes and/or complexity of intersections	N/A – implementing this method of design treatment will not achieve an acceptable line of sight for vehicles.
Preferential use of existing cleared areas for access tracks, construction storage and stockpiling	No temporary clearing for storage, side tracks, stockpiles, turn around bays etc. will be undertaken as part of project activities. Contractor laydown areas (e.g. materials storage areas, vehicles/machinery storage etc) and access tracks will be located on previously disturbed or cleared areas.
Drainage modification	N/A – implementing this method of design treatment will not achieve an acceptable line of sight for vehicles.
Other - Site inspections by suitably qualified officers	The impact of the Works has been reduced to as low as reasonably practicable by undertaking multiple environmental site inspections with suitably qualified officers (D22#672943) to confirm and refine the minimum line of sight that needs to be achieved and ensure that impacts are avoided to all mature Karri trees in the vicinity.

## 2.5 Approved Policies and Planning Instruments

The clearing of native vegetation in Western Australia is regulated under the EP Act and the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* (Clearing Regulations).

In addition to the matters considered in accordance with section 51O of the EP Act (see Section 1.3), Main Roads has also had regard to

### **EPPs**

- *Environmental Protection (Peel Inlet - Harvey Estuary) Policy 1992;*
- *Environmental Protection (Western Swamp Tortoise Habitat) Policy 2011*

### **Relevant other policies and guidance documents:**

- The Western Australian Environmental Offsets Policy (Government of Western Australia, 2011)
- A guide to the assessment of applications to clear native vegetation (DWER, December 2014)
- Procedure: Native vegetation clearing permits (DWER, October 2019)
- Environmental Offsets Guidelines (Government of Western Australia, August 2014)
- Technical guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (EPA, 2016)
- Technical guidance – Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment (EPA, 2020)
- Approved conservation advice under section 266B of the EPBC Act for threatened flora/fauna/vegetation communities
- Approved Recovery Plans for threatened species
- EPBC Act Referral guidelines for the three threatened black cockatoo species
- Strategic advice - EPA

### **Other Legislation of relevance for assessment of clearing and planning/other matters**

- *Biodiversity Conservation Act 2016 (WA) (BC Act)*
- *Conservation and Land Management Act 1984 (WA) (CALM Act)*
- *Country Areas Water Supply Act 1947 (WA) (CAWS Act)*
- *Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act)*
- *Planning and Development Act 2005 (WA) (P&D Act)*
- *Soil and Land Conservation Act 1945 (WA)*
- *Rights in Water and Irrigation Act 1914*
- *Aboriginal Heritage Act 1972 (WA)*
- *Town Planning and Development Act 1928*



## 3 METHODOLOGY

### 3.1 Desktop Study

A desktop assessment of the Project Area and an assessment of native vegetation clearing were undertaken by reviewing a number of government agency managed databases, viewing GIS shapefiles and consulting with relevant stakeholders where necessary. Results from searches can be found in the relevant Appendix.

GIS layer viewing and mapping is done using ArcMap and / or Main Roads Integrated Mapping System (IMS). Referencing of the GIS layers accessed is done under the relevant methodology section of each clearing principle. Government managed databases were searched to locate additional information, these are referenced in Section 7.

## 4 VEGETATION DETAILS

### 4.1.1 Project Site Vegetation Description

For a full description of the existing vegetation, refer to the Site Inspection Report at [D22#672943](#).

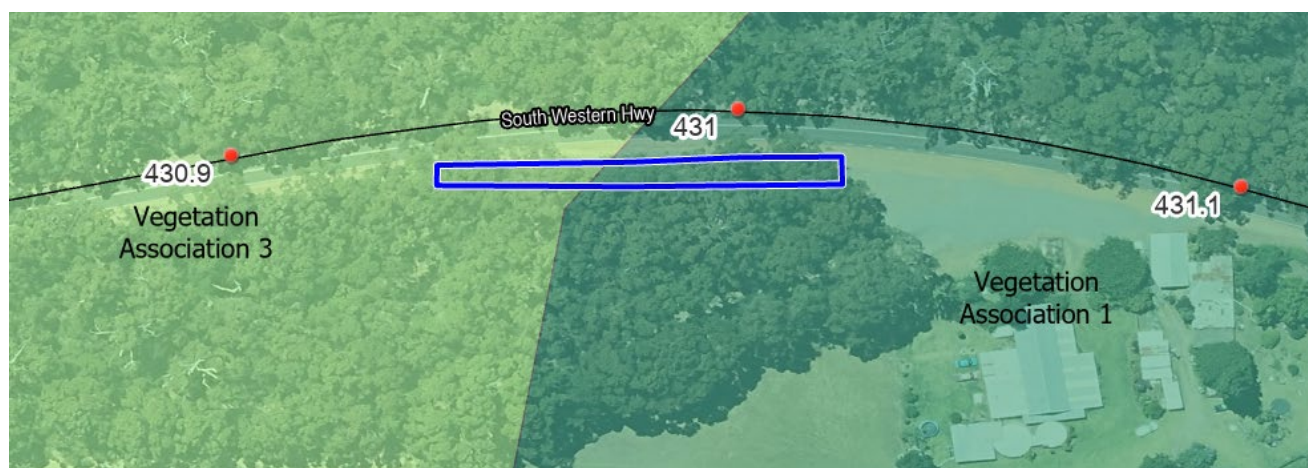
As shown in **Appendix 1**, clearing of good quality understorey roadside vegetation within the maintenance zone is required (70m length and from 0 to 4m wide = max. 0.028ha), with the following species mix present and no conservation significant species observed or anticipated to occur based on a desktop search of DBCA/Herbarium shapefiles:

1. *Lepidosperma* sp.
2. *Pteridium esculentum*
3. *Trymalium odoratissimum* subsp. *trifidum*
4. *Chorilaena quercifolia*
5. *Taxandria parviceps*

**Tables 2 and 3** provide details of the Pre-European Vegetation Associations with the Project Area and the remaining extents of these associations.

**Table 2. Summary of Project Area's Mapped Pre-European Vegetation Association**

Pre-European Vegetation Association(s)	Clearing Description	Vegetation Condition	Comments
Vegetation Association 1 described as a "Tall forest; karri ( <i>Eucalyptus diverscolor</i> )" (Government of Western Australia, 2017)	Clearing of up to 0.028 ha to establish minimum line of sight for traffic.	Good (EPA 2016)	Vegetation description and condition determined from site visits in May & June 2022 and aerial imagery.
Vegetation Association 3 described as a Medium forest; jarrah-marri (Government of Western Australia, 2017)			


**Table 3. Pre-European Vegetation Representation**

Pre-European Vegetation Association	Scale	Pre-European (ha)	Current Extent (ha)	% Remaining	% Remaining in DBCA reserves
Veg Assoc No. 1 "Tall forest; karri ( <i>Eucalyptus diverscolor</i> )"	Statewide	72,410.06	56,328.07	77.79	64.99
	IBRA Bioregion Warren	69,118.21	53,852.13	77.91	65.35
	IBRA Sub-region Warren	69,118.21	53,852.13	77.91	65.35
	Local Government Authority Shire of Denmark	12,550.36	6,032.08	48.06	12.39
Veg Assoc No. 3 "Medium forest; jarrah-marri"	Statewide	2,661,404.62	1,803,437.48	67.76	55.23
	IBRA Bioregion Warren	250,262.10	195,318.18	78.05	67.98
	IBRA Sub-region Warren	250,262.10	195,318.18	78.05	67.98
	Local Government Authority Shire of Denmark	76,436.78	60,628.40	79.32	68.21

## 6 Assessment Against the Ten Clearing Principles

In assessing whether the project's proposed clearing is likely to have a significant impact on the environment, the project was assessed against the ten Clearing Principles (*Environmental Protection Act 1986* (EP Act), Schedule 5).

Each principle has been assessed in accordance with DWER's 'A Guide to the Assessment of Applications to Clear Native Vegetation'.

The proposed clearing is **not at** variance with the 10 Clearing Principles.

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

Proposed clearing is <b>not at</b> variance to this Principle
<p><b>Comments</b></p> <p>The Works involve removing up to 0.028ha of good quality understorey roadside vegetation.</p> <p>The Project Area is not located within a mapped boundary of a Priority or Threatened Ecological Community (TEC).</p> <p>MRWA flora and herbarium GIS searches identified no known threatened or priority flora species within 300m of the Project Area and MRWA fauna GIS layers identified no known threatened fauna occurrences or Black Cockatoo breeding, roosting or foraging areas within 10km of the Project Area.</p> <p>Opportunities have been taken to retain all mature Karri trees within the Project Area, further reducing potential fauna habitat impacts.</p> <p>The Project Area is within the Western Ringtail Possum Management Zone; however, given clearing of only up to 0.028 understorey shrubs is proposed, long-term fauna habitat impacts are unlikely and the clearing will be undertaken in accordance with the Main Roads WA Fauna PEMR.</p> <p>The understorey vegetation condition is classified as good; however, the clearing of up to 0.028ha is unlikely to have a significant impact on the level of biodiversity of the area.</p> <p>Based on the above, the proposal area has limited biodiversity value and the proposed clearing is not at variance to this Principle.</p>
<p><b>Methodology</b></p> <p>BOM Website (Accessed 24 June 2022)</p> <p>DBCA shapefiles</p> <p>Department of Natural Resources and Environment (2002)</p> <p>DPLH Website (Accessed 24 June 2022)</p> <p>EPA (2016, 2020)</p> <p>Government of WA (2013)</p> <p>Main Roads GIS Shapefiles</p> <p>Main Roads Site Inspections (undertaken May and June 2022, D22#672943)</p> <p>Natural Resource Management SLIP Soil Systems (Accessed 24 June 2022)</p> <p>NatureMap (Accessed 24 June 2022)</p>

**(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.**

Proposed clearing is not at variance to this Principle
<p><b>Comments</b></p> <p>The proposed clearing of roadside understorey is unlikely to impact the conservation significant birds identified in the PMST report (<b>Appendix 2</b>) as potentially occurring within the Project Area, particularly since the roadside understorey shrubs (up to 0.028ha) adjacent to South Western Highway are unlikely to provide the necessary habitat for these species. In addition, all mature trees (including Karri trees) within the Project Area will be retained.</p> <p>The PMST report (<b>Appendix 2</b>) identified the following conservation significant mammals as potentially occurring within the Project Area:</p> <ul style="list-style-type: none"> <li>- <i>Pseudocheirus occidentalis</i> (Critically Endangered, Western Ringtail Possum),</li> <li>- <i>Parantechinus apicalis</i> (Endangered, Dibbler)</li> <li>- <i>Setonix brachyurus</i> (Vulnerable, Quokka) and</li> <li>- <i>Dasyurus geoffroii</i> (Vulnerable, Chuditch / Western Quoll).</li> </ul> <p>Furthermore, the Project Area is within the Western Ringtail Possum Management Zone.</p> <p>All the above listed species are highly transitory and unlikely to rely solely on the small amount of understorey shrubs (up to 0.028ha) adjacent to South Western Highway proposed for removal. In addition, the Project Area is adjacent to large areas of significant vegetative cover/understorey that are likely to provide the necessary habitat for these species. All mature trees (including Karri trees) within the Project Area will be retained. As such, the roadside understorey shrubs proposed to be cleared are considered to represent limited fauna habitat value, which was confirmed by the environmental site inspections undertaken in May and June 2022 (D22#672943).</p> <p>The removal of up to 0.028ha of roadside understorey shrubs is unlikely to be significant habitat for fauna indigenous to WA. Based on the above, the proposed clearing is not at variance to this Principle.</p>
<p><b>Methodology</b></p> <p>Main Roads Site Inspections (undertaken May and June 2022, D22#672943)</p> <p>DBCA Shapefiles</p> <p>DBCA website</p> <p>EPA (2016, 2020)</p>



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

<b>Proposal is not at variance to this Principle</b>
<p><b>Comments</b></p> <p>MRWA flora and herbarium GIS layers database searches identified no known Threatened or priority flora species within 300m of the Project Area. No conservation significant flora was observed during the environmental site inspections undertaken in May and June 2022 (D22#672943). Based on these findings and that the Works only require the removal of up to 0.028ha of roadside understorey shrubs, impacts to rare flora are highly unlikely.</p> <p>Based on the above, the proposed clearing is not at variance to this Principle.</p>
<p><b>Methodology</b></p> <p>DBCA shapefiles</p> <p>Florabase (Accessed 24 June 2022)</p> <p>Main Roads Site Inspections (undertaken May and June 2022, D22#672943)</p>

**(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.**

<b>Proposed clearing is not at variance to this Principle</b>
<p><b>Comments</b></p> <p>A search of state (DBCA) databases did not identify the presence of any State-listed TECs within 4km of the Project Area. Furthermore, no vegetation associated with TECs were observed during the environmental site inspections undertaken in May and June 2022 (D22#672943).</p> <p>Based on the above, the proposed clearing is not at variance to this Principle.</p>
<p><b>Methodology</b></p> <p>DBCA shapefiles</p> <p>Main Roads Site Inspections (undertaken May and June 2022, D22#672943)</p>

**(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.**

<b>Proposed clearing is not at variance to this Principle</b>
<p><b>Comments</b></p> <p>The Project Area contains Pre-European Vegetation Association No. 1 "Tall forest; Karri" and Vegetation Association No. 3 "Medium forest; Jarrah-Marri", which have approximately 78% and 68% remaining State-wide (refer <b>Table 3</b>), so the proposed clearing will not impact an under-represented vegetation association. Given the small-scale nature of clearing (up to 0.028ha) the proposed clearing is not considered to have a significant impact on remnant vegetation.</p> <p>Based on the above, the proposed clearing is not at variance to this Principle.</p>
<p><b>Methodology</b></p> <p>Aerial photography</p> <p>EPA (2016)</p> <p>Government of Western Australia (2017)</p> <p>Main Roads Site Inspections (undertaken May and June 2022, D22#672943)</p> <p>Shepherd (2009)</p>

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

<b>Proposed clearing is not at variance to this Principle</b>
<p><b>Comments</b></p> <p>The Project Area does not contain riparian vegetation and the desktop assessment confirmed there are no wetlands, lakes or watercourses within 120m of the Project Area.</p> <p>Furthermore, the clearing of up to 0.028ha of roadside understorey is unlikely to disturb or interrupt any natural drainage or surface run-off patterns and is unlikely to impact any bed or banks of a watercourse.</p> <p>Based on the above, the proposed clearing is not at variance to this Principle.</p>
<p><b>Methodology</b></p> <p>DWER and DBCA shapefiles</p> <p>Main Roads Site Inspections (undertaken May and June 2022, D22#672943)</p>

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

<b>Proposed clearing is not at variance to this Principle</b>
<p><b>Comments</b></p> <p>The Project Area is classified as low risk of occurrence of acid sulphate soils (DPRD), and the proposed removal of up to 0.028ha of roadside understorey is unlikely to significantly change flood risk and salinity, waterlogging, water erosion and wind erosion risk. The methodology (clearing and mulching of shrubs) does not involve significant disturbance to the soil profile.</p> <p>Based on the above, the proposed clearing is not at variance to this Principle.</p>
<p><b>Methodology</b></p> <p>Main Roads Site Inspections (undertaken May and June 2022, D22#672943)</p> <p>Natural Resource Management SLIP Soil Systems (Accessed 24 June 2022)</p>

**(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.**

<b>Proposed clearing is not at variance to this Principle</b>
<p><b>Comments</b></p> <p>There are no reserves or conservation areas within 100m of the Project Area and no Environmental Sensitive Areas (ESAs) within 3.5km of the Project Area.</p> <p>Subsequently, the proposed clearing is not at variance to this Principle.</p>
<p><b>Methodology</b></p> <p>DBCA shapefiles</p> <p>EPA (2016)</p> <p>Main Roads Site Inspections (undertaken May and June 2022, D22#672943)</p>

**(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.**

<b>Proposed clearing is not at variance to this Principle</b>
<p><b>Comments</b></p> <p>The Project Area is not located within 10km of the following areas:</p> <ul style="list-style-type: none"> <li>• groundwater or surface water catchments proclaimed under the <i>Rights in Water and Irrigation Act 1914</i>;</li> <li>• Public Drinking Water Source Areas (PDWSAs);</li> <li>• catchments proclaimed under the <i>Country Areas Water Supply Act 1947</i> (CAWS Act); or</li> <li>• wetlands or watercourses.</li> </ul> <p>In addition, the proposed removal of up to 0.028ha of roadside understorey is unlikely to disturb or interrupt any natural drainage or surface run-off patterns and will not impact any bed or banks of a watercourse. Given the nature and scale of the proposal clearing, the risk to surface water and groundwater is considered minimal/negligible.</p> <p>Based on the above, the proposed clearing is not at variance to this Principle.</p>
<p><b>Methodology</b></p> <p>DWER and DBCA shapefiles EPA (2016) Main Roads Site Inspections (<a href="#">undertaken May and June 2022, D22#672943</a>)</p>

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

<b>Proposed clearing is not at variance to this Principle</b>
<p><b>Comments</b></p> <p>The ground disturbance associated with the proposed removal of up to 0.028ha of roadside understorey is minor in nature and scale and is unlikely to cause or exacerbate the incidence of flooding.</p> <p>Based on the above, the proposed clearing is not at variance to this Principle.</p>
<p><b>Methodology</b></p> <p>Main Roads Site Inspections (<a href="#">undertaken May and June 2022, D22#672943</a>) Natural Resource Management SLIP Soil Systems (Accessed <a href="#">24 June 2022</a>)</p>

## 7 ADDITIONAL ACTIONS REQUIRED

The clearing associated with the proposal is not at variance with the Clearing Principles. Additional management actions under CPS 818 are detailed in Table 6.

**Table 6. Summary of Additional Management Actions Required by Permit CPS 818**

Impact of Clearing	Yes/No or NA	Further Action Required (choose and update correct statement)
<b>1.</b> The project involves clearing for temporary works (as defined by CPS 818).	<b>N</b>	No further action required.
<b>2 a.</b> Project is within Region that: <ul style="list-style-type: none"> <li>- Has rainfall greater than 400mm and</li> <li>- Is South of the 26<sup>th</sup> parallel and</li> <li>- Works are in 'Other than dry conditions' and</li> <li>- Works have potential for <b>uninfested</b> areas to be impacted</li> </ul>	<b>Y</b>	As per Dieback Management Process D20#56909, proceed with standard Vehicle and Plant management actions from PEMR's and Vehicle and Plant Hygiene Checklists
<b>3.</b> Main Roads has been notified by DWER or an environmental specialist that the area to be cleared is susceptible to a pathogen other than dieback	<b>N</b>	No further action required.
<b>4.</b> The vegetation within the area to be cleared and/or the surrounding vegetation in a good or better condition and weeds likely to spread to and result in environmental harm to adjacent areas of native vegetation that are in good or better condition	<b>N</b>	No further action required.

## 8 VEGETATION MANAGEMENT

Main Roads will avoid clearing native vegetation, where possible. Where clearing cannot be avoided then this clearing is kept to a minimum. Vegetation will be managed in accordance with the Principal Environmental Management Requirements (PEMR's).

## 9 REFERENCES

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## 10 APPENDICES

Appendix	Title
<b>Appendix 1</b>	Environmental Site Inspection by Jesse Olsen on 21 June 2022 (extract from D22#672943)
<b>Appendix 2</b>	Protected Matters of National Environmental Significance Search of Desktop Study Area (10km Buffer From Project Area)

## **APPENDIX 1 – Environmental Site Inspection on 21 June 2022 (extract from D22#672943)**









## ENVIRONMENTAL SITE INSPECTION REPORT FOR A CLEARING DESKTOP REPORT (CDR)

### Driveway 4341 South Western Hwy (H009) Sightline Clearing, Kent River

SITE INSPECTION DETAILS	
<b>Date:</b>	21/6/22
<b>Location:</b>	Driveway 4341 South Western Hwy (H009 SLK 431.01-430.94) Kent River, Denmark
<b>Region:</b>	Great Southern Region
<b>Purpose:</b>	Assessing environmental impact of proposed sightline clearing
<b>Attendee:</b>	Jesse Olsen   Southern Network Contract (Fulton Hogan) Vegetation Control Officer
SITE VISIT DETAILS AND METHODOLOGY	
<p>Jesse Olsen assessed all of the sight line pruning needed and confirmed the 5 species of plant present within the work area on 21/6/22.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><b>START SLK</b></p>  </div> <div style="text-align: center;"> <p><b>FINISH SLK</b></p>  </div> </div> <p>Jesse's site photos were sent to MRWA Senior Botanist Sharnya Yates on 23/6/2022 who provided plant species IDs and advised that she did not believe they would be conservation significant species.</p>	
SPECIES OBSERVED	
<p><i>Lepidosperma</i> sp.</p>	

<p><i>Pteridium</i> <i>esculentum</i></p>	
<p><i>Trymalium</i> <i>odoratissimum</i> subsp. <i>trifidum</i></p>	
<p><i>Chorilaena</i> <i>quercifolia</i></p>	
<p><i>Taxandria</i> <i>parviceps</i></p>	

## **APPENDIX 2 - Protected Matters of National Environmental Significance Search of Desktop Study Area (10km Buffer From Project Area)**

## EPBC Act Protected Matters Report

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

Report created: 24-Jun-2022

### [Summary](#)

### [Details](#)

[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

### [Caveat](#)

### [Acknowledgements](#)



## Summary

### Matters of National Environment Significance

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

<a href="#">World Heritage Properties:</a>	None
<a href="#">National Heritage Places:</a>	None
<a href="#">Wetlands of International Importance (Ramsar)</a>	None
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Area:</a>	None
<a href="#">Listed Threatened Ecological Communities:</a>	1
<a href="#">Listed Threatened Species:</a>	60
<a href="#">Listed Migratory Species:</a>	46

### Other Matters Protected by the EPBC Act

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

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

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

<a href="#">Commonwealth Lands:</a>	None
<a href="#">Commonwealth Heritage Places:</a>	None
<a href="#">Listed Marine Species:</a>	66
<a href="#">Whales and Other Cetaceans:</a>	12
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves Terrestrial:</a>	None
<a href="#">Australian Marine Parks:</a>	None
<a href="#">Habitat Critical to the Survival of Marine Turtles:</a>	None

### Extra Information

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

<a href="#">State and Territory Reserves:</a>	12
<a href="#">Regional Forest Agreements:</a>	1
<a href="#">Nationally Important Wetlands:</a>	1
<a href="#">EPBC Act Referrals:</a>	3
<a href="#">Key Ecological Features (Marine):</a>	None
<a href="#">Biologically Important Areas:</a>	11
<a href="#">Bioregional Assessments:</a>	None
<a href="#">Geological and Bioregional Assessments:</a>	None



## Details

### Matters of National Environmental Significance

#### Listed Threatened Ecological Communities [\[ Resource Information \]](#)

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

Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Subtropical and Temperate Coastal Saltmarsh</a>	Vulnerable	Community likely to occur within area	In buffer area only

#### Listed Threatened Species [\[ Resource Information \]](#)

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act. Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
<b>BIRD</b>			
<a href="#">Botaurus poeciloptilus</a>			
Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area	In feature area
<a href="#">Calidris canutus</a>			
Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Calidris ferruginea</a>			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Calyptorhynchus banksii naso</a>			
Forest Red-tailed Black-Cockatoo, Karrak [67034]	Vulnerable	Species or species habitat known to occur within area	In feature area
<a href="#">Charadrius leschenaultii</a>			
Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Diomedea amsterdamensis</a>			
Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Diomedea antipodensis</a>			
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
<a href="#">Diomedea dabbenena</a>			
Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Diomedea epomophora</a>			
Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Diomedea exulans</a>			
Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
<a href="#">Diomedea sanfordi</a>			
Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Falco hypoleucos</a>			
Grey Falcon [929]	Vulnerable	Species or species habitat may occur within area	In feature area
<a href="#">Halobaena caerulea</a>			
Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Limosa lapponica menzbieri</a>			
Northern Siberian Bar-tailed Godwit, Russkoye Bar-tailed Godwit [86432]	Critically Endangered	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Macronectes giganteus</a>			
Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Macronectes halli</a>			
Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
<a href="#">Numenius madagascariensis</a>			
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area

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Scientific Name	Threatened Category	Presence Text	Buffer Status	Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Pachyptila turtur subantarctica</a> Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only	<a href="#">Engaewa walpolea</a> Walpole Burrowing Crayfish [82676]	Endangered	Species or species habitat known to occur within area	In buffer area only
<a href="#">Phoebastria fusca</a> Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only	<b>FISH</b>			
<a href="#">Pterodroma mollis</a> Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In buffer area only	<a href="#">Galaxias truttaceus (Western Australian population)</a> Western Trout Minnow [89857]	Endangered	Species or species habitat known to occur within area	In feature area
<a href="#">Sternula nereis nereis</a> Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area	<a href="#">Galaxiella nigrostriata</a> Blackstriped Dwarf Galaxias, Black-stripe Minnow [88677]	Endangered	Species or species habitat known to occur within area	In feature area
<a href="#">Thalassarche carteri</a> Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only	<a href="#">Nannatherina balstoni</a> Balston's Pygmy Perch [66698]	Vulnerable	Species or species habitat known to occur within area	In feature area
<a href="#">Thalassarche cauta</a> Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only	<a href="#">Nannoperca pygmaea</a> Little Pygmy Perch [88315]	Endangered	Species or species habitat known to occur within area	In feature area
<a href="#">Thalassarche impavida</a> Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In buffer area only	<a href="#">Thunnus maccoyii</a> Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Thalassarche melanophrys</a> Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only	<b>FROG</b>			
<a href="#">Thalassarche steadi</a> White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In buffer area only	<a href="#">Spicospina flammocaerulea</a> Sunset Frog [64782]	Vulnerable	Species or species habitat known to occur within area	In feature area
<a href="#">Zanda baudinii listed as Calyptorhynchus baudinii</a> Baudin's Black-Cockatoo, Long-billed Black-cockatoo [87736]	Endangered	Breeding likely to occur within area	In feature area	<b>MAMMAL</b>			
<a href="#">Zanda latirostris listed as Calyptorhynchus latirostris</a> Carnaby's Black Cockatoo, Short-billed Black-cockatoo [87737]	Endangered	Breeding likely to occur within area	In feature area	<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
<b>CRUSTACEAN</b>				<a href="#">Bettongia penicillata ogilbyi</a> Woylie [66844]	Endangered	Species or species habitat likely to occur within area	In buffer area only
				<a href="#">Dasyurus geoffroyi</a> Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat likely to occur within area	In feature area
				<a href="#">Eubalaena australis</a> Southern Right Whale [40]	Endangered	Breeding known to occur within area	In buffer area only

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Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Neophoca cinerea</a> Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Parantechinus apicalis</a> Dibbler [313]	Endangered	Species or species habitat likely to occur within area	In feature area
<a href="#">Pseudocheirus occidentalis</a> Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit [25911]	Critically Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Setonix brachyurus</a> Quokka [229]	Vulnerable	Species or species habitat known to occur within area	In feature area
OTHER			
<a href="#">Westralunio carteri</a> Carter's Freshwater Mussel, Freshwater Mussel [86266]	Vulnerable	Species or species habitat known to occur within area	In feature area
PLANT			
<a href="#">Banksia verticillata</a> Granite Banksia, Albany Banksia, River Banksia [8333]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Caladenia harringtoniae</a> Harrington's Spider-orchid, Pink Spider-orchid [56786]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Calectasia cyanea</a> Blue Tinsel Lily [7669]	Critically Endangered	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Commersonia apella</a> Many-flowered Commersonia [86877]	Critically Endangered	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Diuris drummondii</a> Tall Donkey Orchid [4365]	Vulnerable	Species or species habitat known to occur within area	In feature area
<a href="#">Drakaea micrantha</a> Dwarf Hammer-orchid [56755]	Vulnerable	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Kennedia glabrata</a> Northcliffe Kennedia [16452]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Verticordia apecta</a> Hay River Featherflower, Scruffy Verticordia [65545]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
REPTILE			
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area	In buffer area only
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In buffer area only
SHARK			
<a href="#">Carcharias taurus (west coast population)</a> Grey Nurse Shark (west coast population) [68752]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Carcharodon carcharias</a> White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
<a href="#">Galeorhinus galeus</a> School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat may occur within area	In buffer area only
<a href="#">Rhincodon typus</a> Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area	In buffer area only
SPIDER			
<a href="#">Bertmainius tingle</a> Tingle Pygmy Trapdoor Spider [89126]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Listed Migratory Species [ Resource Information ]			
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			

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Scientific Name	Threatened Category	Presence Text	Buffer Status	Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area	<a href="#">Macronectes halli</a> Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
<a href="#">Ardenna carneipes</a> Flesh-footed Shearwater, Fleishy-footed Shearwater [82404]		Breeding known to occur within area	In buffer area only	<a href="#">Onychoprion anaethetus</a> Bridled Tern [82845]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
<a href="#">Ardenna grisea</a> Sooty Shearwater [82651]		Species or species habitat may occur within area	In buffer area only	<a href="#">Phoebastria fusca</a> Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Diomedea amsterdamensis</a> Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area	In buffer area only	<a href="#">Thalassarche carteri</a> Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Diomedea antipodensis</a> Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only	<a href="#">Thalassarche cauta</a> Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
<a href="#">Diomedea dabbenena</a> Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area	In buffer area only	<a href="#">Thalassarche impavida</a> Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Diomedea epomophora</a> Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In buffer area only	<a href="#">Thalassarche melanophris</a> Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
<a href="#">Diomedea exulans</a> Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only	<a href="#">Thalassarche steadi</a> White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Diomedea sanfordi</a> Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area	In buffer area only	<b>Migratory Marine Species</b>			
<a href="#">Hydroprogne caspia</a> Caspian Tern [808]		Foraging, feeding or related behaviour known to occur within area	In buffer area only	<a href="#">Balaenoptera edeni</a> Bryde's Whale [35]		Species or species habitat may occur within area	In buffer area only
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only	<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only



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Scientific Name	Threatened Category	Presence Text	Buffer Status	Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Caperea marginata</a> Pygmy Right Whale [39]		Species or species habitat may occur within area	In buffer area only	<a href="#">Orcinus orca</a> Killer Whale, Orca [46]		Species or species habitat may occur within area	In buffer area only
<a href="#">Carcharhinus longimanus</a> Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area	In buffer area only	<a href="#">Rhincodon typus</a> Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Carcharodon carcharias</a> White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In buffer area only	<b>Migratory Terrestrial Species</b>			
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area	In buffer area only	<a href="#">Motacilla cinerea</a> Grey Wagtail [642]		Species or species habitat may occur within area	In feature area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In buffer area only	<b>Migratory Wetlands Species</b>			
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In buffer area only	<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
<a href="#">Eubalaena australis as Balaena glacialis australis</a> Southern Right Whale [40]	Endangered	Breeding known to occur within area	In buffer area only	<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
<a href="#">Lagenorhynchus obscurus</a> Dusky Dolphin [43]		Species or species habitat may occur within area	In buffer area only	<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Lamna nasus</a> Porbeagle, Mackerel Shark [83288]		Species or species habitat may occur within area	In buffer area only	<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]		Species or species habitat known to occur within area	In buffer area only	<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
<a href="#">Mobula alfredi as Manta alfredi</a> Reef Manta Ray, Coastal Manta Ray [90033]		Species or species habitat may occur within area	In buffer area only	<a href="#">Charadrius leschenaultii</a> Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Mobula birostris as Manta birostris</a> Giant Manta Ray [90034]		Species or species habitat may occur within area	In buffer area only	<a href="#">Limosa lapponica</a> Bar-tailed Godwit [844]		Species or species habitat likely to occur within area	In buffer area only
				<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area



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Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Pandion haliaetus</a> Osprey [952]		Species or species habitat known to occur within area	In buffer area only

[Tringa nebularia](#)  
Common Greenshank, Greenshank [832]

Species or species habitat likely to occur within area  
In feature area

Other Matters Protected by the EPBC Act

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
<b>Bird</b>			

[Actitis hypoleucos](#)

Common Sandpiper [59309]

Species or species habitat known to occur within area  
In feature area

[Apus pacificus](#)

Fork-tailed Swift [678]

Species or species habitat likely to occur within area overfly marine area  
In feature area

[Ardenna carneipes as Puffinus carneipes](#)

Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]

Breeding known to occur within area  
In buffer area only

[Ardenna grisea as Puffinus griseus](#)

Sooty Shearwater [82651]

Species or species habitat may occur within area  
In buffer area only

[Bubulcus ibis as Ardea ibis](#)

Cattle Egret [66521]

Species or species habitat may occur within area overfly marine area  
In feature area

[Calidris acuminata](#)

Sharp-tailed Sandpiper [874]

Species or species habitat may occur within area  
In feature area

[Calidris canutus](#)

Red Knot, Knot [855]

Endangered

Species or species habitat may occur within area overfly marine area  
In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area

[Calidris melanotos](#)

Pectoral Sandpiper [858]

Species or species habitat may occur within area overfly marine area  
In feature area

[Charadrius leschenaultii](#)

Greater Sand Plover, Large Sand Plover [877]

Vulnerable

Species or species habitat likely to occur within area  
In feature area

[Diomedea amsterdamensis](#)

Amsterdam Albatross [64405]

Endangered

Species or species habitat may occur within area  
In buffer area only

[Diomedea antipodensis](#)

Antipodean Albatross [64458]

Vulnerable

Foraging, feeding or related behaviour likely to occur within area  
In buffer area only

[Diomedea dabbenena](#)

Tristan Albatross [66471]

Endangered

Species or species habitat may occur within area  
In buffer area only

[Diomedea epomophora](#)

Southern Royal Albatross [89221]

Vulnerable

Species or species habitat may occur within area  
In buffer area only

[Diomedea exulans](#)

Wandering Albatross [89223]

Vulnerable

Foraging, feeding or related behaviour likely to occur within area  
In buffer area only

[Diomedea sanfordi](#)

Northern Royal Albatross [64456]

Endangered

Species or species habitat may occur within area  
In buffer area only

[Haliaeetus leucogaster](#)

White-bellied Sea-Eagle [943]

Species or species habitat known to occur within area  
In feature area

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Scientific Name	Threatened Category	Presence Text	Buffer Status	Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Halobaena caerulea</a> Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In buffer area only	<a href="#">Pachyptila turtur</a> Fairy Prion [1066]		Species or species habitat likely to occur within area	In buffer area only
<a href="#">Hydroprogne caspia as Sterna caspia</a> Caspian Tern [808]		Foraging, feeding or related behaviour known to occur within area	In buffer area only	<a href="#">Pandion haliaetus</a> Osprey [952]		Species or species habitat known to occur within area	In buffer area only
<a href="#">Larus pacificus</a> Pacific Gull [811]		Foraging, feeding or related behaviour known to occur within area	In buffer area only	<a href="#">Phoebastria fusca</a> Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Limosa lapponica</a> Bar-tailed Godwit [844]		Species or species habitat likely to occur within area	In buffer area only	<a href="#">Pterodroma mollis</a> Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only	<a href="#">Puffinus assimilis</a> Little Shearwater [59363]		Foraging, feeding or related behaviour known to occur within area	In buffer area only
<a href="#">Macronectes halli</a> Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only	<a href="#">Stercorarius skua as Catharacta skua</a> Great Skua [823]		Species or species habitat may occur within area	In buffer area only
<a href="#">Merops ornatus</a> Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area	<a href="#">Thalassarche carteri</a> Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Motacilla cinerea</a> Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area	In feature area	<a href="#">Thalassarche cauta</a> Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area	<a href="#">Thalassarche impavida</a> Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Onychoprion anaethetus as Sterna anaethetus</a> Bridled Tern [82845]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only	<a href="#">Thalassarche melanophris</a> Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
				<a href="#">Thalassarche steadi</a> White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In buffer area only

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Scientific Name	Threatened Category	Presence Text	Buffer Status	Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Thinornis cucullatus as Thinornis rubricollis</a> Hooded Plover, Hooded Dotterel [87735]		Species or species habitat known to occur within area overfly marine area	In buffer area only	<a href="#">Nannocampus subosseus</a> Bonyhead Pipefish, Bony-headed Pipefish [66264]		Species or species habitat may occur within area	In buffer area only
<a href="#">Tringa nebularia</a> Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area overfly marine area	In feature area	<a href="#">Notiocampus ruber</a> Red Pipefish [66265]		Species or species habitat may occur within area	In buffer area only
<b>Fish</b>				<a href="#">Phycodurus eques</a> Leafy Seadragon [66267]		Species or species habitat may occur within area	In buffer area only
<a href="#">Acentronura australe</a> Southern Pygmy Pipehorse [66185]		Species or species habitat may occur within area	In buffer area only	<a href="#">Phyllopteryx taeniolatus</a> Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In buffer area only
<a href="#">Campichthys galei</a> Gale's Pipefish [66191]		Species or species habitat may occur within area	In buffer area only	<a href="#">Pugnaso curtirostris</a> Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In buffer area only
<a href="#">Heraldia nocturna</a> Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area	In buffer area only	<a href="#">Solegnathus lettiensis</a> Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area	In buffer area only
<a href="#">Hippocampus breviceps</a> Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In buffer area only	<a href="#">Stigmatopora argus</a> Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In buffer area only
<a href="#">Histiogamphelus cristatus</a> Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area	In buffer area only	<a href="#">Stigmatopora nigra</a> Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In buffer area only
<a href="#">Leptoichthys fistularius</a> Brushtail Pipefish [66248]		Species or species habitat may occur within area	In buffer area only	<a href="#">Urocampus carinirostris</a> Hairy Pipefish [66282]		Species or species habitat may occur within area	In buffer area only
<a href="#">Lissocampus caudalis</a> Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area	In buffer area only	<a href="#">Vanacampus margaritifer</a> Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In buffer area only
<a href="#">Lissocampus runa</a> Javelin Pipefish [66251]		Species or species habitat may occur within area	In buffer area only	<a href="#">Vanacampus phillipi</a> Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In buffer area only
<a href="#">Maroubra perserrata</a> Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In buffer area only				

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Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Vanacampus poecilolaemus</a> Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area	In buffer area only
<b>Mammal</b>			
<a href="#">Arctocephalus forsteri</a> Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In buffer area only
<a href="#">Neophoca cinerea</a> Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat may occur within area	In buffer area only
<b>Reptile</b>			
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area	In buffer area only
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In buffer area only
<b>Whales and Other Cetaceans</b> <a href="#">[ Resource Information ]</a>			
Current Scientific Name	Status	Type of Presence	Buffer Status
<b>Mammal</b>			
<a href="#">Balaenoptera acutorostrata</a> Minke Whale [33]		Species or species habitat may occur within area	In buffer area only
<a href="#">Balaenoptera edeni</a> Bryde's Whale [35]		Species or species habitat may occur within area	In buffer area only
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Caperea marginata</a> Pygmy Right Whale [39]		Species or species habitat may occur within area	In buffer area only

Current Scientific Name	Status	Type of Presence	Buffer Status
<a href="#">Delphinus delphis</a> Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In buffer area only
<a href="#">Eubalaena australis</a> Southern Right Whale [40]	Endangered	Breeding known to occur within area	In buffer area only
<a href="#">Grampus griseus</a> Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In buffer area only
<a href="#">Lagenorhynchus obscurus</a> Dusky Dolphin [43]		Species or species habitat may occur within area	In buffer area only
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]		Species or species habitat known to occur within area	In buffer area only
<a href="#">Orcinus orca</a> Killer Whale, Orca [46]		Species or species habitat may occur within area	In buffer area only
<a href="#">Tursiops aduncus</a> Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area	In buffer area only
<a href="#">Tursiops truncatus s. str.</a> Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In buffer area only

Extra Information

State and Territory Reserves				<a href="#">[ Resource Information ]</a>
Protected Area Name	Reserve Type	State	Buffer Status	
Mehniup	Nature Reserve	WA	In buffer area only	
Mount Frankland South	National Park	WA	In buffer area only	
Mount Roe	National Park	WA	In buffer area only	
NTWA Bushland covenant (0067A)	Conservation Covenant	WA	In buffer area only	
NTWA Bushland covenant (0067B)	Conservation Covenant	WA	In buffer area only	
NTWA Bushland covenant (0151)	Conservation Covenant	WA	In buffer area only	



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Protected Area Name	Reserve Type	State	Buffer Status	Scientific Name	Behaviour	Presence	Buffer Status	
NTWA Bushland covenant (0153)	Conservation Covenant	WA	In buffer area only	<a href="#">Hydroprogne caspia</a> Caspian Tern [808]	Foraging (provisioning young)	Known to occur	In buffer area only	
Owingup	Nature Reserve	WA	In buffer area only					
Quarram	Nature Reserve	WA	In buffer area only					
Unnamed WA31468	Nature Reserve	WA	In buffer area only	<a href="#">Larus pacificus</a> Pacific Gull [811]	Foraging (in high numbers)	Known to occur	In buffer area only	
Unnamed WA46895	5(1)(h) Reserve	WA	In buffer area only	<a href="#">Onychoprion anaethetus</a> Bridled Tern [82845]	Foraging (in high numbers)	Known to occur	In buffer area only	
Walpole-Nornalup	National Park	WA	In buffer area only					
Regional Forest Agreements <a href="#">[ Resource Information ]</a>								
Note that all areas with completed RFAs have been included.				<a href="#">Puffinus assimilis tunneyi</a> Little Shearwater [59363]	Foraging (in high numbers)	Known to occur	In buffer area only	
RFA Name	State	Buffer Status						
<a href="#">South West WA RFA</a>	Western Australia	In feature area						
Nationally Important Wetlands <a href="#">[ Resource Information ]</a>				<a href="#">Sternula nereis</a> Fairy Tern [82949]	Foraging (in high numbers)	Known to occur	In buffer area only	
Wetland Name	State	Buffer Status						
<a href="#">Owingup Swamp System</a>	WA	In buffer area only						
EPBC Act Referrals <a href="#">[ Resource Information ]</a>				Whales				
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status	<a href="#">Balaenoptera musculus brevicauda</a> Pygmy Blue Whale [81317]	Distribution	Known to occur	In buffer area only
Not controlled action								
<a href="#">Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia</a>	2015/7522	Not Controlled Action	Completed	In feature area	<a href="#">Eubalaena australis</a> Southern Right Whale [40]			
<a href="#">INDIGO Central Submarine Telecommunications Cable</a>	2017/8127	Not Controlled Action	Completed	In feature area	<a href="#">Eubalaena australis</a> Southern Right Whale [40]	Seasonal calving habitat	Known to occur	In buffer area only
Not controlled action (particular manner)								
<a href="#">INDIGO Marine Cable Route Survey (INDIGO)</a>	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area	<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]			
Biologically Important Areas								
Scientific Name		Behaviour	Presence	Buffer Status				
Seabirds								
<a href="#">Ardenna carneipes</a> Flesh-footed Shearwater [82404]		Foraging (in high numbers)	Known to occur	In buffer area only				
<a href="#">Eudyptula minor</a> Little Penguin [1085]		Foraging (provisioning young)	Known to occur	In buffer area only				

## Caveat

### 1 PURPOSE

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

The report contains the mapped locations of:

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

### 2 DISCLAIMER

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

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

### 3 DATA SOURCES

Threatened ecological communities

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

Threatened, migratory and marine species

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

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

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

### 4 LIMITATIONS

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

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

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

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

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

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

## Acknowledgements

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

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

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