



## CLEARING PERMIT

*Granted under section 51E of the Environmental Protection Act 1986*

<b>Purpose Permit number:</b>	CPS 9798/1
<b>Permit Holder:</b>	Brayden Morfitt
<b>Duration of Permit:</b>	From 14 November 2022 to 14 November 2027

The permit holder is authorised to clear *native vegetation* subject to the following conditions of this permit.

### **PART I – CLEARING AUTHORISED**

**1. Clearing authorised (purpose)**

The permit holder is authorised to clear *native vegetation* for the purpose of installing underground power connection.

**2. Land on which clearing is to be done**

Lot 128 on Plan 23412, Barragup  
Lakelands Road Reserve (PIN 1376987), Barragup

**3. Clearing authorised**

The permit holder must not clear more than 0.022 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

### **PART II – MANAGEMENT CONDITIONS**

**4. Avoid, minimise, and reduce impacts and extent of clearing**

In determining the *native vegetation* authorised to be cleared under this permit, the permit holder must apply the following principles, set out in descending order of preference:

- (a) avoid the clearing of *native vegetation*;
- (b) minimise the amount of *native vegetation* to be cleared; and
- (c) reduce the impact of clearing on any environmental value.

## 5. Weed and dieback management

When undertaking any clearing authorised under this permit, the permit holder must take the following measures to minimise the risk of introduction and spread of *weeds* and *dieback*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no known *dieback* or *weed*-affected soil, *mulch*, *fill*, or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

## **PART III - RECORD KEEPING AND REPORTING**

### 6. Records that must be kept

The permit holder must maintain records relating to the listed relevant matters in accordance with the specifications detailed in Table 1.

**Table 1: Records that must be kept**

No.	Relevant matter	Specifications
1.	In relation to the authorised clearing activities generally	<ol style="list-style-type: none"><li>(a) the species composition, structure, and density of the cleared area;</li><li>(b) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994/2020 (GDA94/2020), expressing the geographical coordinates in Eastings and Northings;</li><li>(c) the date that the area was cleared;</li><li>(d) the size of the area cleared (in hectares); and</li><li>(e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 4; and</li><li>(f) actions taken to minimise the risk of the introduction and spread of <i>weeds</i> and <i>dieback</i> in accordance with condition 5</li></ol>

### 7. Reporting

The permit holder must provide to the *CEO* the records required under condition 6 of this permit when requested by the *CEO*.

## DEFINITIONS

In this permit, the terms in Table have the meanings defined.

**Table 2: Definitions**

Term	Definition
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the <i>Environmental Protection Act 1986</i> .
clearing	has the meaning given under section 3(1) of the EP Act.
condition	a condition to which this clearing permit is subject under section 51H of the EP Act.
dieback	means the effect of <i>Phytophthora</i> species on native vegetation.
department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
EP Act	<i>Environmental Protection Act 1986</i> (WA)
fill	means material used to increase the ground level, or to fill a depression.
mulch	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
weeds	means any plant – (a) that is a declared pest under section 22 of the <i>Biosecurity and Agriculture Management Act 2007</i> ; or (b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or (c) not indigenous to the area concerned.

---

## END OF CONDITIONS



**Meenu Vitarana**

**MANAGER**

**NATIVE VEGETATION REGULATION**

*Officer delegated under Section 20  
of the Environmental Protection Act 1986*

21 October 2022

# Schedule 1

The boundary of the area authorised to be cleared is shown in the map below (Figure 1).

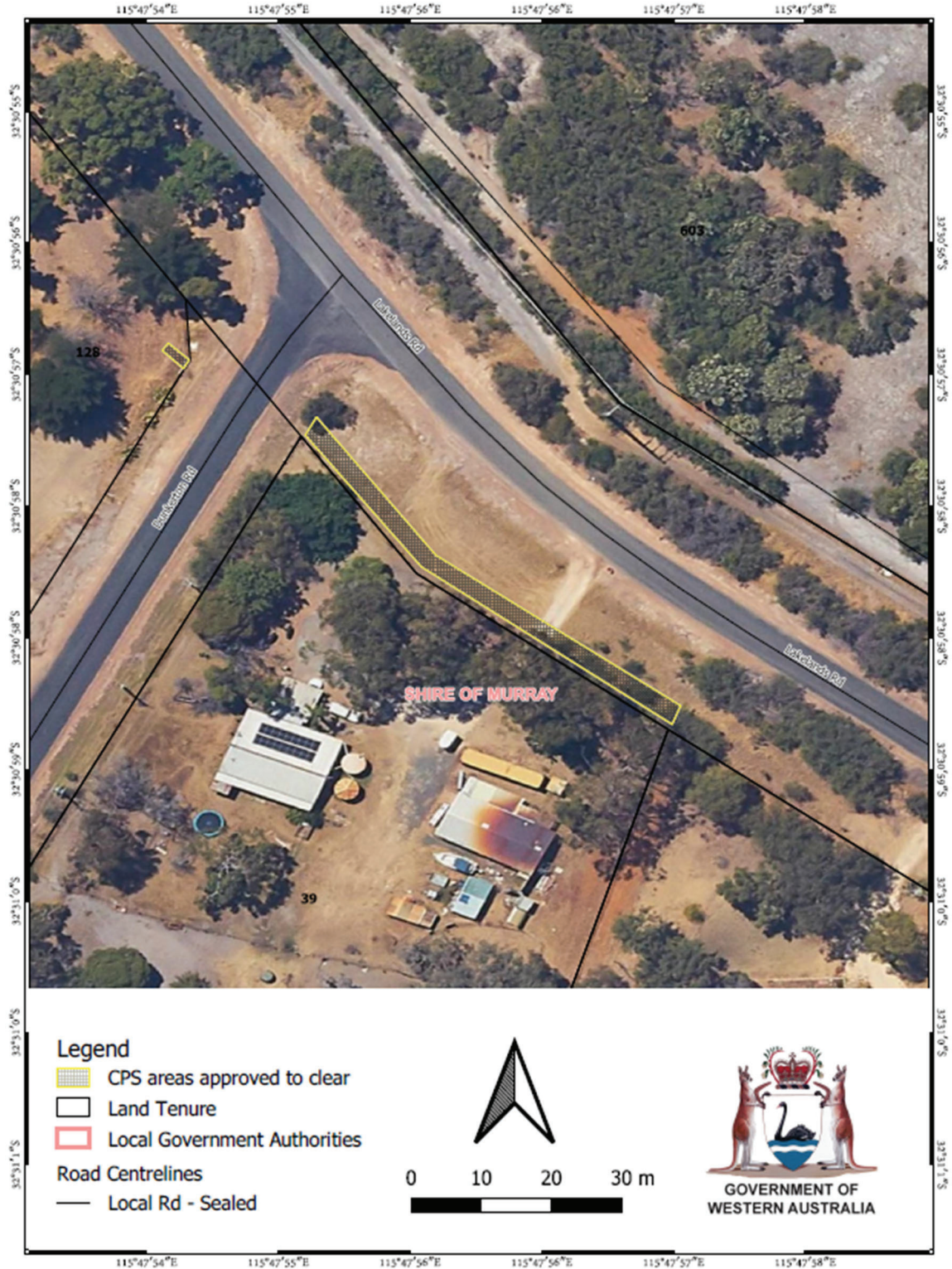


Figure 1: Map of the boundary of the area within which clearing may occur



# Clearing Permit Decision Report

## 1 Application details and outcome

### 1.1. Permit application details

<b>Permit number:</b>	CPS 9798/1
<b>Permit type:</b>	Purpose permit
<b>Applicant name:</b>	Brayden Morfit
<b>Application received:</b>	6 July 2022
<b>Application area:</b>	0.022 hectares of native vegetation
<b>Purpose of clearing:</b>	Underground power connection installation
<b>Method of clearing:</b>	Mechanical clearing
<b>Property:</b>	Lot 128 on Plan 23412 and Lakelands Road reserve (PIN 1376987)
<b>Location (LGA area/s):</b>	Shire of Murray
<b>Localities (suburb/s):</b>	Barragup

### 1.2. Description of clearing activities

The vegetation proposed to be cleared is distributed across two separate areas (see Figure 1, Section 1.5) which is separated by Dunkerton Road. The application is to clear vegetation for the purpose of installing an underground power connection.

### 1.3. Decision on application

<b>Decision:</b>	Granted
<b>Decision date:</b>	21 October 2022
<b>Decision area:</b>	0.022 hectares of native vegetation, as depicted in Section 1.5, below.

### 1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Water and Environmental Regulation (DWER) advertised the application for 21 days and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (see 0), relevant datasets (see Appendix E.1), the clearing principles set out in Schedule 5 of the EP Act (see 0), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3). The Delegated

The assessment identified that the proposed clearing will result in:

- the spreading of weeds and dieback into adjacent vegetation.



After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined the proposed clearing is unlikely to have long-term adverse impacts on environmental values and can be minimised and managed to be unlikely to lead to an unacceptable risk to environmental values.

The Delegated Officer decided to grant a clearing permit subject to conditions to:

- avoid, minimise to reduce the impacts and extent of clearing, and
- Take hygiene steps to minimise the risk of the introduction and spread of weeds into adjacent remnant vegetation.

**1.5. Site map**



Figure 1 Map of the application area

The areas highlighted yellow indicate the areas authorised to be cleared under the granted clearing permit.

## 2 Legislative context

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 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

- the precautionary principle
- the principle of intergenerational equity
- the principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Planning and Development Act 2005* (WA) (P&D Act)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)

## 3 Detailed assessment of application

### 3.1. Avoidance and mitigation measures

The applicant stated that the area required to be cleared was calculated by Western Power for the required power cable installation. The proposed design has avoided better condition vegetation to the south of the application.

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values.

### 3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix A) and the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values.

The assessment against the clearing principles (see Appendix B) identified that the impacts of the proposed clearing present a risk to significant remnant vegetation. The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

#### 3.2.1. Remnant vegetation- Clearing Principles (e)

##### Assessment:

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

'Bassendean Complex-Central and South' retains approximately 26.87 per cent of its pre-European vegetation extent within the Swan Coastal Plain IBRA bioregion (Appendix A.2). Additionally, within the local area, only 27.6 per cent remnant vegetation remains, most of which is highly fragmented and occurs within an extensively cleared landscape.

The application area is mapped as 'Bassendean Complex-Central and South' vegetation complex described as vegetation ranges from woodland of *Eucalyptus marginata* (Jarrah) – *Allocasuarina fraseriana* (Sheoak) – *Banksia* species to low woodland of *Melaleuca* species, and sedgelands on the moister sites. The vegetation within the application area is somewhat consistent with the mapped vegetation complex, due to the presence of *Allocasuarina fraseriana*. However, given the degraded (Keighery, 1994) condition and composition of the vegetation present, the linear nature of the application area and noting the application area does not provide significant habitat for conservation significant flora, fauna or vegetation communities, the application area is not considered to be a significant remnant in an extensively cleared area.

Outcome: Based on the above assessment, the Delegated Officer has determined that the proposed clearing is considered acceptable subject to relevant conditions in relation to this environmental value. The proposed clearing, however, may introduce and spread weeds and dieback into the neighbouring remnant vegetation.

Conditions: To address the above impacts, the following condition will be added to the permit:

- Dieback and weed control: To minimise the risk of the introduction and spread of weeds and dieback into adjacent remnant vegetation.

### **3.3. Relevant planning instruments and other matters**

The Shire of Murray advised DWER that they did not have any objections to the proposed clearing and had provided authority to access to clear within the road reserve.

The Department of Water and Environmental Regulation (the Department) Water Licensing Peel Region office advised that if the proponent requires water for dust suppression for the clearing activities, a licence to construct and a licence to take water would be required from the Department. Additionally, if the installation of the underground power connection required dewatering of the site, and was not otherwise exempt, then licences would be required

One registered Aboriginal sites of significance (Serpentine river) has been mapped within the application area. It is the permit holder's responsibility to comply with the *Aboriginal Heritage Act 1972 (WA)* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

**End**



## Appendix A. Site characteristics

### A.1. Site characteristics

Characteristic	Details
Local context	<p>The area proposed to be cleared is a 0.22-hectare isolated patch of native vegetation in the intensive land use zone of Western Australia. The proposed clearing area is an approximately 32-metre strip, parallel to Lakelands Road and intersects with Dunkerton Road at one end.</p> <p>Aerial imagery indicates the local area (10-kilometre radius) retains approximately 27.6 per cent of the original native vegetation cover.</p>
Ecological linkage	No ecological linkages are mapped within the application area and the proposed clearing will not sever any linkages within the landscape.
Conservation areas	The nearest conservation area to the application area is the Rockingham Lakes located approximately 6.7 kilometres from the application area.
Vegetation description	<p>Photographs supplied by the applicant indicate the vegetation within the proposed clearing area consists of <i>Allocasuarina fraseriana</i>, <i>jaksonia</i> sp., <i>Agonis flexuosa</i> over a very weedy understorey. Representative photos are available in Appendix D.</p> <p>This is somewhat consistent with the mapped vegetation type:</p> <ul style="list-style-type: none"> <li>Bassendean Complex-Central and South, which is described as 'Vegetation ranges from woodland of <i>Eucalyptus marginata</i> (Jarrah) - <i>Allocasuarina fraseriana</i> (Sheoak) - <i>Banksia</i> species to low woodland of <i>Melaleuca</i> species, and sedgelands on the moister sites. This area includes the transition of <i>Eucalyptus marginata</i> (Jarrah) to <i>Eucalyptus todtiana</i> (Pricklybark) in the vicinity of Perth.</li> </ul>
Vegetation condition	<p>Photographs supplied by the applicant indicate the vegetation within the proposed clearing area is in degraded to completely degraded (Keighery, 1994) condition, described as:</p> <ul style="list-style-type: none"> <li>Degraded: Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management.</li> <li>Completely degraded: The structure of the vegetation is no longer intact, and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.</li> </ul> <p>The full Keighery (1994) condition rating scale is provided in Appendix C. Representative photos are available in Appendix D.</p>
Climate and landform	<p>Average Rainfall: 586.3mm</p> <p>Geology: Alluvial, shoreline, and eolian deposits</p> <p>Groundwater Salinity (Total Dissolved Solids): 1000-3000 mg/L</p>
Soil description	The soil is mapped as Bassendean B4 phase (212Bs__B4) described as poorly drained sandplain with deep grey siliceous sands or bleached sands, underlain at depths generally greater than 1.5 m by clay or less frequently a strong iron-organic hardpan.
Land degradation risk	The land degradation risk factors mapped over the application area are detailed below: <u>Wind erosion</u> : M1: 10-30% of map unit has a high to extreme wind erosion risk

Characteristic	Details
	<p><u>Water Erosion</u>: L1: &lt;3% of map unit has a high to extreme water erosion risk</p> <p><u>Waterlogging</u>: H2: &gt;70% of map unit has a moderate to very high waterlogging risk</p> <p><u>Subsurface acidification</u>: H2: &gt;70% of map unit has a high subsurface acidification risk or is presently acid</p> <p><u>Phosphorus Export</u>: H2: &gt;70% of map unit has a high to extreme phosphorus export risk</p> <p><u>Salinity risk</u>: L1: 30-50% of map unit has a moderate to high salinity risk or is presently saline</p> <p><u>Flooding</u>: L1: &lt;3% of the map unit has a moderate to high flood risk</p>
Waterbodies	The desktop assessment and aerial imagery indicated that no waterbodies or wetlands transect the area proposed to be cleared.
Hydrogeography	The application area falls within the Murray River System and the Murray Groundwater Area, as proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> (RIWI Act).
Flora	There are 33 flora records in local area (10-kilometre radius), three of which are found on the same soil type as the application area. There are records of four threatened flora within the local area. The closest record is of <i>Drakaea elastica</i> (Threatened) approximately 0.6 kilometres from the application area.
Ecological communities	Nearest record of an ecological community is of 'Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region' priority ecological community approximately 41 metres from the application area. The ecological community is listed as endangered under the commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act).
Fauna	There are records of 52 fauna of conservation significance within the local area and 11 known black cockatoo roost sites within 10-kilometre radius. Five black cockatoo breeding sites have been recorded within four kilometres of the application area.

## A.2. Vegetation extent

	Pre-European extent (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current proportion (%) of pre-European extent in all DBCA managed land
IBRA bioregion*					
Swan Coastal Plain	94,175.31	24,869.20	26.41	4,769.48	5.06
Vegetation complex					
Hedde vegetation complex Bassendean Complex-Central and South**	87,476.26	23,508.66	26.87	4,377.36	5.00

\*Government of Western Australia (2019a)

\*\*Government of Western Australia (2019b)

## Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
<b>Environmental value: biological values</b>		
<p><u>Principle (a):</u> <i>“Native vegetation should not be cleared if it comprises a high level of biodiversity.”</i></p> <p><u>Assessment:</u></p> <p>The vegetation within the application area does not support suitable habitat for conservation significant flora species, provide foraging value for black cockatoos and habitat for conservation significant fauna. The application area is mapped 41 metres from the ‘Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region’ Threatened Ecological Community (TEC), however is separated from the TEC by a permanent road.</p>	Not likely to be at variance	No
<p><u>Principle (b):</u> <i>“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.”</i></p> <p><u>Assessment:</u></p> <p>Black cockatoos have been recorded within the local area. The application area falls within the modelled distribution of all three threatened black cockatoo species (Commonwealth of Australia 2012). Vegetation within the application area holds very little foraging value for black cockatoos. Noting the degraded to completely degraded condition of the vegetation, and that the application area is adjacent to a highly disturbed area, the area proposed to be cleared is unlikely to contain significant foraging, roosting, or breeding, habitat for conservation significant fauna.</p>	Not likely to be at variance	No
<p><u>Principle (c):</u> <i>“Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</i></p> <p><u>Assessment:</u></p> <p>Four threatened flora species (<i>Caladenia huegelii</i>, <i>Diuris drummondii</i>, <i>Diuris micrantha</i> and <i>Drakaea elastica</i>) have been recorded in the local area, however the application area does not support suitable habitat for any of these threatened flora species.</p>	Not likely to be at variance	No
<p><u>Principle (d):</u> <i>“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.”</i></p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared does not contain species that can indicate a threatened ecological community.</p>	Not likely to be at variance	No
<b>Environmental value: significant remnant vegetation and conservation areas</b>		
<p><u>Principle (e):</u> <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p><u>Assessment:</u></p> <p>The extent of the mapped vegetation type in the local area is inconsistent with the national objectives and targets for biodiversity conservation in Australia. However, noting that the application area is largely in a degraded</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.2, above.</i>

Assessment against the clearing principles	Variance level	Is further consideration required?
to completely degraded (Keighery, 1994) condition, and that the application area doesn't support habitat for conservation significant flora, fauna, or plant assemblages, it is not considered to be a significant remnant.		
<p><u>Principle (h):</u> <i>“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.”</i></p> <p><u>Assessment:</u></p> <p>Given the distance to the nearest conservation area, the proposed clearing is not likely to have an impact on the environmental values of adjacent conservation areas.</p>	Not likely to be at variance	No
<b>Environmental value: land and water resources</b>		
<p><u>Principle (f):</u> <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment:</u></p> <p>Given no water courses or wetlands are recorded within the application area, the proposed clearing is unlikely to impact on- or off-site hydrology and water quality.</p>	Not likely to be at variance	No
<p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u></p> <p>The mapped soils are highly susceptible to waterlogging, subsurface acidification and phosphorus export. Noting the extent of the application area and the condition of the vegetation, the proposed clearing is not likely to have an appreciable impact on land degradation.</p>	Not likely to be at variance	No
<p><u>Principle (i):</u> <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.”</i></p> <p><u>Assessment:</u></p> <p>Given no water courses or wetlands are recorded within the application area, the proposed clearing is unlikely to impact surface or ground water quality.</p>	Not likely to be at variance	No
<p><u>Principle (j):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</i></p> <p><u>Assessment:</u></p> <p>The mapped soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding.</p> <p>Given no water courses or wetlands are recorded within the application area, the proposed clearing is unlikely to contribute to waterlogging.</p>	Not likely to be at variance	No

### Appendix C. Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation's ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from

Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

**Measuring vegetation condition for the Southwest and Interzone Botanical Province (Keighery, 1994)**

Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.
Very good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
Good	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 and/or grazing.
Degraded	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 and/or grazing.
Completely degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

**Appendix D. Photographs of the vegetation**



Figure 2: Photograph 1 (Morfitt, 2022b)





Figure 3: Photograph 2 (Morfitt, 2022b)



Figure 4: Photograph 3 (Morfitt, 2022b)



Figure 5: Photograph 4 (Morfitt, 2022b)

## Appendix E. Sources of information

### E.1. GIS databases

Publicly available GIS Databases used (sourced from [www.data.wa.gov.au](http://www.data.wa.gov.au)):

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Pre-European Vegetation Statistics
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) – Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

### E.2. References

Morfitt, B. (2022a) *Clearing permit application CPS 9798/1*, received 6 July 2022 (DWER Ref: DWERDT659063).

Morfitt, B. (2022b) *Supporting information for clearing permit application, photographs CPS 9798/1*, received 14 September 2022 (DWER Ref: DWERDT659072).

Commonwealth of Australia (2001) *National Objectives and Targets for Biodiversity Conservation 2001-2005*, Canberra.

Department of Environment Regulation (DER) (2013). *A guide to the assessment of applications to clear native vegetation*. Perth. Available from: [https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2\\_assessment\\_native\\_veg.pdf](https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf).



- Department of Water and Environmental Regulation (DWER) (2019). *Procedure: Native vegetation clearing permits*. Joondalup. Available from: [https://dwer.wa.gov.au/sites/default/files/Procedure\\_Native\\_vegetation\\_clearing\\_permits\\_v1.PDF](https://dwer.wa.gov.au/sites/default/files/Procedure_Native_vegetation_clearing_permits_v1.PDF).
- Department of Water and Environmental Regulation (DWER) (Regulatory Services – Water) (2022) *Rights in Water and Irrigation Act 1914 advice for clearing permit application CPS 9798/1*, received 10 October 2022 (DWER Ref: DWERDT669263).
- Government of Western Australia (2019) *2018 South West Vegetation Complex Statistics. Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions, Perth, <https://catalogue.data.wa.gov.au/dataset/dbca>
- Government of Western Australia. (2019) *2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>
- Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) *Vegetation Complexes of the Darling System, Western Australia*. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.
- Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Shire of Murray (2022) *Advice for clearing permit application CPS 9798/1*, received 10 October 2022 (DWER Ref: DWERDT669346).
- Molloy, S., Wood, J., Hall, S., Wallrodt, S. and Whisson, G. (2009) *South West Regional Ecological Linkages Technical Report*, Western Australian Local Government Association and Department of Environment and Conservation, Perth.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68) *Atlas of Australian Soils*, Sheets 1 to 10, with explanatory data. CSIRO and Melbourne University Press: Melbourne.
- Schoknecht, N., Tille, P. and Purdie, B. (2004) *Soil-landscape mapping in South-Western Australia – Overview of Methodology and outputs* Resource Management Technical Report No. 280. Department of Agriculture.
- Shah, B. (2006) *Conservation of Carnaby's Black-Cockatoo on the Swan Coastal Plain, Western Australia*. December 2006. Carnaby's Black-Cockatoo Recovery Project. Birds Australia, Western Australia.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) *Native Vegetation in Western Australia, Extent, Type and Status*. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
- Trudgen, M.E. (1991) *Vegetation condition scale* in National Trust (WA) 1993 Urban Bushland Policy. National Trust of Australia (WA), Wildflower Society of WA (Inc.), and the Tree Society (Inc.), Perth.
- Valentine, L.E. and Stock, W. (2008) *Food Resources of Carnaby's Black Cockatoo (Calyptorhynchus latirostris) in the Gnaragara Sustainability Strategy Study Area*. Edith Cowan University and Department of Environment and Conservation. December 2008.
- Western Australian Herbarium (1998-). *FloraBase - the Western Australian Flora*. Department of Biodiversity, Conservation and Attractions, Western Australia. <https://florabase.dpaw.wa.gov.au/> (Accessed 12 October 2022)