

# **CLEARING PERMIT**

Granted under section 51E of the Environmental Protection Act 1986

#### PERMIT DETAILS

Area Permit Number: CPS 10423/1

File Number: DWERVT14073

Duration of Permit: From 6 April 2024 to 6 April 2026

#### PERMIT HOLDER

City of Armadale

#### LAND ON WHICH CLEARING IS TO BE DONE

Lot 112 on Deposited Plan 25492, Roleystone

#### **AUTHORISED ACTIVITY**

The permit holder must not clear more than 0.11 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

#### **CONDITIONS**

#### 1. 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.

# 2. 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.

# 3. Directional clearing

The permit holder must conduct clearing activities in a slow, progressive manner in one direction towards adjacent *native vegetation* to allow fauna to move into adjacent *native vegetation* ahead of the clearing activity.

# 4. 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	Spec	cifications
1.	In relation to the authorised clearing	(a)	the species composition, structure, and density of the cleared area;
	activities generally	(b)	the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to GDA2020, expressing the geographical coordinates in Eastings and Northings;
		(c)	the date that the area was cleared;
		(d)	the size of the area cleared (in hectares);
		(e)	actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 1;
		(f)	actions taken to minimise the risk of the introduction and spread of <i>weeds</i> and <i>dieback</i> in accordance with condition 2; and
		(g)	actions taken to undertake directional clearing in accordance with condition 3.

#### 5. Reporting

The permit holder must provide to the *CEO* the records required under condition 5 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.			
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.			
dieback	means the effect of <i>Phytophthora</i> species on native vegetation.			
EP Act	Environmental Protection Act 1986 (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**

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Temika Mathieson A/MANAGER

NATIVE VEGETATION REGULATION

Officer delegated under Section 20 of the Environmental Protection Act 1986

13 March 2024

# **SCHEDULE 1**

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

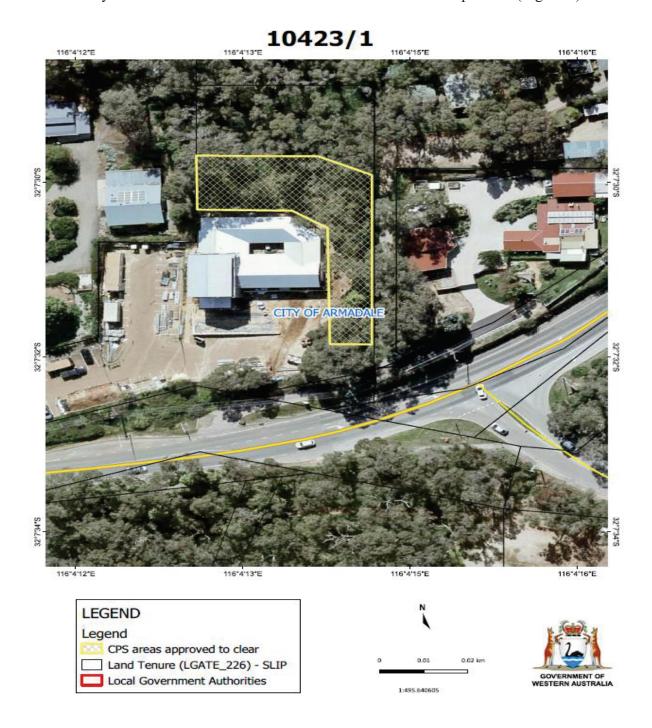


Figure 1: Map of the boundary of the area within which clearing may occur



# **Clearing Permit Decision Report**

# Application details and outcome

# 1.1. Permit application details

Permit number: CPS 10423/1

Permit type: Area permit

**Applicant name:** City of Armadale

**Application received:** 21 November 2023

**Application area:** 0.11 hectares of native vegetation

Purpose of clearing: Fire hazard reduction

Method of clearing: Cutting

**Property:** Lot 112 on Deposited Plan 25492

Location (LGA area/s): City of Armadale

Localities (suburb/s): Roleystone

# 1.2. Description of clearing activities

The City of Armadale is proposing to undertake the clearing of native vegetation within Lot 112 on Deposited Plan 25492, Roleystone. The vegetation proposed to be cleared is contained within a single contiguous area around the Roleystone Theatre (see Figure 1, Section 1.5). The application is to create a new asset protection zone (APZ) around the Roleystone Theatre for fire hazard reduction in line with State Planning Policy 3.7 (SPP 3.7) in bushfire prone areas (City or Armadale, 2023).

#### 1.3. Decision on application

**Decision:** Granted

**Decision date:** 13 March 2024

**Decision area:** 0.11 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 Appendix BB), relevant datasets (see Appendix F.1), the clearing principles set out in Schedule 5 of the EP Act (see Appendix C), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3). The Delegated Officer also took into consideration that the purpose of the clearing is to reduce bush fire risk for the community's safety.

The assessment identified that the proposed clearing will result in:

- The loss of native vegetation that is potentially suitable foraging habitat for forest red-tailed black cockatoo,
   Carnaby's cockatoo and Baudin's cockatoo,
- the loss of native vegetation that is potentially suitable habitat for quokka and quenda,

- · potential impacts to conservation significant fauna if present during the clearing activities, and
- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality
  of the adjacent vegetation and its habitat values.

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 can be minimised and managed to unlikely lead to an unacceptable risk to conservation significant fauna species. Due to the small scale of the clearing and vegetation extent in the local area, there is not likely to be a significant impact to conservation significant fauna species.

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

- · avoid, minimise to reduce the impacts and extent of clearing,
- · take hygiene steps to minimise the risk of the introduction and spread of weeds, and
- undertake slow, progressive one directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity.

#### 1.5. Site map



Figure 1 The area crosshatched yellow indicates the area 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)

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 has advised that the following avoidance and mitigation measures have been undertaken (City of Armadale, 2023):

A site visit undertaken with the Bushfire Consultant identified the removal of 26 saplings comprised of Corymbia calophylla and Eucalyptus marginata (150mm DBH or less) would accommodate the retention of larger, mature trees. This would allow for continued ecological function and separation of the canopy in line with the requirements of the APZ. The trees marked for removal are not of an age or size to form or have hollows for black cockatoo breeding habitat or roosting. The larger, mature trees that will be retained in the APZ and those in the surrounding region are likely to provide foraging habitat for black cockatoos.

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 B) and the extent to which the impacts of the proposed clearing present a risk to biological values.

The assessment against the clearing principles (see Appendix C) identified that the impacts of the proposed clearing present a risk to biological values (fauna). 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. Biological values (fauna) - Clearing Principles (a) and (b)

#### <u>Assessment</u>

The application is located within the Swan Coastal Plain IBRA bioregion. According to available databases a total of 22 conservation significant fauna species have been recorded within the local area (10-kilometre radius of the application area). Of the conservation significant fauna species recorded within the local area, the application area may provide habitat for the following five fauna species:

- Calvptorhynchus banksii naso forest red-tailed black cockatoo (VU)
- Isoodon fusciventer quenda (P4)
- Setonix brachyurus quokka (VU)
- Zanda baudinii Baudin's cockatoo (EN)
- Zanda latirostris Carnaby's cockatoo (EN)

This assumption is based on habitat requirements, distribution, mapped vegetation type and the condition of the vegetation. Photographs provided by the applicant identified that the vegetation type within the proposed application area was largely consistent with the mapped vegetation types of the area, consisting of a mosaic of open forest of *Corymbia calophylla-Eucalyptus patens-Eucalyptus marginata subsp. marginata* (City of Armadale, 2023).

#### Black Cockatoos

Black cockatoos generally breed in woodland or forest but may also breed in former woodland or forest now present as isolated trees (Commonwealth of Australia, 2022). Although marri and jarrah are species that can provide breeding and roosting habitat for black cockatoos if of suitable size, the 26 marri and jarrah trees proposed to be cleared within the application area are immature and are below the suitable diameter at breast height (DBH) of 500 millimetres (Commonwealth of Australia, 2022) to develop a nest hollow, based on photographs provided by the applicant. Therefore, the vegetation proposed to be cleared is unlikely to provide any significant roosting or breeding value to black cockatoo species at present.

Black cockatoo species are noted to forage on a range of plant species, with the primary foraging resources varying between species (Commonwealth of Australia, 2012). Carnaby's cockatoos forage on the seeds, nuts, and flowers of a variety of plants, including Proteaceous species (Banksia spp., Hakea spp., and Grevillea spp.), as well as *Allocasuarina* and *Eucalyptus* species, marri, and a range of introduced species (Valentine and Stock, 2008). Forest red-tailed black cockatoos feed predominantly on the seeds of marri and jarrah, which comprise approximately 90 per cent of their diet (DEC, 2008). Baudin's cockatoos primarily feed on the seeds of marri but may also forage on the seeds of jarrah and Proteaceous species (DEC, 2008). Given the application area contains jarrah and marri trees and occurs within the predicted occurrence range for all three black cockatoo species, the application area is likely to provide suitable foraging habitat for black cockatoos.

Food resources within the range of roosting and breeding sites are important to sustain populations of black cockatoos, and foraging resources should therefore be viewed in the context of the proximity to the known roosting and breeding sites to the application area. Available databases show that there are records of 33 black cockatoo roost sites within the local area and three mapped breeding locations. Following breeding, they will flock in search of food, usually within 12 kilometres of a breeding site and six kilometres of a night roost (Commonwealth of Australia, 2012), but may range up to 20 kilometres. Given the presence of suitable foraging habitat within the known foraging distance to multiple roosting locations and breeding sites, the clearing of the jarrah and marri trees may be significant.

However, due to the immaturity of the 26 marri and jarrah trees proposed to be cleared, the application area is unlikely to be providing significant foraging resources at present, when compared to the mature trees in adjacent suitable habitat beyond the application area and in the surrounding area. According to available databases, approximately 18,783 hectares of suitable foraging habitat for black cockatoo species exists in the local area, of which approximately 62 per cent (11,675 hectares) is located within secure conservation estate. Given the extent of suitable foraging habitat in the local area and that the immature trees are likely to provide low foraging value at present, it is not considered likely that the clearing of 26 immature foraging trees within an area of 0.11 hectares will significantly reduce the availability of foraging resources in the local area or within foraging range of local roosting or breeding sites. The proposed clearing is unlikely to result in significant impacts to black cockatoo species.

#### Quenda and Quokka

Quenda inhabit areas of dense vegetation including wetland fringes and heathlands. They have been observed in areas of native bushland and where exotic shrub species are prevalent. Quenda rarely venture from cover and will feed by digging in leaf litter and soil to find food and will construct nests under vegetation (DEC, 2012). On the mainland, quokka occupy jarrah, marri, and karri forests and woodlands in high rainfall areas. These habitats generally have thick understorey, nearby to swamps and will be close to more open, recently burnt vegetation (DEC, 2013). Given the extent of the application area and the Good to Degraded condition of the vegetation, it is unlikely that the application area will comprise of significant habitat for the species. It is possible that the quenda and quokka may occur within the application area, while moving through the landscape. However, the implementation of slow, directional clearing will allow any individuals present at the time of clearing to move into adjacent suitable habitat in the local area.

### **Ecological Linkage**

The application area may function as an ecological linkage for fauna to move between larger remnants of native vegetation within the local area. The ecological linkage values will not likely be severed by the proposed clearing, noting native vegetation will remain within the Lot and extends immediately adjacent to the application area. Notwithstanding the above, given that native vegetation remains surrounding the application area, a weed and dieback management condition will be required to assist in mitigating impacts to surrounding vegetation and maintaining ecological linkage values.

#### Conclusion

Based on the above assessment, the application area is not considered likely to represent significant habitat for any conservation significant species or to be critical for the continuation of the species. However, individuals may be present at the time of clearing whilst they transverse the landscape. Slow directional clearing will mitigate the risk to individuals. In addition, the clearing activities have the potential to impact the quality of the surrounding fauna habitat by facilitating the spread of weeds and dieback.

The applicant may have notification responsibilities under the EPBC Act for impacts to Baudin's black cockatoo, Carnaby's cockatoo, and forest red-tailed black cockatoo and their habitats, as set out in the EPBC Act. The applicant has been advised to contact the federal Department of Water, Agriculture and the Environment (DAWE) to discuss EPBC Act referral requirements.

#### Conditions

To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- directional clearing, which requires, slow one directional clearing to allow terrestrial fauna to disperse ahead
  of the clearing activity should they occur on site at the time of clearing which will minimise impacts to
  individuals, and
- weed and dieback management measures will be required as a condition on the clearing permit to mitigate impacts to adjacent vegetation.

### 3.3. Relevant planning instruments and other matters

The City of Armadale advised DWER that local government approvals are not required, and that the proposed clearing is consistent with the City's Local Planning Scheme. As the theatre is located in a bush fire prone area, a Bushfire Management Plan (BMP) was prepared to comply with SPP 3.7. The BMP identified an APZ extending 21 metres from the building to be established to comply with the BMP and the Bushfire Protection Criteria of SPP 3.7 (City of Armadale, 2023).

No Aboriginal sites of significance have 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. Additional information provided by applicant

Summary of comments	Consideration of comment
On the 24 January 2024, the applicant provided a response to the request for further information issued by DWER for further photographs of the marri and jarrah trees proposed to be cleared.	See Appendix E for photographs of the vegetation proposed to be cleared provided by the applicant.

# Appendix B. Site characteristics

#### **B.1.** Site characteristics

The information provided below describes the key characteristics of the area proposed to be cleared and is based on the best information available to DWER at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix C.

Characteristic	Details
Local context	The area proposed to be cleared is part of an approximately 12-hectare fragmented patch of native vegetation in the intensive land use zone of Western Australia. It is surrounded by remnant vegetation and residential dwellings.
	Spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 61.68 per cent of the original native vegetation cover.
Ecological linkage	The application area does not intersect any formally mapped linkages. Linkage 37 of the Perth Regional Ecological Linkages is located approximately 50 metres south of the application area, separated by Brookton Highway. Noting the extent of the vegetation being cleared and the separation from this linkage by major road infrastructure, the proposed clearing is not considered likely to significantly impact this linkage.
Conservation areas	No conservation areas are mapped within the application area. The closest conservation area is Wungong Regional Park located 0.85 kilometres south west of the application area.
Vegetation description	Photographs supplied by the applicant indicate the vegetation within the proposed clearing area consists of immature marri and jarrah trees over native vegetation regrowth, planted native gardens, exotic trees and extensive weed cover.
	Representative photos are available in Appendix E.
	This is consistent with the mapped vegetation type:
	<ul> <li>Helena 1, which is described as a Mosaic of open forest of Corymbia calophylla-Eucalyptus patens-Eucalyptus marginata subsp. marginata with some Eucalyptus rudis on the deeper soils ranging to closed heath and lithic complex on shallow soils associated with granite on steep slopes of valleys in humid and subhumid zones (Mattiske and Havel, 1998).</li> </ul>
	The mapped vegetation type retains approximately 75.58 per cent of the original extent (Government of Western Australia, 2019).
Vegetation condition	Photographs supplied by the applicant indicate the vegetation within the proposed clearing area is in Good to Degraded (Keighery, 1994) condition.
	The full Keighery (1994) condition rating scale is provided in Appendix D.
	Representative photos are available in Appendix E.

Characteristic	Details
Climate and landform	The region experiences a Mediterranean climate with cool winters and hot summers with a mean annual rainfall of 970 millimetres.
Soil description	The soil within the application area is mapped as:  Murray Valleys System (255Mv) which is described as Western Darling Range from the Avon Valley to Harvey. Deeply incised valleys with Red loamy earths, shallow duplexes and rock outcrop and Jarrah-marri-wandoo forest and woodland with mixed shrubland.
Land degradation risk	The soils in the application area are mapped as having a moderate risk of water erosion and subsurface acidification (DPIRD, 2023)
Waterbodies and hydrogeography	The desktop assessment and aerial imagery indicated that no wetlands or waterbodies transect the application area. The closest waterbody to the application area is Canning River which is located 0.2 kilometres south east of the application area.
	The application area does not transect any water resources proclaimed under either the Rights in Water and Irrigation Act 1914 (RIWI Act) or the Country Areas Water Supply Act 1947 (CAWS Act).
	Groundwater salinity within the application area is mapped at 500-1000 milligrams per total dissolved solids.
Flora	The desktop assessment identified that a total of 54 conservation significant flora species have been recorded within the local area, comprising of four Threatened flora species and 18 Priority flora species (Western Australian Herbarium, 1998-). None of these existing records occur within the application area, with the closest record being an occurrence of <i>Grevillea pimeleoides</i> (P4) approximately 1.5 kilometres from the application area.
	With consideration for the relevant datasets (see Appendix F.1), the habitat preferences and conservation statuses of the aforementioned species, the distribution and extent of existing records, the application area is unlikely to provide significant habitat for threatened or priority flora species.
Ecological communities	The desktop assessment identified that there are no conservation significant ecological communities within the application area. The closest mapped ecological community is the Banksia Woodlands of the Swan Coastal Plain ecological community which is listed as an Endangered threatened ecological community (TEC) under the Commonwealth EPBC Act and is considered a Priority 3 ecological community (PEC) by DBCA in Western Australia, which is located 3.8 kilometres west of the application area.
	With consideration for the site characteristics, relevant datasets (see Appendix F.1) and photographs provided by the applicant, the application area is not considered likely to contain vegetation representative of a TEC or PEC.
Fauna	The desktop assessment identified that a total of 22 conservation significant fauna species have been recorded within the local area including eight threatened fauna species, nine priority fauna species and five other specially protected fauna species, (DBCA, 2007-). None of these existing records occur within the application area, with the closest record being an occurrence of <i>Isoodon fusciventer</i> , approximately 0.08 kilometres from the application area.
	With consideration for the site characteristics set out above, relevant datasets (see Appendix F.1) and the habitat preferences of the aforementioned species, the application area is likely to provide significant habitat for conservation significant fauna species and impacts to these species required further consideration (see Section 3.2.1).

# B.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*					
Jarrah Forest	4506660.25	2399838.15	53.25	1673614.25	37.14
Vegetation complex					
Helena 1*	15889.99	12010.31	75.58	6861.70	43.18
Local area					
10km radius	31586.03	19484.86	61.68	-	-

<sup>\*</sup>Government of Western Australia (2019a)

# B.3. Fauna analysis table

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Calyptorhynchus banksii naso (forest red-tailed black cockatoo)	VU	Υ	Υ	0.26	95	N/A
Isoodon fusciventer (quenda)	P4	Υ	Υ	0.08	1437	N/A
Setonix brachyurus (quokka)	VU	Υ	Υ	1.06	21	N/A
Zanda baudinii (Baudin's cockatoo)	EN	Υ	Υ	0.4	214*	N/A
Zanda latirostris (Carnaby's cockatoo)	EN	Υ	Υ	0.15	876*	N/A
Zanda sp. 'white-tailed black cockatoo'	EN	Υ	Υ	2.57	48*	N/A

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

# B.4. Ecological community analysis table

Community name	Conservation status (WA)	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]		Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Banksia Woodlands of the Swan Coastal Plain ecological community	P3	N	N	Υ	3.8	216	N/A

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

<sup>\*</sup> An additional 48 records of Zanda sp. 'white-tailed black cockatoo' (White-tailed black cockatoo) were recorded in the local area, which may comprise either of these species.

# Appendix C. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): "Native vegetation should not be cleared if it comprises a high level of biodiversity."  Assessment: The area proposed to be cleared may contain habitat for conservation significant fauna.	May be at variance	Yes Refer to Section 3.2.1, above.
Principle (b): "Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."  Assessment: The area proposed to be cleared is not likely to contain significant habitat for conservation significant fauna at present. However, individuals may be present at the time of the clearing.	May be at variance	Yes Refer to Section 3.2.1, above.
Principle (c): "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."  Assessment: The area proposed to be cleared is unlikely to contain habitat for flora species listed under the BC Act.	Not likely to be at variance	No
Principle (d): "Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community."  Assessment: The area proposed to be cleared does not contain species that can indicate a TEC.	Not likely to be at variance	No
Environmental value: significant remnant vegetation and conservation are	eas	
Principle (e): "Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."	Not at variance	No
Assessment: The extent of the mapped native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia. The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area.		
Principle (h): "Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area."	Not likely to be at variance	No
Assessment: Whilst the application area is located 0.85 kilometres northeast of a conservation area, weed and dieback management actions will minimise the risk or impacts occurring to the nearby vegetation. The proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.		
Environmental value: land and water resources		
Principle (f): "Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."  Assessment: 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.	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Principle (g): "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."	Not likely to be at	No
Assessment: The mapped soils are moderately susceptible to water erosion and subsurface acidification. Noting the extent and location of the application area and the condition of the vegetation, the proposed clearing is not likely to have an appreciable impact on land degradation.	variance	
Principle (i): "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."	Not at variance	No
Assessment: Given no water courses or wetlands are recorded within the application area, the proposed clearing is unlikely to impact surface or ground water quality.		
Principle (j): "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."	Not at variance	No
Assessment: 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.		
Given no water courses or wetlands are recorded within the application area, the proposed clearing is unlikely to contribute to waterlogging.		

# Appendix D. 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 South West 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.

Condition	Description
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 E. Photographs of the vegetation



Figure 2. Photograph of the vegetation proposed to be cleared (City of Armadale, 2023)



Figure 3. Photograph of the vegetation proposed to be cleared (City of Armadale, 2023)



Figure 4. Photograph of the vegetation proposed to be cleared (City of Armadale, 2023)



Figure 5. Photograph of the vegetation proposed to be cleared (City of Armadale, 2023)



Figure 6. Photograph of the vegetation proposed to be cleared (City of Armadale, 2023)

# Appendix F. Sources of information

#### F.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- 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)
- Directory of Important Wetlands in Australia Western Australia (DBCA-045)
- 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
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- 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)

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