



## CLEARING PERMIT

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

### PERMIT DETAILS

Area Permit Number: CPS 9991/1  
File Number: DWERTV11555  
Duration of Permit: From 21 April 2023 to 21 April 2025

### PERMIT HOLDER

Shire of Serpentine Jarrahdale

### LAND ON WHICH CLEARING IS TO BE DONE

Kargotich Road Reserve (PINs 1193872 and 11756993), Oakford

### AUTHORISED ACTIVITY

The permit holder must not clear more than three (3) native trees within the area cross-hatched yellow in Figure 1, 2 and 3 of Schedule 1.

### CONDITIONS

#### 1. Period during which clearing is authorised

The permit holder must not clear any *native vegetation* after 21 April 2025

#### 2. 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.

#### 3. 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.

#### 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	Specifications
1.	In relation to the authorised clearing activities generally	<ul 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 GDA2020, 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);</li> <li>(e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 2; 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 3.</li> </ul>

#### 5. Reporting

The permit holder must provide to the *CEO* the records required under condition 4 of this permit when requested by the *CEO*.

### DEFINITIONS

In this permit, the terms in Table 2 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> .

<b>Term</b>	<b>Definition</b>
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.
fill	means material used to increase the ground level, or to fill a depression.
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)
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 – <ul style="list-style-type: none"> <li>(a) that is a declared pest under section 22 of the <i>Biosecurity and Agriculture Management Act 2007</i>; or</li> <li>(b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or</li> </ul> not indigenous to the area concerned.

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**END OF CONDITIONS**




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Mathew Gannaway  
MANAGER  
NATIVE VEGETATION REGULATION

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

28 March 2023

# SCHEDULE 1

The boundary of the area authorised to be cleared is shown in the map below



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

# CPS 9991/1

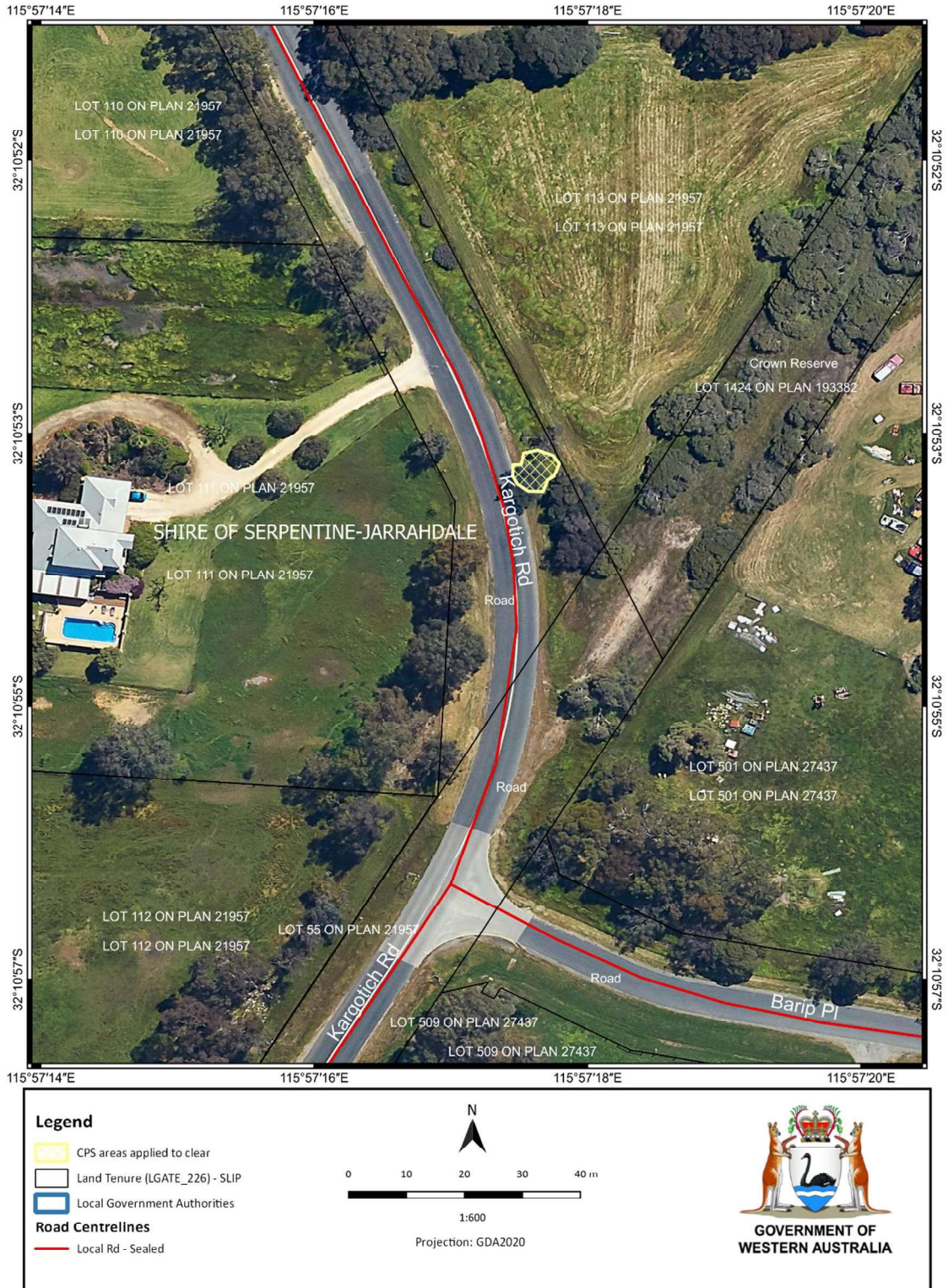


Figure 2: Map of the boundary of the area within which clearing may occur.

# CPS 9991/1



Figure 3: 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

Permit number:	CPS 9991/1
Permit type:	Area permit
Applicant name:	Shire of Serpentine-Jarrahdale
Application received:	1 December 2022
Application area:	Three (3) native trees
Purpose of clearing:	Road upgrades
Method of clearing:	Mechanical
Property:	Kargotich Road Reserve (PINs 1193872 and 11756993)
Location (LGA area/s):	Shire of Serpentine Jarrahdale
Localities (suburb/s):	Oakford

### 1.2. Description of clearing activities

The Shire of Serpentine-Jarrahdale (the Shire) is proposing to undertake the clearing of remnant vegetation on the eastern verge of Kargotich Road. The proposed clearing is distributed across three individual areas along the same road (see figure 1, 2 and 3, Section 1.5). The proposed clearing will help facilitate the removal of trees deemed a traffic safety risk by being too close to the new edge of the road/sealed edge of the bitumen for the road upgrade.

### 1.3. Decision on application

Decision:	Granted
Decision date:	28 March 2023
Decision area:	Three (3) native trees, 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 A), relevant datasets (see Appendix F.1), the clearing principles set out in Schedule 5 of the EP Act (see Appendix B), 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 improve road safety.

The assessment identified that the proposed clearing may result in the introduction and spread of weeds and dieback into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values.

After considering the available information and the applicant's minimisation and mitigation measures, the Delegated Officer determined that the impacts of the proposed clearing is unlikely to lead to an unacceptable risk to the environment.

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

- 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 and dieback.



1.5. Site maps

CPS 9991/1

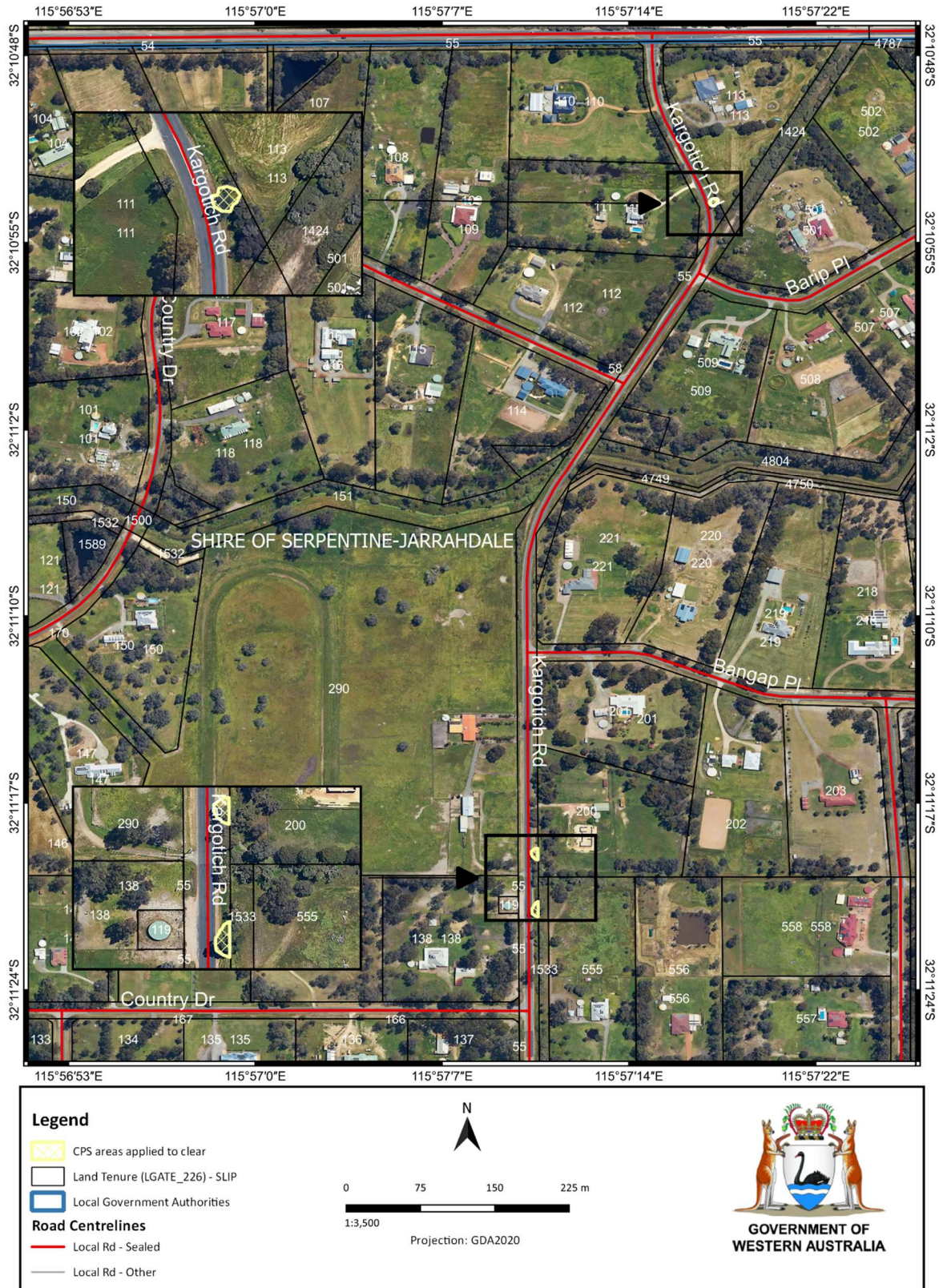


Figure 1 (a): Map of the application area CPS 9991/1. The areas crosshatched yellow indicate the area authorised to be cleared under the granted clearing permit.

# CPS 9991/1

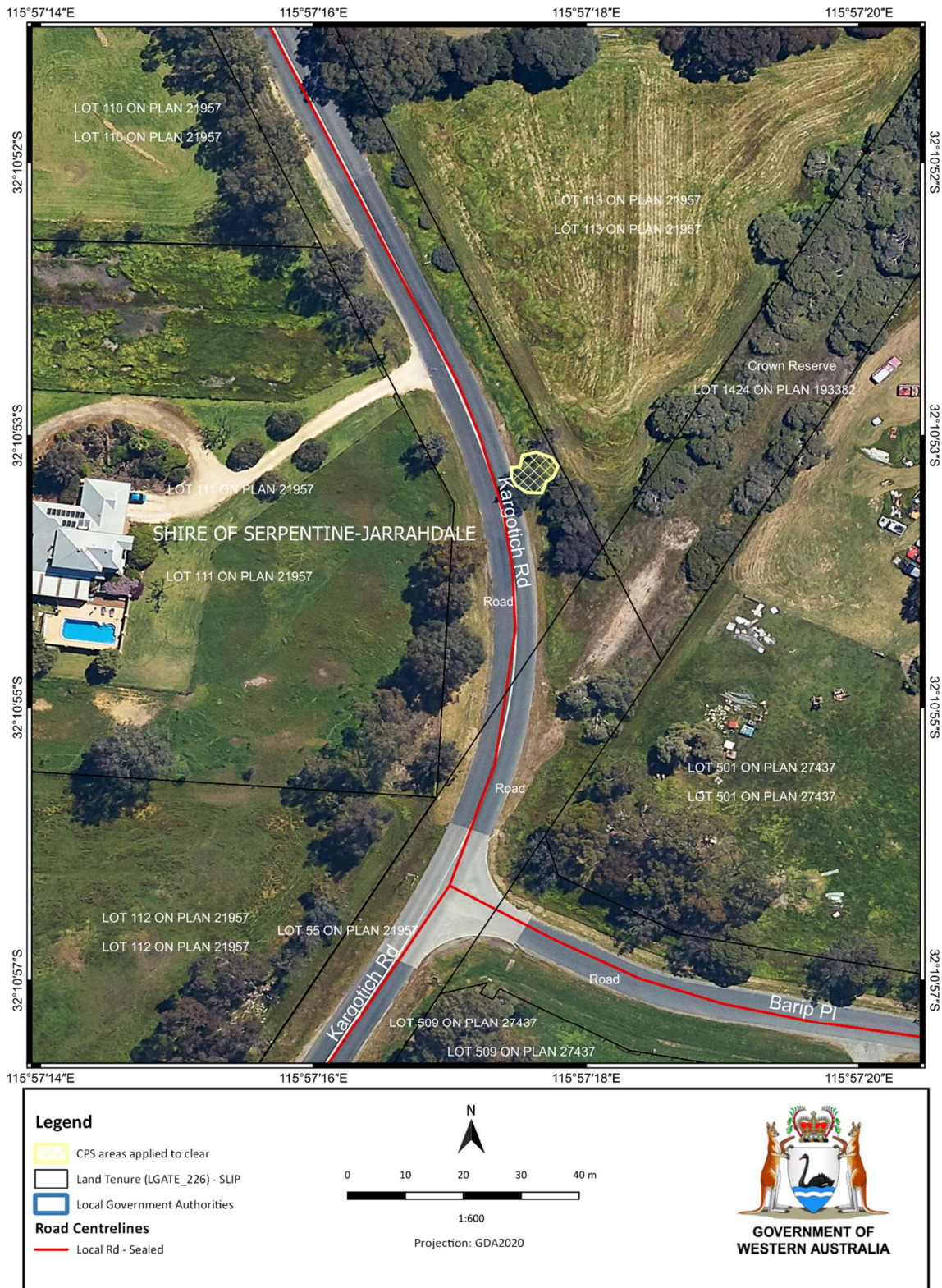


Figure 1 (b): Map of the application area CPS 9991/1. The areas crosshatched yellow indicate the area authorised to be cleared under the granted clearing permit.

# CPS 9991/1



Figure 1 (c): Map of the application area CPS 9991/1. The areas crosshatched yellow indicate 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)
- *Planning and Development Act 2005* (WA) (P&D Act)

Relevant policies considered during the assessment include:

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 Shire has prioritized pruning native trees over removing trees for road upgrades. The original report that the Shire received recommended that 27 native/ non-native trees be cleared in order to facilitate the upgrade of the road and to follow the safety guidelines of Main Roads. However, when officers conducted a site visit, 27 trees were reduced to four trees, with three of them being native trees, the subject of this application (Shire of Serpentine-Jarrahdale, 2022).

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 identified that the impacts of the proposed clearing present a risk to biological values, fauna, and land and water resources (watercourse or wetlands, groundwater and flooding). 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 (significant habitat for fauna) - Clearing Principle (b)

Assessment:

The application area is located within the Swan Coastal Plain IBRA region. According to the supporting information with the application, the vegetation proposed to be cleared appears to be in good to degraded condition (Keighery, 1994).

According to available databases, 45 conservation-significant fauna species have been recorded within the local area (10-kilometre radius). Five of these species have been recorded within similar soil and vegetation types to the application area. Noting the habitat requirements of the recorded species, proximity to application site and the condition of the vegetation within the application area, the application area is likely to comprise suitable habitat for the following species:

- *Calyptorhynchus banksii naso* (forest red-tailed black cockatoo)
- *Zanda baudinii* (Baudin's black cockatoo)
- *Zanda latirostris* (Carnaby's black cockatoo)
- *Leioproctus douglasiellus* (a short-tongued bee, masked bee)
- *Isodon fusciventer* (quenda, southwestern brown bandicoot)
- *Myrmecobius fasciatus* (numbat, walpurti)

- *Notamacropus Irma* (western brush wallaby)

### **Black Cockatoos (EN – VU)**

The application area is mapped within the known distribution zones of the Forest red-tailed black cockatoo, Carnaby's cockatoo, and Baudin's cockatoo. One black cockatoo breeding hollow (artificial) has been recorded within a 12-kilometre buffer of the application area, located 9.28 kilometres southeast of the application area.

Black cockatoos preferred foraging habitat includes Jarrah and Marri woodlands/forests, Proteaceous woodlands and heath dominated by plant species such as *Banksia* spp., *Hakea* spp. and *Grevillea* spp. (Commonwealth of Australia, 2022). Based on available datasets, approximately 90 per cent of the native vegetation in the local area is mapped as black cockatoo-feeding habitat. According to images provided by the applicant (see Appendix D), the application area includes two *Corymbia calophylla* (Marri) trees, which would provide foraging habitat for black cockatoos. Given the limited extent of foraging habitat being cleared, it is unlikely to significantly impact the foraging habitat for black cockatoo species breeding or utilising roosts within the local area.

Black cockatoo roost sites are usually located in the tallest trees within a landscape and within proximity to abundant food and water supplies (Commonwealth of Australia, 2017). Black cockatoo flocks will utilise different roosts, often for weeks or until the local food supply is exhausted. Black cockatoo flocks show some consistency in roost site preference, with sites used in most years to access high-quality feeding sites. However, not all roosts are used yearly (DPAW, 2013). Sixty-five black cockatoo roosts have been recorded within the local area. Spatial data indicates that the nearest roost is recorded 3.30 kilometres from the application area. The vegetation in the application does not include the tallest trees in the local area. No roosting activity is observed within the application area.

Suitable breeding habitat for black cockatoos are trees with either a nest hollow or a suitable diameter at breast height (DBH) to develop a nest hollow (Commonwealth of Australia, 2022). The images supplied by the applicant (see Appendix D) and aerial imagery (see site maps, Section 1.5) indicate that the three trees do not contain hollows of large enough size for black cockatoos.

The application area is not likely to comprise significant foraging, roosting, or breeding habitat for any of the three black cockatoo species.

### ***Leioproctus douglasiellus* (a short-tongued bee) (EN)**

*Leioproctus douglasiellus* is an endangered solitary endemic bee species that has a very restricted geographic distribution with a range of approximately 24.3 square kilometres (Threatened Species Scientific Committee, 2013). Like many of the family Colletidae to which the *Leioproctus douglasiellus* belongs, it bores in dead rotting wood and pithy stems or even uses existing hollows in order to lay their eggs (Threatened Species Scientific Committee (TSSC), 2013). The vegetation being cleared is not considered to comprise significant habitat for *Leioproctus douglasiellus* as the surrounding environment is sparse with little biodiversity to provide adequate foraging.

### **Quenda (P3)**

In their natural habitat, quenda live in dense understories in swampland areas, Banksia and Jarrah woodlands. However, quendas have adapted to urban and suburban habitats in recent years (Department of Biodiversity, Conservation and Attractions (DBCA), 2018). According to available databases, the closest quenda record is 1.41 kilometres from the application area. Additionally, there are many records of quenda within a 10-kilometre buffer of the application area. It is likely that quenda can be found along the application area during dusk and dawn as they are a crepuscular species. Given the extent of the clearing proposed and the small amount of remnant native vegetation in the adjacent area, the application area is not considered significant habitat for quenda.

### **Numbat (EN)**

This species is mainly found in Jarrah forests/woodlands and the Wheatbelt. The numbat spends most of the day searching for termites and will dig up underground galleries or scratch bark and decayed wood rather than directly digging termite mounds (Department of Biodiversity, Conservation and Attractions, 2021). When the numbat feeds, it is in the direct cover of shrubs, hollows, and burrows in order to avoid predators (Department of Biodiversity, Conservation and Attractions, 2021). Within a 10-kilometre buffer of the application site, there have been recordings of the numbat within urban areas. These recordings are close to dense bushlands such as Forrestdale Lake Nature Reserve. Noting the absence of a dense understorey, the vegetation being cleared is not considered to comprise significant habitat for the numbat.

## Western brush wallaby (P4)

The western brush wallaby's optimum habitat is open forests/woodlands, particularly favouring seasonally wet flats with low grasses and open scrubby thickets. It is also found in some areas of mallee and heathland and is uncommon in karri forests (Department of Environment and Conservation 2012). The three most common dietary flora are *Carpobrotus edulis*, *Cynodon dactylon*, and *Nuytsia floribunda*.

The closest individual of western brush wallaby was recorded approximately 3.83 kilometres from the application area. The application area is within seasonally wet flats. However, noting the sparseness of the surrounding vegetation, the lack of scrubby thickets, the lack of preferred food, the abundant weed species and surrounding grasslands (Appendix D), it is unlikely that the western brush wallaby utilises the application area.

Conclusion: Given the limited extent of the clearing (three trees), the degraded nature of the vegetation, and the availability of more extensive, higher-quality vegetation associated within the local area, the application area is not likely to comprise significant habitat for conservation significant fauna, nor be significant for the continued survival of conservation significant fauna. The clearing activities have the potential to impact the quality of the surrounding fauna habitat by facilitating the spread of weeds and dieback.

Conditions: Weed and dieback management measures will be required as a condition on the clearing permit to mitigate impacts to adjacent vegetation.

### 3.2.2. Environmental value (Watercourse or wetland, flooding, and land degradation) - Clearing Principles (f), (g) and (j)

Assessment:

#### Watercourse and waterlogging

The application area is located within Armadale palus plains (seasonally waterlogged flats) and the broader Keysbrook consanguineous wetland suit. The application area is also close to the Cardup Brook floodplains. The soils in the application area are mapped as having an increased risk of waterlogging. However, the existing road formation is constructed to be slightly higher in the landscape than the surrounding land and has channels running alongside the road that assist in water flow to decrease flooding. Additionally, the low number of trees being cleared in the application area means impacts on the wetland and flooding are expected to be minimal for the duration of the proposed clearing activities. The proposed clearing is not likely to exacerbate the incidence of waterlogging or flooding.

#### Acidification

The mapped soil type across the application area is highly susceptible to subsurface acidification. High levels of subsurface acidification within the area result from historically long periods of cleared lands, fertilizer application and the productivity farming yield practices that leach nutrients from the topsoil (Grains Research and Development Corporation 2020). The land surrounding the application area had been extensively cleared before 1953 and has since been used for livestock. Given the extent of the clearing, removing three trees is unlikely to significantly increase subsurface acidification within the application area. Proposed clearing will also not likely expose soils at depth.

Conclusion: Based on the above assessment, the proposed clearing has the potential for minor, short-term effects on the surrounding wetlands. As there is a limited extent of clearing, it is unlikely that the palus plains the application site rests on will be negatively impacted through waterlogging or subsurface acidification.

Conditions: No additional conditions are needed in relation to these environmental values.

### 3.3. Relevant planning instruments and other matters

Spatial data indicates that no Aboriginal Heritage sites occur within the application area. Several Registered and other Aboriginal Heritage sites occur within the local area including Place 24756 approximately 0.65 kilometres east, Place 17922 approximately 0.89 kilometres east, Place 26085 approximately 1.02 kilometres east, and Forrestdale Lake Place 3713 approximately 1.56 kilometres north. 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

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

### A.1. Site characteristics

Characteristic	Details						
Local context	<p>The area proposed to be cleared is multiple patches of native vegetation totalling three trees. Urban development farmlands surround the application area. Banksia woodland and herb-rich shrublands are located approximately 1.66 kilometres north of the application area, with more Banksia-dominated woodlands approximately 0.79 kilometres west of the application site. The proposed clearing is not impacting these areas.</p> <p>Spatial data indicates that the local area (10 Kilometre buffer from the centre of the proposed application area), retains 26.09 per cent of the original native vegetation cover (Government of Western Australia, 2019).</p>						
Ecological linkage	<p>The application area is not a part of any larger vegetation linkages. However, approximately 50 metres from the application area is located the Perth Regional Ecological Linkage 61. The linkage intersects multiple threatened ecological communities (TEC). The proposed clearing is not likely to sever or impact any linkage functions.</p>						
Conservation areas	<p>The closest conservation area is Wungong Regional Park, located approximately 5.94 kilometres to the south of the application area and Jandakot Regional Park, located approximately 3.06 kilometres north-west of the application area.</p>						
Vegetation description	<p>Photographs supplied by the applicant indicate that the vegetation within the proposed clearing area consists of two species of native tree, <i>Casuarina obesa</i> (swamp Sheoak) and <i>Corymbia calophylla</i> (Marri). The understory of the trees is consistent with mainly weeds species. Representative photos are available in Appendix D.</p> <p>The tree species in the application are consistent with the mapped vegetation type of the area:</p> <table border="1"> <thead> <tr> <th>Vegetation complex</th> <th>Vegetation Description</th> </tr> </thead> <tbody> <tr> <td>Beermullah vegetation complex</td> <td>A mixture of low open forest of <i>Casuarina obesa</i> (Swamp Sheoak) and open woodland of <i>Corymbia calophylla</i> (Marri) - <i>Eucalyptus wandoo</i> (Wandoo) - <i>Eucalyptus marginata</i> (Jarrah). Minor components include closed scrub of <i>Melaleuca</i> species and occurrence of <i>Actinostrobus pyramidalis</i> (Swamp Cypress) (Hodges et. al, 1980).</td> </tr> </tbody> </table>	Vegetation complex	Vegetation Description	Beermullah vegetation complex	A mixture of low open forest of <i>Casuarina obesa</i> (Swamp Sheoak) and open woodland of <i>Corymbia calophylla</i> (Marri) - <i>Eucalyptus wandoo</i> (Wandoo) - <i>Eucalyptus marginata</i> (Jarrah). Minor components include closed scrub of <i>Melaleuca</i> species and occurrence of <i>Actinostrobus pyramidalis</i> (Swamp Cypress) (Hodges et. al, 1980).		
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Vegetation condition	<p>Photographs supplied by the applicant and aerial imagery indicate that the native vegetation within the proposed clearing area is sparse, with the vegetation structure being completely degraded. The photographs illustrate that the surrounding area comprises clearing grounds, weed species and farmlands.</p> <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>The climate experienced in the area is Mediterranean, with dry, hot summers and cool, wet winters. The average rainfall is 816 millimetres per annum, with the majority falling between June and August (BOM 2021).</p>						
Soil description	<p>The soil is mapped as:</p> <table border="1"> <tbody> <tr> <td>Name</td> <td>Pinjarra P8 Phase</td> </tr> <tr> <td>Soils</td> <td>213Pj__P8</td> </tr> <tr> <td>Description</td> <td>Broad poorly drained flats and poorly defined stream channels with moderately deep to deep sands over mottled clays; acidic or less</td> </tr> </tbody> </table>	Name	Pinjarra P8 Phase	Soils	213Pj__P8	Description	Broad poorly drained flats and poorly defined stream channels with moderately deep to deep sands over mottled clays; acidic or less
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Soils	213Pj__P8						
Description	Broad poorly drained flats and poorly defined stream channels with moderately deep to deep sands over mottled clays; acidic or less						

Characteristic	Details		
		commonly alkaline grey and yellow duplex soils to uniform bleached or pale brown sands over clay.	
Land degradation risk	<b>Pinjarra P8 Phase: 213Pj__P8</b>		
	Wind erosion	M1 10-30% high to extreme erosion risk	
	Water erosion	L1 <3% moderate to high risk	
	Salinity risk	L2 3-10% moderate to high risk or is presently acidic	
	Phosphorous export	M1 10-30% high to extreme risk	
	Waterlogging	H2 >70% very high risk	
	Subsurface acidification	H2 >70% high risk or is presently acidic	
	Acid sulphate soils	Moderate to low	
	Flooding	L1 <3% moderate to high risk	
	Floodplains	Yes - The proposed application area is not formally on top of a floodplain. However, the Cardup Brook floodplains are located 31 meters from the application area.	
Waterbodies	<p>The desktop assessment and aerial imagery indicated that the closest three mapped wetlands from the application area are:</p> <ul style="list-style-type: none"> <li>Forrestdale Lake Nature Reserve approximately 1.55 kilometres north of the application area;</li> <li>An undammed Ramsar site approximately 1.56 km north of the application area; and</li> <li>Gibbs Road Swamp System (catchment Birriga, Peel MD, Lake Coogee, Forrestdale Drain) approximately 3.02 km northwest of the application area.</li> </ul>		
Hydrogeography	Hydrological Zone	Coastal Plain	
	Basin	Murray River (UFI 135)	
	Hydrographic Catchment	Peel Estuary Serpentine River	
	RIWI Act Surface Water and Irrigation District	No	
	RIWI Act Rivers	No	
	RIWI Act Groundwater Areas	Yes	Perth Groundwater Area (UFI 35)
	CAWS Act Clearing Control Catchment	No	
	Public Drinking Water Source Areas	No	
	Wellhead Protection Zone	No	
	Reservoir Protection Zone	No	
	The ground water salinity is 500-1000 total dissolved solids milligrams per litre.		
Flora	<p>According to available databases, 47 conservation significant Flora species have been recorded within the local area (10-kilometre buffer), comprising of the following species, five priority 1, five priority 2, 14 priority 3, 11 priority 4, and 12 threatened species. Seven of these are found on the same soil type as in the application area, with an additional 14 species in similar soil types.</p>		



Characteristic	Details
	Noting the proposed clearing is only for three trees over a weedy understorey, the proposed clearing is not likely to impact any threatened or priority flora.
Ecological communities	According to available databases, 11 conservation significant ecological communities have been mapped within the local area. None of these records occurs over the application area. The closest TEC is Banksia dominated woodlands, recorded approximately 0.75 kilometres from the application area. The proposed clearing does not resemble a TEC or Priority Ecological Community (PEC).
Fauna	<p>According to available databases, 46 conservation fauna species have been recorded within the local area (10-kilometre buffer). Comprising of the following conservation status, one priority 2, six priority 3, seven priority 4, 16 specially protected Migratory species, six vulnerable, eight Endangered, one specially protected species (OS), one critically endangered, and one specially protected species (conservation dependent: CD). Of these, 21 fauna are associated with marine, estuarine and freshwater habitats or are migratory and do not occur within the application area.</p> <p>Of the eight avian species the closest are the <i>Falco peregrinus</i> (Peregrine falcon) 2.82 kilometres and <i>Charadrius leschenaultii</i> (Greater sand plover, large sand plover) 2.96 kilometres away from the application area. All three species of black cockatoo <i>Calyptorhynchus banksii naso</i> (forest red-tailed black cockatoo), <i>Zanda baudinii</i> (Baudin's cockatoo), and <i>Zanda latirostris</i> (Carnaby's cockatoo) have been located 1.79-kilometres, 4.25-kilometres and 2.25-kilometres away from the application site respectively. There are 65 black cockatoo roosting sights within a 12-kilometre buffer of the application area (Figure p). The nearest confirmed black cockatoo roost is located approximately 3.32 kilometres southwest of the application site.</p> <p>Of the non-avian species the closest are the <i>Isoodon fusciventer</i> (quenda, southwestern brown bandicoot) at 1.41-kilometres, <i>Lerista lineata</i> (Perth slider, lined skink) at 2.02-kilometres, <i>Neelaps calonotos</i> (Black-striped snake, black-striped burrowing snake) 2.03-kilometres, and two species of short tongued bees <i>Neopasiphae simplicior</i> (a short-tongued bee, masked bee) 2.06-kilometres, and <i>Leioproctus douglasiellus</i> (a short-tongued bee, masked bee) 2.10-kilometres.</p> <p>Noting the habitat requirements, the distribution of the recorded species, the mapped vegetation types, and the condition of the vegetation within the application area, the application area is likely to comprise suitable habitat for the following fauna species</p> <ul style="list-style-type: none"> <li>• The forest red-tailed black cockatoo</li> <li>• Baudin's black cockatoo)</li> <li>• Carnaby's black cockatoo</li> <li>• <i>Leioproctus douglasiellus</i> (a short-tongued bee, masked bee)</li> <li>• quenda</li> <li>• numbat</li> <li>• western brush wallaby</li> </ul>

## 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	1,501,221.93	579,813.47	38.62	222,916.97	14.85
Jarrah Forest	4,506,660.25	2,399,838.15	53.25	1,673,614.25	37.14
Vegetation complex					
Beerumullah complex 36 **	6,707.27	447.21	6.67	142.62	2.13
Local area					
10km radius	33,181.16	8,658.59	26.09	-	-

\*Government of Western Australia (2019a)

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

## A.3. Flora analysis table

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil 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]
<i>Acacia benthamii</i>	P2	Y	N	Y	7.60 km	7	N
<i>Acacia horridula</i>	P3	N	N	N	5.51 km	1	N
<i>Acacia lasiocarpa</i> var. <i>bracteolata</i> long peduncle variant (G.J. Keighery 5026)	P1	Y degraded	N	Similar	9.84 km	2	N
<i>Acacia oncinophylla</i> subsp. <i>patulifolia</i>	P4	N	N	N	4.25 km	1	N
<i>Amanita preissii</i>	P3	N	N	N	8.11 km	1	N
<i>Aponogeton hexatepalus</i>	P4	N	N	N	9.50 km	33	N
<i>Austrostipa jacobiana</i>	T	Y	N	Y	7.58 km	2	N
<i>Amanita wadulawitu</i>	P2	N	N	Y	6.87 km	1	N
<i>Aponogeton hexatepalus</i>	P4	N	N	N	8.55 km	50	N
<i>Austrostipa jacobiana</i>	T	Y	N	Y	7.21 km	476	N
<i>Babingtonia urbana</i>	P3	Y	N	N	6.61 km	28	N
<i>Banksia kippistiana</i> var. <i>paenepeccata</i>	P3	N	N	N	4.25 km	1	N
<i>Byblis gigantea</i>	P3	N	N	Y	5.78 km	2	N
<i>Caladenia huegelii</i>	T	Y degraded	N	Y	3.57 km	2156	N
<i>Cyathochaeta teretifolia</i>	P3	N	N	N	9.42 km	12	N
<i>Calectasia grandiflora</i>	P2	N	N	N	6.09 km	1	N
<i>Calytrix simplex</i> subsp. <i>simplex</i>	P1	N	N	N	5.51 km	2	N
<i>Cyathochaeta teretifolia</i>	P3	N	N	N	9.89 km	1	N

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil 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]
<i>Diuris purdiei</i>	T	N	N	Y	2.80 km	79	N
<i>Drakaea elastica</i>	T	Y degraded	N	Y	2.62 km	112	N
<i>Drakaea micrantha</i>	T	N	N	Y	4.71 km	16	N
<i>Drosera occidentalis</i>	P4	Y degraded	N	Y	2.17 km	43	N
<i>Drosera oreopodium</i>	P1	N	N	N	4.25 km	4	N
<i>Eucalyptus x balanites</i>	T	Y degraded	N	Y	5.15 km	5	N
<i>Jacksonia sericea</i>	P4	N	N	Y	4.65 km	22	N
<i>Jacksonia gracillima</i>	P3	N	N	N	5.06 km	9	N
<i>Johnsonia pubescens subsp. cygnorum</i>	P2	Y low open woodland marri	N	Y	4.99 km	5	N
<i>Kennedia beckxiana</i>	P4	N	N	N	7.58 km	2	N
<i>Lasiopetalum glutinosum subsp. glutinosum</i>	P3	Y	N	N	8.51 km	2	N
<i>Lepidosperma rostratum</i>	T	N	N	Y	2.10 km	7	N
<i>Meionectes tenuifolia</i>	P3	N	N	N	2.13 km	1	N
<i>Morelotia australiensis</i>	T	Y	N	N	6.94 km	19	N
<i>Ornduffia submersa</i>	P4	N	N	Y	2.34 km	17	N
<i>Ptilotus sericostachyus subsp. roseus</i>	P1	N	N	NA	6.10 km	1	N
<i>Schoenus capillifolius</i>	P3	N	N	Y	9.50 km	11	N
<i>Schoenus pennisetis</i>	P3	N	N	N	4.99 km	7	N
<i>Stylidium aceratum</i>	P3	N	N	N	5.72 km	1	N
<i>Stylidium longitubum</i>	P4	N	N	Y	2.90 km	12	N
<i>Stylidium paludicola</i>	P3	N	N	N	5.33 km	2	N
<i>Synaphea sp. Pinjarra Plain (A.S. George 17182)</i>	T	N	N	Y	9.00 km	15	N
<i>Synaphea sp. Serpentine (G.R. Brand 103)</i>	T	N	N	N	3.54 km	11	N
<i>Thelymitra magnifica</i>	P1	N	N	N	6.09 km	1	N
<i>Thelymitra stellata</i>	T	N	N	Y	7.71 km	63	N
<i>Thysanotus glaucus</i>	P4	N	N	N	5.46 km	2	N
<i>Thysanotus sp. Badgingarra (E.A. Griffin 2511)</i>	P2	N	N	N	8.61 km	1	N
<i>Tripteroascus sp. Brachylobus (A.S. George 14234)</i>	P4	N	N	Y	4.81 km	24	N
<i>Verticordia lindleyi subsp. Lindleyi</i>	P4	N	N	Y	1.99 km	85	N

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

#### A.4. 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]
<b>Birds</b>						
<i>Botaurus poiciloptilus</i> (Australasian bittern)	EN	N	N	2.92 km	4	N
<i>Calidris ferruginea</i> (Curlew Sandpiper)	CR	N	N	2.77 km	32	N
<i>Calyptorhynchus banksii naso</i> (forest red-tailed black cockatoo)	VU	Y	Y degraded	1.74 km	1249	N
<i>Calyptorhynchus sp.</i> 'white-tailed black cockatoo' (White-tailed black cockatoo)	EN	Y	Y degraded	5.59 km	1142	N
<i>Charadrius leschenaultii</i> (Greater sand plover, large sand plover)	VU	N	N	2.96 km	2	N
<i>Falco peregrinus</i> (Peregrine falcon)	OS	N	N	2.82 km	37	N
<i>Zanda baudinii</i> (Baudin's cockatoo)	EN	Y	Y degraded	4.25 km	560	N
<i>Zanda latirostris</i> (Carnaby's cockatoo)	EN	Y	Y degraded	2.25 km	>29000	N
<b>Mammals</b>						
<i>Dasyurus geoffroyi</i> (chuditch, western quoll)	VU	N	N	4.56 km	15	N
<i>Falsistrellus mackenziei</i> (Western false pipistrelle, western falsistrelle, micro bat)	P4	Y	Y degraded	7.20 km	3	N
<i>Isodon fusciventer</i> (Quenda, southwestern brown bandicoot)	P4	Y	N	1.41 km	1212	N
<i>Myrmecobius fasciatus</i> (Numbat, walpurti)	EN	N	Y degraded	2.46 km	10	N
<i>Notamacropus Irma</i> (western brush wallaby)	P4	N	N	3.83 km	28	N
<i>Phascogale tapoatafa wambenger</i> (south-western brush-tailed phascogale, wambenger)	CD	N	N	4.56 km	3	N
<i>Setonix brachyurus</i> (Quokka)	VU	N	N	4.56 km	39	N
<b>Reptiles</b>						
<i>Acanthophis antarcticus</i> (Southern death adder)	P3	N	N	5.36 km	20	N
<i>Ctenotus delli</i> (Dell's skink, Darling Range Southwest Ctenotus)	P4	Y	Y degraded	4.58 km	1	N
<i>Ierista lineata</i> (Perth slider, lined skink)	P3	Y	Y	2.02 km	48	N
<i>Neelaps calonotos</i> (Black-striped snake, black-striped burrowing snake)	P3	Y	N	2.03 km	1	N
<b>Invertebrates</b>						
<i>Idiosoma sigillatum</i> (Swan Coastal Plain shield-backed trapdoor spider)	P3	Y	Y	3.17 km	11	N
<i>Idiosoma sp.</i> (an <i>Idiosoma</i> trapdoor spider)	EN	Y	N	7.20 km	1	N
<i>Leioproctus contrarius</i> (a short-tongued bee)	P3	N	N	4.05 km	2	N
<i>Leioproctus douglasiellus</i> (a short-tongued bee, masked bee)	EN	N	N	2.10 km	8	N
<i>Neopasiphae simplicior</i> (a short-tongued bee, masked bee)	EN	N	N	2.06 km	40	N

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]
<i>Synemon gratiosa</i> (Graceful sunmoth)	P4	N	N	5.70 km	6	N

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

Note: According the available database, 46 conservation fauna species have been recovered within a 10-kilometre buffer of the application area. 21 fauna are associated with marine, estuarine and freshwater habitats or are migratory and are unlikely to be found within the application area and have been excluded from the table.

#### A.5. Ecological community analysis table

Community name	Conservation status	Suitable vegetation type? [Y/N]	Suitable soil 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]
Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	P3	Y	Y	0.75 km	1824	N
Herb rich shrublands in clay pans (floristic community type 8 as originally described in Gibson et al. (1994))	V	N	Y	1.71 km	6	N
Shrublands on dry clay flats (floristic community type 10a as originally described in Gibson et al. (1994))	E	N	Y	2.81 km	4	N
Corymbia calophylla - Kingia australis woodlands on heavy soils, Swan Coastal Plain (floristic community type 3a as originally described in Gibson et al. (1994))	CE	N	N	3.77 km	9	N
Corymbia calophylla - Eucalyptus marginata woodlands on sandy clay soils of the southern Swan Coastal Plain (floristic community type 3b as originally described in Gibson et al. (1994))	V	N	N	5.80 km	7	N
Low lying Banksia attenuata woodlands or shrublands	P3	N	N	6.17 km	1	N
Dense shrublands on clay flats (floristic community type 9 as originally described in Gibson et al. (1994))	V	N	N	6.49 km	1	N
Corymbia calophylla - Xanthorrhoea preissii woodlands and shrublands, Swan Coastal Plain (floristic community type 3c as originally described in in Gibson et al. (1994))	CE	N	N	6.53 km	1	N
Banksia attenuata and/or Eucalyptus marginata woodlands of the eastern side of the Swan Coastal Plain (floristic community type 20b as originally described in Gibson et al. (1994))	E	N	N	6.54 km	15	N
Shrublands and woodlands on Muchea Limestone of the Swan Coastal Plain	E	N	N	6.99 km	1	N
Communities of Tumulus Springs (Organic Mound Springs, Swan Coastal Plain)	CE	N	N	7.48 km	2	N

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

## 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> The proposed application area does not contain local or regional significant flora, fauna, habitats, or assemblages of plants.</p> <p>Given the proposed clearing is only of three trees over a weedy understorey, it is not likely that the vegetation in the application area is representative of an area of high biodiversity.</p>	Not 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> The proposed application area may contain habitat for conservation fauna species. The tree species being cleared, <i>Corymbia calophylla</i> (Marri), is known to provide a foraging and breeding habitat for black cockatoos species.</p>	At variance	Yes <i>Refer to Section 3.2.1, above.</i>
<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> The proposed application area does not include any threatened flora and is not necessary for the continued existence of threatened flora.</p>	Not 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> The proposed application does not contain species that can indicate a threatened ecological community (TEC). The vegetation within the application area is not likely to comprise the whole or a part of or be necessary for the maintenance of a TEC.</p>	Not 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> The proposed application area is located within the Perth Metropolitan region scheme boundary, which the Environmental Protection Authority recognises to be a constrained area within which a minimum 10 per cent representation threshold for ecological communities is recommended (Commonwealth of Australia, 2019). The mapped vegetation within the local area is 26.09 per cent of their pre-European extents remaining. The application area is a very degraded remnant of the Beerumullah complex.</p> <p>The proposed application area is on the roadside, with minimal trees in the immediate surrounding area. It is unlikely that the removal of the roadside trees will significantly reduce the extent remaining of the Beerumullah complex.</p>	Not likely to be at variance	No
<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> Given the distance to the nearest conservation area, the proposed clearing is unlikely to impact the environmental values of any conservation areas.</p>	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
<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> The proposed application area is located within a wetland (Palusplain) and is 320 metres from the nearest inland water. The native vegetation proposed for clearing is growing in association with, an environment associated with a watercourse or wetland.</p>	At variance	Yes <i>Refer to Section 3.2.2, above.</i>
<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> The mapped soils are moderately susceptible to wind erosion. Noting the location of the application area, the low number of trees being cleared, and the condition of the vegetation, the proposed clearing is not likely to have appreciable impacts on land degradation. Additionally, the mapped soils are susceptible to subsurface acidification.</p>	May be at variance	Yes <i>Refer to Section 3.2.2, above.</i>
<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> The potential for an increase in surface water run-off can lead to sedimentation of the wetland and nearby watercourses. Noting the extent and purpose of the proposed clearing and its location adjacent to an existing road, impacts to surface water quality is expected to be minimal for the duration of the proposed clearing activities.</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> The mapped soils and topographic contours are mapped as having an increased incidence or intensity of waterlogging or flooding. The proposed clearing of three trees is not likely to exacerbate this risk.</p>	May be at variance	Yes <i>Refer to Section 3.2.2, above.</i>

## 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.

Condition	Description
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 (The Shire of Serpentine-Jarrahdale, 2023).**



Figure a: Tree 13, *Casuarina obesa*, photo taken northeast.



Figure b: Tree 13, *Casuarina obesa* photo taken southeast.





Figure c: Tree 28, *Corymbia calophylla*, photo taken facing north.



Figure d: Tree 28, *Corymbia calophylla*, photo taken facing northeast.



Figure e: Tree 28, *Corymbia calophylla*, photo taken facing northeast.



Figure f: Tree 28, *Corymbia calophylla*, photo taken facing east.



Figure g: Tree 28, *Corymbia calophylla*, photo taken facing south.



Figure h: Tree 28, *Corymbia calophylla*, photo taken facing southwest.



Figure i: Tree 31, *Corymbia calophylla*, photo taken facing north.



Figure j: Tree 31, *Corymbia calophylla*, photo taken facing east.

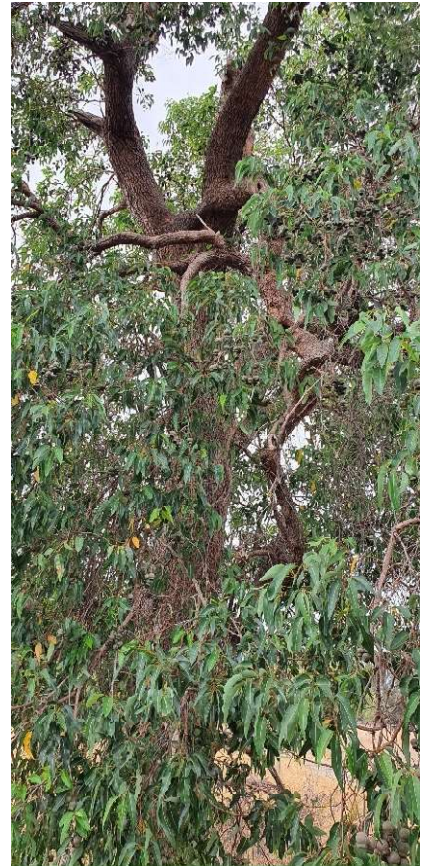


Figure k: Tree 31, *Corymbia calophylla*, photo taken facing east.



Figure l: Tree 31, *Corymbia calophylla*, photo taken facing southeast.



Figure m: Tree 31, *Corymbia calophylla*, photo taken facing south.



Figure n: Tree 31, *Corymbia calophylla*, photo taken facing west.

## Appendix E. Aerial map of sounding area

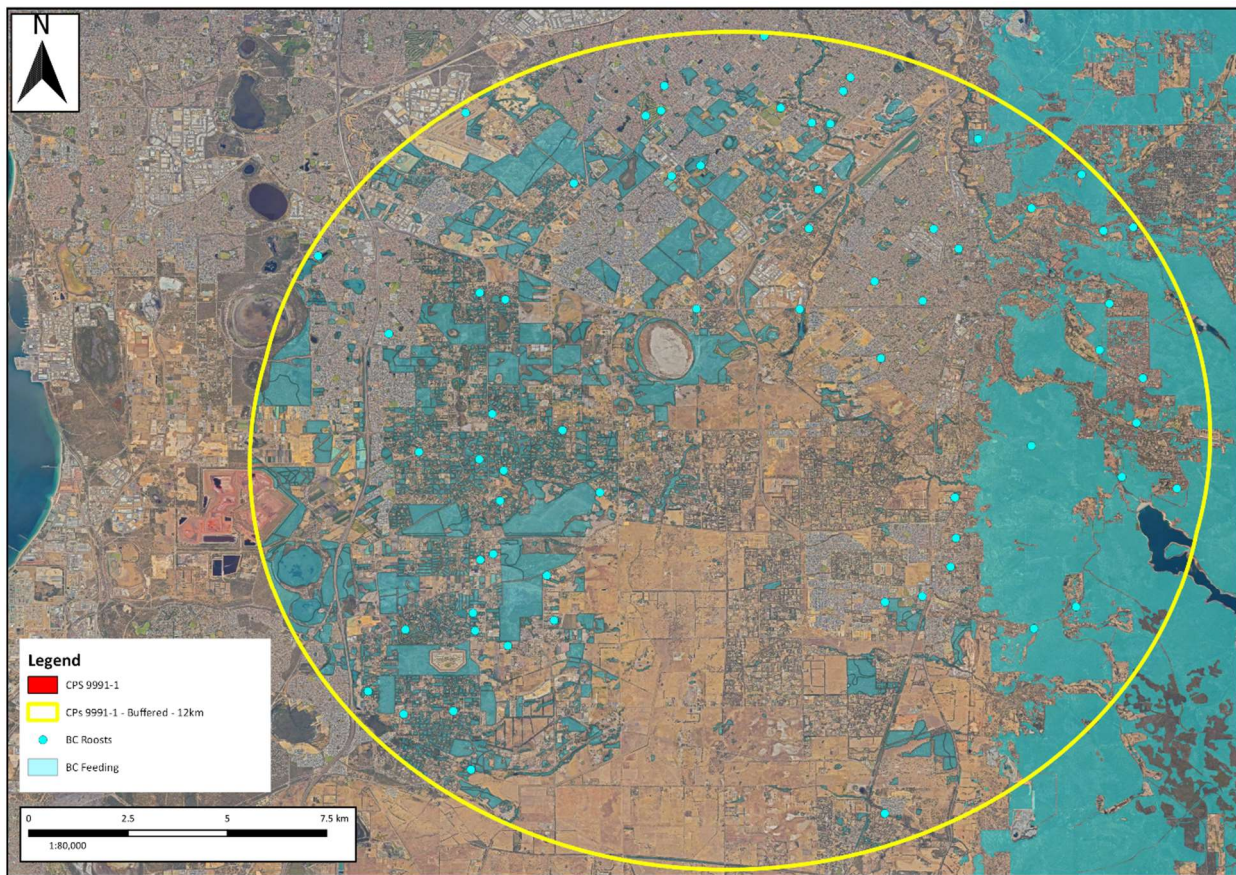


Figure 2: Mapped black-cockatoo origin habitats, roosts and breeding sites within 12 kilometres (blue feeding sights from around the yellow buffer are to be disregarded for the context of the maps purpose).

## Appendix F. Sources of information

### F.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)
- 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)
- Offsets Register – Offsets (DWER-078)

- 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
- Wheatbelt Wetlands Stage 1 (DBCA-021)

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)

## F.2. References

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Commonwealth of Australia. (2019). National Objectives and Targets for Biodiversity Conservation 2019-2030, Canberra.

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