



## CLEARING PERMIT

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

### PERMIT DETAILS

Area Permit Number: CPS 9382/1  
File Number: DWERVT8411  
Duration of Permit: 24 December 2021 to 24 December 2026

### PERMIT HOLDER

Mr Barry James Dunnet

### LAND ON WHICH CLEARING IS TO BE DONE

Lot 3717 on Plan 136522, Yeagarup

### AUTHORISED ACTIVITY

The permit holder must not clear more than 4.3452 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 from north-west to south-east to allow fauna to move into adjacent native vegetation ahead of the clearing activity.

### 4. Fauna management – western ringtail possums

- (a) In relation to the area cross-hatched yellow in Figure 1 of Schedule 1, the permit holder must engage a *fauna specialist* to inspect that area, including any dreys or tree hollows, immediately prior to, and for the duration of clearing activities, for the presence of western ringtail possum(s) (*Pseudocheirus occidentalis*).
- (b) Clearing activities must cease in any area where fauna referred to in condition 4(a) are identified until either:
  - (i) the western ringtail possum(s) individual has moved on from that area to adjoining *suitable habitat*; or
  - (ii) the western ringtail possum(s) individual has been removed by a *western ringtail possum specialist*.
- (c) Any western ringtail possum(s) individual removed in accordance with condition 4(b)(ii) must be relocated by a *western ringtail possum specialist* to a *suitable habitat* adjacent to the application area
- (d) Where fauna is identified under condition 4(a), the permit holder must within 14 calendar days provide the following records to the CEO:
  - (i) the number of individuals identified;
  - (ii) the date each individual was identified;
  - (iii) the location where each individual was identified recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
  - (iv) the number of individuals removed and relocated;
  - (v) the relevant qualifications of the *western ringtail possum specialist* undertaking removal and relocation;
  - (vi) the date each individual was removed;
  - (vii) the method of removal;
  - (viii) the date each individual was relocated;

- (ix) the location where each individual was relocated to, recorded using a GPS unit set to GDA94, expressing the geographical coordinates in Eastings and Northings or decimal degrees; and
- (x) details pertaining to the circumstances of any death of, or injury sustained by, an individual.

## 5. 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 Geocentric Datum Australia 1994 (GDA94), 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 1; and</li> <li>(f) actions taken to minimise the risk of the introduction and spread of weeds and dieback in accordance with condition 2; and</li> <li>(g) actions taken to manage and mitigate impacts to western ringtail possums in accordance with condition 4.</li> </ul>

## 6. 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 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> .
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)
fauna specialist	means a person who holds a tertiary qualification specialising in environmental science or equivalent, and has a minimum of 2 years work experience in fauna identification and surveys of fauna native to the region being inspected or surveyed, or who is approved by the CEO as a suitable fauna specialist for the bioregion, and who holds a valid fauna licence issued under the <i>Biodiversity Conservation Act 2016</i> .
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.
suitable habitat (western ringtail possum)	means habitat known to support western ringtail possums ( <i>Pseudocheirus occidentalis</i> ) within the known current distribution of the species, typically characterised by abundant foliage, presence of suitable nesting structures such as tree hollows, as well as high canopy cover and continuity. Known habitat includes peppermint ( <i>Agonis flexuosa</i> ) dominated woodlands, jarrah ( <i>Eucalyptus marginata</i> ) and marri ( <i>Corymbia calophylla</i> ) forests, riparian vegetation with a canopy of Bullich ( <i>Eucalyptus megacarpa</i> ) or flooded gum ( <i>Eucalyptus rudis</i> ), karri ( <i>Eucalyptus diversicolor</i> ) forests, sheoak ( <i>Allocasuarina fraseriana</i> ) dominated woodlands, and other stands of myrtaceous trees growing near swamps, watercourses or floodplains.
weeds	means any plant – <ol 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> <li>(c) not indigenous to the area concerned.</li> </ol>
western ringtail possum specialist	means a <i>fauna specialist</i> who holds a tertiary qualification specialising in environmental science or equivalent, has a minimum of two years of work experience in western ringtail possum ( <i>Pseudocheirus</i>

Term	Definition
	<i>occidentalis</i> ) identification, surveys of western ringtail possums and capture and handling of western ringtail possums, and holds a valid fauna licence issued under the <i>Biodiversity Conservation Act 2016</i> .

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**END OF CONDITIONS**

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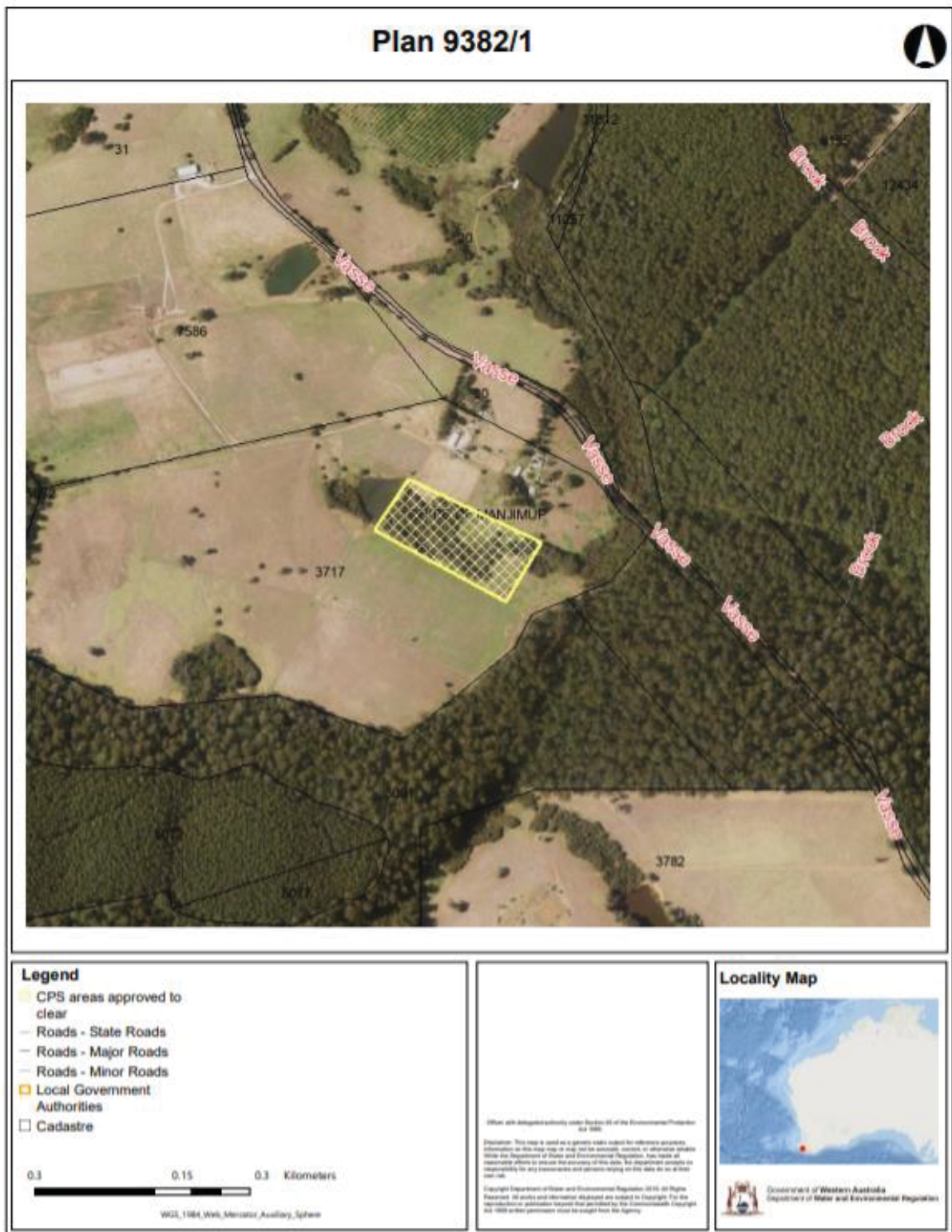
Ryan Mincham  
MANAGER  
NATIVE VEGETATION REGULATION

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

1 December 2021

# 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**





# Clearing Permit Decision Report

## 1 Application details and outcome

### 1.1. Permit application details

Permit number:	CPS 9382/1
Permit type:	Area permit
Applicant name:	Mr Barry James Dunnet
Application received:	9 August 2021
Application area:	4.3452 hectares of native vegetation
Purpose of clearing:	Dam
Method of clearing:	Mechanical
Property:	Lot 3717 on Plan 136522
Location (LGA area/s):	Shire of Manjimup
Localities (suburb/s):	Yeagarup

### 1.2. Description of clearing activities

The vegetation proposed to be cleared is contained within a single contiguous area (see Figure 1, Section 1.5) surrounded by Department of Biodiversity, Conservation and Attractions (DBCA) lands. Clearing is for the purpose of expanding an existing dam which will support an avocado plantation.

### 1.3. Decision on application

Decision:	Granted
Decision date:	1 December 2021
Decision area:	4.3452 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 (the Department) 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 E.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 assessment identified that the proposed clearing will result in:

- the loss of native vegetation that is suitable habitat for western ringtail possum (*Pseudocheirus occidentalis*)
- the potential 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 consideration of the available information, the Delegated Officer determined the proposed clearing is unlikely to result in long-term adverse impacts on western ringtail possums and can be minimised and managed to be unlikely

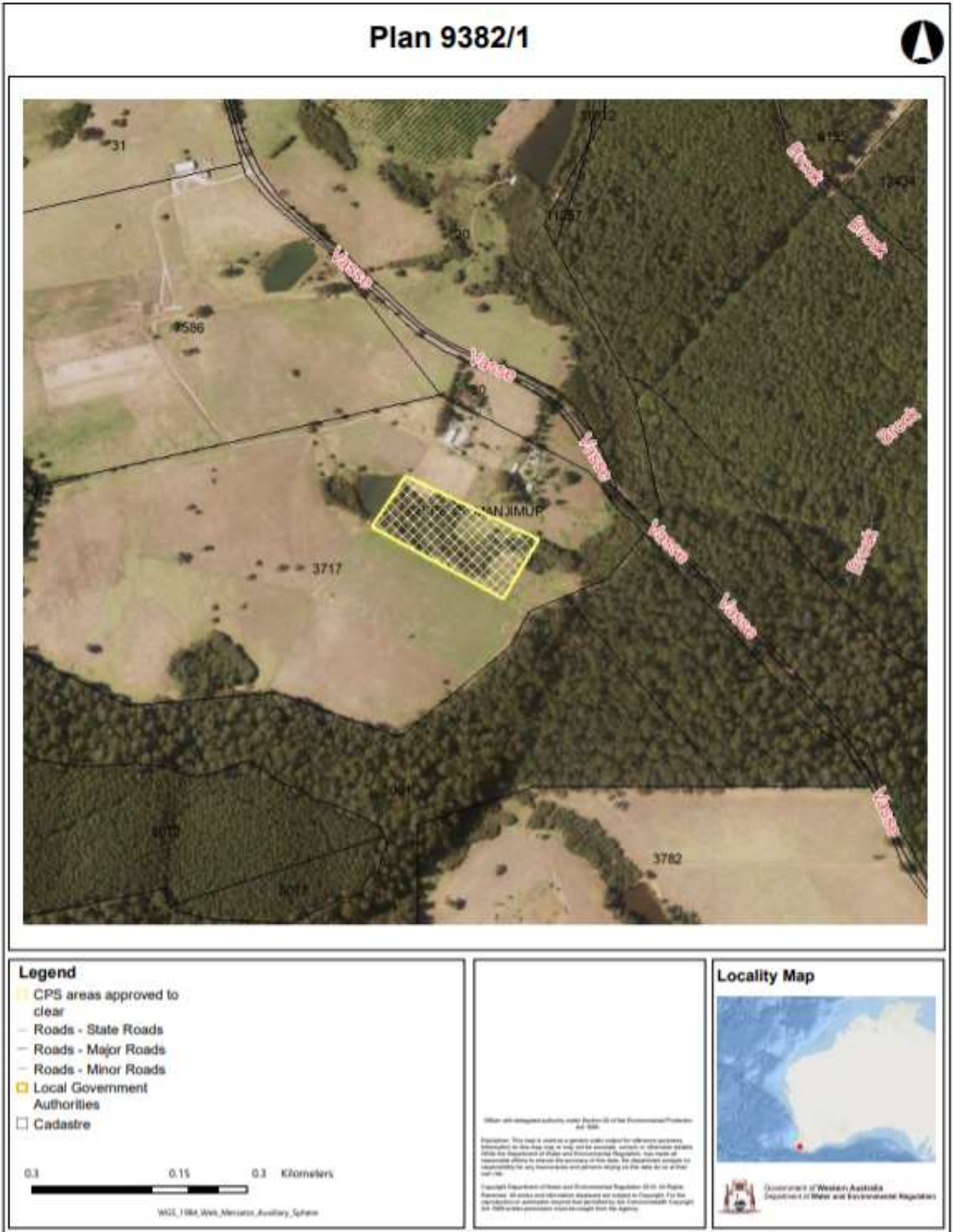
to lead to an unacceptable risk to western ringtail possums. The applicant has not identified any avoidance and minimisation measures, however, no significant residual impacts are expected to result from the clearing.

The Delegated Officer decided 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 dieback;
- undertake slow, progressive one directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity;
- manage potential impacts to western ringtail possum



1.5. Site map



**Figure 1** The area cross-hatched 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)
- *Conservation and Land Management Act 1984* (WA) (CALM 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

No evidence of avoidance or mitigation measures was provided to support the application. The Delegated Officer accepts that in this instance it is not possible to avoid or minimise clearing of native vegetation and maintain efficacy of the proposed dam expansion.

### 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 the impacts of the proposed clearing are generally limited and able to be managed to be environmentally acceptable with standard avoid and minimise, hygiene and directional clearing management conditions. However, the assessment identified that the impacts of the proposed clearing may present a small risk to individual western ringtail possums if present within the application area at the time of clearing, therefore, a western ringtail possum management condition has been applied to the permit as a precautionary measure.

#### 3.2.1. Biological values (fauna) - Clearing Principles (b)

##### Evidence

- there are seven records of western ringtail possum within the local area (10-kilometre radius), the closest of which is 370 metres north-east of the application area in contiguous vegetation.
- photographs supplied by the applicant included images of mature Peppermint trees (*Agonis flexuosa*) with connected canopies. This is preferred habitat for western ringtail possums.
- the application area is within the known distribution for three species of conservation significant black cockatoo; Carnaby's black cockatoo, Baudin's black cockatoo and forest red-tailed black cockatoo. Preferred foraging and breeding habitat for this species is not present within the application area.
- spatial data indicates that the local area retains 74.97 per cent of the pre-European extent of native vegetation.
- approximately 90 per cent of native vegetation retained in the local area is within DBCA legislated tenure and is in similar or better condition as the vegetation within the application area.

## Assessment

### **Western Ringtail Possums**

Western ringtail possum is listed as critically endangered under the *Environment Protection and Biodiversity Conservation Act 1999*. *Pseudocheirus occidentalis* (Western Ringtail Possum (WRP)) are a small to medium sized leaf-eating arboreal marsupial endemic to the south west of Western Australia. Adults weigh approximately 700g to 1.3kg, have a head/body length of 30-40cm and a tail as long as its body. Its tail is strongly prehensile which is used to support the possum while foraging in the tree canopy. They spend most of their time in trees (arboreal), particularly in the canopy of peppermint (*Agonis flexuosa*) woodland and eucalypt forests. They feed on leaves and like to forage for food at night (nocturnal). They build nests or resting places called 'dreys' from the foliage and also use tree hollows (DPaW, 2014).

Habitat requirements are not well understood however the commonalities in habitat include high nutrient foliage availability for food, suitable structures for protection/nesting, and canopy continuity to avoid/escape predation and other threats. Species persistence is dependent on linkages between suitable habitat patches. Vegetation communities critical to the species include long unburnt mature remnants of peppermint (*Agonis flexuosa*) woodlands with high canopy continuity and high foliage nutrients (high in nitrogen and low toxin levels); jarrah (*Eucalyptus marginata*)/marri (*Corymbia calophylla*) forests and woodlands with limited anthropogenic disturbance (unlogged or lightly logged, and a low intensity and low frequency fire history), that are intensively fox-baited and have low indices of fragmentation; coastal heath, jarrah/marri woodland and forest, peppermint woodlands, myrtaceous heaths and shrublands, Bullich (*Eucalyptus megacarpa*) dominated riparian zones and karri forest. (DPaW, 2017).

There is an unknown number of western ringtail possums in the southern forests, however, it is thought to have been the largest population prior to 2002. A severe decline in the number of western ringtail possums of >95% (probably >99%) between 1998 and 2009 occurred with subsequent surveys presence in extremely reduced numbers in 2013 (DPaW, 2017).

The applicant has advised that no predator control or management has been undertaken within the application area. Nearby conservation estate associated with Treen Brook has had fox and cat baiting and the applicant noted populations of chuditch and smaller marsupials occur in these areas in increasing numbers (Dunnet, 2021).

The application area is disturbed and on the edge of a paddock within an extensively vegetated area, however, there is the potential for individuals to be utilising the application area. In the southern forest, home range size for western ringtail possum is around 5 hectares. Given the size of the application area, if individuals are utilising the application area, a significant portion (if not all) of their home range could be lost through the clearing. This could force those individuals into areas already at carrying capacity and put strain on the existing populations. However, given the extent of suitable habitat in the local area and that the density of western ringtail possums in the southern extent is known to be comparatively low, resources for the existing population are unlikely be strained by the loss of the vegetation within the application area. Surrounding areas of native vegetation area expected to have capacity to support any individual western ringtail possums should they occur within the application area.

### **Black cockatoos**

Carnaby's cockatoo and Baudin's cockatoo are listed as endangered and forest red-tailed black cockatoo is listed as vulnerable under the *Environment Protection and Biodiversity Conservation Act 1999*. Black cockatoos breed in large hollow-bearing trees, generally within woodlands or forests or in isolated trees (Commonwealth of Australia, 2012). These species nest in hollows in live or dead trees of karri, marri, wandoo, tuart, salmon gum, jarrah, flooded gum, York gum, powder bark, bullich and blackbutt (Commonwealth of Australia, 2012). Black cockatoos have a preference for foraging habitat that includes jarrah and marri woodlands and forest heathland and woodland dominated by proteaceous plant species such as *Banksia* sp., *Hakea* sp. and *Grevillea* sp. (Commonwealth of Australia, 2012).

Potential nesting trees for black cockatoos are defined as "trees of species known to support breeding within the range of the species which either have a suitable nest hollow or are of a suitable diameter at breast height (DBH) to develop a nest hollow. For most tree species, suitable DBH is 500 millimetres".

Photographs supplied by the applicant do not identify any vegetation of sufficient DBH, or preferred as a foraging resource for black cockatoos. As such, the application area is not considered to contain suitable breeding or foraging habitat for Carnaby's cockatoo, forest red-tailed black cockatoo, and Baudin's cockatoos.

### Conclusion

Based on the above assessment, the proposed clearing includes suitable habitat for western ringtail possum. Given the absence of surveys to confirm presence or absence of individuals and their diurnal refuge sites, a condition has been applied to the permit to mitigate the risk of clearing on any individual western ringtail possums within the application area. The western ringtail possum management condition will require the applicant to engage a fauna specialist to inspect the area, including any dreys or tree hollows present, immediately prior to, and for the duration of clearing activities.

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

Other relevant authorisations required for the proposed land use include:

- Licence to abstract water under the *Rights in Water and Irrigation Act 1914*.
- Permit to interfere with bed and banks under the *Rights in Water and Irrigation Act 1914*.

The applicant has applied for a permit to interfere with beds and banks and for a surface water licence for the dam (Ref 042319 PER & 042320 SWL). The Department has no objection to the issuing of the s.17 permit or s.5C licence as there is ample water available in the resource (DWER, 2021).

The Shire of Manjimup advised DWER that local government approvals are not required, and that the proposed clearing is consistent with the Shire's Local Planning Scheme. The Shire did not have any objections to the proposed clearing but advised that if the dam were to encroach within 20 metres of the lot boundary development approval would be required (Shire of Manjimup, 2021). The Department notes that there is a separation distance of approximately 60 metres between the clearing permit and the boundary of the lot.

**End**

## Appendix A. Site characteristics

### A.1. Site characteristics

Characteristic	Details																		
Local context	<p>The area proposed to be cleared is part of an expansive tract of native vegetation in the intensive land use zone of Western Australia. It is surrounded by DBCA tenure including the Warren National Park, Donnelly State Forest and Hawke National Park.</p> <p>Spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 74.97 per cent of the original native vegetation cover.</p>																		
Ecological linkage	<p>The application area is part of a patch of vegetation classified as 1A under the South West Regional Ecological Linkage project. Vegetation classed as 1A is contiguous (separated by less than 30 metres) with a SWREL axis line.</p> <p>The vegetation within the application area is fringing vegetation to this patch and is not likely to significantly contribute to the function of this ecological linkage.</p>																		
Conservation areas	<p>The application area is surrounded by DBCA tenure including the Warren National Park, Donnelly State Forest and Hawke National Park.</p>																		
Vegetation description	<p>Photographs supplied by the applicant indicate the vegetation within the proposed clearing area consists of Peppermint trees. Representative photos are available in Appendix D.</p> <p>This is inconsistent with the mapped vegetation type:</p> <ul style="list-style-type: none"> <li>Wheatley, which is described as tall open forest of <i>Eucalyptus diversicolor-Corymbia calophylla</i> on slopes and tall open forest of <i>Eucalyptus patens</i> on valley floor in perhumid and humid zones.</li> </ul> <p>The mapped vegetation type retains approximately 80 per cent of the original extent (Government of Western Australia, 2019).</p>																		
Vegetation condition	<p>Photographs supplied by the applicant indicate the vegetation within the proposed clearing area is in very good (Keighery, 1994) condition, described as:</p> <ul style="list-style-type: none"> <li>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.</li> </ul> <p>The full Keighery (1994) condition rating scale is provided in Appendix C0. Representative photos are available in Appendix D.</p>																		
Climate and landform	<p>Rainfall: 1300 mm annual mean</p> <p>Evapotranspiration: 900mm annual average</p>																		
Soil description	<p>The soil is mapped as shallow (20-40 m) minor valleys with low side slopes (5-20%) and narrow swampy floors with a slightly incise stream channel. Soils are loamy gravels, sandy gravels and loamy earths.</p>																		
Land degradation risk	<table border="1"> <thead> <tr> <th>Risk level</th> <th>Risk level description</th> </tr> </thead> <tbody> <tr> <td>H1</td> <td>50-70% of map unit has a high to extreme phosphorus export risk</td> </tr> <tr> <td>M1</td> <td>10-30% of map unit has a high to extreme water erosion risk</td> </tr> <tr> <td>L1</td> <td>3-10% of map unit has a high water repellence risk</td> </tr> <tr> <td>H1</td> <td>50-70% of map unit has a high to extreme wind erosion risk</td> </tr> <tr> <td>L1</td> <td>&lt;3% of map unit has a moderate to very high waterlogging risk</td> </tr> <tr> <td>L1</td> <td>&lt;3% of map unit has a moderate to high salinity risk or is presently saline</td> </tr> <tr> <td>M1</td> <td>10-30% of the map unit has a high subsurface compaction risk</td> </tr> <tr> <td>L1</td> <td>&lt;3% of the map unit has a moderate to high flood risk</td> </tr> </tbody> </table>	Risk level	Risk level description	H1	50-70% of map unit has a high to extreme phosphorus export risk	M1	10-30% of map unit has a high to extreme water erosion risk	L1	3-10% of map unit has a high water repellence risk	H1	50-70% of map unit has a high to extreme wind erosion risk	L1	<3% of map unit has a moderate to very high waterlogging risk	L1	<3% of map unit has a moderate to high salinity risk or is presently saline	M1	10-30% of the map unit has a high subsurface compaction risk	L1	<3% of the map unit has a moderate to high flood risk
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Characteristic	Details																														
	H2 >70% of map unit has a high subsurface acidification risk or is presently acid																														
Waterbodies	Spatial data identified one palusvale, one dam and one minor watercourse within the application area.																														
Hydrogeography	The application area is within the Rights in Water Irrigation Act Surface Water Area, Donnelly River System.																														
Flora	<p>Eight flora species of conservation significance have been recorded in local area.</p> <table border="1"> <thead> <tr> <th>Taxon</th> <th>Cons_Code</th> </tr> </thead> <tbody> <tr> <td><i>Dillwynia</i> sp. Capel (P.A. Jurjevich 1771)</td> <td>1</td> </tr> <tr> <td><i>Rorippa cygnorum</i></td> <td>2</td> </tr> <tr> <td><i>Inocybe redolens</i></td> <td>2</td> </tr> <tr> <td><i>Actinotus repens</i></td> <td>3</td> </tr> <tr> <td><i>Pultenaea pinifolia</i></td> <td>3</td> </tr> <tr> <td><i>Poa billardierei</i></td> <td>3</td> </tr> <tr> <td><i>Caladenia harringtoniae</i></td> <td>T</td> </tr> </tbody> </table> <p>One priority three species, <i>Pultenaea pinifolia</i>, may have suitable habitat within the application area, however, the soil types are different to other known populations of this species, therefore it is considered unlikely this priority flora occurs within the application area.</p>	Taxon	Cons_Code	<i>Dillwynia</i> sp. Capel (P.A. Jurjevich 1771)	1	<i>Rorippa cygnorum</i>	2	<i>Inocybe redolens</i>	2	<i>Actinotus repens</i>	3	<i>Pultenaea pinifolia</i>	3	<i>Poa billardierei</i>	3	<i>Caladenia harringtoniae</i>	T														
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<i>Caladenia harringtoniae</i>	T																														
Ecological communities	No threatened or priority ecological communities are recorded within the local area. The vegetation is not likely to be representative of any known threatened or priority ecological community.																														
Fauna	<p>A total of 17 conservation significant fauna species are recorded in local area. The nearest record is approximately 370 metres north-east of the application area, that being a western ringtail possum.</p> <table border="1"> <thead> <tr> <th>Common name</th> <th>Scientific name</th> <th>Conservation Code</th> </tr> </thead> <tbody> <tr> <td>Baudin's cockatoo</td> <td><i>Calyptorhynchus baudinii</i></td> <td>EN</td> </tr> <tr> <td>Blue-billed duck</td> <td><i>Oxyura australis</i></td> <td>P4</td> </tr> <tr> <td>Carnaby's cockatoo</td> <td><i>Calyptorhynchus latirostris</i></td> <td>EN</td> </tr> <tr> <td>Carter's freshwater mussel</td> <td><i>Westralunio carteri</i></td> <td>VU</td> </tr> <tr> <td>curlew sandpiper</td> <td><i>Calidris ferruginea</i></td> <td>CR</td> </tr> <tr> <td>forest red-tailed black cockatoo</td> <td><i>Calyptorhynchus banksii naso</i></td> <td>VU</td> </tr> <tr> <td>Osprey, eastern osprey</td> <td><i>Pandion cristatus</i></td> <td>MI</td> </tr> <tr> <td>Peregrine falcon</td> <td><i>Falco peregrinus</i></td> <td>OS</td> </tr> <tr> <td>pouched lamprey</td> <td><i>Geotria australis</i></td> <td>P3</td> </tr> </tbody> </table>	Common name	Scientific name	Conservation Code	Baudin's cockatoo	<i>Calyptorhynchus baudinii</i>	EN	Blue-billed duck	<i>Oxyura australis</i>	P4	Carnaby's cockatoo	<i>Calyptorhynchus latirostris</i>	EN	Carter's freshwater mussel	<i>Westralunio carteri</i>	VU	curlew sandpiper	<i>Calidris ferruginea</i>	CR	forest red-tailed black cockatoo	<i>Calyptorhynchus banksii naso</i>	VU	Osprey, eastern osprey	<i>Pandion cristatus</i>	MI	Peregrine falcon	<i>Falco peregrinus</i>	OS	pouched lamprey	<i>Geotria australis</i>	P3
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Characteristic	Details		
	Quenda, southwestern brown bandicoot	<i>Isoodon fusciventer</i>	P4
	Quokka	<i>Setonix brachyurus</i>	VU
	south-western brush-tailed phascogale, wambenger	<i>Phascogale tapoatafa wambenger</i>	CD
	water-rat, rakali	<i>Hydromys chrysogaster</i>	P4
	Western brush wallaby	<i>Notamacropus irma</i>	P4
	Western false pipistrelle, western falsistrelle	<i>Falsistrellus mackenziei</i>	P4
	western ringtail possum, ngwayir	<i>Pseudocheirus occidentalis</i>	CR
	White-tailed black cockatoo	<i>Calyptorhynchus</i> sp. 'white-tailed black cockatoo'	EN
	<p>Suitable habitat for western ringtail possum occurs within the application area.</p> <p>Habitat suitability for black cockatoos is unlikely due to the absence of preferred foraging and breeding trees.</p> <p>The remaining conservation significant fauna either do not have suitable habitat within the application area, or are vagrants in the local area.</p>		



## 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 area proposed to be cleared does not contain locally or regionally significant flora, fauna or assemblages of plants.</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>The area proposed to be cleared contains suitable habitat for western ringtail possum. The local area is extensively vegetated with similar or better condition vegetation as the application area, much of which is within conservation estate. Clearing of a small area of habitat is unlikely to impact the viability of this species, however, may significantly impact individuals if they occur within the application area. Western ringtail possum management conditions will mitigate the potential impacts to individuals within the application area if present.</p>	May be 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></p> <p>The area proposed to be cleared is unlikely to contain habitat for threatened flora species listed under the BC Act.</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 State or Commonwealth listed 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 and 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 a critical part of an ecological linkage in the local area.</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></p> <p>Given the distance to the nearest conservation area, the proposed clearing may have an impact on the environmental values of adjacent and nearby</p>	May be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
conservation areas. These impacts can be managed with standard hygiene management conditions.		
<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 a watercourse, wetland and dam are recorded within the application area, the proposed clearing is likely to impact native vegetation growing in association with a wetland or watercourse however, this impact is not likely to be significantly greater than the impact of the existing dam.</p>	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 subsystem unit is mapped as having a high risk of wind erosion, however, the soils mapped within the application area are not known to be prone to wind erosion due to the high percentage of loam, gravel and damp condition relating to the watercourse. Noting the location of the application area within a drainage channel, the proposed clearing is not likely to have an appreciable impact on land degradation from wind erosion.</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>The application area is mapped within a watercourse which is currently dammed. All surface water run-off will be captured within the expanded dam and contained within the property. It is not likely that the proposed clearing will significantly increase impacts to surface or underground water quality beyond those which already exist.</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>	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 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.
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**

Figures 2-7: Representative photographs of the application area supplied by the application (Dunnet, 2021)



Figure 2



Figure 3





**Figure 4**



**Figure 5**



**Figure 6**



**Figure 7**

## 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)
- 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)



## E.2. References

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 Primary Industries and Regional Development (DPIRD) (2019). *NRInfo Digital Mapping. Department of Primary Industries and Regional Development*. Government of Western Australia. URL: <https://maps.agric.wa.gov.au/nrm-info/> (accessed 4 October 2021).

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) (2021) *Rights in Water and Irrigation Act 1914 advice for clearing permit application CPS 9382/1*, received 31 August 2021 (DWER Ref: DWERDT511234).

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