



GOVERNMENT OF  
Western Australia

## CLEARING PERMIT

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

### PERMIT DETAILS

Area Permit Number: CPS 9437/1  
File Number: DWERVT8703  
Duration of Permit: From 05 May 2022 to 05 May 2024

### PERMIT HOLDER

Serenitas Communities Holdings Pty Ltd on behalf of Helena Valley Residential Resort

### LAND ON WHICH CLEARING IS TO BE DONE

Lot 55 on Diagram 74934, Helena Valley  
Lot 103 on Deposited Plan 406369, Helena Valley

### AUTHORISED ACTIVITY

The permit holder must not clear more than 32 *native* trees 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. 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	<p>(a) the species composition, structure, and density of the cleared area;</p> <p>(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;</p> <p>(c) the date that the area was cleared;</p> <p>(d) the size of the area cleared (in hectares);</p> <p>(e) actions taken to avoid, minimise, and reduce the impacts and extent of <i>clearing</i> in accordance with condition 1; and</p> <p>(f) actions taken to minimise the risk of the introduction and spread of <i>weeds</i> and <i>dieback</i> in accordance with condition 2.</p>

### 4. Reporting

The permit holder must provide to the *CEO* the records required under condition 3 of this permit when requested by the *CEO*.

## DEFINITIONS

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

**Table 2: Definitions**

Term	Definition
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the <i>Environmental Protection Act 1986</i> .
clearing	has the meaning given under section 3(1) of the EP Act.
condition	a condition to which this clearing permit is subject under section 51H of the EP Act.
department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
EP Act	<i>Environmental Protection Act 1986</i> (WA)

Term	Definition
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
weeds	<p>means any plant –</p> <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> <li>(c) not indigenous to the area concerned.</li> </ul>

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**END OF CONDITIONS**

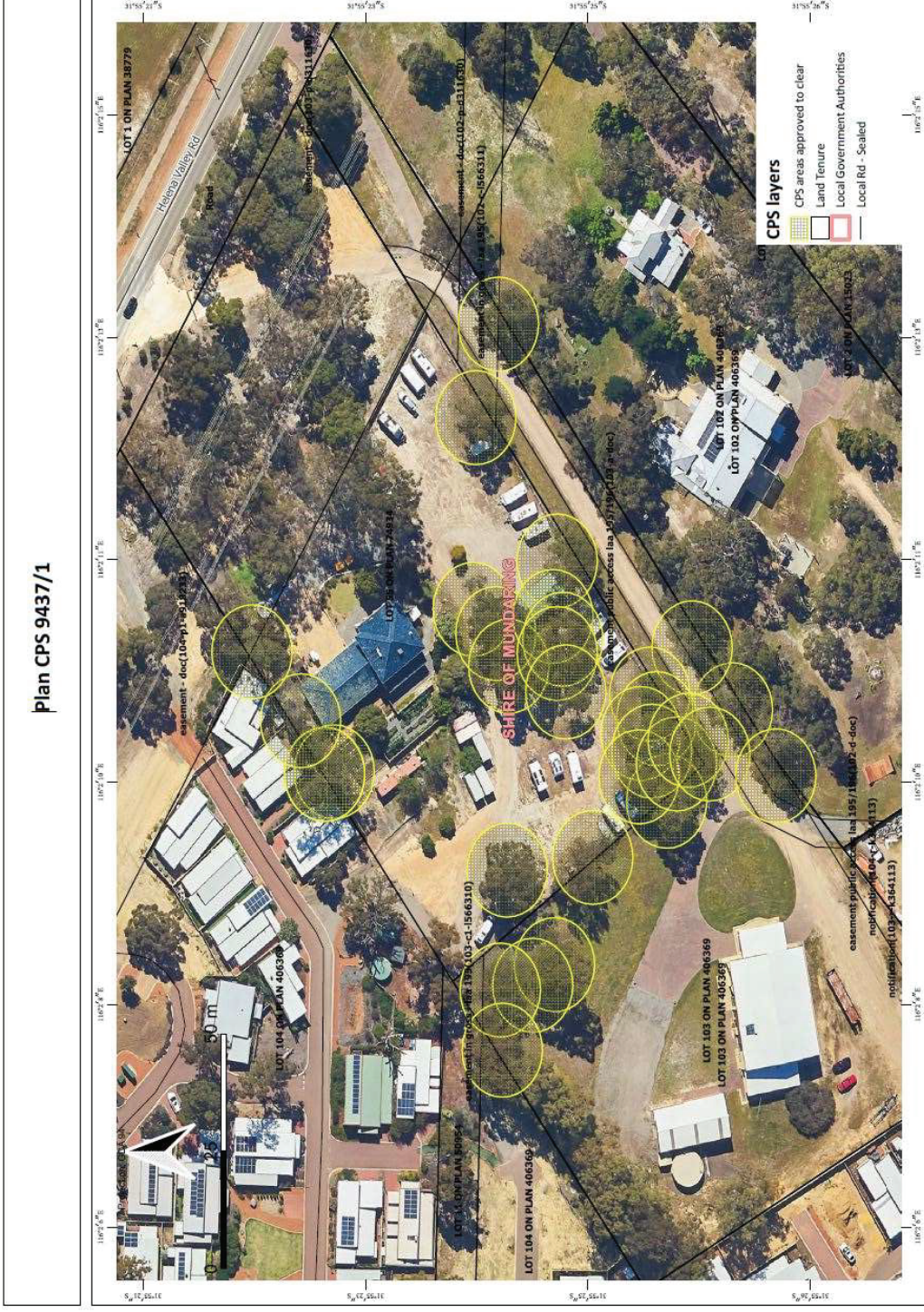


Mathew Gannaway  
MANAGER  
NATIVE VEGETATION REGULATION  
*Officer delegated under Section 20  
of the Environmental Protection Act 1986*

11 April 2022

# 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

<b>Permit number:</b>	CPS 9437/1
<b>Permit type:</b>	Area permit
<b>Applicant name:</b>	Serenitas Communities Holdings Pty Ltd on behalf of Helena Valley Residential Resort
<b>Application received:</b>	21 September 2021
<b>Application area:</b>	32 native trees
<b>Purpose of clearing:</b>	Expansion of the existing residential lifestyle resort
<b>Method of clearing:</b>	Mechanical
<b>Property:</b>	Lot 55 on Diagram 74934 Lot 103 on Deposited Plan 406369
<b>Location (LGA area/s):</b>	Shire of Mundaring
<b>Localities (suburb/s):</b>	Helena Valley

### 1.2. Description of clearing activities

The purpose of the proposed clearing is to extend the Helena Valley Lifestyle Resort. The vegetation proposed to be cleared comprises 32 trees of various size and age (see Figure 1, Section 1.5), within a parkland cleared semi urban area.

### 1.3. Decision on application

<b>Decision:</b>	Granted
<b>Decision date:</b>	11 April 2022
<b>Decision area:</b>	32 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 E.1), photographs provided by the applicant (see Appendix D), vegetation and tree survey (Arbor Logic 2016), 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 may result in:

- the loss of native vegetation that is suitable for foraging habitat for fauna

- the potential introduction and spread of weeds and dieback into adjacent vegetation, which could impact on the quality of the vegetation and its habitat values.

As the application area is comprised of individual remnant trees occurring on either bare ground or ground dominated by introduced non-native grasses and herbs, it is unlikely the clearing will impact flora of conservation significance or result in impacts to an ecological linkage. The proposed clearing is not considered to include any vegetation that would indicate a Threatened or Priority Ecological Community (TEC, PEC). It is also considered the proposed clearing, will not result in the loss of significant foraging habitat, due to its poor quality and proximity to an extensively vegetated landscape, where breeding and foraging habitat of better condition is likely to occur.

After consideration of the available information, the Delegated Officer decided to grant a clearing permit subject to the following requirements conditioned on the clearing permit, to manage and address the impacts of clearing:

- 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 to adjacent vegetation.

### 1.5. Site map

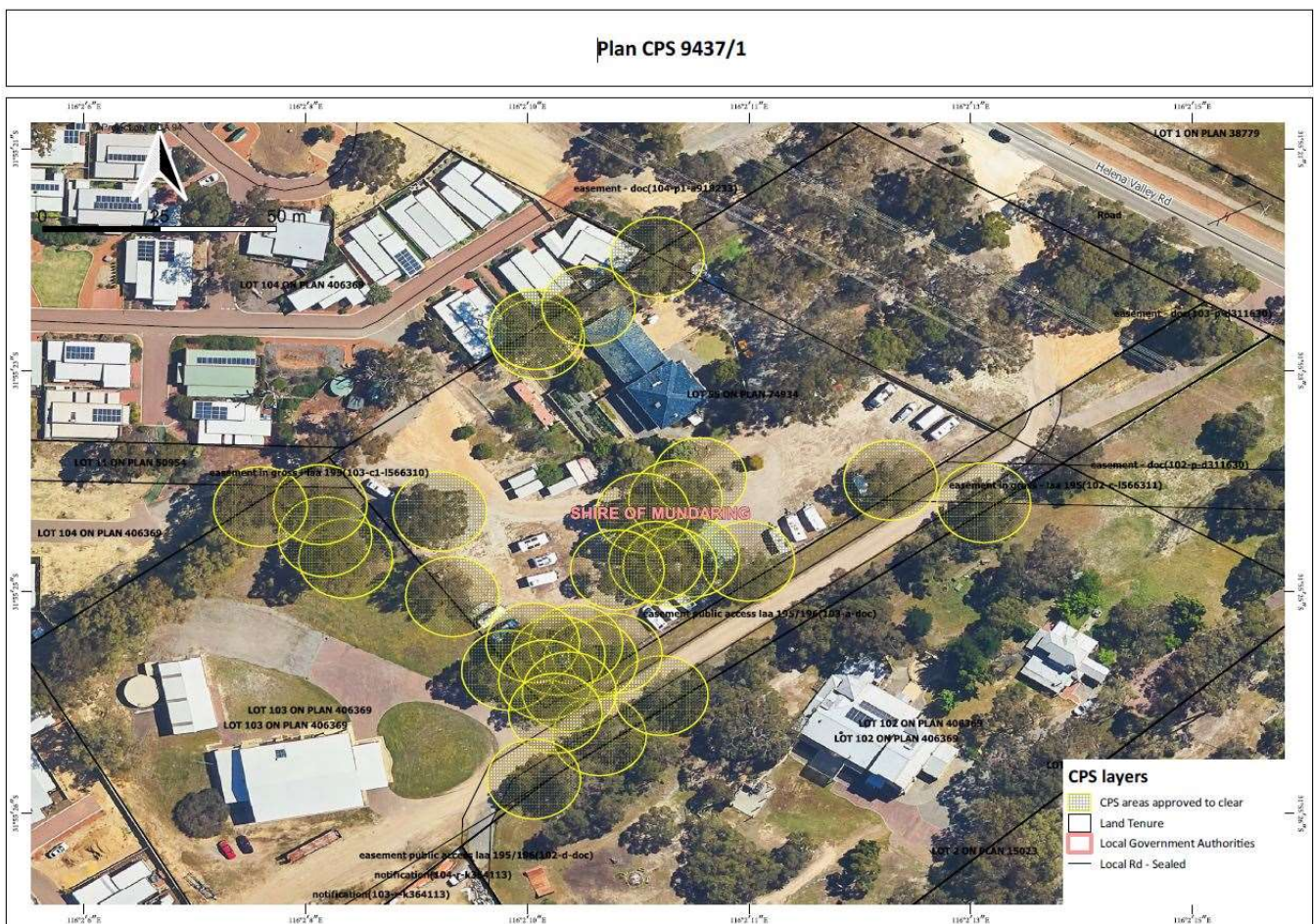


Figure 1 Map of the application area. The areas crosshatched yellow indicate the areas authorised to be cleared under the granted clearing permit.

## 2 Legislative context

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

In addition to the matters considered in accordance with section 51O of the EP Act (see Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

- the precautionary principle
- the principle of intergenerational equity

- the principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Planning and Development Act 2005* (WA) (P&D Act)
- *Soil and Land Conservation Act 1945* (WA)

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

All trees that can be retained on site in order to meet local and state government policy and regulations have been retained on site (Helena Valley Residential Resort, 2021).

#### 3.2. Assessment of impacts on environmental values

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

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

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

###### Assessment

According to available data sets, no conservation significant fauna is recorded in the application area. A study of aerial imagery and photographs provided by the applicant (Arbor Logic 2016), indicate the application area has been parkland cleared as a result of previous clearing of the mid and ground layer and is in a degraded (Keighery 1994) to completely degraded (Keighery 1994) condition (see Appendix C). Therefore, the application area is unlikely to provide habitat for conservation significant ground dwelling fauna.

The proposed clearing is comprised of Marri (*Corymbia calophylla*) and Jarrah (*Eucalyptus marginata*) trees at varying stages of maturity and may provide foraging and roosting habitat for Carnaby's cockatoo (*Calyptorhynchus latirostris*), Baudin's cockatoo (*Calyptorhynchus baudinii*) and forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*), collectively known as black cockatoos, all of which have been recorded within less than one kilometre of the proposed clearing area. Although the trees included in the proposed clearing area may provide foraging habitat for black cockatoos, a review of aerial photography and spatial datasets indicate that a larger tract of native vegetation in better condition, covering approximately 235 hectares, is adjacent to the application area, providing better quality foraging habitat. In addition, the Beelu and Greenmount National Parks located within two kilometres of the application area will also provide better quality foraging habitat. The removal of 32 trees will not severely impact the amount of available foraging resources for black cockatoos in the local area.

The application area contains three mature trees, with a diameter above 30 centimetres DBH. These include, one Marri and two jarrah trees, (see Appendix D trees 12, 13 and 15). The arborist report did not record any large hollows within the trees proposed to be cleared (Arbor Logic 2016). The removal of these trees will not impact the breeding habitat of black cockatoos in the local area.

Weeds have the potential to out-compete native flora and reduce the biodiversity of an area. Potential impacts to biodiversity of the adjacent native vegetation as a result of the introduction and spread of weeds and dieback may be minimised by the implementation of a weed and dieback management condition.

###### Conclusion

Given the lack of mid-layer and ground-layer vegetation, the proposed clearing is unlikely to impact available habitat for conservation significant ground dwelling fauna. Due to the availability of high-quality habitat in the local area, the proposed clearing will not result in a significant loss of available foraging and breeding habitat for black cockatoos. It

is considered that the impacts of the proposed clearing on adjacent fauna habitat will be managed by taking steps to minimise the risk of the introduction and spread of weeds and dieback.

#### Conditions

To address the above impacts, the following management measure will be required as a condition on the clearing permit:

- Weed and dieback management measures will be required as a condition on the clearing permit.

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

The applicant received development approval for the purpose of extension of the Helena Valley Lifestyle Resort on 14 February 2021 from the Shire of Mundaring. The Shire of Mundaring (2021) did not have any objections to the proposed clearing subject to conditions namely, the retention of large (DBH greater than 30cm) habitat trees, where possible.

The application area falls within the Helena River and Elders Sand Pit registered heritage places. 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 DWER at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix B.

### A.1. Site characteristics

Characteristic	Details
Local context	<p>The area proposed to be cleared is situated within the Helena Valley at the foot of the Darling Scarp. It is 0.3 kilometres north of an intact tract of native vegetation, covering an area of approximately 235 hectares in the intensive land use zone of Western Australia, situated between two sections of the Perth regional ecological linkage. The application area and adjacent vegetation has been parkland cleared, comprising native tree species occasionally forming patches of closed canopy over introduced grasses.</p> <p>Spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 41.38 per cent of the original native vegetation cover.</p>
Ecological linkage	Perth regional ecological linkage mapped 0.26 and 0.30 kilometres east and west of the application area respectively.
Conservation areas	<ul style="list-style-type: none"> <li>• Beelu National Park, 1 kilometre to the southeast</li> <li>• Greenmount National Park, 2 Kilometres northeast</li> </ul>
Vegetation description	<p>Photographs supplied by the applicant (Arbor logic 2016) indicate the vegetation within the proposed clearing area indicate a parkland cleared vegetation comprised of, remnant native tree species, <i>Corymbia calophylla</i> (Marri), <i>Eucalyptus rudis</i> (River gum), non-endemic <i>Eucalyptus camaldulensis</i> (Northern River gum) and introduced, <i>Pyrus ussuriensis</i>* (Manchurian Pear) over introduced grass species. 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>• Forrestfield Complex 29, which is described as vegetation ranging from open forest of <i>Corymbia calophylla</i> (Marri) - <i>Eucalyptus wandoo</i> (Wandoo) - <i>Eucalyptus marginata</i> (Jarrah) to open forest of <i>Eucalyptus marginata</i> (Jarrah) - <i>Corymbia calophylla</i>. Swan Coastal Plain vegetation complexes as described and mapped by Heddle et al. (1980) as updated by Webb et al. (2016).</li> </ul>
Vegetation condition	<p>Photographs supplied by the applicant (Arbor logic 2016) indicate the vegetation within the proposed clearing area is in degraded to completely degraded condition (Keighery 1994).</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	<ul style="list-style-type: none"> <li>• Mean annual rainfall: 760.4 millimetres</li> <li>• Temperature (mean annual minimum): 12.1 degrees centigrade</li> <li>• Temperature (mean annual maximum): 24.6 degrees centigrade</li> <li>• Mean annual evapotranspiration: 800 millimetres</li> </ul>
Soil description	The soil is mapped as Forrestfield (D Range) F1 Phase, described as foot and low slopes < 10% with deep rapidly drained siliceous yellow brown sands, and pale or bleached sands with yellow-brown subsoil. Shrubland of unidentified species.
Land degradation risk	The soil type mapped within the application area has low risk of water erosion, salinity, waterlogging, flooding, and phosphorus export risk. However, has moderate to high susceptibility to subsurface acidification and wind erosion.
Waterbodies	The desktop assessment and aerial imagery indicated the proposed clearing does not occur within a wetland and does not transect any water courses. Two perennial rivers are

Characteristic	Details
	mapped nearby the application area, the Helena River, 0.3 kilometres east and Kadina Brook 0.6 kilometres to the west.
Hydrogeography	The application area falls within Swan River system surface water and Perth Groundwater Area.
Flora	<p>There is a total of 73 conservation significant flora in the local area including 13 Threatened flora and 60 priority flora. The species recorded nearest to the application area is the Priority 3 <i>Lasiopetalum glutinosum</i> subsp. <i>glutinosum</i>, at 0.77 kilometres. This species is associated with shallow soils on granite outcrops.</p> <p>The threatened flora species recorded nearest to the application area is <i>Acacia aphylla</i> occurring approximately 1 kilometre from the application area. This species is known from a variety of soils, including the Forrestfield (D Range) F1 Phase mapped within the application area.</p> <p>Noting the parkland cleared nature of the site, no flora of conservation significance is likely to occur.</p>
Ecological communities	<p>The proposed clearing intersects approximately 0.075 hectares of the TEC 'Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region', listed as Priority 3 PEC by DBCA and federally listed as Endangered under the EPBC Act. Other ecological and priority communities in the local area include:</p> <ul style="list-style-type: none"> <li>• The Critically Endangered, TEC 'Shrublands and woodlands of the eastern side of the Swan Coastal Plain (floristic community type 20c as originally described in Gibson et al. (1994))', occurs approximately 0.23 kilometres to the west of the application area.</li> <li>• The Endangered, TEC '<i>Banksia attenuata</i> woodlands over species rich dense shrublands (floristic community type 20a as originally described in Gibson et al. (1994))', occurs approximately 1.4 kilometres to the northwest.</li> </ul> <p>The Priority 4 PEC 'Central Northern Darling Scarp Granite Shrubland Community', occurs approximately 1.8 kilometres to the southeast.</p> <p>Noting the parkland cleared nature of the site, no TEC or PEC is likely to occur.</p>
Fauna	<p>A total of 38 conservation significant fauna are recorded in the local area. The nearest record is for <i>Calyptorhynchus banksii naso</i> (forest red-tailed black cockatoo) approximately 0.4 kilometres from the application area. The local area includes 12 unspecified records for white-tailed black cockatoo, the nearest at 0.18 kilometres from the application area.</p> <p>Black cockatoo habitat within the local area includes:</p> <ul style="list-style-type: none"> <li>• 11 white tailed black cockatoo breeding sites, this includes a cluster of eight sites all approximately 4 kilometres west of the application area. The nearest mapped breeding site is 4.1 kilometres east of the application area.</li> <li>• A total of 54 black cockatoo roosts sites. The nearest is 0.36 kilometres south-west of the application area.</li> <li>• Approximately 40 percent of all remnant vegetation in the local area, is mapped as cockatoo feeding habitat.</li> </ul> <p>Habitat suitability analysis is provided in table A.3. A number of fauna species dependent on marine and freshwater habitats have been omitted from the table as these species are highly unlikely to utilise the habitats within the application area.</p>

## 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	10,4180.6	3,043.13	29.21	855.93	9.31
Vegetation complex					
*Hedde vegetation complex: Forrestfield Complex 29	22,812.92	2,803.36	12.93	381.57	1.67
Local area					
10 km radius	32099.89	13284.07	41.38	-	-

\*Government of Western Australia (2019a)

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

## A.3. Fauna analysis table

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
<i>(Calyptorhynchus banksii naso)</i> forest red-tailed black cockatoo	EN	Yes	Yes	0.36	61	N/A
<i>(Calyptorhynchus latirostris)</i> Carnaby's cockatoo	EN	Yes	Yes	0.44	1330	N/A
<i>Isoodon fusciventer</i> (quenda)	P4	Yes	Yes	0.49	856	N/A
<i>Dasyurus geoffroyi</i> (chuditch, western quoll)	VU	Yes	Yes	0.54	68	N/A
<i>Calyptorhynchus baudinii</i> (Baudin's cockatoo)	EN	Yes	Yes	0.77	114	N/A
<i>Falco peregrinus</i> (Peregrine falcon)	OS	No	No	1.5	30	N/A
<i>Ctenotus delli</i> (Dell's skink, Darling Range Southwest Ctenotus)	P4	Yes	Yes	1.6	4	N/A
<i>Phascogale tapoatafa wambenger</i> (South-western brush-tailed phascogale, wambenger)	CD	Yes	Yes	3	23	N/A
<i>Idiosoma sigillatum</i> (Swan Coastal Plain shield-backed trapdoor spider)	P3	Yes	Yes	4.4	4	N/A
<i>Pseudocheirus occidentalis</i> (western ringtail possum, ngwayir)	CR	Yes	Yes	4.9	1	N/A
<i>Cacatua pastinator pastinator</i> (Muir's corella)	CD	Yes	Yes	5.5	6	N/A
<i>Synemon gratiosa</i> (graceful sunmoth)	P4	Yes	yes	5.5	3	N/A
<i>Idiosoma spp.</i> (Idiosoma trapdoor spider)	EN or P	No	No	5.8	2	N/A

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>Neelaps calonotos</i> (black-striped snake, black-striped burrowing snake)	P3	Yes	Yes	8.3	10	N/A
<i>Acanthophis antarcticus</i> (southern death adder)	P3	Yes	Yes	8.9	2	N/A

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority conservation dependent OS: other conservation Status

### Land degradation risk table

Risk categories	<i>Forrestfield (D Range) F1 Phase</i>
Wind erosion	50-70% of map unit has a high to extreme risk
Water erosion	<3% of map unit has a high risk
Salinity	<3% of map unit has a high risk
Flood risk	<3% of the map unit has a moderate to high hazard
Water logging	<3% of map unit has a high risk
Phosphorus export risk	3-10% of map unit has a high risk
Subsurface soil acidification	50-70% of map unit has a high to extreme risk

## 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>Photographs provided by the applicant (Arbor logic 2016), indicate the application area is parkland cleared, comprised of remanent native tree species and planted non-indigenous species over a ground layer of introduced herb and grass species. The application area is considered to be in a degraded (Keighery 1994) to completely degraded (Keighery 1994) condition (see Appendix D). Therefore, the proposed clearing is unlikely to contain locally significant flora, fauna habitats or assemblages of plants to indicate a TEC or PEC. No threatened or priority flora are likely to occur in the application area due to the historical disturbance of the site.</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></p> <p>The area proposed to be cleared may contain foraging habitat for conservation significant fauna.</p>	Not likely to be at variance	Yes See section 3.2.1
<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>None of the tree species comprising the proposed clearing were identified as threatened species (Arbor logic 2016). The area proposed to be cleared has undergone previous parkland clearing, only retaining a ground layer of introduced herb and grass species and does not appear to retain any native shrubs. Therefore, it is unlikely to contain habitat for 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></p> <p>The area proposed to be cleared does not contain species that would indicate a threatened ecological community.</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></p> <p>The extent of native vegetation in the local area is consistent within the national objectives and targets for biodiversity conservation in Australia. The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area. It is also considered to no be consistent with the mapped vegetation type of the area.</p>	Not 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>	Not at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
<p><u>Assessment:</u></p> <p>Given the distance to the nearest conservation area, the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.</p>		
<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>The remanent tree species proposed to be cleared do not represent riparian vegetation. No watercourses or wetlands are mapped within or adjacent to the application area.</p>	Not at variance	No
<p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u></p> <p>The mapped soils have low susceptibility to water erosion, nutrient export, salinity, and water logging and moderately to high susceptibility to wind and subsurface acidification. Given the clearing is limited to 32 trees, most of which are individual free-standing trees, the proposed clearing is not likely to have an appreciable impact on land degradation.</p>	Not at variance	No
<p><u>Principle (i):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.”</i></p> <p><u>Assessment:</u></p> <p>Given no watercourses, wetlands or Public Drinking Water Source Areas are recorded within the application area, the proposed clearing is unlikely to impact surface or ground water quality</p>	Not 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 size of the proposed clearing and 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 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 trees comprising the proposed clearing (Arbor Logic, 2016)**



Figure 2 Trees included in a tree survey of the application area (Arbor Logic, 2016), with each tree numbered. Photographs of trees include in the proposed clearing area listed below.



Tree ID	Species	Approximate Height (metres)	Approx DBH (cm)	Canopy spread (metres diameter)	Age Class	Health	Structure	Image
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12	Marri ( <i>Corymbia calophylla</i> )				Mature			
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13	- Jarrah ( <i>Eucalyptus marginata</i> )				Mature			
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14	Jarrah ( <i>Eucalyptus marginata</i> )				Semi-mature			
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Tree ID	Species	Approximate Height (metres)	Approx DBH (cm)	Canopy spread (metres diameter)	Age Class	Health	Structure
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15 - Jarrah  
(*Eucalyptus marginata*)

Mature



17 Marri (*Corymbia calophylla*)

Semi-mature




18 Marri (*Corymbia calophylla*)

Mature



Tree ID	Species	Approx. Height (metres)	Approx. DBH (cm)	Canopy Spread (metres diameter)		Age Class	Health	Structure	Image
				N-S	E-W				



19	Marri ( <i>Corymbia calophylla</i> )					Mature			
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20	Marri ( <i>Corymbia calophylla</i> )					Mature			
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51	Marri ( <i>Corymbia calophylla</i> )	16	50, 45	8-10	6-8	mature	Good	Good	
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Tree ID	Species	Approx. Height (metres)	Approx. DBH (cm)	Canopy Spread (metres diameter)		Age Class	Health	Structure	Image
				N-S	E-W				
52	Marri ( <i>Corymbia calophylla</i> )	16	55 x2, 53	8-10	10-12	mature	Good	Acceptable	
53	Marri ( <i>Corymbia calophylla</i> )	12	30	2-4	2-4	Semi-mature	Good	Good	
54	Marri ( <i>Corymbia calophylla</i> )	18	95	16-18	10-12	mature	Good	Good	
287	Marri ( <i>Corymbia calophylla</i> )	4.5	25	2-4	2-4	Semi-mature	Fair	Acceptable-Good	

Tree ID	Species	Approx. Height (metres)	Approx. DBH (cm)	Canopy Spread (metres diameter)		Age Class	Health	Structure	Image
				N-S	E-W				
288	Marri ( <i>Corymbia calophylla</i> )	13	30	4-6	4-6	Semi-mature	Good	Good	
289	Marri ( <i>Corymbia calophylla</i> )	13	45	8-10	6-8	mature	Good	Good	
290	Marri ( <i>Corymbia calophylla</i> )	14	55	8-10	8-10	mature	Excellent	Good	
292	Marri ( <i>Corymbia calophylla</i> )	11	30 x2	4-6	4-6	Semi-mature	Good	Acceptable - Good	

Tree ID	Species	Approx. Height (metres)	Approx. DBH (cm)	Canopy Spread (metres diameter)		Age Class	Health	Structure	Image
				N-S	E-W				
293	Marri ( <i>Corymbia calophylla</i> )	10	35	4-6	4-6	Semi-mature	Good	Acceptable - Good	
294	Marri ( <i>Corymbia calophylla</i> )	10	30	4-6	4-6	Semi-mature	Fair	Good	

## 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

Arbor Logic (2016), *Supporting information for clearing permit application CPS 9437/1*, received 20 December 2020 (DWER Ref: A2052256).

Gibson, N., Keighery, B., Keighery, G., Burbidge, A and Lyons, M. (1994) A floristic survey of the Southern Swan Coastal Plain. Unpublished report for the Australian Heritage Commission prepared by the Department of Conservation and Land Management and the Conservation Council of Western Australia (Inc.).

Government of Western Australia (2019a) *2018 South West Vegetation Complex Statistics. Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions, Perth, <https://catalogue.data.wa.gov.au/dataset/dbca>

Government of Western Australia. (2019b) *2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>

Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) *Vegetation Complexes of the Darling System, Western Australia*. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.

Helena Valley Residential Resort (2021) *Clearing permit application CPS 9437/1*. Received 21 September 2021 (DWER Ref:DWERT506594).

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

Shire of Mundaring (2021) *Advice for clearing permit application CPS 9353/1*, received 05 October 2021 (DWER Ref: A2050296).

Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) *Native Vegetation in Western Australia, Extent, Type and Status*. Resource Management Technical Report 249. Department of Agriculture, Western Australia.