



## CLEARING PERMIT

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

<b>Purpose Permit number:</b>	CPS 9436/1
<b>Permit Holder:</b>	Department of Water and Environmental Regulation
<b>Duration of Permit:</b>	From 5 March 2022 to 5 March 2027

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

### **PART I – CLEARING AUTHORISED**

#### **1. Clearing authorised (purpose)**

The permit holder is authorised to clear native vegetation for the purpose of ground water monitoring bores

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

Sappers Road Reserve (PIN 11674231), Karakin

Brand Hwy Road Reserve (PIN 1226192), Orange Springs

Mogumber Road West Road Reserve (PIN 11580464), Mindarra

#### **3. Clearing authorised**

(a) The permit holder must not clear more than 0.23 hectares of native vegetation within the area cross-hatched yellow in Figure 1 of Schedule 1.

(b) The permit holder must not clear more than 0.17 hectares of native vegetation within the area cross-hatched yellow in Figure 2 of Schedule 1.

(c) The permit holder must not clear more than 0.05 hectares of native vegetation within the area cross-hatched yellow in Figure 3 of Schedule 1.

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

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

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

(a) avoid the clearing of native vegetation;

(b) minimise the amount of native vegetation to be cleared; and

(c) reduce the impact of clearing on any environmental value.

## 5. Weed and dieback management

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

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

## PART III - RECORD KEEPING AND REPORTING

### 6. Records that must be kept

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

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

No.	Relevant matter	Specifications
1.	In relation to the authorised clearing activities generally	<ol style="list-style-type: none"><li>(a) the species composition, structure, and density of the cleared area;</li><li>(b) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (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 4; and</li><li>(f) actions taken to minimise the risk of the introduction and spread of weeds and dieback in accordance with condition 5.</li></ol>

### 7. Reporting

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

## DEFINITIONS


In this permit, the terms in Table 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)
fill	means material used to increase the ground level, or to fill a depression.
mulch	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
weeds	means any plant – (a) that is a declared pest under section 22 of the <i>Biosecurity and Agriculture Management Act 2007</i> ; or (b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or (c) not indigenous to the area concerned.

---

## END OF CONDITIONS

  
Ryan Mincham  
2022.02.10  
11:23:50  
+08'00'

---

Ryan Mincham  
MANAGER  
NATIVE VEGETATION REGULATION

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

10 February 2022

# Schedule 1

The boundary of the areas authorised to be cleared is shown in the map below (Figure 1-3).

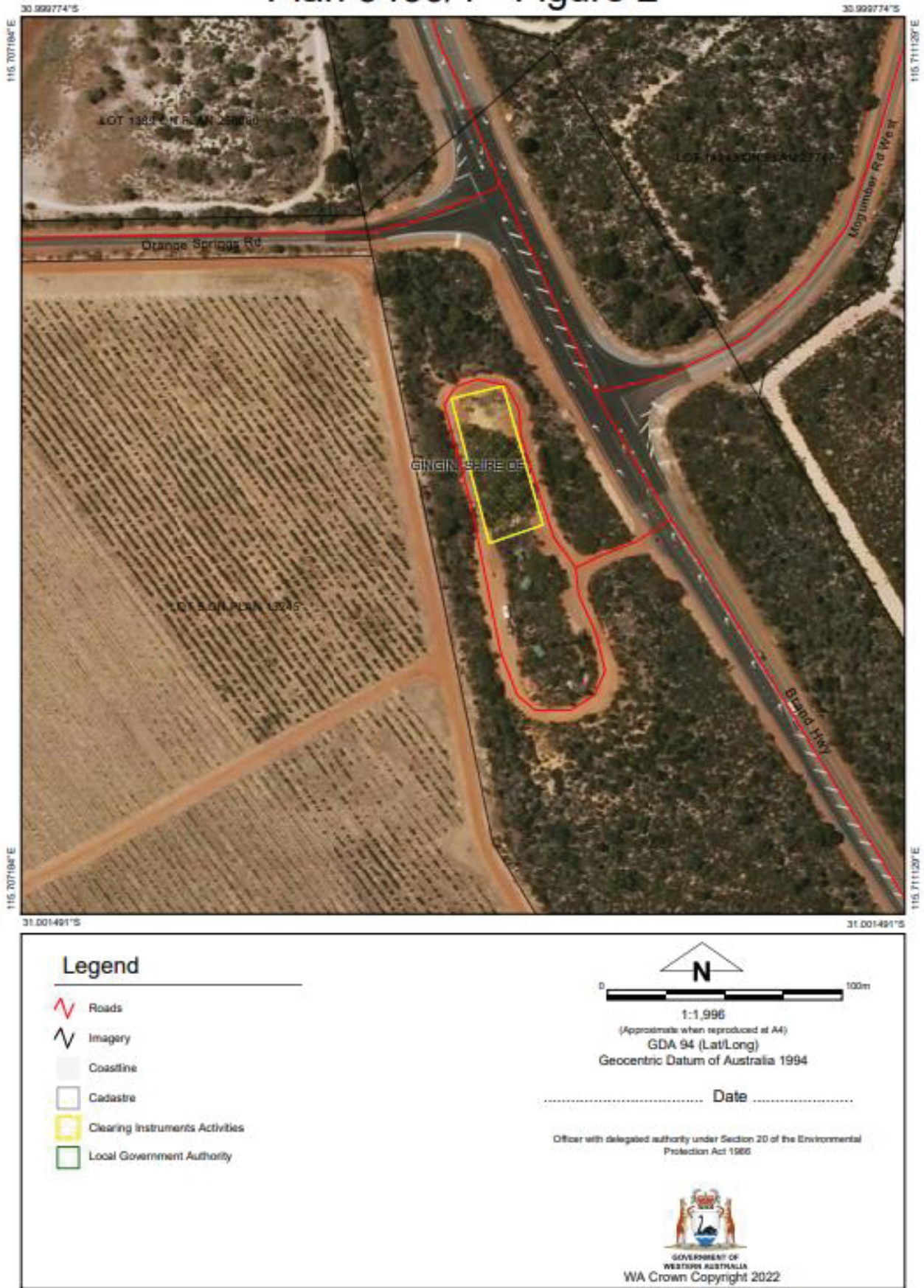
## Plan 9436/1 - Figure 1



**Figure 1: Map of the boundary of the area within which clearing may occur (Sappers Road)**

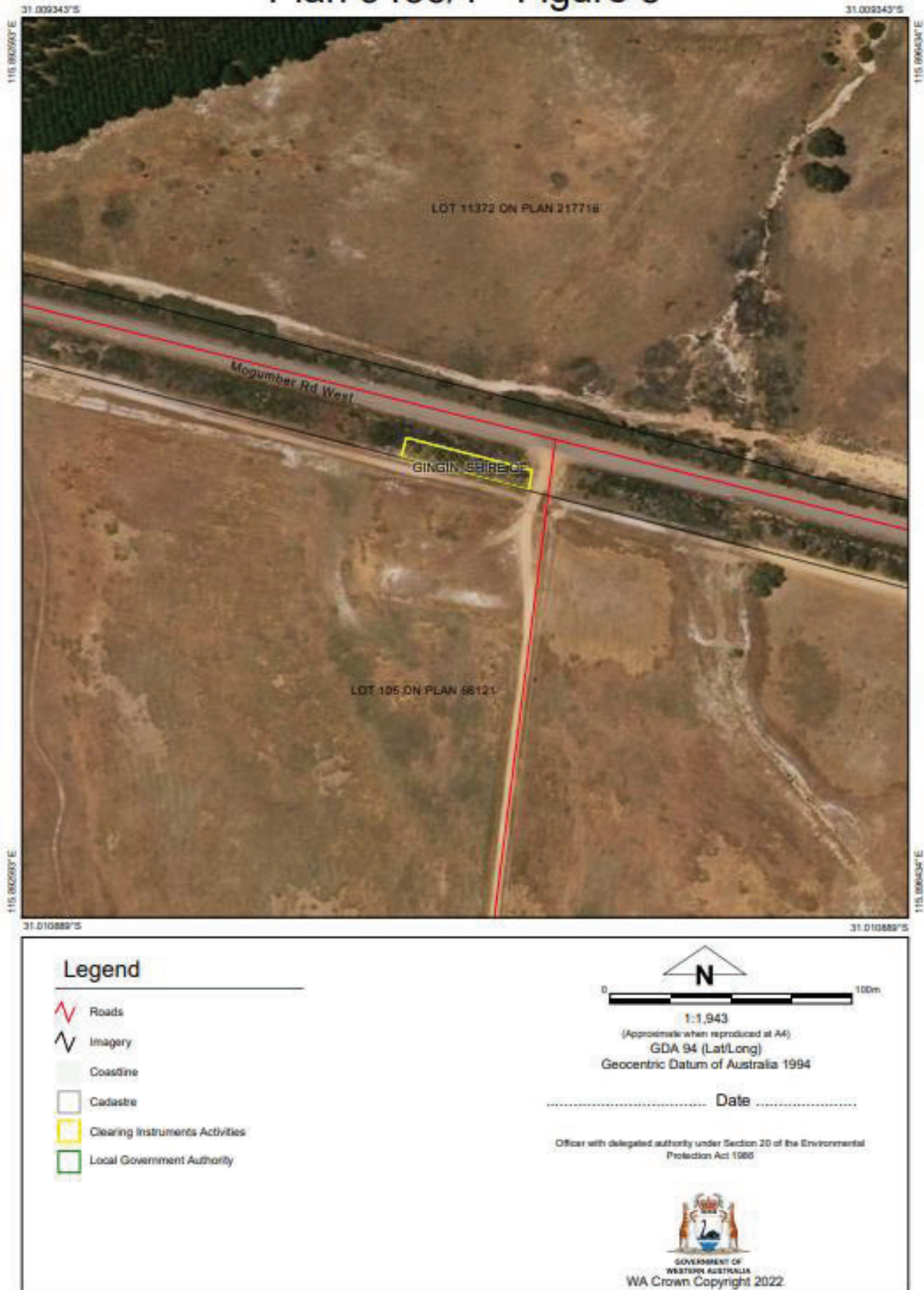


# Plan 9436/1 - Figure 2



**Figure 2: Map of the boundary of the area within which clearing may occur (Brand Highway)**

# Plan 9436/1 - Figure 3



**Figure 3: Map of the boundary of the area within which clearing may occur (Mogumber Road West)**





# Clearing Permit Decision Report

## 1 Application details and outcome

### 1.1. Permit application details

<b>Permit number:</b>	CPS 9436/1
<b>Permit type:</b>	Purpose permit
<b>Applicant name:</b>	Department of Water and Environmental Regulation
<b>Application received:</b>	20 November 2021
<b>Application area:</b>	0.45 hectares of native vegetation
<b>Purpose of clearing:</b>	Groundwater monitoring bores
<b>Method of clearing:</b>	Mechanical
<b>Property:</b>	GL2 – Sappers Road Reserve (PIN 11674231), Karakin GL5 - Brand Hwy Road Reserve (PIN 1226192), Orange Springs GL7 - Mogumber Road West Road Reserve (PIN 11580464), Mindarra
<b>Location (LGA area/s):</b>	Shire of Gingin
<b>Localities (suburb/s):</b>	Karakin, Orange Springs and Mindarra

### 1.2. Description of clearing activities

The vegetation proposed to be cleared is distributed across three separate areas (see Figures 1-3, Section 1.5);

- Plan A – GL2 - Sappers Road Reserve (PIN 11674231), Karakin – 0.23 hectares
- Plan B – GL5 - Brand Hwy Road Reserve (PIN 1226192), Orange Springs – 0.17 hectares
- Plan C - GL7 - Mogumber Road West Road Reserve (PIN 11580464), Mindarra – 0.05 hectares

### 1.3. Decision on application

<b>Decision:</b>	Granted
<b>Decision date:</b>	10 February 2022
<b>Decision area:</b>	0.45 hectares of native vegetation, as depicted in Section 1.5, below.

### 1.4. Reasons for decision

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

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix 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 Delegated Officer also took into consideration that the application areas have been previously cleared and that the proposed clearing allows for decommissioning existing facilities and installing replacement facilities.

The assessment identified that the proposed clearing will result in 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, as well as the applicant’s minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined the proposed clearing is unlikely to lead to appreciable land degradation, have long-term adverse impacts on any environmental and can be minimised and managed to ensure it is unlikely lead to an unacceptable risk to the environmental values.

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

- avoid, minimise to reduce the impacts and extent of clearing
- take hygiene steps to minimise the risk of the introduction and spread of weeds and dieback

Note that the Department of Mines, Industry Regulation and Safety (DMIRS) were requested, under delegated authority, to conduct a review of the draft decision report and permit prior to a determination being made on the application. DMIRS supported the Department’s assessment and determination that this application be granted. This action was considered appropriate for the purposes of transparency given that DWER is the applicant proposing to undertake the clearing.

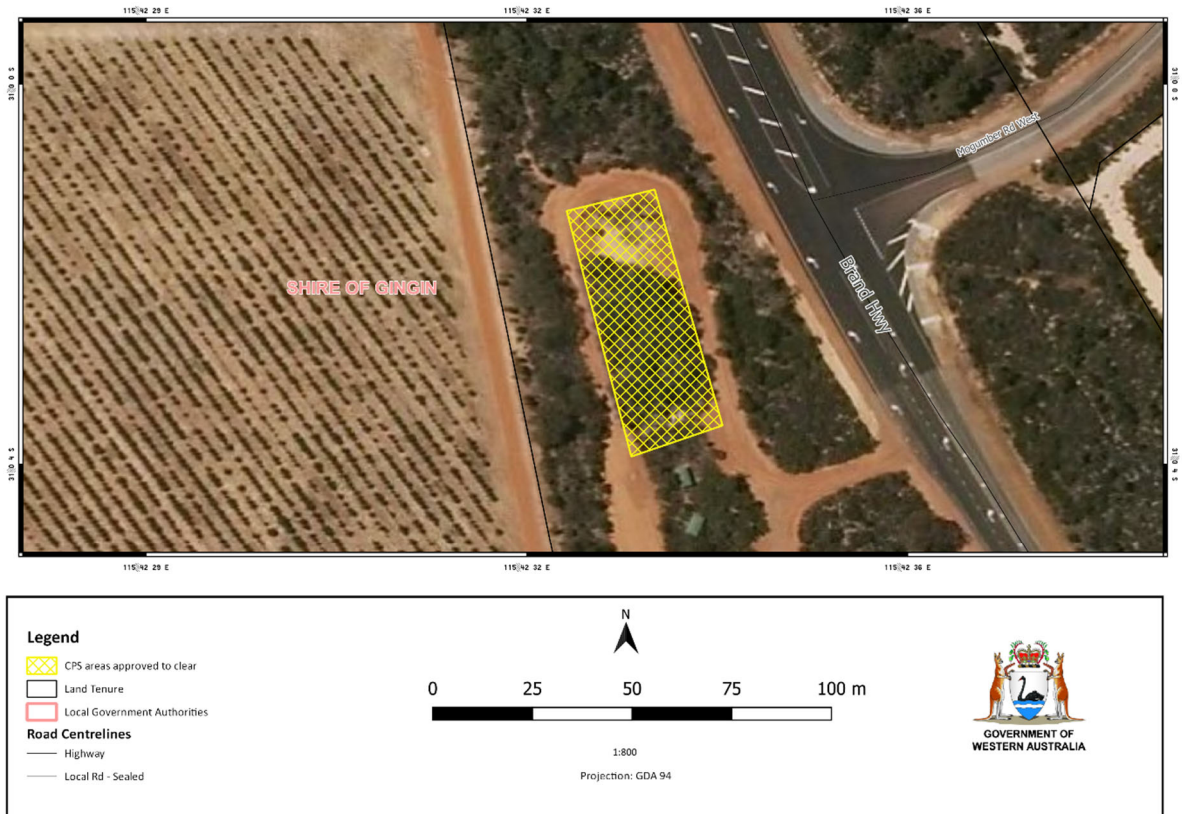
### 1.5. Site maps

The areas cross-hatched yellow in Figures 1 to 3 indicate the areas authorised to be cleared under the granted clearing permit.



**Figure 1** Map of the application area designated G2 (Area A)





**Figure 2** Map of the application area designated G5 (Area B)



**Figure 3** Map of the application area designated G7 (Area C)

## 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)

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 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 as the clearing has been limited to the extent previously cleared.

### 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 limited and able to be managed to be environmentally acceptable with standard avoid and minimise and hygiene management conditions.

### 3.3. Relevant planning instruments and other matters

No additional approvals are required to undertake the works proposed.

The Shire of Gingin advised DWER that the local government did not have any objections to the proposed clearing (Shire of Gingin, 2021).

One Aboriginal site of significance have been mapped within the application areas (Gingin Brook Waggyl Site covers Areas B and C). It is the permit holder's responsibility to comply with the *Aboriginal Heritage Act 1972* (WA) and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

**End**



## Appendix A. Site characteristics

### A.1. Site characteristics

Characteristic	Details
Local context	<p>The vegetation proposed to be cleared is distributed across three separate areas (see Figures 1 to 3, Section 1.5);</p> <ul style="list-style-type: none"> <li>• Area A – GL2 - Sappers Road Reserve (PIN 11674231), Karakin – 0.23 hectares</li> <li>• Area B – GL5 - Brand Hwy Road Reserve (PIN 1226192), Orange Springs – 0.17 hectares</li> <li>• Area C - GL7 - Mogumber Road West Road Reserve (PIN 11580464), Mindarra – 0.05 hectares.</li> </ul> <p>Spatial data indicates the local area (5-kilometre radius from the centre of each of the areas proposed to be cleared) retains above 30 per cent native vegetation.</p>
Ecological linkage	None of the application areas are mapped as, or significant to the functionality of an ecological linkage.
Conservation areas	The application areas are small and not immediately adjacent to any conservation areas.
Vegetation description	<p>Photographs supplied by the applicant indicate the vegetation within the proposed clearing area consists of</p> <ul style="list-style-type: none"> <li>- Area A: Low woodland of Melaleuca species</li> <li>- Area B: Burnt sparse low Banksia woodland</li> <li>- Area C: Sparse open Allocasuarina species</li> </ul> <p>Representative photos are available in Appendix DD.</p> <p>This is consistent with the mapped vegetation type(s):</p> <ul style="list-style-type: none"> <li>• Area A: Bassendean Complex-North which is described as Vegetation ranges from a low open forest and low open woodland of Banksia species <i>Eucalyptus tottiana</i> (Pricklybark) to low woodland of Melaleuca species and sedgelands which occupy the moister sites.</li> <li>• Area B: Karrakatta Complex-North which is described as Predominantly low open forest and low woodland of Banksia species E- <i>Eucalyptus tottiana</i> (Pricklybark), less consistently open forest of <i>Eucalyptus gomphocephala</i> (Tuart) - <i>Eucalyptus tottiana</i> (Pricklybark) - Banksia species.</li> <li>• Area C: Mogumber Complex-North which is described as Open to closed heath of Banksia species - <i>Allocasuarina humilis</i> (Dwarf Sheoak)</li> </ul> <p>The mapped vegetation types all retain over 45 per cent of the original extent (Government of Western Australia, 2019).</p>
Vegetation condition	<p>Photographs supplied by the applicant and the history of the site indicate the vegetation within the proposed clearing area is in degraded (Keighery, 1994) condition, described as:</p> <ul style="list-style-type: none"> <li>• 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.</li> </ul> <p>The full Keighery (1994) condition rating scale is provided in Appendix C. Representative photos are available in Appendix D.</p>
Climate and landform	All of the application areas are relatively flat (no more than 5 metres of elevation difference across each site) and have equal or similar annual rainfall and evaporation rates (600-700 millimetres per annum).
Soil description	<p>The soils of each site are mapped as;</p> <ul style="list-style-type: none"> <li>• Area A: 211Sp_2+3; Spearwood, Phase 2+3 which is described as brown siliceous soils and Yellowish-brown sands, co-dominant;</li> </ul>



Characteristic	Details
	<ul style="list-style-type: none"> <li>Area B: 212Mo__13; Moore River, Phase 13 which is described as brown duplex soils; and</li> <li>Area C: 222Cp_6b; Capitella 6 plain Phase which is described as sandplain over alluvial plain; yellow and pale deep sands, sandy duplexes.</li> </ul>
Land degradation risk	The application areas are small and have been previously cleared. The land degradation risks associated with removal of vegetation within these areas is low for the mapped soil complexes and extent of clearing.
Waterbodies	<p>The desktop assessment and aerial imagery indicated that there are no surface water expressions and no riparian vegetation growing within application areas A and B.</p> <p>The vegetation within area C is mapped in association with the Moore River area subject to inundation and categorised as a multiple use wetland. Photographs of the vegetation within Area C do not identify any vegetation growing in association with a wetland or watercourse.</p> <p>Representative photos are available in Appendix D.</p>
Hydrogeography	<p>Area A occurs within the Gingin Groundwater Area.</p> <p>Area B occurs within Moore River and certain Tributaries Proclaimed Surface Water Area and Gingin Groundwater Area</p> <p>Area C occurs within Moore River and certain Tributaries Proclaimed Surface Water Area and Gingin Groundwater Area</p>
Flora	<p>No threatened flora species have been recorded in close proximity to the application areas. No known threatened flora species are likely to have suitable habitat within the application areas.</p> <p>Priority flora have been recorded in close proximity to the application area;</p> <p>Area A: <i>Scholtzia laciniata</i> (P2) (200m), <i>Banksia dallanneyi subsp. pollostia</i> (P3) (700m)</p> <p>Area B: <i>Persoonia rudis</i> (P3) (540m and 860m)</p> <p>Area C: <i>Verticordia paludosa</i> (P4) (1.1km), <i>Dampiera tephrea</i> (P2) (1.2km)</p> <p>No priority flora recorded nearby have suitable habitat within the respective application areas due to variations in soil, vegetation type and condition.</p>
Ecological communities	<p>Area A is mapped as Banksia Woodland TEC (mapped within a 145 hectare patch)</p> <p>Area B is mapped as Banksia Woodland TEC (mapped within a 15 hectare patch)</p> <p>Area C: No TEC/PEC</p> <p>Photographs of the vegetation supplied by the applicant identify that area A does not meet the vegetation requirements to be considered as part of the Banksia Woodlands TEC as the dominant canopy vegetation cover is occupied by Melaleuca species.</p> <p>Area B has been burnt and it is not possible to determine the extent of Banksia canopy coverage while the vegetation is burnt. Given the application area has been previously cleared, is 0.17 hectares in size and is in degraded condition it is not likely that the vegetation within Area B would be consistent with the diagnostic criteria for Banksia Woodland TEC.</p> <p>Representative photos are available in Appendix D.</p>

Characteristic	Details
Fauna	<p data-bbox="395 176 1471 300">Area A: Black cockatoo sightings (many) in close proximity to the application area, no breeding or roosts occur within 7.5 kilometres of the application area. The site is approximately 26km west of Area B and 9km east of the WA Coastline (not primary breeding/roosting but is used for feeding).</p> <p data-bbox="395 342 1471 434">Area B: Black cockatoo feeding habitat, grouping of confirmed White-tailed black cockatoo (WTBC) breeding sites 6.8km NE of application area, many sightings 1.2-2.7 km N of the application area (birds appear to be following the river north of the application area).</p>  <p data-bbox="395 853 1471 916"><b>Figure 4:</b> Records of black cockatoos (green triangles) nearby including breeding sites (blue dots) in relation to the application area (marked black for visibility)</p> <p data-bbox="395 958 1471 1050">Area C: 9.8km east of confirmed WTBC breeding sites (mentioned in Area B), 14.4km west of confirmed WTBC breeding sites, local records/sightings place birds along the watercourse, not the road corridor.</p>  <p data-bbox="395 1568 1471 1691">The vegetation within areas A and C are not likely to provide significant feeding habitat for Black cockatoos due to the type of vegetation present. The vegetation within Area B may provide suitable feeding resource, however, the extent of regeneration of the burnt areas is not known.</p> <p data-bbox="395 1733 1471 1856">Area B accounts for 0.17 hectares of clearing, which represents less than 0.01 per cent of the available feeding resource for black cockatoos within the local area. Area B does not occur in the ecological corridor (river) being used by black cockatoos to navigate between coastal feeding resources and breeding areas.</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 areas proposed to be cleared are not likely to contain significant flora, fauna, habitats or assemblages of plants.</p> <p>Portions of Areas A and B are mapped as Banksia Woodland TEC which is known to provide feeding habitat for conservation significant black cockatoos. Given the extent, condition and vegetation types photographed within the application areas, the mapping is not likely to represent the value of vegetation on the ground. The proposed clearing is not likely to significantly impact habitat which supports a high level of local or regional biological diversity.</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 within Area B may contain foraging habitat for black cockatoos. Given that area B is small (0.17 hectares), is in degraded condition and is not within the ecological corridor (river) being utilised by black cockatoos in the area, the loss of this vegetation represents a negligible reduction in the extent of available foraging habitat which remains in the local area. The vegetation proposed to be cleared is not likely to be significant for black cockatoos.</p>	Not likely to be at variance	No
<p><u>Principle (c):</u> <i>“Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</i></p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared is unlikely to contain habitat for flora species listed as threatened 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 within Area B may contain species that can indicate a threatened ecological community (TEC). However, given the condition and extent of the vegetation proposed to be cleared, it is not likely to meet the diagnostic criteria for this TEC.</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 types 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 part of a significant ecological linkage in the local area.</p>	Not likely to be at variance	No



Assessment against the clearing principles	Variance level	Is further consideration required?
<p><u>Principle (h):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.”</i></p> <p><u>Assessment:</u></p> <p>Given the distance to the nearest conservation area, the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.</p>	Not likely to be at variance	No
<b>Environmental value: land and water resources</b>		
<p><u>Principle (f):</u> <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment:</u></p> <p>Given no watercourses or wetlands are recorded within Areas A or B application areas, the proposed clearing is unlikely to include riparian vegetation. The vegetation within area C is mapped in association with the Moore River area subject to inundation and categorised as a multiple use wetland. Photographs of the vegetation within Area C do not identify any vegetation growing in association with a wetland or watercourse.</p>	Not likely to be at variance	No
<p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u></p> <p>The mapped soils are not highly susceptible to land degradation. Noting the extent of the application areas and the condition of the vegetation, the proposed clearing is not likely to have an appreciable impact on land degradation.</p>	Not likely to be at variance	No
<p><u>Principle (i):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.”</i></p> <p><u>Assessment:</u></p> <p>Given the extent and condition of the vegetation within the application areas, the proposed clearing is unlikely to impact surface or ground water quality. The purpose for clearing is to re-establish groundwater monitoring bores.</p>	Not likely to be at variance	No
<p><u>Principle (j):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</i></p> <p><u>Assessment:</u></p> <p>The mapped soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding.</p> <p>Given the above, the proposed clearing is unlikely to contribute to 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**



**Gillingarra 2 – Vegetation to be cleared**



**Gillingarra 5 – Vegetation to be cleared**



**Gillingarra 7 – Vegetation to be cleared**



## 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 Water and Environmental Regulation (DWER) (2021) *Clearing permit application CPS 9436/1*, received 20 September 2021 (DWER Ref: DWERDT506063).
- Commonwealth of Australia (2001) *National Objectives and Targets for Biodiversity Conservation 2001-2005*, Canberra.
- Department of Environment Regulation (DER) (2013). *A guide to the assessment of applications to clear native vegetation*. Perth. Available from: [https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2\\_assessment\\_native\\_veg.pdf](https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf).
- Department of Water and Environmental Regulation (DWER) (2019). *Procedure: Native vegetation clearing permits*. Joondalup. Available from: [https://dwer.wa.gov.au/sites/default/files/Procedure\\_Native\\_vegetation\\_clearing\\_permits\\_v1.PDF](https://dwer.wa.gov.au/sites/default/files/Procedure_Native_vegetation_clearing_permits_v1.PDF).
- Government of Western Australia (2019) *2018 South West Vegetation Complex Statistics. Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions, Perth, <https://catalogue.data.wa.gov.au/dataset/dbca>
- Government of Western Australia. (2019) *2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>
- Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) *Vegetation Complexes of the Darling System, Western Australia*. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.
- Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Shire of Gingin (2021) *Advice for clearing permit application CPS 9436/1*, received 22 October 2021 (DWER Ref: DWERDT518899).
- Schoknecht, N., Tille, P. and Purdie, B. (2004) *Soil-landscape mapping in South-Western Australia – Overview of Methodology and outputs* Resource Management Technical Report No. 280. Department of Agriculture.
- Western Australian Herbarium (1998-). *FloraBase - the Western Australian Flora*. Department of Biodiversity, Conservation and Attractions, Western Australia. <https://florabase.dpaw.wa.gov.au/> (Accessed 22 December 2021)