GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS
Area Permit Number: 8929/1
File Number: DWERVT5854
Duration of Permit: From 21 August 2020 to 21 August 2022

PERMIT HOLDER
Shire of Augusta Margaret River

LAND ON WHICH CLEARING IS TO BE DONE
Warner Glen Road reserve (PINs: 11607687 and 11607686), Warner Glen

AUTHORISED ACTIVITY
The Permit Holder shall not clear more than 15 native trees within the area cross-hatched yellow on attached Plan 8929/1.

CONDITIONS

1. Avoid, minimise and reduce the impacts and extent of clearing
In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in 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. Dieback and weed control
When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the 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. Application
This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

4. Records must be kept
The Permit Holder must maintain the following records for activities done pursuant to this Permit, in relation to the clearing of native vegetation authorised under this Permit:
(a) 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 or decimal degrees;
(b) the date that the area was cleared;
(c) the size of the area cleared (in hectares);
(d) actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 1 of this Permit; and
(e) actions taken to minimise the risk of the introduction and spread of *dieback* and *weeds* in accordance with condition 2 of this Permit.

5. Reporting

The Permit Holder must provide to the *CEO* the records required under condition 4 of this Permit, when requested by the *CEO*.

DEFINITIONS

The following meanings are given to terms used in this Permit:

CEO: means the Chief Executive Officer of the Department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*;

dieback means the effect of *Phytophthora* species on native vegetation;

fill means material used to increase the ground level, or fill a hollow;

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;

weed/s means any plant -

(a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or

(b) published in a Department of Biodiversity, Conservation and Attractions Regional Weed Rankings Summary, regardless of ranking; or

(c) not indigenous to the area concerned.

Mathew Gannaway
MANAGER
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

29 July 2020

Plan 8929/1(a)

34.134335°S 34.134335°S

115.214985°E 115.217061°E

115.214985°E 115.217061°E

34.135224°S 34.135224°S

Legend

- Imagery
- Cadastre
- Clearing Instruments Activities
- Local Government Authority
- Roads

N

0 50m

1:1,014

(Approximate when reproduced at A4)

GDA 94 (Lat/Long)

Geocentric Datum of Australia 1994

..... Date 29.July.2020

Mathew Gannaway

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

GOVERNMENT OF WESTERN AUSTRALIA

Plan 8929/1(b)

34.152543°S 34.152543°S

115.212134°E 115.216331°E

115.212134°E 115.216331°E

34.153769°S 34.153769°S

Legend

- Imagery
- Cadastre
- Clearing Instruments Activities
- Local Government Authority
- Roads

N

0 100m

1:2,051

(Approximate when reproduced at A4)

GDA 94 (Lat/Long)

Geocentric Datum of Australia 1994

..... Date 29 July 2020

Mathew Gannaway

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

GOVERNMENT OF WESTERN AUSTRALIA

Clearing Permit Decision Report

1. Application details and outcome

1.1. Permit application details

Permit number:	CPS 8929/1
Permit type:	Area permit
Applicant name:	Shire of Augusta Margaret River
Application received:	29 May 2020
Application area:	15 native trees
Purpose of clearing:	Road upgrades
Method of clearing:	Mechanical
Property:	Warner Glen Road Reserve (PINs 11607687 and 11607686)
Location (LGA area/s):	Shire of Augusta Margaret River
Localities (suburb/s):	Warner Glen

1.2. Description of clearing activities

The Shire of Augusta Margaret River (the Shire) is proposing to undertake road widening and reconstruction to improve the road surface, sight lines and overall safety for increasing volumes of general and heavy traffic along a section of Warner Glen Road. The road sealed width will be increased from between 5 to 6 metres to 6.5m with a 1 metre unsealed edge or shoulder on each side of the road. The clearing of non-native and native vegetation is required to facilitate the proposed work.

An application has been made to clear 15 individual native trees along two sections of Warner Glen road as part of the proposed works. The native trees comprise marri (*Corymbia calophylla*), and blackbutt (*Eucalyptus patens*) which will either be removed or pruned to facilitate the proposed engineering works.

The Shire has considered the scope of the proposed work and minimised the clearing of native vegetation as far as possible in the design for the proposed road redesign/realignment.

1.3. Decision on application and key considerations

Decision:	Granted
Decision date:	29 July 2020
Decision area:	15 native trees, as outlined in Section 1.5, below

1.4. Reasons for decision

This clearing permit application was made in accordance with section 51E of the *Environmental Protection Act 1986* (EP Act) and was received by the Department of Water and Environmental Regulation (DWER) on 29 May 2020. DWER advertised the application for public comment and no submissions were received.

In undertaking their assessment, and in accordance with section 51O of the EP Act, the Delegated Officer has given consideration to the Clearing Principles in Schedule 5 of the EP Act (see Appendix D), relevant planning instruments, and any other pertinent matters they deemed relevant to the assessment (see Section 3).

In particular, the Delegated Officer has determined that the clearing is not likely to have a significant impact on environmental values across the proposed clearing areas. The proposed clearing is not likely to impact on ecological linkage or contain important fauna habitat.

The Delegated Officer also took into consideration the purpose of the clearing is to improve overall road safety for increasing volumes of general and heavy traffic by widening of the trafficable road surface and improvement of sightlines along this section of Warner Glen Road.

In determining to grant a clearing permit subject to conditions, the Delegated Officer found that the proposed clearing is not likely to lead to an unacceptable risk to the environment.

1.5. Site map(s)

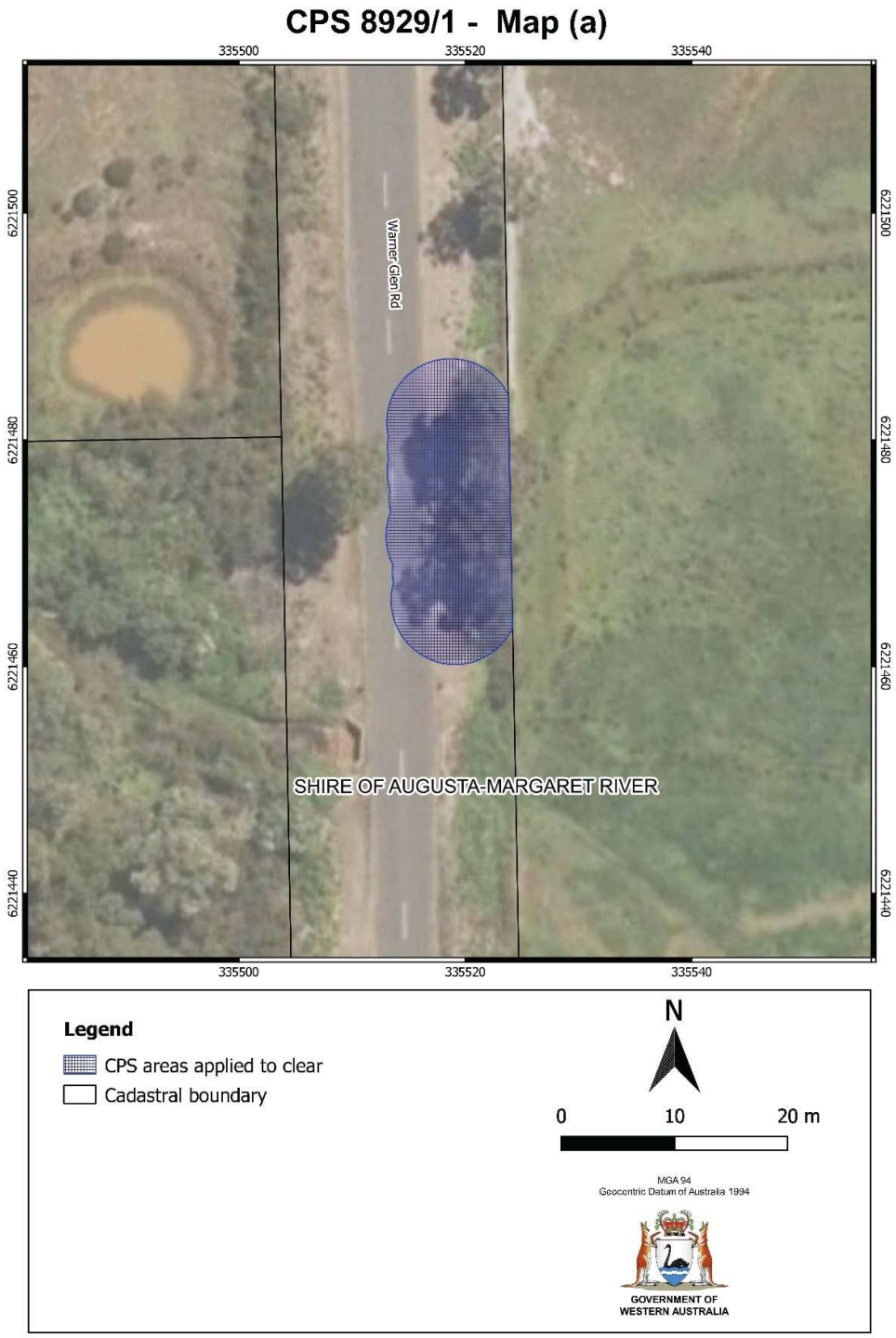

Figure 1a. Map of the application area.

CPS 8929/1 - Map (b)

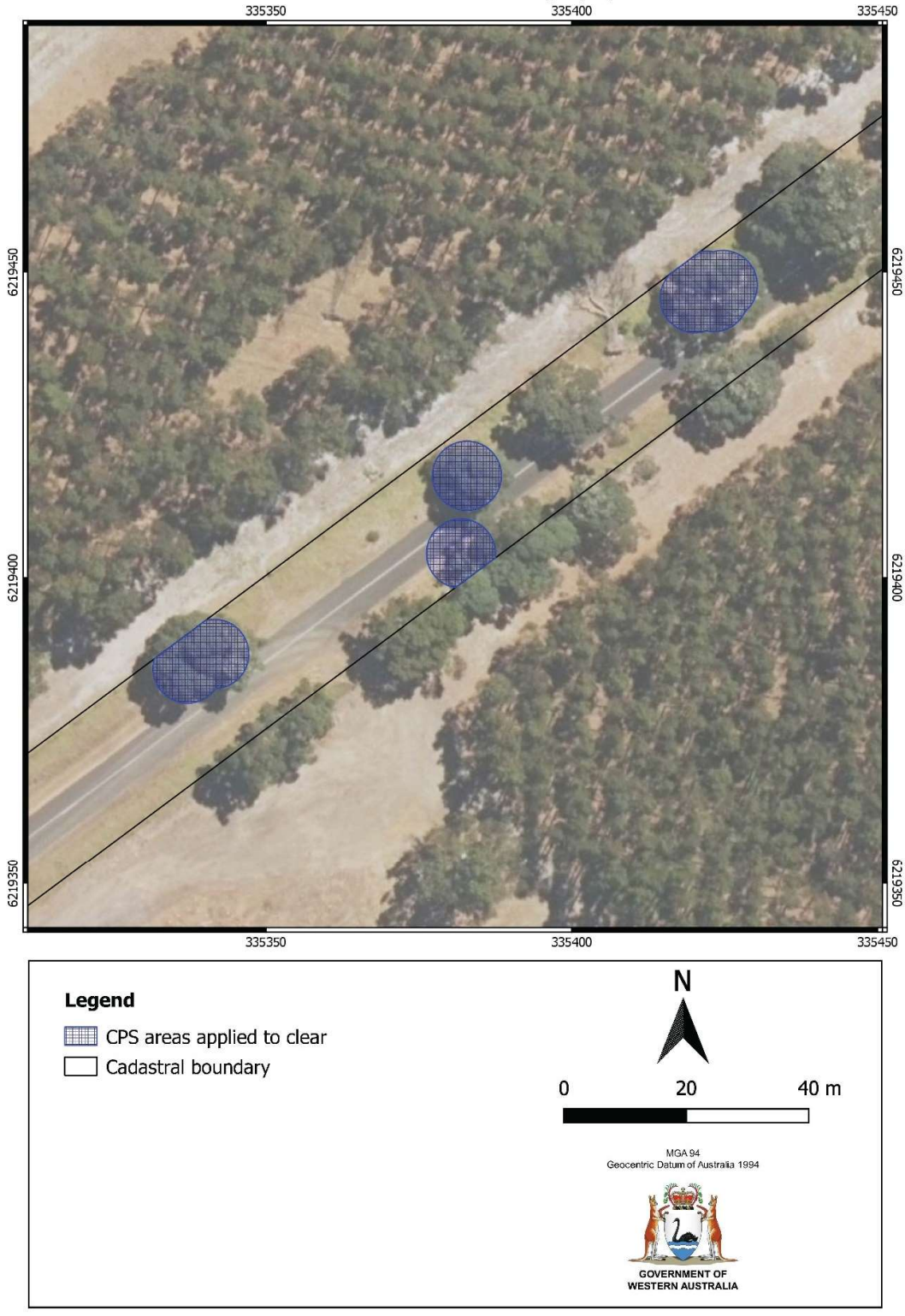

Figure 1b. Map of the application area.

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 1.3), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

1. The precautionary principle
2. The principle of intergenerational equity
3. The principle of the conservation of biological diversity and ecological integrity

Other legislation of relevance for this assessment include:

- *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*
- *Biodiversity Conservation Act 2016 (BC Act)*

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

In support of the clearing permit application, the applicant advised:

- Clearing of native vegetation will be minimised wherever possible. There will be no clearing of native understorey species.
- Retrenchment pruning of large branches will be undertaken as an alternative to tree removal where branches prose a safety hazard.
- Road works will be designed to improve surface drainage, and reduce the occurrence of flooding, sediment build up and erosion.
- Dieback and weed control measures will be implemented during operations.

The applicant has demonstrating that all reasonable efforts had been taken to avoid and minimise potential impacts of the clearing on environmental values.

3.2. Assessment of environmental impacts

In assessing the application in accordance with section 51O of the EP Act, the Delegated Officer has examined the application and site characteristics (Appendix C) and considered whether the clearing poses a risk to environmental values. The assessment against the Clearing Principles is contained in Appendix D.

This assessment identified that the clearing may pose a risk to the environmental values of fauna and land and water resources, and that these required further consideration. The detailed consideration and assessment of the clearing impacts against the specific environmental values is provided below. Where the assessment found that the clearing presents an unacceptable risk to environmental values, conditions aimed at controlling and/or ameliorating the impacts have been imposed under sections 51H and 51I of the EP Act. These are also identified below.

3.2.1. Environmental value: biological values (fauna) – Clearing Principle (b)

Assessment:

Roadside trees have the potential to provide habitat for native fauna. The Warner Glen road reserve is predominantly surrounded by cleared rural land with areas of remnant native vegetation, including along the Blackwood River, and areas of plantation vegetation. Stands of blackbutt, marri and a number of introduced eucalypt species occur in narrow bands within the road reserve. These areas of vegetation may provide the corridors that enable fauna movement in the area and potential habitat for native fauna.

It is considered unlikely, given the degraded (Keighery, 1994) nature of the vegetation within the road reserve and the lack of connectivity with existing areas of remnant vegetation, that the 15 trees provide significant habitat for native fauna, form any ecological linkages to the surrounding areas of remnant vegetation or constitute a key link in any fauna corridors in the area.

There are no known occurrences of threatened fauna within the road reserve. There are records of Carnaby's Cockatoo (*Calyptorhynchus banksii naso*), Baudin's Cockatoo (Calyptorhynchus *baudinii)*, and South-western brush tailed phascogale (*Phascogale tapoatafa wambenger*) in remnant vegetation to the south of the clearing area. The trees proposed for removal will not likely provide significant habitat for these species. The crowns of the trees were

inspected during a site inspection (Shire of Augusta Margaret River, 2020) and did not indicate potential breeding habitat for black cockatoos, due to the absence of branches large enough to contain hollows of a suitable size.

There was no evidence of western ringtail possum activity in the clearing area (Shire of Augusta Margaret River, 2020).

The South-western brush tailed phascogale (*Phascogale tapoatafa wambenger)* is known to occur in dry sclerophyll forest. The closest record to the application area is within intact remnant vegetation south west of the application area shown in Figure 1b. The vegetation within the application area is not considered to represent significant habitat for this species given the extent and condition of the vegetation adjacent to the application area, being in better condition.

The proposed clearing may indirectly impact adjacent remnant vegetation and fauna habitat through the spread of weeds and dieback. Weed and dieback management actions will help mitigate this risk.

Outcome: Based on the above assessment, the Delegated Officer has determined that the proposed clearing is considered acceptable in relation to this environmental value.

Conditions: To address the above impacts, a weed and dieback condition will be added to the permit. Weed and dieback management that requires earth-moving machinery to be clean of weeds and soil when entering and exiting the clearing area, ensure that no known weed or dieback affected soil, mulch, fill or other material is brought into the area to be cleared and restrict the movement of machines and other vehicles to the limits of the area to be cleared.

3.2.2. Environmental value: land and water resources – Clearing Principles (f), (g), (i) and (j)

Assessment:

The native vegetation species that will be cleared (marri (*Corymbia calophylla*), and blackbutt (*Eucalyptus patens*)) are not considered to be native species typically associated with watercourses or wetlands (CALM 1997). The presence of these species at the site is not directly related to the presence of the local watercourse and rather a function of the broader environment being suitable habitat (i.e. soils, rainfall) for the species.

Site A occurs within a Palusplain (seasonally waterlogged flat) that is part of the greater Blackwood river network, in an area where the land has been significantly altered. In addition, the landscape has been subject to reworking to form areas of land that are suitable for farming activity and local watercourses have been:

- Realigned through the construction of drainage channels.
- Controlled through the construction of a drainage channel parallel to the eastern boundary of the road reserve.
- Impacted by the construction of other linear drainage features across the farmland to possibly assist with the management of water logging and flooding.

Whilst the proposed clearing is considered to be growing in association with a waterlogged flat, the impact of the work on this value is not considered to be significant. It is anticipated that the road improvements should improve drainage and reduce the likelihood of flooding in the future.

Outcome: Based on the above assessment, the Delegated Officer has determined that the proposed clearing is considered acceptable in relation to these environmental values.

Conditions: No management conditions required.

3.3. Relevant planning instruments and other matters

The Shire of Augusta Margaret River advised DWER that no further local government approvals are required, and that the clearing is consistent with the Shire's Local Planning Scheme.

Site A intersects a registered Aboriginal Heritage site under the *Aboriginal Heritage Act 1972*. The area is part of the larger Blackwood River Registered Aboriginal Site 20434, listed as a Mythological type heritage area. It is the permit holder's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of significance are damaged through the clearing process.

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.

1. Site characteristics

Site characteristic	Details
Local context	The proposed clearing area includes two patches (Site A and Site B) of roadside remnant native vegetation comprising 15 individual native trees of two species: marri (*Corymbia calophylla*) and blackbutt (*Eucalyptus patens*) and other non-native eucalypt species (for example *Eucalyptus grandis*). There is no understorey vegetation other than weeds and pasture grasses. The application area is located within the greater Warner Glen road reserve. The two proposed clearing areas occur in locations approximately two kilometres apart. Site A This comprises a single area of proposed clearing along the eastern section of the road reserve that measures approximately 389m^2 in size (or approximately 6m wide by 64m long) which includes six individual trees. Site A is bordered immediately to the east by approximately 9.4 ha of uncleared native vegetation and to the west by cleared agricultural farmland. Site A occurs within a Palusplain (seasonally waterlogged flat) that is part of the greater Blackwood river network. Site B Site B consists of nine individual trees within a total area of approximately 736m^2 along both sides of the road reserve. Site B is located between areas of plantation vegetation and cleared farmland. Spatial data indicates the local area (10 km of the proposed clearing area) retains approximately 49.77% of the original native vegetation cover.
Vegetation description	A site inspection carried out by the applicant indicates the vegetation within the road reserve contains predominantly non-Western Australian overstory species (*E. grandis*) with scattered Western Australian native overstory species (*E. patens, C. calophylla*) (Shire of Augusta Margret River, 2020). The understory is dominated by weed species and shows little to no native vegetation (reference site photographs in Appendix E). Vegetation complexes mapped by Mattiske and Havel (1998) within the application area comprise: • Nillup (Nw) - Mixture of open woodland of *Corymbia calophylla* with some *Eucalyptus patens* and *Eucalyptus megacarpa* and tall shrubland of *Agonis* spp. with some emergent *Eucalyptus marginata* subsp. *marginata*, *Corymbia calophylla* and *Banksia littoralis* on broad depressions in the perhumid zone. • Nillup (N) - Open forest of *Eucalyptus marginata* subsp. *marginata-Corymbia calophylla –Banksia grandis-Xylomelum occidentale-Agonis flexuosa* on low undulating plains in the perhumid zone.
Vegetation condition	A site investigation of the application area indicates that the vegetation within the road reserve is in completely degraded condition, has been subject to the total loss of native understory and weeds are prevalent throughout both clearing areas. Site photos provided by the applicant support the classification of completely degraded vegetation condition, The full Keighery scale is provided in Appendix C, below. Site photographs are provided in Appendix E, below.

<table>
<tr><th>Site characteristic</th><th>Details</th></tr>
<tr><td>Soil description</td><td>The clearing area is located soil within the larger Nillup Plain System, which is described as:
Poorly drained plain, in the southern Donnybrook Sunkland. Sandy gravel, non-saline wet soil, grey deep sandy duplex, loamy gravel and pale deep sands. Jarrah-marri-paperbark woodland (DPIRD, 2017).
More specifically the two clearing areas are mapped as being within two soil subsystems as follows:
Site A: Nillup wet vale Phase, described as a small broad U-shaped drainage depression with swampy floors.
Site B: Nillup flats Phase, described as flats mainly with pale grey mottled (Mungite) soils.</td></tr>
<tr><td>Land degradation risk</td><td>The Department of Primary Industries and Regional Development (DPIRD), provides a series of soil degradation risk mapping at the sub-system level (2017). The project area is located within 2 subsystems of the Nillup Plain soil systems as follows:
Site A: Nillup wet vale Phase subsystem
Site B: Nillup flats Phase subsystem
The table below summarises the degradation risk within the application areas.<table><tr><th rowspan="2">Aspect</th><th colspan="2">Degradation risk</th></tr><tr><td>Nillup wet vale Phase</td><td>Nillup flats Phase</td></tr><tr><td>Wind Erosion</td><td>10%</td><td>10%</td></tr><tr><td>Waterlogging</td><td>89%</td><td>59%</td></tr><tr><td>Water Erosion</td><td>0%</td><td>0%</td></tr><tr><td>Salinity</td><td>0%</td><td>0%</td></tr><tr><td>Flood Risk</td><td>52%</td><td>0%</td></tr><tr><td>Phosphorous Export Risk</td><td>57%</td><td>9%</td></tr></table></td></tr>
<tr><td>Waterbodies</td><td>The proposed clearing areas are located in the Lower Blackwood River surface water area (SWA). The Blackwood River is located approximately 1.8 km to the west of the two proposed clearing areas.

Site A occurs within a Palusplain (seasonally waterlogged flat) that is part of the greater Blackwood river network. As a result of its proximity to a registered wetland, this portion of the application area also occurs within an Environmentally Sensitive Area (ESA).

The desktop assessment indicates that a non-perennial watercourse flows across the open farmland to the east of Site A and passes under the road reserve through a drainage culvert located immediately south of the area to be cleared. Aerial imagery indicates that the watercourse has been significantly modified in the adjacent farmland and by the construction of Warner Glen road as follows:
The watercourse has been realigned through the construction of drainage channels.
A drainage channel has been constructed parallel to the eastern boundary of the road reserve.
Other linear drainage features have been constructed across the farmland to possibly assist with the management of water logging and flooding.</td></tr>
<tr><td>Conservation areas</td><td>The proposed clearing area is not located within or adjacent to any conservation areas. The nearest conservation area is the Blackwood River which forms part of the Donnybrook Sunklands. The Blackwood River is situated approximately 1.8 km west of the proposed clearing areas.</td></tr>
</table>

Site characteristic	Details
	Two national parks are located to the north and south of the proposed clearing areas as follows: • Site A: Blackwood National Park is located approximately 3.0km to the north. • Site B: Scott National Park is located approximately 3.4km to the south. It is considered that none of these conservation estate areas will be impacted by the proposed clearing.
Climate and landform	The nearest Bureau of Meteorology (BoM) weather station is located at Karridale (Station No 009560). The temperature ranges between a high mean maximum of 24.7 deg in February to a low of 8.1 deg in July. Rainfall ranges between a high of 227.9 mm in June to a low of 20.1 mm in January with an annual average rainfall of 1198.5 mm. The region is generally flat to gently undulating characterised by sand plains, wash (or flood) plains with local incised watercourses.

2. Flora, fauna and ecosystem analysis

With consideration for the site characteristics set out above, relevant datasets (see Appendix F), and site inspection information as provided by the applicant, the following conservation significant flora and fauna species may be impacted by the proposed clearing.

Species / Ecological Community	Distance of closest record to application area (kilometres)	Suitable soil type? (flora, ecological community)	Suitable vegetation type? (flora, ecological community)	Suitable habitat features (fauna)	Surveys adequate to identify? (Y, N, N/A)
Fauna					
Calyptorhynchus banksii naso (T) (VU)	6.1km	N/A	N/A	Yes	N/A – no survey conducted
Calyptorhynchus *baudinii* (T) (EN)	2.4km	N/A	N/A	Yes	N/A – no survey conducted
Calyptorhynchus latirostris (T) (EN)	0.9km	N/A	N/A	Yes	N/A – no survey conducted
Calyptorhynchus sp. 'white-tailed black cockatoo' (T) (EN)	2.2km	N/A	N/A	Yes	N/A – no survey conducted
Geocrinia alba (T) (CR)	2.7km	N/A	N/A	No	N/A – no survey conducted
Phascogale tapoatafa wambenger (CD)	1.3km	N/A	N/A	Yes	N/A – no survey conducted
Pseudocheirus occidentalis (T) (CR)	4.7km	N/A	N/A	Yes	N/A – no survey conducted
Flora					
Adenanthos detmoldii (P4)	6.5km	Yes	No	N/A	N/A – no survey conducted
Grevillea brachystylis subsp. australis (T) (VU)	6.2km	Yes	No	N/A	N/A – no survey conducted

3. Vegetation extent

Vegetation Complexes within the project area have been defined by Mattiske and Havel (1998) and are based on vegetation in association with landforms and underlying geology. The current remaining extent of these vegetation complexes (Government of WA, 2019) is shown in the table below.

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

These complexes are above the minimum threshold of 30% target for the retention of vegetation.

	Pre-European extent (ha)	Current extent (ha)	% remaining	Current extent in all DBCA managed land (ha)	% current extent in all DBCA managed land (proportion of pre-European extent)
IBRA bioregion					
Jarrah Forest	2,390,591.54	1,604,101.56	67.10	1,299,263.74	54.35
Vegetation complex					
208	6555.37	2477.83	37.80		
212	3217.87	1354.39	42.09		

Appendix B – Assessment against the Clearing Principles

Assessment against the Clearing Principles	Variance levels	Is further consideration required?
Environmental value: biological values		
Principle (a): *"Native vegetation should not be cleared if it comprises a high level of biodiversity."* Assessment: It is not anticipated that the proposed clearing will have an impact on vegetation that is of a high level of biodiversity. The roadside vegetation is in completely degraded (Keighery,1994) condition, with stands of trees occurring along the roadside in a narrow corridor, dominated by introduced species including *Eucalyptus grandis*, interspersed with isolated Westralian native species marri (*Corymbia calophylla*) and blackbutt (*Eucalyptus patens*). The roadside is otherwise parkland cleared, dominated by weeds and pasture species. No native understorey will be impacted by the road works. Given the degraded (Keighery, 1994) condition of the application area, suitable habitat for threatened and priority flora is not likely to be present within the application area.	Not likely to be at variance.	No.
Principle (b): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."* Assessment: Suitable habitat for the Carnaby's cockatoo, Baudins cockatoo and South-western brush tailed phascogale maybe be present within the application area, however the proposed clearing is not likely to impact upon significant habitat for these species.	Not likely to be at variance.	Yes. Further consideration is required. Refer Section 3.2.1.
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: Due to the completely degraded condition of the vegetation within the application area, the lack of understorey and the presence of weeds	Not likely to be at variance.	No.

Assessment against the Clearing Principles	Variance levels	Is further consideration required?
across the proposed clearing sites, threatened flora are not likely to occur within the application area.		
Principle (d): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community."* Assessment: The proposed clearing area does not contain species that indicate the occurrence of a threatened ecological community listed by the Western Australian Minister for Environment. There are no known priority or threatened ecological communities within the road reserve, or within the local vicinity of the road reserve.	Not likely to be at variance.	No.
Environmental values: significant remnant vegetation and conservation areas		
Principle (e): *"Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."* Assessment: 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. Vegetation in the proposed clearing area is not considered to be part of a significant ecological linkage in the local area.	Not likely to be at variance.	No.
Principle (h): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area."* Assessment: There are no conservation areas or reserves that will be impacted the proposed clearing.	Not likely to be at variance.	No.
Environmental values: land and water resources		
Principle (f): *"Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."* Assessment: The proposed clearing areas are located in the Lower Blackwood River surface water area (SWA). Site A occurs within a Palusplain (seasonally waterlogged flat) and in close proximity to a heavily modified watercourse. The proposed clearing and associated work may impact on the watercourse located in the adjacent land and that passes through the clearing area.	At variance.	Yes. Further consideration is required. Refer Section 3.2.2.
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: The proposed clearing is unlikely to cause appreciable land degradation. The road widening and associated drainage will be designed to ensure there is no erosion or runoff of sediment into the environment. The clearing and subsequent construction will occur within the existing road reserve.	Not likely to be at variance.	No.
Principle (i): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."* Assessment: The proposed clearing is not likely to cause deterioration in the quality of surface or underground water. It is anticipated construction along Warner Glen Road will improve surface drainage, and reduce the occurrence of flooding, sediment build up and erosion. It is unlikely that groundwater will be impacted by the proposed clearing and works.	Not likely to be at variance.	No.
Principle (j): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."*	Not likely to be at variance.	No.

Assessment against the Clearing Principles	Variance levels	Is further consideration required?
Assessment: The proposed clearing is not likely to cause, or exacerbate, the incidence of flooding. It is anticipated construction along Warner Glen Road will improve surface drainage and reduce the occurrence of flooding.		

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.

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

Photographs provided below are indicative of the two clearing areas (Shire of Augusta Margaret River, 2020).

Site A

Site B

Appendix E – References

1. GIS datasets

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

- Aboriginal Heritage Places (DPLH-001)
- 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)
- IBRA Vegetation Statistics
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Regional Parks (DBCA-026)
- Soil and Landscape Mapping – Best Available

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System)– Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

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