



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 9015/1/1
File Number: DWERVT6324
Duration of Permit: From 5 January 2021 to 5 January 2023

PERMIT HOLDER

City of Waroona

LAND ON WHICH CLEARING IS TO BE DONE

Mayfield Road reserve (PINs 11604227, 11604225, 11604228 and 11604229), Waroona

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 34 native trees within the area cross-hatched yellow on attached Plan 9015/1.

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.

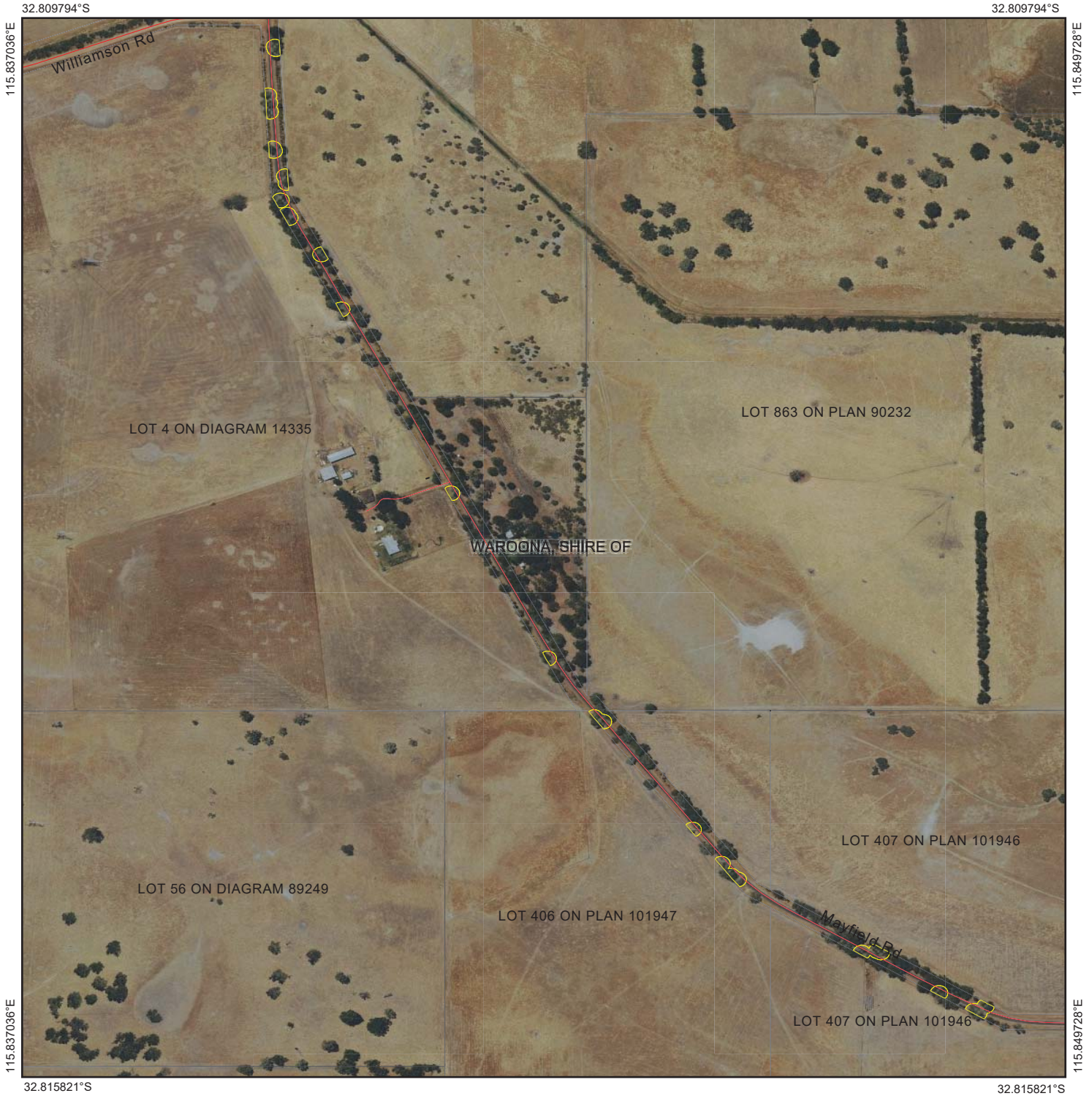


Mathew Gannaway
MANAGER
NATIVE VEGETATION REGULATION

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

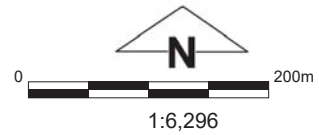
10 December 2020

Plan 9015/1

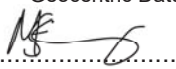


Legend

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



(Approximate when reproduced at A4)
GDA 94 (Lat/Long)
Geocentric Datum of Australia 1994

 Date 10 December 2020
Mathew Gannaway

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



Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 9015/1
Permit type:	Area permit
Applicant name:	Shire of Waroona
Application received:	18 August 2020
Application area:	34 native trees
Purpose of clearing:	Road upgrades
Method of clearing:	Mechanical
Property:	Mayfield Road reserve (PINs 11604227, 11604225, 11604228 and 11604229)
Location (LGA area/s):	Shire of Waroona
Localities (suburb/s):	Waroona

1.2. Description of clearing activities

The application is to clear 34 native trees adjacent to an existing road formation within Mayfield Road reserve for the purpose of road upgrades. The extent of the proposed clearing is indicated in Figure 1 (see Section 1.5).

1.3. Decision on application

Decision:	Granted
Decision date:	10 December 2020
Decision area:	34 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) and a site inspection (see Appendix D), the clearing principles set out in Schedule 5 of the EP Act (see Appendix D), relevant planning instruments and any other matters considered 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 habitat for forest red-tailed Black Cockatoo (*Calyptorhynchus banksia* subsp. *naso*), Baudin's Cockatoo (*Calyptorhynchus baudinii*) and Carnaby's Cockatoo (*Calyptorhynchus latirostris*) or significant remnant of native vegetation within an extensively cleared landscape. The trees are not of a suitable size to contain breeding habitat and sufficient foraging habitat will remain within the road reserve.

- the implementation of a suitable weed and dieback management condition is appropriate to mitigate the impact of spreading weeds and dieback into adjacent vegetation (see Section 3.2.2).

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

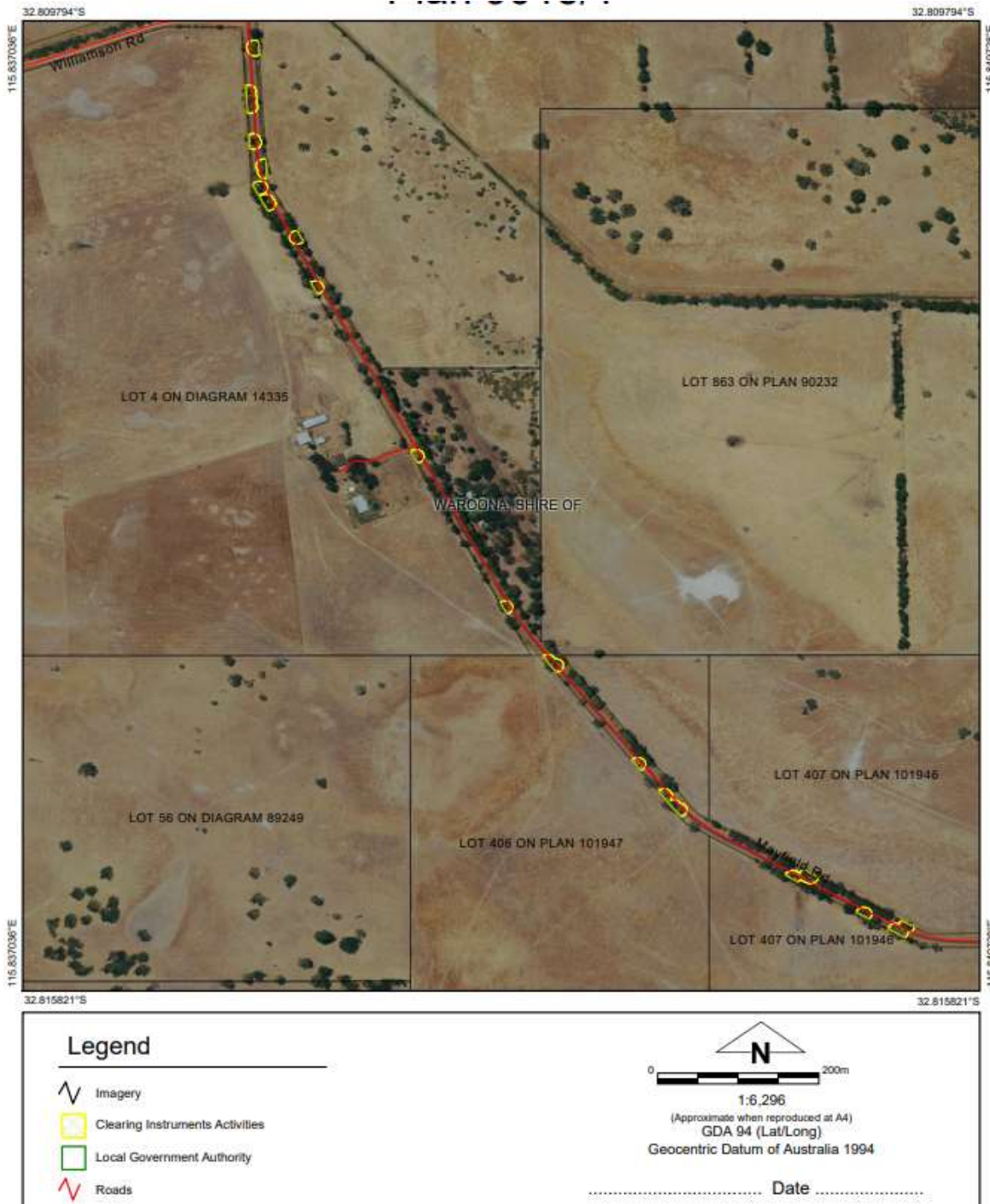


Figure 1. Map of the application area

The areas crosshatched yellow indicate the areas authorised to be cleared under the granted clearing permit CPS 9015/1.

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)

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 applicant has advised that there is a substantial amount of native vegetation remaining within the road reserve. To limit the impact, only vegetation which is within five metres of the edge of the new bitumen seal has been flagged for removal. A surveyor has been engaged to create survey files to pin point the location of the selected vegetation and the tree species have been identified to assist with the assessment of the Clearing Permit application (Shire of Waroona, 2020).

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values

3.2. Assessment of impacts on environmental values

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

The assessment against the clearing principles (see Appendix B) identified that the impacts of the proposed clearing present a risk to biological values (fauna) and significant remnant vegetation within an extensively cleared landscape. 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 Principle (b)

Assessment

A database search identified that three conservation significant fauna species may utilise the application area including forest red-tailed Black Cockatoo (*Calyptorhynchus banksia* subsp. *naso*), Baudin's Cockatoo (*Calyptorhynchus baudinii*) and Carnaby's Cockatoo (*Calyptorhynchus latirostris*) (collectively referred to as black cockatoos).

Carnaby's cockatoo and Baudin's Cockatoo are listed as endangered and forest red-tailed cockatoo is listed as vulnerable under the EPBC Act and BC Act. Black cockatoos breed in large hollow-bearing trees, generally within woodlands or forests or in isolated trees (Commonwealth of Australia, 2012). These species nest in hollows in live or dead trees of karri, marri, wandoo, tuart, salmon gum, jarrah, flooded gum, York gum, powder bark, bullich and blackbutt (Commonwealth of Australia, 2012). Potential nesting trees for black cockatoos are defined as "trees of species known to support breeding within the range of the species which either have a suitable nest hollow or are of a suitable diameter at breast height (DBH) to develop a nest hollow. For most tree species, suitable DBH is 500 millimetres" (Commonwealth of Australia, 2012).

The 33 *Corymbia calophylla* (marri) trees identified within the application area may provide foraging and breeding habitat for the black cockatoo species. A site inspection undertaken by the applicant and DWER did not identify any trees containing hollows of suitable size to provide breeding habitat for the black cockatoo species (City of Waroona,

2020 and DWER, 2020). The applicant advised that of the 33 marri trees proposed to be cleared 12 had a DBH of 500 millimetre or greater.

The removal of the 33 marri trees will impact upon foraging habitat for the black cockatoos, however the 33 trees occur along a stretch of road 1.7 kilometres in length. Vegetation will remain within the road reserve that will provide foraging habitat for this species. According to available databases, the local area comprises approximately 2981 ha of native vegetation mapped as black cockatoo foraging habitat and the application area represents approximately 0.01 per cent of this extent.

The application area is not likely to provide significant foraging habitat that supports black cockatoo breeding. Foraging habitat for black cockatoos within 7 kilometres (km) of a breeding site is important to adequately support breeding pairs (EPA, 2019). The application area is not located within the mapped confirmed breeding area for Carnaby's cockatoo. According to available databases, the closest confirmed breeding area is located approximately 9.65 km southeast of the application area. Noting this, the proposed clearing is unlikely to reduce the amount of food available to breeding birds or affect chick survival rates.

Given that no suitable breeding hollows were identified, the small size of the application area and that suitable foraging habitat will remain within the adjacent road reserve, the application area is not likely to comprise significant breeding or foraging habitat for the black cockatoo species.

Ecological linkage

According to available databases, the application area is mapped approximately 2.6 km north of a mapped South West Regional Ecological Linkage. Given the distance and the minimal extent of remnant vegetation within the application area, the proposed clearing is not likely to have an impact on the environmental value of this linkage.

A review of aerial imagery indicates that the vegetation in the application area is isolated and not likely to function as an ecological linkage in enabling fauna to move between areas of remnant vegetation. In addition, aerial imagery and spatial datasets also indicate that larger patches of remnant vegetation occur in close proximity to the application area which are more likely to be used by fauna for movement across the landscape. Vegetation will also remain within the adjacent road reserve. Therefore, the proposed clearing is not likely to have an impact on vegetation acting as a significant stepping stone for fauna movement.

Conclusion

Based on the above assessment, the Delegated Officer has determined that the proposed clearing is not likely to impact significant habitat for fauna and no fauna management conditions are required.

3.2.2. Significant remnant vegetation and conservation areas - Clearing Principles (e)

Assessment

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).

The extent of native vegetation within the local area is inconsistent with the national targets as it retains approximately 11 per cent vegetation cover (approximately 3,807.87 ha). Given this, the application area is located within an extensively cleared landscape. The application represents approximately 0.009 per cent of the remaining vegetation within the local area and the proposed clearing will reduce the extent of native vegetation within the local area to 3,807.54 ha.

The application area is located within the 'Swan Coastal Plain' (SCP) Interim Biogeographic Regionalisation for Australia (IBRA) which retains approximately 39 per cent of its pre-European vegetation extent (Government of Western Australia, 2019a).

The SCP vegetation complex Serpentine River, which has been mapped within the application area, retains approximately 9.8 per cent of its original vegetation extent. While this vegetation has been extensively cleared, the application area is dominated by *Corymbia calophylla* over weedy understorey. The vegetation within the application area may be representative of this vegetation complex, however the loss of individual trees within a degraded road reserve will not significantly impact on the occurrence of this complex.

Taking into account the minimal extent of the proposed clearing in a completely degraded (Keighery, 1994) condition and that the application area is unlikely to provide significant habitat for fauna, be a part of a significant ecological

linkage or be necessary to maintain ecosystem services (such as hydrological processes), the vegetation within the application area is not considered as a significant remnant of native vegetation in an extensively cleared landscape.

No ecological linkages will be impacted by the proposed clearing.

The application area is located adjacent to remnant vegetation that may be indirectly impacted by the proposed clearing through the spread of weeds and dieback.

Conclusion

Based on the above assessment, the Delegated Officer has determined that the proposed clearing will not significantly impact on this environmental value.

Conditions

To mitigate potential impacts from the clearing, 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.

3.3. Relevant planning instruments and other matters

No Aboriginal sites of significance have been mapped within the application area. 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 proposed clearing area is located along approximately a 1.6 kilometre stretch of Mayfield Road reserve.</p> <p>Spatial data indicates the local area (10 km radius of the proposed clearing area) retains approximately 11 per cent of the original native vegetation cover.</p>
Ecological linkage	No ecological linkages are located within the application area.
Conservation areas	The closest conservation area is Buller Nature Reserve located approximately 5.5 kilometres south of the application area.
Vegetation description	<p>Photographs supplied by the applicant (Shire of Waroon, 2020) and DWER site inspection (DWER, 2020) indicate the vegetation within the proposed clearing area consists of 33 <i>Corymbia Calophylla</i> (marri) trees and one <i>Melaleuca Raphiophylla</i> tree. Representative photos are available in Appendix D.</p> <p>This is consistent with the south west forest mapped vegetation type 'Serpentine River Complex', which is described as 'closed scrub of Melaleuca species and fringing woodland of <i>Eucalyptus rudis</i> (Flooded Gum) - <i>Melaleuca raphiophylla</i> (Swamp Paperbark) along streams' (Hedde et al., 1980).</p> <p>The mapped vegetation type retains approximately 9.8 per cent of the original extent (Government of Western Australia, 2019).</p>
Vegetation condition	<p>Photographs supplied by the applicant and DWER site inspection indicate the vegetation within the proposed clearing area is in completely degraded (Keighery, 1994) condition.</p> <p>The full Keighery (1994) condition rating scale is provided in Appendix C.</p> <p>Representative photos are available in Appendix D.</p>
Climate and landform	<p>Rainfall: 1000</p> <p>Evapotranspiration: 800</p> <p>Geology: Alluvial, shoreline, and eolian deposits</p> <p>Groundwater Salinity (Total Dissolved Solids): 500-3000 mg/L</p>
Soil description	<p>The soil within the application area is mapped as:</p> <ul style="list-style-type: none"> Pinjarra P5 Phase which is described as poorly drained flats, commonly with gilgai microrelief and with deep black-grey to olive-brown cracking clays with subsoils becoming alkaline. Pinjarra P1e Phase which is described as flat to very gently undulating plain with deep acidic mottled yellow duplex (or ineffective duplex) soils. Shallow pale sand to sandy loam over very gravelly clay; moderately well drained (Department of Primary Industry and Regional Development, 2019).
Land degradation risk	The clearing of 34 individual trees along a 1.6 kilometre stretch of road reserve in a completely degraded (Keighery, 1994) condition is not likely to cause land degradation.
Waterbodies	<p>The desktop assessment and aerial imagery indicated that the application area is mapped within a multiple use wetland.</p> <p>No watercourses area mapped within or in close proximity of the application area.</p>

Characteristic	Details
Flora	With consideration for the site characteristics set out above, relevant datasets (see Appendix E), DWER site inspection and photographs provided by the applicant, conservation significant flora species are not likely to be impacted by the clearing.
Ecological communities	With consideration for the site characteristics set out above, relevant datasets (see Appendix E) and photographs provided by the applicant ecological communities are not likely to be impacted by the clearing
Fauna	There are 17 fauna of conservation significance within the local area. Of these three species may be found within the application area (see Appendix A.3)

A.2 Vegetation extent

	Pre-European extent (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all managed land (ha)	Current extent in all DBCA managed land (ha)	Current proportion (%) of pre-European extent in all DBCA managed land
IBRA bioregion*						
Swan Coastal Plain	1,501,222	579,813	39	222,917		3
Vegetation complex						
Serpentine River Complex	19,855.41	1,940.18	9.8	517		3
Local area						
10km radius			11	-		-

*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]
Forest Red-tailed Black Cockatoo (<i>Calyptorhynchus banksii</i> subsp. <i>naso</i>)	Vulnerable	Y	Y			N/A
Baudin's Cockatoo (<i>Calyptorhynchus baudinii</i>)	Vulnerable	Y	Y			N/A
Carnaby's Cockatoo (<i>Calyptorhynchus latirostris</i>)	Endangered	Y	Y			N/A

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

Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
<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>Considering the application is to clear 34 individual trees over grassy weeds, the proposed clearing will have limited impacts on habitat for threatened or priority flora. The application area does not comprise significant habitat for fauna and vegetation in the application area is not representative of threatened or priority ecological communities. Given the condition of the vegetation the application area is not likely to comprise a high level of biodiversity.</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 proposed clearing area contains foraging and potential breeding habitat for Carnaby’s cockatoo, forest red-tailed cockatoo and Baudins cockatoo.</p> <p>Noting the shape and extent of the proposed clearing, lack of hollow bearing trees, its location in proximity to patches of remnant vegetation and the sparse weed-dominated understorey, the vegetation proposed to be cleared is not likely to comprise a significant habitat for these or other native fauna.</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.1, above.</i>
<p><u>Principle (c):</u> <i>“Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</i></p> <p><u>Assessment:</u></p> <p>Considering the application is to clear 34 individual trees over grassy weeds, the proposed clearing area is unlikely to contain habitat for threatened flora species listed under the BC Act.</p>	Not likely to be at variance	No
<p><u>Principle (d):</u> <i>“Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community.”</i></p> <p><u>Assessment:</u></p> <p>The proposed clearing area does not contain species that are representative of a threatened ecological community as listed by the Minister for Environment.</p>	Not likely to be at variance	No
Environmental value: significant remnant vegetation and conservation areas		
<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>A review of available databases has determined that the local area and mapped ‘Serpentine River Complex’ vegetation complex retains approximately 9.8 and 11 percent native vegetation cover of their pre-European clearing extent respectively. This is less than the national objectives and targets for biodiversity conservation in Australia. However, the area proposed for clearing is not considered to be part of a significant ecological linkage or considered to be significant as a remnant.</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.2, above.</i>

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. No ecological linkages will be severed by the proposed clearing.</p>	Not likely to be at variance	No
Environmental value: land and water resources		
<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 application area is located within a mapped multiple use wetland and one <i>Melaleuca raphiophylla</i> which is considered to be riparian vegetation is proposed to be cleared. The application area is considered to be growing in association with a watercourse or wetland.</p> <p>The application area is in a completely degraded (Keighery, 1994) condition and multiple use wetlands area considered to be wetlands with few important ecological attributes and functions remaining (Water and Rivers Commission, 2001). Therefore the proposed clearing is not likely to have a significant impact on the environmental values of this wetland.</p>	At variance	No
<p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u></p> <p>The mapped soils are moderately to highly susceptible to wind erosion and waterlogging. Noting the extent of the application area 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 small area proposed to be cleared and the completely degraded (Keighery, 1994) condition of the vegetation, the clearing is unlikely to impact surface or groundwater quality.</p> <p>The application area is mapped within a multiple use wetland. Impacts caused to this wetland as a result of the proposed clearing is expected to be minimal.</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>Given the completely degraded (Keighery, 1994) condition of the application area that consists of individual trees and that vegetation will remain within the road reserve, the proposed clearing is unlikely to contribute to waterlogging or exacerbate the incidence or intensity of flooding.</p>	Not likely to be at variance	No

Appendix C. Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation's ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from:

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

Measuring vegetation condition for the South West and Interzone Botanical Province (Keighery, 1994)

Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.
Very good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.
Completely degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

Appendix D. photographs of the vegetation / DWER site inspection report



Figure 2: Photograph of application area (DWER, 2020)



Figure 3: Photograph of application area (DWER, 2020)



Figure 4: Photograph of application area (DWER, 2020)

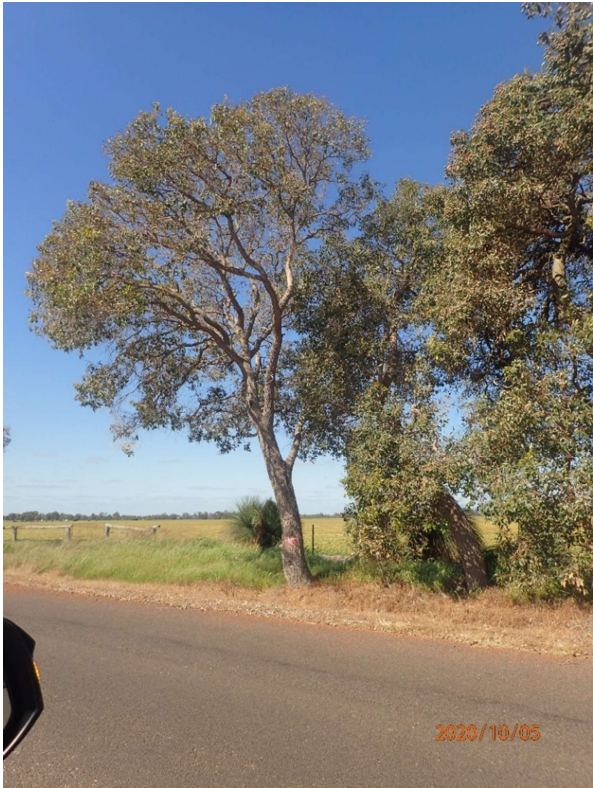


Figure 5: Photograph of application area (DWER, 2020)

Appendix E. Sources of information

E.1. GIS databases

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

- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- IBRA Vegetation Statistics
- Imagery
- 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

Shire of Waroona (2020) *Supporting information for clearing permit application CPS 9015/1*, received 18 August 2020 (DWER Ref: A1924656).

Commonwealth of Australia (2001) *National Objectives and Targets for Biodiversity Conservation 2001-2005*, Canberra.

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