



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 8691/1
File Number: DWERVT3558
Duration of Permit: 14 May 2020 to 14 May 2022

PERMIT HOLDER

Shire of Serpentine-Jarrahdale

LAND ON WHICH CLEARING IS TO BE DONE

Mundijong Road road reserve (PIN 11752666), Oldbury
Elliott Road road reserve (PIN 11605933), Keysbrook
Hopeland Road road reserve (PINs 11608048 and 11608047), Hopeland

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 0.20953 hectares of native vegetation within the area cross-hatched yellow on attached Plan 8691/1a, Plan 8691/1b and Plan 8691/1c.

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 management

When undertaking any clearing authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the 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. State Planning Policy 2.8 Offset

The Permit Holder shall plant and maintain 512 seedlings, of which 60 must be *Corymbia calophylla* within Lot 778 on Deposited Plan 159110, Serpentine covering an approximate area of 0.23 hectares.

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;
- (e) actions taken to minimise the risk of the introduction and spread of *weeds* in accordance with condition 2 of this Permit; and
- (f) actions taken to implement the State Planning Policy 2.8 offset in accordance with condition 3 of this Permit.

5. Reporting

The Permit Holder must produce the records required under condition 4 of this Permit when required 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.



Ryan Mincham

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Ryan Mincham
MANAGER
NATIVE VEGETATION REGULATION




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

14 April 2020

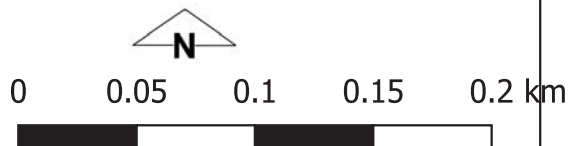
Plan 8691/1a



Legend

-  CPS areas approved to clear
-  Road Centrelines
-  Cadastre - LGATE 218

Image

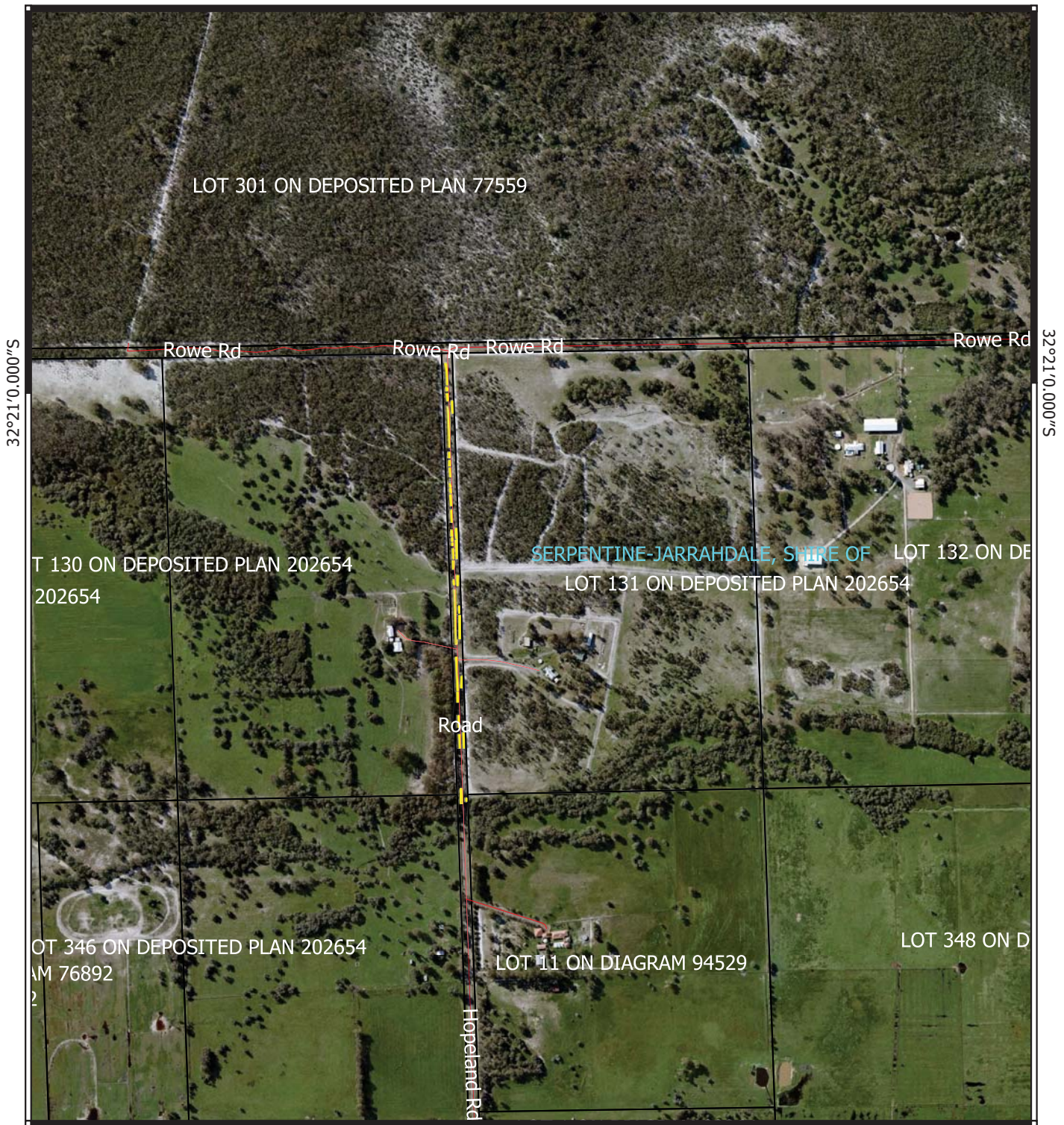



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
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Plan 8691/1b



Legend

-  CPS areas approved to clear
-  Road Centrelines
-  Cadastre - LGATE 218

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
GOVERNMENT OF
WESTERN AUSTRALIA

Plan 8691/1c

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Legend

-  CPS areas approved to clear
-  Road Centrelines
-  Cadastre - LGATE 218

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Environmental Protection Act 1986



GOVERNMENT OF
WESTERN AUSTRALIA



1. Application details

1.1. Permit application details

Permit application No.: 8691/1
Permit type: Area

1.2. Applicant details

Applicant's name: Shire of Serpentine Jarrahdale
Application received date: 7 October 2019

1.3. Property details

Property: Mundijong Road road reserve (PIN 11752666), Oldbury
Elliott Road road reserve (PIN 11605933), Keysbrook
Hopeland Road road reserve (PINS 11608048 And 11608047), Hopeland

Local Government Authority: Shire of Serpentine-Jarrahdale
Localities: Oldbury, Keysbrook and Hopeland

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	Purpose category:
0.20953		Mechanical	Road upgrades and road safety

1.5. Decision on application

Decision on Permit Application: Granted

Decision Date: 14 April 2020

Reasons for Decision: The clearing permit application was received on 7 October 2019 and has been assessed against the clearing principles, planning instruments and other matters in accordance with section 51O of the *Environmental Protection Act 1986*. It has been concluded that the proposed clearing may be at variance with clearing principles (e) and (h) and is not likely to be at variance with the remaining clearing principles.

In determining to grant a clearing permit subject to conditions, the Delegated Officer considered that the proposed clearing is not likely to lead to an unacceptable risk to the environment and that no significant residual environmental impacts will result from the clearing. Standard conditions relating to avoiding and minimising clearing, and managing the spread of weeds and dieback have been imposed on the permit.

The Delegated Officer gave consideration to State Planning Policy 2.8 (SPP 2.8) in determining to grant this clearing permit subject to appropriate regulatory controls. Based on consideration of Appendix 4 of SPP 2.8, the Delegated Officer determined to apply an offset to the clearing permit consistent with an offset proposal endorsed by the Department of Planning, Lands and Heritage.

2. Site Information

Clearing Description The application is for the proposed clearing of 0.20953 hectares of native vegetation within Mundijong, Hopeland and Elliott Road road reserves within the Shire of Serpentine-Jarrahdale, for the purpose of road upgrades and road safety. The applicant has proposed to only clear essential vegetation and the preservation of any significant vegetation will be incorporated into the road designs.



Figure 1: CPS 8691/1 application area- Elliott Road (0.04 hectares)

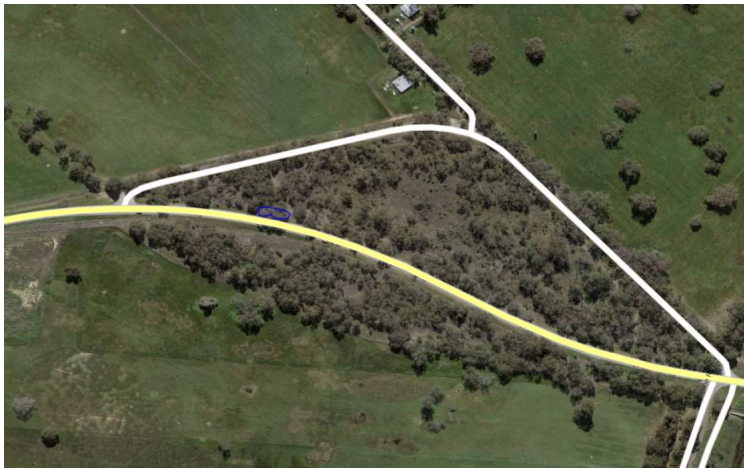


Figure 2: CPS 8691/1 application area – Mundijong Road (0.021 hectares)



Figure 3: CPS 8691/1 application area – Hopeland Road (0.146 hectares)

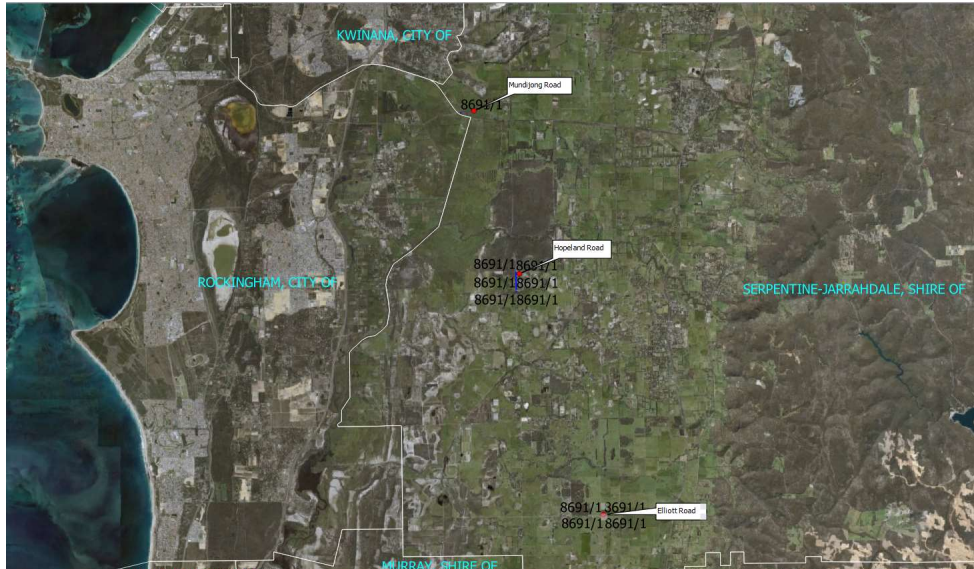


Figure 4: CPS 8691/1 – Context map

Vegetation Description

The vegetation within the application area is mapped as Southern River Complex – Open woodland, Bassendean Complex-Central And/South – woodland to low woodland and sedgelands and Guildford Complex – open forest to tall open forest and woodland (Heddle et al, 1980).

The applicant has advised that clearing is for specific trees at each location as follows:

- Elliott Road – Four *Corymbia calophylla* trees
- Mundijong Road – Four *Corymbia calophylla* trees
- Hopeland Road – 9 *Eucalyptus rudis*, one *Macrozamia sp.*, four *Casuarina obesa*, two *Eucalyptus sp.*, 32 *Kunzea ericifolia*, two *Adenanthos cygnorum* and 10 *Banksia sp.* (Shire of Serpentine-Jarrahdale, 2019)

Figures 5 and 6 are representative of the Marri (*Corymbia calophylla*) trees proposed to be cleared along Elliott and Mundijong Road. (Shire of Serpentine-Jarrahdale, 2020)

Vegetation Condition

- Elliott Road:
Degraded condition; structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).
- Mundijong Road:
Degraded condition; structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).
- Hopeland Road:
Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)

Soil Type

The soil type within the application area is mapped as;

Elliott Road: Subdued dune-swale terrain: chief soils are leached sands (Uc2.33) with (Uc2.22) and (Uc2.21) on the low dunes. Associated are small areas of other sand soils (Uc) (Cb39) and plain: chief soils are sandy acidic yellow mottled soils (Dy5.81), some of which contain ironstone gravel, and in some deeper varieties (18 in. of A horizon) (Uc2.22) soils are now forming. Associated are acid yellow earths (Gn2.24). Other soils include (Dy3.81) containing ironstone gravel; (Dy3.71); low dunes of (Uc2.33) soils; and some swamps with variable soils (Wd6)

Mundijong Road: Plain: chief soils are sandy acidic yellow mottled soils (Dy5.81), some of which contain ironstone gravel, and in some deeper varieties (18 in. of A horizon) (Uc2.22) soils are now forming. Associated are acid yellow earths (Gn2.24). Other soils include (Dy3.81) containing ironstone gravel; (Dy3.71); low dunes of (Uc2.33) soils; and some swamps with variable soils (Wd6)

Hopeland Road: Subdued dune-swale terrain: chief soils are leached sands (Uc2.33) with (Uc2.22) and (Uc2.21) on the low dunes. Associated are small areas of other sand soils (Uc) (Cb39) and Sandy dunes with intervening sandy and clayey swamp flats: chief soils are leached sands (Uc2.33) and (Uc2.21), sometimes with a clay D horizon below 5 ft, on the dunes and sandy swamps. Associated are various soils in the clayey swamps, such as (Ug6.4) and some (Dy) and (Dg) soils (Cb38). (Northcote et al., 1960)

Comments The proposed clearing occurs within and adjacent to existing road reserves that have been highly modified.

The local area is defined as a five kilometre radius from each application area. A review of available databases has determined that the local area retains approximately 20.83 per cent of its pre-European clearing extent and that the reduction in extent will be negligible (proposed clearing area equates to less than 0.01 per cent of vegetation within the local area).

The assessment of this clearing permit application is separated by spatial area for clarity.



Figure 5 - Marri (*Corymbia calophylla*) trees proposed to be cleared along Mundijong Road.



Figure 6 - Marri (*Corymbia calophylla*) trees proposed to be cleared along Elliott Road.

3. Assessment of application against clearing principles and planning instruments and other matters

Elliott Road – 0.04 hectares including four *Corymbia calophylla* trees and Mundijong Road – 0.021 hectares including four *Corymbia calophylla* trees

The clearing of four *C. calophylla* trees within each of the application areas along Elliott Road and Mundijong Road will not likely result in impacts to biological diversity or conservation significant flora. These individual trees are not representative of a threatened ecological community, and while the four trees along Mundijong Road are located within the under-represented Guildford Complex, the proposed clearing of these trees will result in a negligible reduction in the extent of this vegetation complex. The hydrology of the area has been significantly altered due to roadside infrastructure, therefore, removal of the vegetation is unlikely to modify the existing hydrology of the area.

The application area is located just over 1.5 kilometres from a known Carnaby's black cockatoo (*Calyptorhynchus latirostris*) roost site and is within mapped unconfirmed Carnaby's cockatoo breeding areas. Black cockatoo's nest in large hollows of *Eucalyptus* trees and forage on the seeds, nuts and flowers of a large variety of plants including Proteaceous species (*Banksia*, *Hakea*, *Grevillea*), *Eucalyptus*, *Corymbia* and a range of introduced species (DotEE, 2013; Valentine and Stock, 2008). The Carnaby's cockatoo recovery plan states, "Success in breeding is dependent on the quality and proximity of feeding habitat within 12 kilometres of nesting sites. Along with the trees that provide nest hollows, the protection, management and increase of this feeding habitat that supports the breeding of Carnaby's cockatoo is a critical requirement for the conservation of the species" (DotEE, 2013). Photographs provided by the applicant indicate that the *C. calophylla* trees proposed to be cleared are not suitable breeding habitat for Carnaby's cockatoo.

The proposed clearing of the *C. calophylla* trees, would result in a minor reduction in available foraging habitat in the local area. The quantum of the impact is not likely to be significant, however, it is recognised that the cumulative impact of foraging habitat loss is a known issue for cockatoos, particularly the loss of *Banksia* woodland on the Swan Coastal Plain for Carnaby's cockatoo. In the context of this particular application, the area to be cleared is small and will not have a significant impact on the availability of foraging resources within the local area. The clearing of the application area is unlikely to significantly impact cockatoos to the extent that it would impact the conservation of the species.

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 local area retains approximately 20.83 per cent of its pre-European vegetation extent which is below the recommended threshold, however, the areas proposed to be cleared do not provide a critical linkage function and are not considered to be significant remnants within an extensively cleared area. Based on the above, the proposed clearing may be at variance with clearing principle (e).

The vegetation proposed to be cleared along Mundijong Road road reserve is located within Bush Forever site 360 and may be at variance with clearing principle (h) on the basis that it involves direct impacts to a conservation area. However, the scale of the impact is small and targeted and is not likely to have a significant residual impact on this conservation area.

Based on the above, the clearing of native vegetation within the Elliott and Mundijong Road road reserves is not likely to have any significant residual environmental impacts. The proposed clearing may be at variance with clearing principles (e) and (h) and is not likely to be at variance with any of the remaining clearing principles.

Hopeland Road – 0.146 hectares including various native species

The vegetation proposed to be cleared along Hopeland Road reserve includes nine *Eucalyptus rudis*, one *Macrozamia sp.*, four *Casuarina obesa*, two *Eucalyptus sp.*, 32 *Kunzea ericifolia*, two *Adenanthos cygnorum* and 10 *Banksia sp.* The vegetation within the application area does not comprise a high level of biological diversity, does not include conservation significant flora and is not representative of an under represented vegetation association or threatened ecological community. The hydrology of the area is significantly altered due to roadside infrastructure, therefore, removal of the vegetation is unlikely to modify the existing hydrology of the area.

If the vegetation were cleared, then the anticipated impacts to black cockatoos would be a minor reduction in available foraging habitat within the local area. The quantum of the impact is not likely to be significant, however, it is recognised that the cumulative impact of foraging habitat loss is a known issue for cockatoos, particularly the loss of *Banksia* woodland on the Swan Coastal Plain for Carnaby's cockatoo. In the context of this particular application, the area to be cleared is small and abuts an A class Nature Reserve managed by the Conservation Commission of WA (CCWA) which includes a large block of potential feeding habitat for black cockatoos. Locally known records of roosting Carnaby's black cockatoos are associated with the watercourse running through this CCWA conservation area and the application area does not support this area as an ecological linkage, therefore it is unlikely that the proposed clearing would impact on nearby populations. The clearing of the application area is unlikely to significantly impact cockatoos to the extent that it would impact the conservation of the species.

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 local area retains approximately 20.83 per cent of its pre-European vegetation extent which is below the recommended threshold, however, the areas proposed to be cleared do not provide a critical linkage function and are not considered to be significant remnants within an extensively cleared area. Based on the above, the proposed clearing may be at variance with clearing principle (e).

Existing roadside infrastructure is in place, and will be upgraded to manage hydrological flows in the localised area surrounding the application area. The clearing of 0.146 hectares of native vegetation is not likely to contribute to, or cause land degradation, deteriorate the quality of groundwater, or cause or exacerbate flooding.

The quantum of the impact is limited to 0.20953 hectares of native vegetation across three sites and no significant residual environmental impacts are likely to result from the proposed clearing.

4. Planning and Other matters

The clearing permit application was advertised on the Department of Water and Environmental Regulation's (DWER) website on 7 October 2019, inviting submissions from the public within a 14 day period. One submission was received in relation to this application requesting offsets be applied to residual impacts associated with the proposed clearing (Submission, 2019). The comments raised in the submission have been considered in the above assessment of the clearing principles which found that no significant residual impacts are expected as a result of the proposed clearing.

State Planning Policy 2.8 – Bushland Policy for the Perth metropolitan region aims to ensure bushland protection and management issues in the Perth Metropolitan Region are appropriately addressed and integrated with broader land use planning and decision-making. The four *C. calophylla* trees within Mundijong Road road reserve are located within Bush Forever site 360 and have been assessed as having low conservation significance in accordance with Appendix 4 of SPP 2.8. The clearing of low conservation significance Bush Forever areas is permitted only as part of an appropriate sustainable use response as determined by the responsible planning authority. Given that the proposed clearing is primarily for road safety, the clearing is considered to be permissible under SPP 2.8. In accordance with Appendix 4, an offset of at least 1 times the calculated loss in habitat hectares is required to meet the net outcome of equivalent gain.

The applicant proposed an offset planting of 512 seedlings, of which 60 will be *C. calophylla*. The offset site is located at Lot 778 on Deposited Plan 159110, Serpentine with the majority of the planting to be undertaken within Bush Forever site 375. This offset proposal has been endorsed by the Department of Planning, Lands and Heritage under SPP 2.8 and appropriately conditioned on the clearing permit.

No Aboriginal Sites of Significance have been identified during the desktop assessment. It is the applicant's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

5. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Department of the Environment and Energy (DotEE) (2013) Environment Protection and Biodiversity Conservation Act 1999 referral guidelines for three threatened black cockatoo species: Carnaby's cockatoo (endangered) *Calyptorhynchus latirostris*, Baudin's cockatoo (vulnerable) *Calyptorhynchus baudinii*, Forest red-tailed black cockatoo (vulnerable) *Calyptorhynchus banksii naso*. DotEE, Canberra.
- Heddl, 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.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
- Submission (2019) Submission relating to clearing permit application CPS 8691/1. A1850806
- Shire of Serpentine-Jarrahdale (2019) Clearing permit application form CPS 8691/1 and supporting information. DWERDT209458.
- Shire of Serpentine-Jarrahdale (2020) Clearing permit application CPS 8691/1 – additional supporting information (A1883913)
- Valentine, L.E. and Stock, W. (2008) Food Resources of Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) in the Gnarara Sustainability Strategy Study Area. Edith Cowan University and Department of Environment and Conservation. December 2008.

GIS Databases:

- Aboriginal Sites of Significance
- DAFWA Subsystems
- Groundwater salinity
- Hydrography, linear
- National Trust WA Covenant
- Remnant vegetation
- SAC bio datasets (accessed February 2019)
- Topographic contours
- Wetlands