



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 8201/1
Permit Holder:	Shire of West Arthur
Duration of Permit:	24 August 2019 – 24 August 2024

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

PART I – CLEARING AUTHORISED

1. Purpose for which clearing may be done

Clearing for the purpose of road widening.

2. Land on which clearing is to be done

Williams – Darkan Road (Road Reserve PIN: 11313882), Dardadine;
Williams - Darkan Road (Road Reserves PIN: 11313885, 11313889 and 11313893), Darkan;
Darkan Road South (Road Reserves PIN: 1388822, 1388823, 11013804, 1388824 and 1388825), Duranillin; and
Darkan Road South (Road Reserve PIN: 1388829), Moodiarrup.

3. Area of Clearing

The Permit Holder must not clear more than 3 hectares of native vegetation within the area hatched yellow on attached Plan 8201/1 – Overview 1, Plan 8201/1 – Overview 2, Plan 8201/1(a), Plan 8201/1(b), Plan 8201/1(c), Plan 8201/1(d), Plan 8201/1(e), Plan 8201/1(f), Plan 8201/1(g) and Plan 8201/1(h).

4. 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.

PART II – MANAGEMENT CONDITIONS

5. 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.

6. 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 area to be cleared.

7. Clearing not authorised

This Permit does not authorise the Permit Holder to clear trees belonging to the Genus *Eucalyptus* or *Corymbia*, which are endemic to the Jarrah Forest Interim Biogeographic Regionalisation of Australia (IBRA) region that have a diameter of 200 millimetres or more at breast height.

PART III - RECORD KEEPING AND REPORTING

8. Records to 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 the extent of clearing in accordance with condition 5 of this Permit;
- (e) actions taken to minimise the introduction and spread of *weeds* and *dieback* in accordance with condition 6 of this Permit; and
- (f) evidence that the trees that are cleared under this Permit do not have a diameter of 200 millimetres or more at breast height, in accordance with condition 7 of this Permit.

9. Reporting

The Permit Holder must provide to the *CEO* the records required under Condition 8 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 species-led ecological impact and invasiveness ranking 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*

25 July 2019

Plan 8201/1 - Overview 1



Legend


-  Cadastre
-  CPS areas approved to clear

Image



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Officer delegated under section 20 of the
Environmental Protection Act 1986



GOVERNMENT OF
WESTERN AUSTRALIA

Plan 8201/1 - Overview 2

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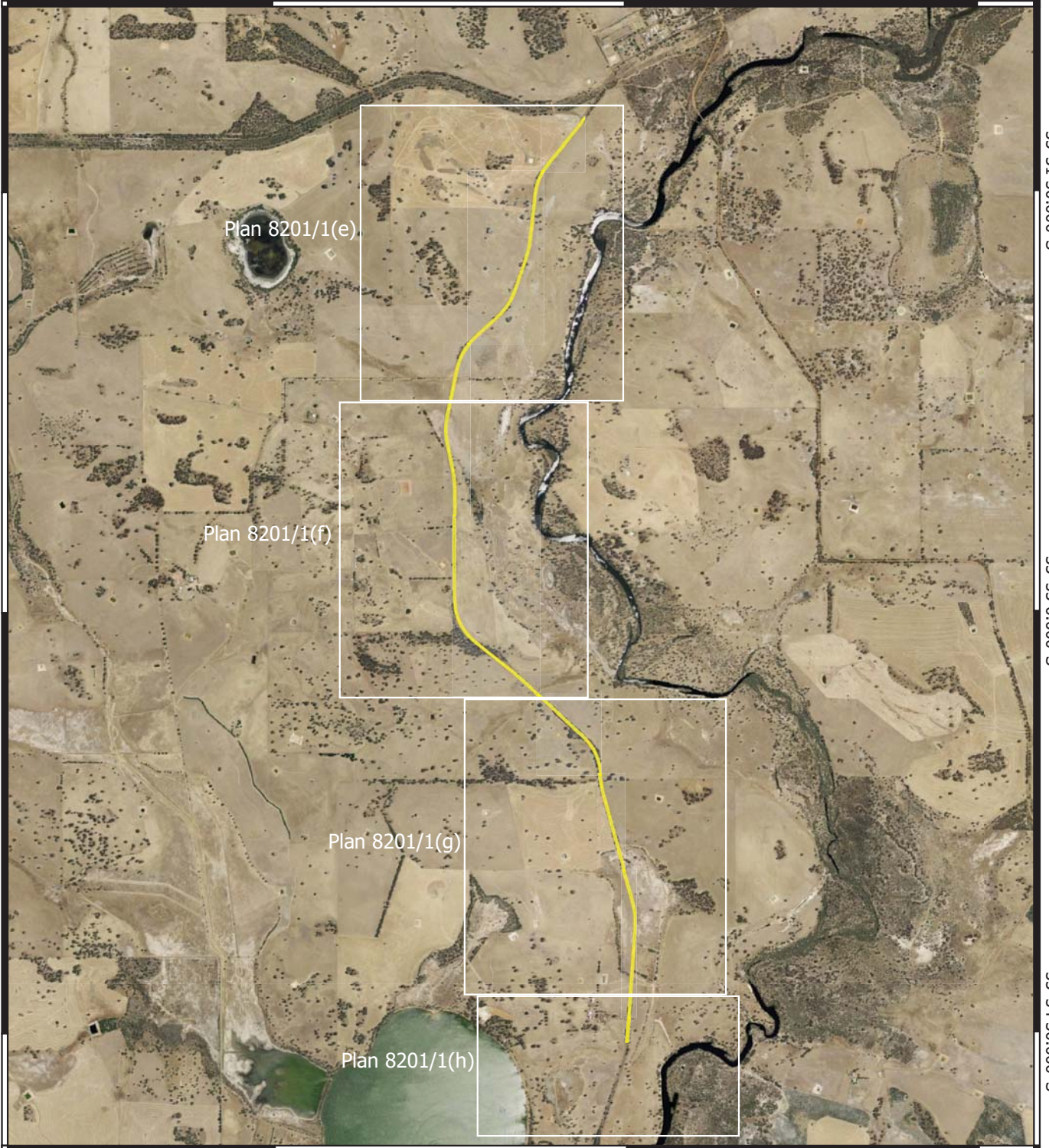
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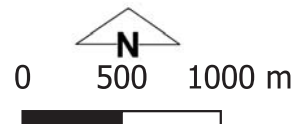
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Legend

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GOVERNMENT OF
WESTERN AUSTRALIA

Plan 8201/1(a)

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116°46'30.000"E

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-  CPS areas approved to clear

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GOVERNMENT OF
WESTERN AUSTRALIA

Plan 8201/1(b)



Legend

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-  CPS areas approved to clear

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Environmental Protection Act 1986





GOVERNMENT OF
WESTERN AUSTRALIA

Plan 8201/1(c)



Legend

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-  CPS areas approved to clear

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GOVERNMENT OF
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Plan 8201/1(d)

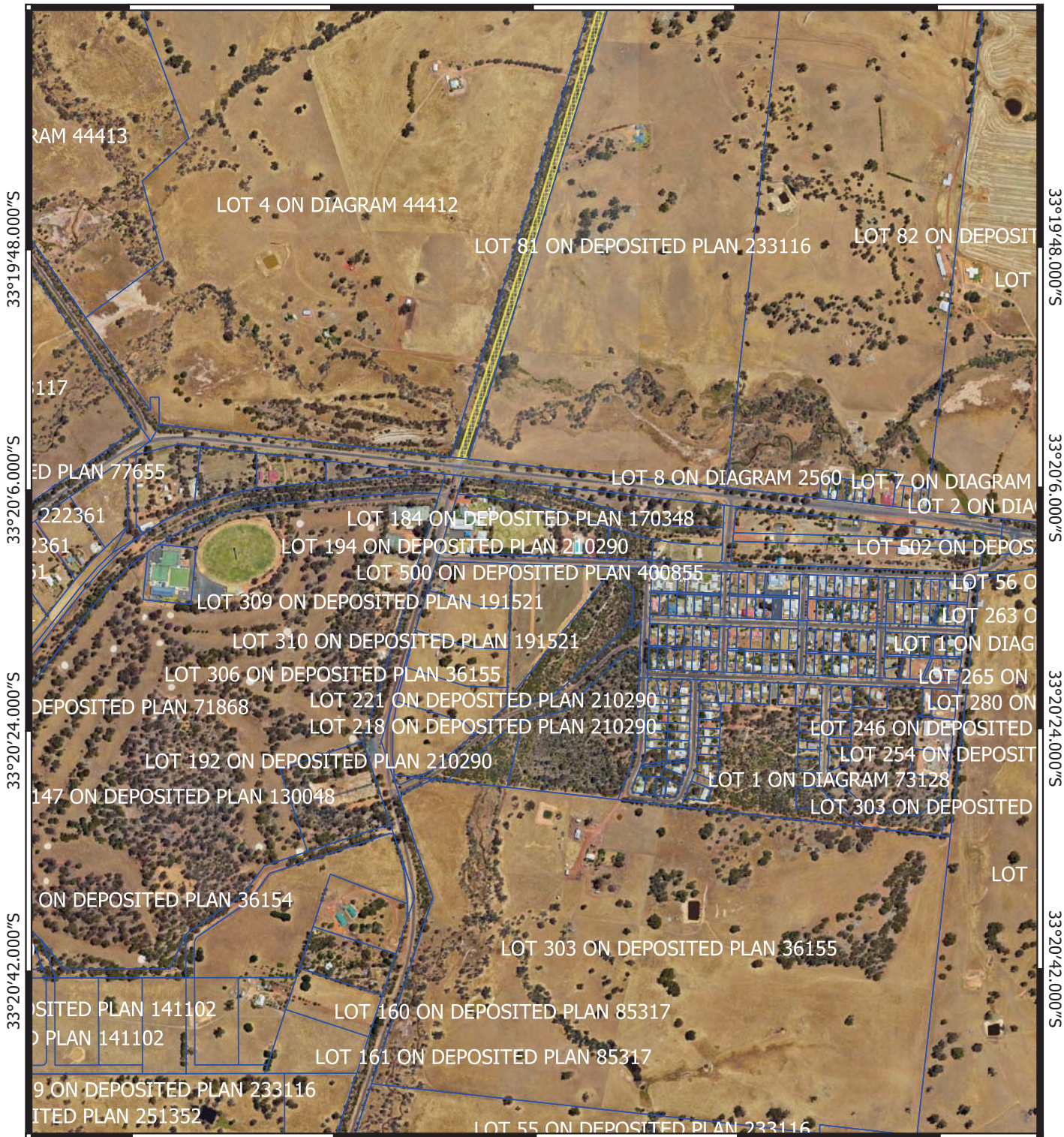
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-  Cadastre
-  CPS areas approved to clear

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GOVERNMENT OF
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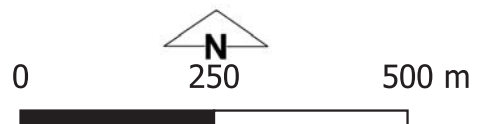
Plan 8201/1(e)




Legend

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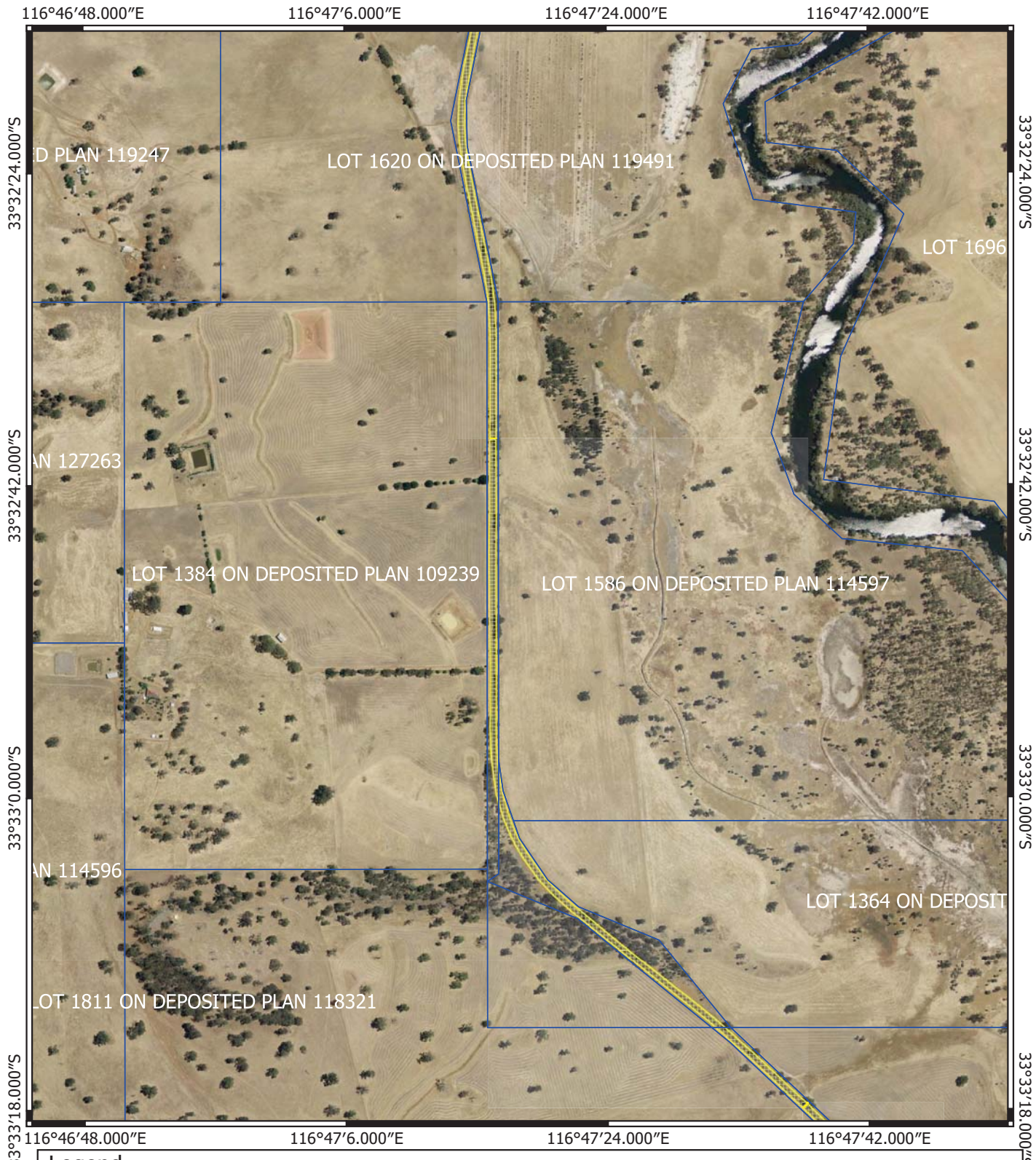

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GOVERNMENT OF
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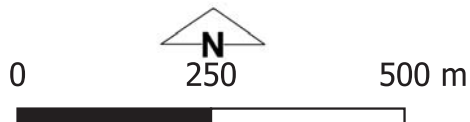
Plan 8201/1(f)




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GOVERNMENT OF
WESTERN AUSTRALIA

Plan 8201/1(g)

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LOT 1811 ON DEPOSITED PLAN 118321

LOT 2097 ON DEPOSITED PLAN 125214

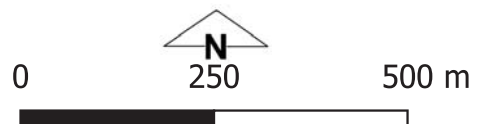
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Legend

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-  CPS areas approved to clear

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Officer delegated under section 20 of the
Environmental Protection Act 1986



GOVERNMENT OF
WESTERN AUSTRALIA

Plan 8201/1(h)

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116°47'24.000"E

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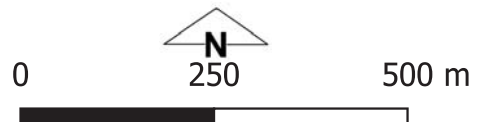
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Legend

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Environmental Protection Act 1986



GOVERNMENT OF
WESTERN AUSTRALIA



1. Application details

1.1. Permit application details

Permit application No.: 8201/1
Permit type: Purpose Permit

1.2. Applicant details

Applicant's name: Shire of West Arthur
Application received date: 25 September 2018

1.3. Property details

Property: Williams – Darkan Road (Road Reserves PIN: 11313882, 11313885, 11313889 and 11313893); and Darkan Road South (Road Reserves PIN: 1388822, 1388823, 11013804, 1388824, 1388825 and 1388829).
Local Government Authority: Shire of West Arthur
Localities: Dardadine, Darkan, Duranillin and Moodiarrup

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	Purpose category:
3 hectares of clearing within a 26.96 hectare footprint (originally 10.3 hectares of clearing within a 69.801 hectare footprint)		Mechanical Removal	Road construction or upgrades

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 25 July 2019

Reasons for Decision: The clearing permit application has been assessed against the clearing principles, planning instruments and other matters in accordance with section 51O of the *Environmental Protection Act 1986* (EP Act). It has been concluded that the proposed clearing is at variance to principle (f) and is not likely to be at variance to the remaining principles.

The Delegated Officer determined that the proposed clearing may increase the spread of weeds and dieback into adjacent vegetation. To minimise this risk, a condition has been placed on the permit requiring the implementation of weed and pathogen management measures.

To mitigate potential impacts to fauna habitat, the Delegated Officer placed a condition on the permit preventing the removal of *Eucalyptus* and *Corymbia* tree species that have a diameter of 200 millimetres or more at breast height.

In determining to grant a clearing permit subject to conditions, the Delegated Officer found that the proposed clearing is unlikely to lead to an unacceptable risk to the environment.

2. Site Information

Clearing Description

This application proposes to clear three hectares within a 26.96 hectare footprint encompassing the Williams – Darkan Road (Road Reserves PIN: 11313882, 11313885, 11313889 and 11313893) and Darkan Road South (Road Reserves PIN: 1388822, 1388823, 11013804, 1388824, 1388825 and 1388829) for the purposes of road widening and upgrades.

The application area originally incorporated Road Reserves associated with the Bowelling – Duranillin Road, comprising a cumulative clearing area of 10.3 hectares within a 69.801 hectare footprint. This road was removed from this application. The removal of the Bowelling – Duranillin Road from this application reduced the proposed clearing area to 6.4 hectares within a 50.43 hectare footprint.

The applicant agreed to further reduce the proposed clearing to three hectares within a 26.96 hectare footprint. The assessment of this application has been undertaken on this basis.

Vegetation Description

The application area is situated within the following mapped vegetation communities (Hedde et al. 1980):

- 28: Woodland of Wandoo (*Eucalyptus wandoo*) - Jarrah (*Eucalyptus marginata* subsp. *marginata*) on uplands in the arid zone;
- 89: Woodland of Jarrah (*Eucalyptus marginata* subsp. *marginata*) – Wandoo (*Eucalyptus wandoo*) – Marri (*Corymbia calophylla*) over *Banksia sessilis* on uplands in the arid zone;
- 90: Mixture of open woodland of Jarrah (*Eucalyptus marginata* subsp. *marginata*) – Slender Banksia (*Banksia attenuata*) and low open woodland of Wandoo (*Eucalyptus wandoo*) and stands of Drummond's Gum (*Eucalyptus drummondii*) (northern) and *Eucalyptus decipiens* (southern) on lower slopes in the arid zone;
- 91: Open woodland of Rock Sheoak (*Allocasuarina huegeliana*) – Jam (*Acacia acuminata*) with occasional Flooded Gum (*Eucalyptus rudis*) and Wandoo (*Eucalyptus wandoo*) on variable slopes near granite outcrops and woodland of Brown Mallet (*Eucalyptus astringens*) – Wandoo (*Eucalyptus wandoo*) on breakaways in the arid zone;
- 92: Woodland of Wandoo (*Eucalyptus wandoo*) – Rock Sheoak (*Allocasuarina huegeliana*) - Jam (*Acacia acuminata*) on slopes and woodland of Flooded Gum (*Eucalyptus rudis*) on lower slopes in the arid zone;
- 93: Low woodland of Swamp Sheoak (*Casuarina obesa*) - *Melaleuca* sp. on low lying moister soils, and woodland of Acorn Banksia (*Banksia prionotes*) with occasional Marri (*Corymbia calophylla*) and Flooded Gum (*Eucalyptus rudis*) over Jam (*Acacia acuminata*) on sandy lunettes in the arid zone; and
- 94: Woodland of Flooded Gum (*Eucalyptus rudis*) - *Melaleuca* spp. on lower slopes, low forest of Swamp Sheoak (*Casuarina obesa*) and shrubland of *Melaleuca* sp. on broad valley floors in the arid zone.

An inspection of the application area undertaken by Officers from the Department of Water and Environmental Regulation (DWER) on 15 November 2018 determined the application area occurs within the following vegetation communities (DWER 2018):

- Wandoo (*Eucalyptus wandoo*) and Jam (*Acacia acuminata*) over a completely degraded (Keighery, 1994) understorey; and
- Flooded Gum (*Eucalyptus rudis*) over a completely degraded understorey.

Vegetation Condition

The inspection undertaken by DWER Officers (2018) determined the vegetation found in the application area is in Completely Degraded (Keighery 1994) condition, defined as: the structure of the vegetation is no longer intact and the area is completely or almost completely without native species.

Soil type

The application area is mapped as occurring within the following mapped land systems (Department of Primary Industries and Regional Development 2017):

- Darkan 5 Subsystem: Valley flats and narrow alluvial plans (300 – 1000 metres wide) with mainly grey deep sandy duplex soils;
- Darkan 6 Footslopes Phase: Foot slopes with mainly sandy and loamy gravels formed on Eocene sediments;
- Darkan 3 Subsystem: Slopes with red deep and shallow loamy and sandy duplex soils and grey deep sandy and loamy duplex soils associated with rock outcrops;
- Darkan 4 Subsystem: Foot slopes with grey deep sandy duplex and moderately deep sandy gravels;
- Darkan 1 Subsystem: Gravelly hill crests and upper slopes with mainly yellowish brown sandy and loamy gravels;
- Boscabel 1 Subsystem: Sandy gravels, usually pale coloured, on broad hill crests and upper slopes, small swamps and lunettes scattered on this unit;
- Beaufort 1 Subsystem: Broad flats (1.5 – 6 kilometres wide) along the Beaufort and Hillman Rivers with grey deep and shallow duplex soils (mainly with mottled, grey sodic subsoils) and areas of saline wet soils and alkaline grey shallow sandy duplex common;
- Darkan 1 Steep Phase: Steeper slopes of the gravelly uplands (Darkan 1) with mainly deep sandy gravels and large areas of shallow to moderately deep sandy gravels;
- Darkan 2 Subsystem: Slopes of the Darkan System with mainly moderately deep sandy gravels and grey deep sandy duplex soils; and
- Darkan 7 Subsystem: Dunes with yellowish brown deep sands along the Hillman River and its tributaries, including dunes and lunettes on the east and south east of swamps and lakes.

Comments

The local area referred to in the below assessment is defined as the area within a 20 kilometre radius of the application area.

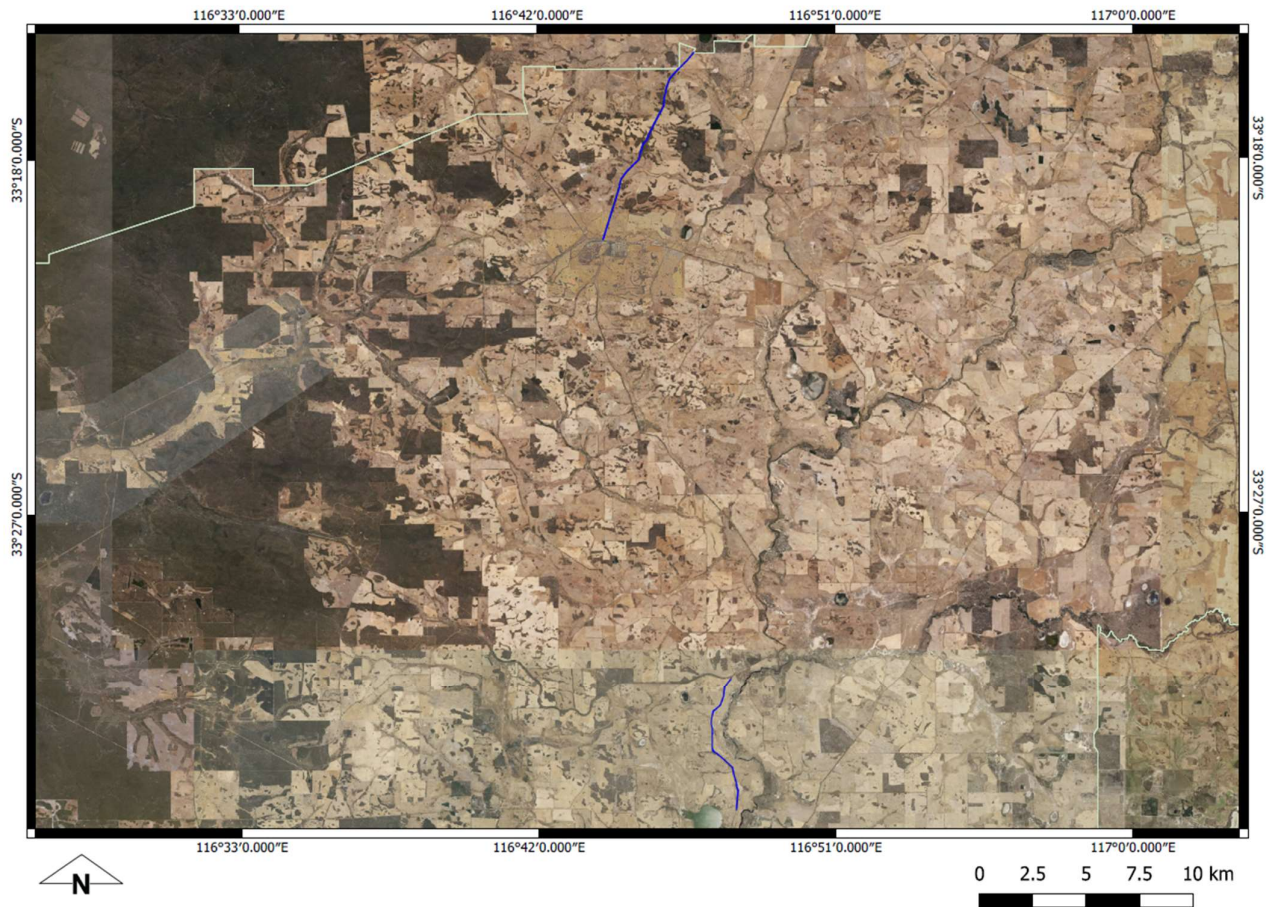


Figure 1: An overview of the application area (shown in blue).

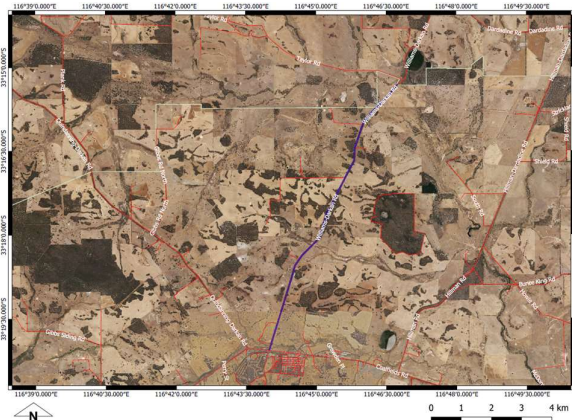


Figure 2: The northern extent of the application area (shown in blue), depicted alongside the road centrelines (shown in red).

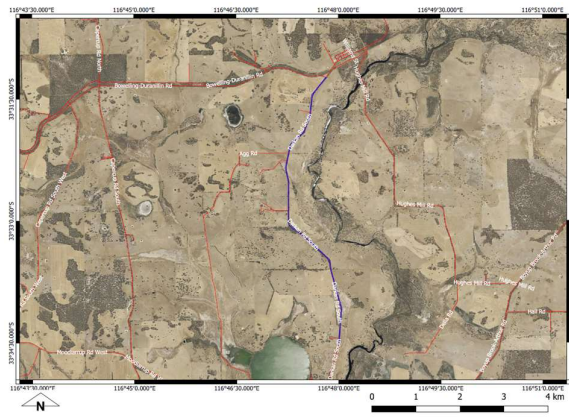


Figure 3: The southern extent of the application area (shown in blue), depicted alongside the road centrelines (shown in red).

3. Minimisation and mitigation measures

This application originally sought to undertake clearing within road reserves associated with the Williams – Darkan Road, Bowelling – Duranillin Road and Darkan Road South. An inspection of the original application area on 15 November 2018 undertaken by DWER Officers (2018) determined clearing within the road reserves associated with the Williams Darkan Road and Darkan Road South is predominantly restricted to the current road drains, with minor clearing in the remnant vegetation growing in close proximity to these drains (DWER 2018). Clearing within these areas predominantly involves the removal of vegetation regrowth in the road side drains. Little to no native understorey was identified within these road reserves and large portions of this area contain little to no native vegetation (DWER 2018). No *Eucalyptus* or *Corymbia* tree species of an appropriate size to contain hollows suitable for breeding by Black Cockatoo (*Calyptorhynchus* sp.) species were identified within the area to be cleared along these roads.

The aforementioned inspection determined that the road reserves associated with the Bowelling-Duranillin Road contain vegetation in an Excellent (Keighery 1994) condition (DWER 2018). This application area also contains *Eucalyptus* species trees of an appropriate size to contain suitable hollows to support breeding by Black Cockatoo (*Calyptorhynchus* sp.) species (DWER 2018). Potential Black Cockatoo (*Calyptorhynchus* sp.) breeding hollows were also identified along the Bowelling-

Duranillin Road (DWER 2018). These road reserves comprise part of a larger tract of remnant native vegetation which includes an old rail reserve and adjoins the Capercup Road North Nature Reserve.

The DWER advised the applicant of the environmental values of the Bowelling-Duranillin Road road reserves and advised that fauna and flora surveys will be required to determine the environmental impact of the proposed clearing. The findings from the inspection found that the road reserves associated with the Williams - Darkan Road and the Darkan Road South Road do not contain the same environmental values as the Bowelling-Duranillin Road. The applicant was given the option of amending the application area to remove the Bowelling - Duranillin Road road reserves to prevent the assessment of the environmental impact of clearing along the Bowelling-Duranillin Road from holding up the decision for clearing within the Williams - Darkan Road and Darkan Road South road reserves.

The application was amended to remove the Bowelling-Duranillin Road road reserves from this clearing permit application. The clearing associated with the Bowelling-Duranillin Road will be submitted in a separate clearing permit application once the appropriate surveys have been completed. The removal of Bowelling-Duranillin Road reduced the proposed clearing to 6.3 hectares within a 50.43 hectare footprint.

The applicant further reduced the application area to 3 hectares of clearing within a 26.96 hectare footprint, comprising road reserves along the Williams - Darkan Road and the Darkan Road South. A review of available databases determined the existing road surface of Williams - Darkan Road and Darkan Road South occupies approximately 9.82 hectares, or approximately 36.47 per cent, of the revised 26.96 hectare footprint. This reduction in the application area has limited the extent of the proposed clearing to the existing roadside drains and fringing vegetation growing in close proximity to the roadside drains. Much of the existing roadside vegetation situated within the affected road reserves will remain unaffected by the proposed clearing. This clearing permit application has been assessed on the basis of this revised application area.

4. Assessment against the clearing principles

A review of available databases determined that 45 flora species of conservation significance have been recorded in the local area comprising six Priority 1 flora species, eight Priority 2 flora species, 17 Priority 3 flora species, seven Priority 4 flora species and seven threatened flora species. As discussed in Section 2, the inspection of the application area undertaken by DWER Officers (2018) found the vegetation within the application area is in completely degraded condition, with no discernible understory layer and in many instances comprises regrowth in the existing roadside drains. Given the condition of the vegetation found within the application area (DWER 2018), the application area is not likely to comprise suitable habitat for any flora species of conservation significance.

A review of available databases determined that 23 fauna species of conservation significance have been recorded in the local area (Department of Biodiversity, Conservation and Attractions 2007-). Little to no native understory is present within the application area, with large portions of the application area contained no native vegetation and much of the vegetation in the application area comprises regrowth in the roadside drains (DWER 2018). When the above is considered alongside the knowledge that no large endemic tree species will be targeted by the proposed clearing, the application area is unlikely to comprise suitable habitat for any fauna species of conservation significance. A review of aerial photography of the application area determined the remnant vegetation in the road reserves associated with the Williams – Darkan Road and Darkan Road South comprises an ecological linkage linking remnant strands of native vegetation together. Given the condition of the vegetation in the application area and the knowledge that the proposed clearing is restricted to the roadside drains associated with these roads, the proposed clearing is not anticipated to undermine the capability of fauna to use these ecological linkages to move through the landscape. To ensure the capability of these ecological linkages to support fauna movements is not undermined by the proposed clearing, a condition has been placed on the permit preventing the removal of endemic *Corymbia* and *Eucalyptus* tree species with a diameter at breast height of 200 millimetres or more.

The proposed clearing has the potential to introduce weed species and dieback into the surrounding vegetation, potentially undermining habitat for flora and fauna species of conservation significance. Weed and pathogen management measures should mitigate this potential impact.

A review of available databases determined that the application area is situated the following distances from ecological communities of conservation significance:

- approximately 11.4 kilometres north-north-east of the Priority 2 'Alluvial soils of the upper Blackwood River' priority ecological community (PEC); and
- approximately 14.4 kilometres northwest of the Priority 3 'Eucalypt woodlands of the Western Australian Wheatbelt' PEC. This ecological community is also listed as a 'Critically Endangered' threatened ecological community (TEC) under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

When consideration is given to the separation distances between the application area and the above ecological communities, no impacts to these communities are anticipated to result from the proposed clearing. A review of aerial photography of the local area determined the application area does not form part of an ecological linkage linking the above ecological communities to each other, or other areas of remnant vegetation.

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 application area forms part of the 'Jarrah Forest' Interim Biogeographic Regionalisation of Australia (IBRA) region. This IBRA region retains over 53 per cent of its pre-European clearing extent (Government of Western Australia 2019a). Vegetation associations 28, 89, 90, 91, 92 and 94 currently retain over 29, 27, 16, 13, 14 and 26 per cent of their pre-European clearing extents, respectively (Government of Western Australia 2019b). Only vegetation association 93 retains more than 30 per cent of its pre-European clearing extent, with this vegetation association retaining over 34 per cent of its pre-European clearing extent. A review of available databases determined the local

area retains over 25 per cent of its pre-European clearing extent. Given the condition of the vegetation in the application area and that clearing is largely restricted to the existing roadside drains that contain regrowth, or little to no native vegetation, the application area is not considered representative of any of the above vegetation communities and is not considered to represent a significant remnant of native vegetation in an extensively cleared landscape.

A review of available databases determined that the application area intercepts five ephemeral watercourses. Therefore, vegetation growing in association with these watercourses could be targeted by the proposed clearing. Consequently, the proposed clearing is at variance to Principle (f). A review of aerial photography of the local area determined the watercourses intercepted by the application area have been extensively cleared and retain only sporadic occurrences of riparian vegetation along their extents. These watercourses are also all intercepted by the existing Williams – Darkan Road and Darkan Road South road infrastructure. While vegetation growing in association with these watercourses may be targeted by the proposed clearing, any loss of vegetation growing in association with these watercourses is not anticipated to adversely impact the representation of riparian vegetation associations in the local area or to adversely impact the ecological values of the associated watercourses.

Given the extensively cleared nature of the local area, the condition of the vegetation found in the application area, and the small extent of the proposed clearing area, no land degradation impacts are anticipated to result from the proposed clearing. No impacts to surface water or groundwater quality, or to the flooding regime of the local area, are anticipated to result from the proposed clearing.

The local area contains a number of conservation reserves, with the Hillman Nature Reserve the closest conservation reserve to the application area, situated approximately 1.2 kilometres east of the application area. Given the separation distances between the application area and conservation reserves, no impacts to any conservation reserve are anticipated to result from the proposed clearing. A review of aerial photography of the local area determined the application area does not form part of an ecological linkage linking conservation reserves to each other, or other areas of remnant vegetation.

Given the above, the proposed clearing is at variance to Principle (f) and is not likely to be at variance to any of the remaining clearing principles.

Planning instruments and other relevant matters

No Aboriginal sites of significance have been mapped within the application area.

The clearing permit application was advertised on the DWER website on 1 March 2019 with a 21 day submission period. Two public submissions have been received in relation to this application, on 1 March 2019 and 22 March 2019 respectively. These submissions objected to the proposed clearing on the following grounds:

- The proposed clearing area appears to have been poorly defined and proposes an excessive level of clearing along the entirety of the existing road reserves. If the applicant wishes to duplicate these roads, there is already cleared land in close proximity to the current roads the applicant could utilise for this purpose;
- Flora and fauna surveys should have been undertaken due to the potential for species of conservation significance to be impacted by the proposed clearing;
- The proposed clearing has the potential to adversely impact occurrences of the Priority 3 'Eucalypt Woodlands of the Western Australian Wheatbelt' PEC, which is also listed as an 'Critically Endangered' TEC under the EPBC Act;
- Clearing permits assessments should consider the cumulative impact of clearing in the region;
- If a clearing permit is granted, DWER is strongly urged to mandate that an environmental offset be put in place; and
- Alternatives to the proposed clearing have not been given adequate consideration.

As detailed earlier in this report, the applicant reduced the application area to 3 hectares of clearing within a 26.96 hectare footprint. The existing road surface of the Williams - Darkan Road and Darkan Road South comprises approximately 36.47 per cent of the revised application area. The aforementioned reduction in the application areas extent has limited the area of clearing to the existing roadside drains and fringing vegetation growing in close proximity to these drains. Consequently much of the remnant vegetation within the road reserves associated with the Williams - Darkan Road and Darkan Road South will not be impacted by the proposed clearing. The Department considers that the proposed clearing location was sufficiently defined to allow the environmental impact of the proposed clearing to be adequately assessed.

As discussed in the assessment of Principle's (a), (b) and (c), given the condition and composition of the vegetation found in the application area, the application area is unlikely comprise suitable habitat for any flora or fauna species of conservation significance.

The approved conservation advice for the 'Eucalypt Woodlands of the Western Australian Wheatbelt' TEC, as prepared by the Threatened Species Scientific Committee (2015), details the geographical constraints of this ecological community, its floristic composition and the condition and patch size thresholds necessary for a patch of remnant vegetation to be considered part of this ecological community. Based on the inspection of the application area undertaken by DWER Officers, the vegetation communities identified within the application area do not meet the floristic composition or condition thresholds to be considered representative of this ecological community. No adverse impacts to the extent of occurrence or conservation status of this ecological community are anticipated to result from the proposed clearing.

The document *A guide to the assessment of applications to clear native vegetation Under Part V Division 2 of the Environmental Protection Act 1986* describes the aim of Principle (e) as maintaining sufficient native vegetation in the landscape for the maintenance of ecological values (Department of Environmental Regulation 2014). This Principle also recognises the need to protect ecological communities that have been extensively cleared and to retain a representation of each ecological community throughout its pre-European range (Department of Environmental Regulation 2014). It is through this Principle that the

cumulative impact of clearing within a particular area is considered. The above document advises that the following is likely to be at variance with this Principle (Department of Environmental Regulation 2014):

- clearing of native vegetation which contains habitat for a threatened fauna species and is below the national target and objective for biodiversity conservation;
- clearing of biologically diverse remnant vegetation within an extensively cleared landscape;
- clearing of remnant vegetation which is part of a significant ecological linkage and is located within an extensively cleared landscape; and
- clearing in landscapes where the existing vegetation is required to maintain ecosystem services (e.g. hydrological processes), or to compensate for a high degree of fragmentation.

As detailed earlier in this report, the vegetation found in the application area is not anticipated to contain habitat for fauna or flora species of conservation significance and is not anticipated to represent any of the mapped vegetation complexes intercepted by the application area due to its completely degraded condition. The aforementioned condition of the application area's vegetation is a reflection of its lack of diversity, with the inspection determining large extents of the application area were devoid of native species and contained no native understorey. While the vegetation found in the road reserves situated along the Williams - Darkan Road and Darkan Road South likely comprises an ecological linkage and the local area has been extensively cleared, the application area is confined to the vegetation in the existing roadside drains and some adjacent vegetation. In addition, the proposed clearing will not remove any large trees which would support the movement of fauna species throughout the landscape. Consequently, no existing ecological linkages are anticipated to be undermined by the proposed clearing activities. The vegetation found in the application area is not anticipated to be necessary to maintain any ecosystem services or to act in compensatory fashion in consideration of the local area's heavily cleared nature due to the aforementioned condition of the vegetation found in the application area.

The *Western Australian Environmental Offsets Policy* advises that the use of environmental offsets will not replace proper on-site environmental practices such as avoidance and mitigation initiatives (Government of Western Australia 2011). An environmental offset is an offsite action or actions which compensate for residual environmental impacts (Government of Western Australia 2011). Environmental offsets are a measure of last resort and are to be utilised after due consideration of avoidance and mitigation measures (Government of Western Australia 2011). As detailed earlier in this report, the proposed clearing is not anticipated to result in any significant residual environmental impacts. It is anticipated that the revisions made to the clearing area and the use of permit conditions; including requiring the applicant to avoid, minimise and mitigate their clearing activities, employ effective weed and dieback management practices and maintain all endemic *Eucalyptus* and *Corymbia* tree species present within the application area with a diameter at breast height of 200 millimetres or more, will be adequate to manage and mitigate the potential environmental impacts of the proposed clearing.

The document *A Guide to the Assessment of Applications to Clear Native Vegetation under Part V of the Environmental Protection Act 1986* (December 2014) outlines the Department's considerations in undertaking an assessment of a clearing permit application in more detail. The Department's role is to conduct an assessment of the proposed clearing area, identify the environmental values and potential impacts from clearing, and impose conditions to mitigate and limit these impacts. The consideration of alternatives to the need to widen road infrastructure is not a relevant consideration in assessing a clearing permit application. It is the responsibility of the applicant to contemplate such matters when considering new developments.

5. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra. Department of Biodiversity, Conservation and Attractions (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dpaw.wa.gov.au/>. Accessed June 2019.
- Department of Environmental Regulation (2014) A guide to the assessment of applications to clear native vegetation under Part V Division 2 of the *Environmental Protection Act 1986*. December 2014. Department of Environment Regulation 168 St Georges Terrace, Perth, Western Australia December 2014.
- Department of Primary Industries and Regional Development (2017). NRInfo Digital Mapping. Department of Primary Industry and Regional Development. Government of Western Australia. URL: <https://maps.agric.wa.gov.au/nrm-info/>. Accessed June 2019.
- Department of Water and Environmental Regulation (2018) Site Inspection Report: Native Vegetation Regulation, CPS 8201/1. Maintained on DWER's archive system (A1803553).
- Government of Western Australia (2011) WA Environmental Offsets Policy. Available from: http://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/WAEnvOffsetsPolicy-270911.pdf
- Government of Western Australia (2019a) 2018 Statewide Vegetation Statistics (formerly the CAR Reserve Analysis): Full Report. Remote Sensing and Spatial Analysis Program. Biodiversity and Conservation Science. Department of Biodiversity, Conservation and Attractions (DBCA). Published March 2019.
- Government of Western Australia (2019b) 2018 South West Vegetation Complex Statistics Report. Remote Sensing and Spatial Analysis Program. Biodiversity and Conservation Science. Department of Biodiversity, Conservation and Attractions (DBCA). Published March 2019.
- Heddlé, 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.
- Threatened Species Scientific Committee (2015) *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) Approved Conservation Advice (including listing advice) for the Eucalypt Woodlands of the Western Australian Wheatbelt. Conservation advice approved 26 November 2015, listing effective 4 December 2015.
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Biodiversity, Conservation and Attractions. <http://florabase.dpaw.wa.gov.au/> (accessed July 2019).

GIS Databases:

- Aboriginal Sites of Significance
- Department of Biodiversity, Conservation and Attractions, Managed Tenure
- Geomorphic Wetlands Management Category
- Wheatbelt Wetlands
- Hydrography Linear – Linear
- Hydrography WA 250K – Surface Water Lines
- SAC bio datasets
- South West Forests – Vegetation Complex Mapping
- TPFL March 2019
- WA Herb Data March 2019
- WA TEC PEC Boundaries