



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 8392/1
Permit Holder:	Mr Graeme Robertson
Duration of Permit:	17 July 2020 to 17 July 2026

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 extractive industry and road upgrades.

2. Land on which clearing is to be done

Lot 9005 on Deposited Plan 52008, Nullaki
Lee Road reserve (PINS 11640931, 11640930, 11640926, 11640925), Youngs Siding
Browns Road reserve (PINS 1164027, 11640795, 11640794), Youngs Siding
Lake Saide Road reserve (PINS 11640793, 11640792, 11640788), Youngs Siding

3. Area of Clearing

The Permit Holder must not clear more than 15.19 hectares of native vegetation within the area shaded yellow on attached Draft Plan 8392/1a, Draft Plan 8392/1b and Draft Plan 8392/1c.

4. Duration of clearing

- (a) This Permit does not authorise the Permit Holder to clear native vegetation after 25 July 2025.
- (b) This Permit does not authorise the Permit Holder to clear native vegetation within the area crossed hatched green on attached Plan 8392/1d (pit area) for the purpose of extractive industry after the 31 December 2021.

5. Limitation of clearing within the lime pit

- (a) The Permit Holder must not clear more than two hectares at any given time within the area crossed hatched green on attached Plan 8392/1d for the purpose of extractive industry.
- (b) The Permit Holder must not clear more than eight hectares total within the area crossed hatched green on attached Plan 8392/1d.

6. 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

7. 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.

8. Direction of clearing

The Permit Holder shall conduct clearing in a slow progressive manner from one direction to the other (e.g. east to west) to allow fauna to move into adjacent native vegetation ahead of the clearing activity.

9. Weed and Dieback 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 *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.

10. Fauna management – western ringtail possum

- a) In relation to the areas cross-hatched red on attached Plan 8392/1e and Plan 8392/1f, the Permit Holder must engage a *fauna specialist* to inspect that area, including all trees and tree hollows present, within 24 hours prior to, and for the duration of clearing, for the presence of (*Pseudocheirus occidentalis*) western ringtail possum(s).
- b) In relation to the areas cross-hatched red on attached Plan 8392/1e and Plan 8392/1f, the Permit Holder must not clear *dreys* identified within these areas.
- c) Clearing must cease in any area where fauna referred to in condition 10(a) above are identified until either:
 - i. the western ringtail possum(s) individual has moved on from that area to adjoining *suitable habitat*; or
 - ii. the western ringtail possum(s) individual has been removed by a *western ringtail possum specialist*.
- d) Any western ringtail possum (*Pseudocheirus occidentalis*) individuals removed in accordance with condition 10(c)(ii) of this Permit must be relocated by a *western ringtail possum specialist* to *suitable habitat*.
- e) Where fauna is identified under condition 10(a) of this Permit, the Permit Holder must provide the following records to the *CEO* as soon as practicable:
 - i. the number of individuals identified;
 - ii. the date each individual was identified;
 - iii. the location where each individual was identified 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;
 - iv. the number of individuals removed and relocated;
 - v. the relevant qualifications of the *western ringtail possum specialist* undertaking removal and relocation;
 - vi. the date each individual was removed;
 - vii. the method of removal;
 - viii. the date each individual was relocated;
 - ix. the location where each individual was relocated to, recorded using a GPS unit set to GDA94, expressing the geographical coordinates in Eastings and Northings or decimal degrees; and
 - x. details pertaining to the circumstances of any death of, or injury sustained by, an individual.

11. Retain vegetative material and topsoil, revegetation and rehabilitation

The Permit Holder shall:

- (a) Retain the vegetative material and topsoil removed by clearing authorised within the area crossed hatched green on attached Plan 8392/1d and stockpile the vegetative material and topsoil in an area that has already been cleared.
- (b) At an *optimal time* within 12 months following completion of material extraction, *revegetate* and *rehabilitate* the areas not required for the purpose of which they were cleared under this permit, by:
 - (i) ripping the ground on the contour to remove soil compaction; and

- (ii) laying the vegetative material and topsoil retained under condition 11(a) on the cleared area(s).
- (c) Within 24 months of laying the vegetative material and topsoil on the cleared area in accordance with condition 11(b) of this Permit:
 - (i) engage an *environmental specialist* to determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and
 - (ii) where, in the opinion of an *environmental specialist*, the composition structure and density determined under condition 11(c)(i) of this Permit will not result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, *revegetate* the area by deliberately *planting* and/or *direct seeding* native vegetation that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area and ensuring only *local provenance* seeds and propagating material are used.
- (d) Where additional *planting* or *direct seeding* of native vegetation is undertaken in accordance with condition 11(c)(ii) of this permit, the Permit Holder shall repeat condition 11(c)(i) and 11(c)(ii) within 24 months of undertaking the additional *planting* or *direct seeding* of native vegetation.
- (e) Where a determination by an *environmental specialist* that the composition, structure and density within areas *revegetated* and *rehabilitated* will result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, as determined in condition 11(c)(i) and (ii) of this permit, that determination shall be submitted for the *CEO*'s consideration. If the *CEO* does not agree with the determination made under condition 11(c)(ii), the *CEO* may require the Permit Holder to undertake additional *Planting* and *direct seeding* in accordance with the requirements under condition 11(c)(ii).

PART III – RECORD KEEPING AND REPORTING

12. 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 direction of clearing;
- (d) the size of the area cleared (in hectares);
- (e) actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 7 of this Permit.
- (f) actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with condition 9 of this Permit.
- (g) fauna management measures in accordance with condition 10 of this Permit; and
- (h) in relation to the revegetation and rehabilitation of areas pursuant to condition 11 of this Permit
 - (i) the size of the area revegetated and rehabilitated;
 - (ii) the date(s) on which the area revegetation and rehabilitation was undertaken;
 - (iii) the revegetation and rehabilitation activities undertaken;
 - (iv) the date(s) where additional planting or direct seeding of native vegetation is undertaken and
 - (v) the boundaries of the area revegetated and rehabilitated (recorded digitally as a shapefile).

13. Records must be kept

- (a) The Permit Holder must provide to the *CEO* on or before 30 June of each year, a written report:
 - (i) of records required under condition 12 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding calendar year.
- (b) If no clearing authorised under this Permit was undertaken between 1 January to 31 December of the preceding calendar year, a written report confirming that no clearing under this permit has been carried out, must be provided to the *CEO* on or before 30 June of each year.
- (c) Prior to 17 April 2026 the Permit Holder must provide to the *CEO* a written report of records required under condition 12 of this Permit where these records have not already been provided under condition 13(a) of this Permit.

DEFINITIONS

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

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

direct seeding means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;

drey means a western ringtail possum (*Pseudocheirus occidentalis*) nest that is constructed from sticks and leaves;

environmental specialist: means a person who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit, or who is approved by the CEO as a suitable environmental specialist.

fauna specialist means a person who holds a tertiary qualification specializing in environmental science or equivalent, has a minimum of two years field experience in fauna identification and surveys of fauna native to the region being inspected or surveyed and holds a valid fauna licence issued under the *Biodiversity Conservation Act 2016*;

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;

optimal time means the period from July to September;

planting means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species;

rehabilitate/ed/ion means actively managing an area containing native vegetation in order to improve the ecological function of that area;

revegetate/ed/ion means the re-establishment of a cover of *local provenance* native vegetation in an area using methods such as natural *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.

suitable habitat means habitat known to support western ringtail possums (*Pseudocheirus occidentalis*) within the known current distribution of the species, typically characterised by abundant foliage, presence of suitable nesting structures such as tree hollows, as well as high canopy cover and continuity. Known habitat includes peppermint (*Agonis flexuosa*) dominated woodlands, jarrah (*Eucalyptus marginata*) and marri (*Corymbia calophylla*) forests, riparian vegetation with a canopy of Bullich (*Eucalyptus megacarpa*) or flooded gum (*Eucalyptus rudis*), karri (*Eucalyptus diversicolor*) forests, sheoak (*Allocasuarina fraseriana*) dominated woodlands, and other stands of myrtaceous trees growing near swamps, watercourses or floodplains;

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.

western ringtail possum specialist means a *fauna specialist* who has a minimum of two years field experience in western ringtail possum (*Pseudocheirus occidentalis*) identification, surveys of western ringtail possums and capture and handling of western ringtail possums and holds a valid fauna licence issued under the *Biodiversity Conservation Act 2016*.

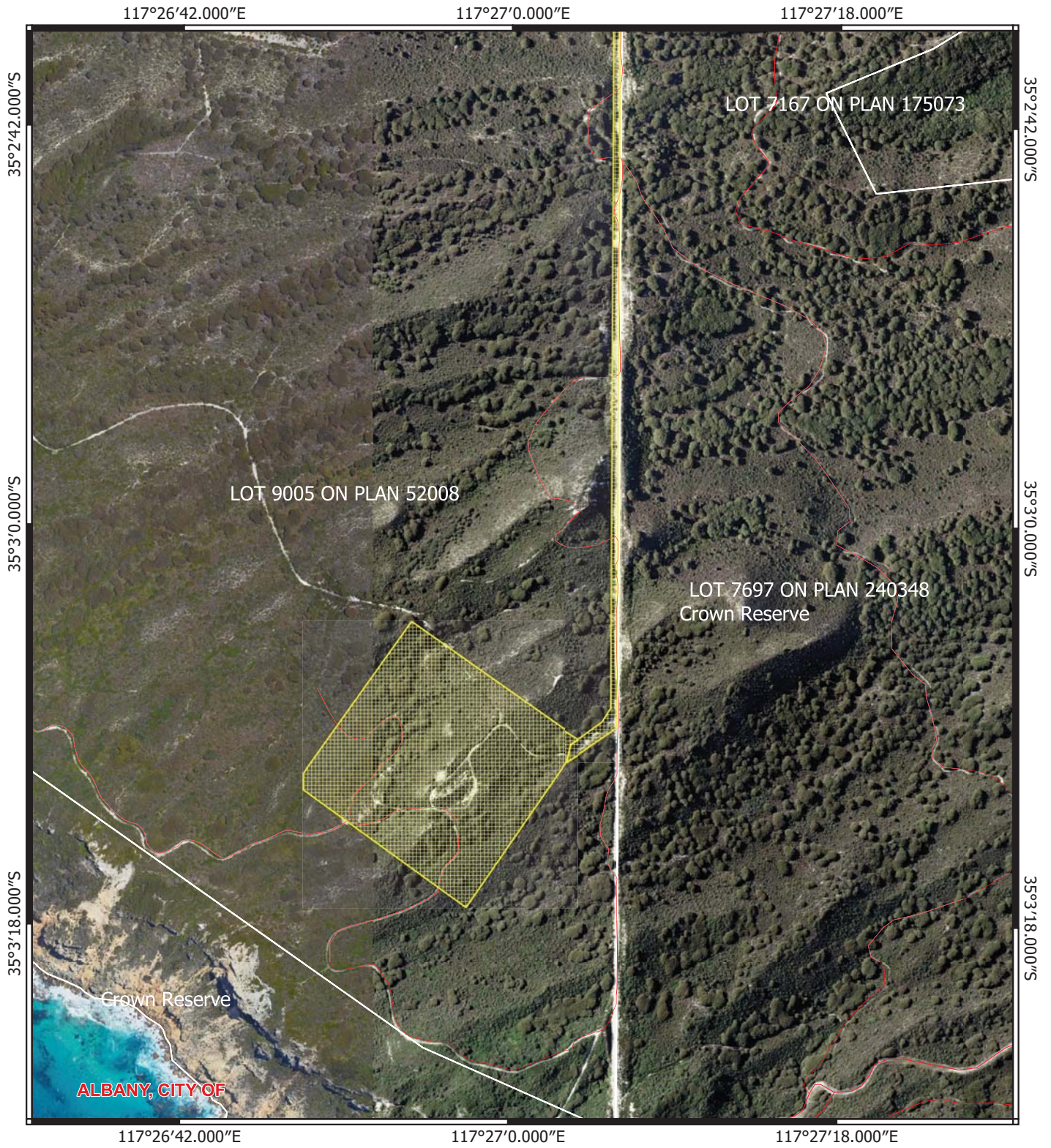


Mathew Gannaway
MANAGER
NATIVE VEGETATION REGULATION


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

24 June 2020


Plan 8392/1a



Legend

 CPS areas approved to clear

base layers

 Road Centrelines

 Cadastre - LGATE 218

 Local Government Authority (LGA) Boundaries (LGATE-233)



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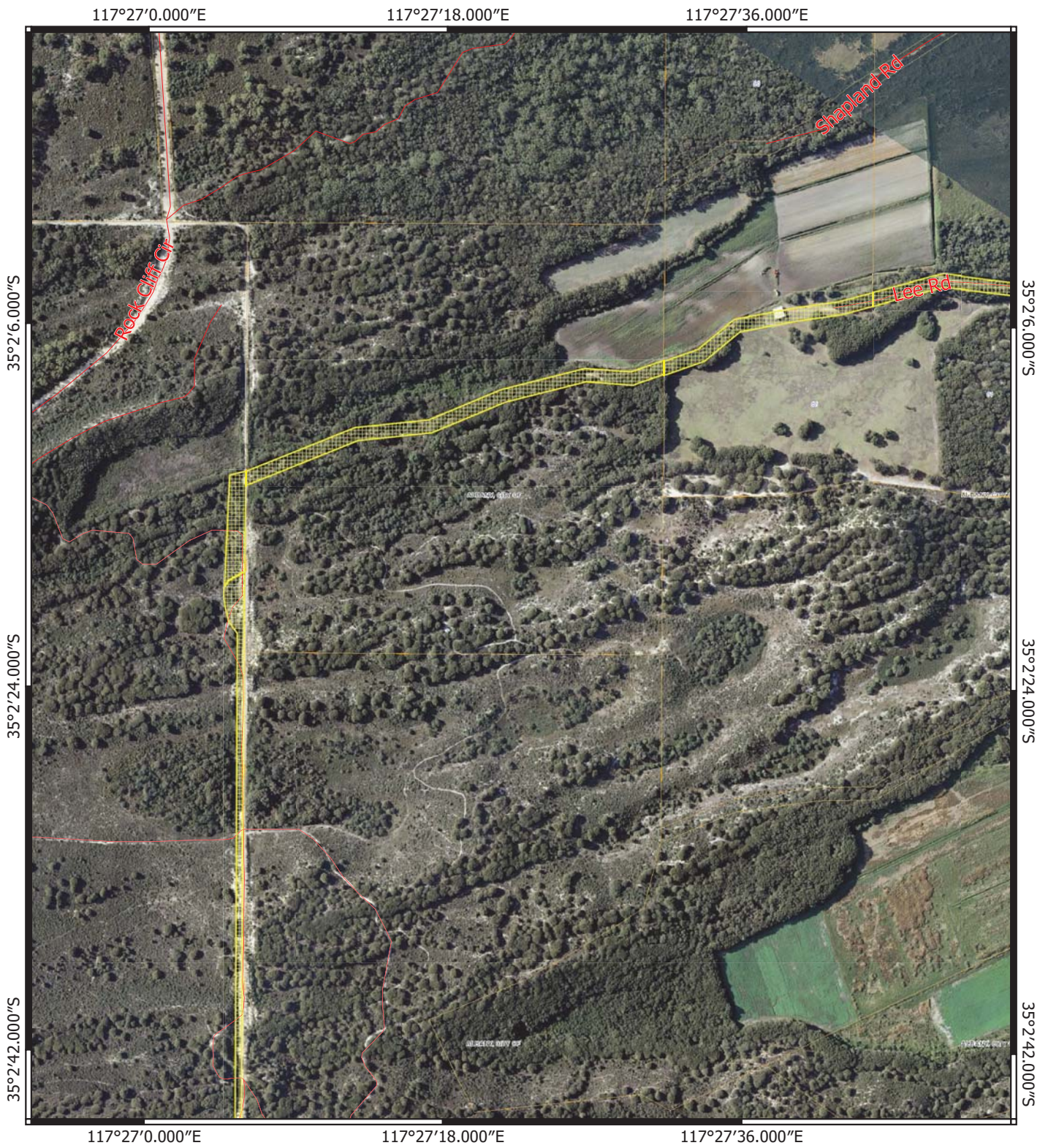
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
GOVERNMENT OF
WESTERN AUSTRALIA

Plan 8392/1b




Legend

CPS layers

 CPS areas approved to clear

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 Road Centrelines

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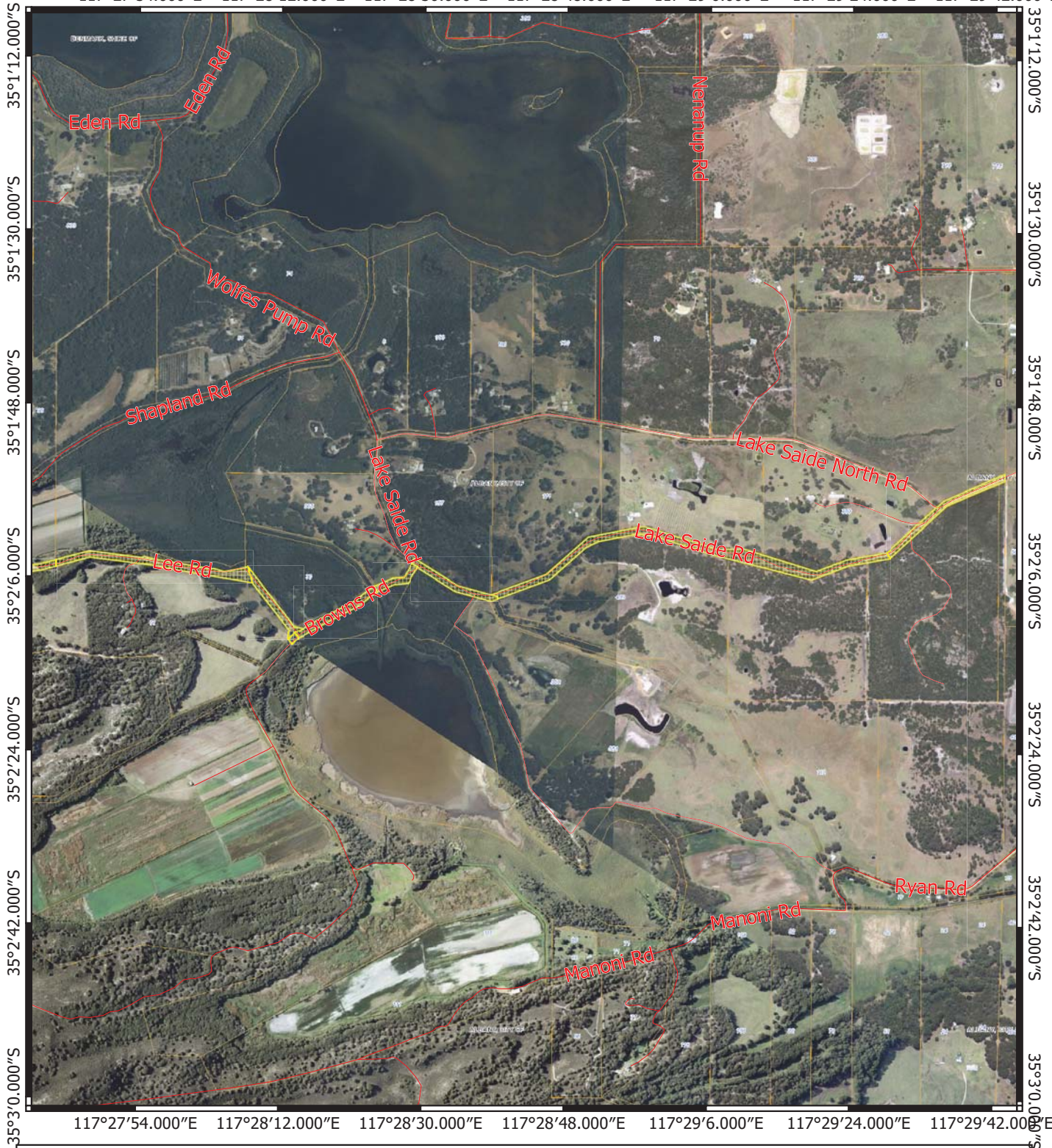
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GOVERNMENT OF
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Plan 8392/1c

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Legend

CPS layers

 CPS areas approved to clear

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 Road Centrelines

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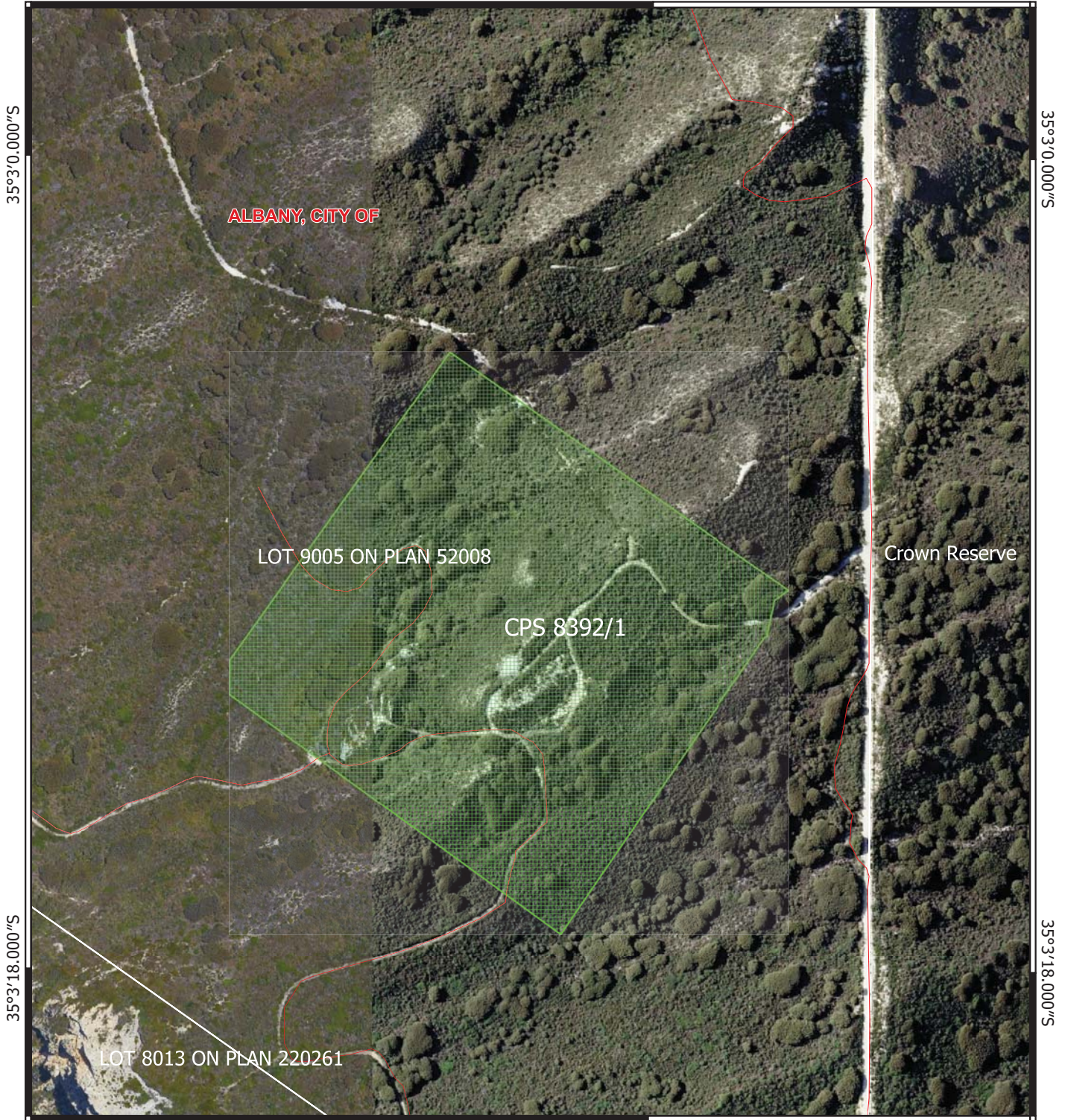
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GOVERNMENT OF
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Plan 8392/1d


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
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Legend

CPS layers

 CPS subject to conditions

base layers

 Road Centrelines

 Cadastre - LGATE 218

 Local Government Authority (LGA) Boundaries (LGATE-233)



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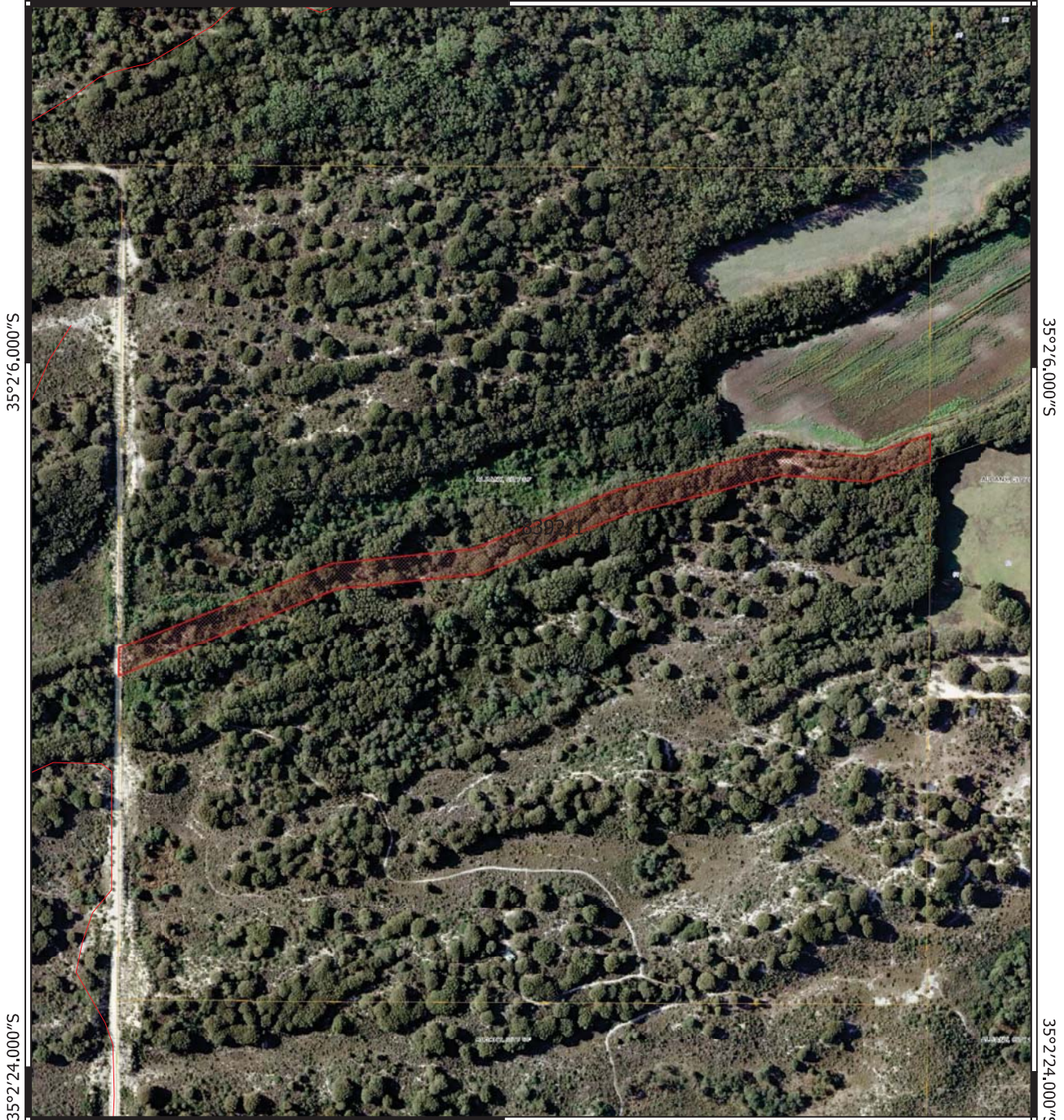
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GOVERNMENT OF
WESTERN AUSTRALIA

Plan 8392/1e


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Legend

CPS layers

 CPS subject to conditions

base layers

 Road Centrelines

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GOVERNMENT OF
WESTERN AUSTRALIA

Plan 8392/1f

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117°27'54.000"E

117°28'12.000"E


117°28'30.000"E

Legend


CPS layers

 CPS subject to conditions

base layers

 Road Centrelines

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Officer delegated under section 20 of the
Environmental Protection Act 1986



GOVERNMENT OF
WESTERN AUSTRALIA



1. Application details

1.1. Permit application details

Permit application No.: 8392/1
Permit type: Purpose Permit

1.2. Applicant details

Applicant's name: Mr Graeme Robertson
Application received date: 25 February 2019

1.3. Property details

Property: Lot 9005 on Deposited Plan 52008, Nullaki
Lee Road Reserve (PINS 11640931, 11640930, 11640926 and 11640925), Youngs Siding
Browns Road Reserve (PINS 1164027, 11640795, 11640794), Youngs Siding
Lake Saide Reserve (PINS 11640793, 11640792 and 11640788), Youngs Siding
Local Government Authority: Albany, City of
Localities: Nullaki, Youngs Siding

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	Purpose category:
15.19		Mechanical Removal	Extractive industry Road construction and upgrades

1.5. Decision on application

Decision on Permit Application: Granted
Decision Date: 24 June 2020

Reasons for Decision: The clearing permit application was received on 26 February 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 is at variance with principle (f), may be at variance with principles (g) and (i) and is not likely to be at variance with the remaining clearing principles.

The Delegated Officer considered that while the vegetation proposed to be cleared is within close proximity to wetlands and water courses with a small portion of the proposed clearing occurring within the mapped Lake Saide Wetland, the proposed clearing is not likely to decrease the environmental values of the wetland or significantly impact the water quality of the wetlands or watercourses.

The Delegated Officer noted that the landform and soil type within the proposed lime pit area is prone to wind erosion and the clearing may result in an increase in wind erosion occurring in this area. However wind erosion associated with the proposed pit clearing area is unlikely to be significant, as the pit area is surrounded by intact vegetation and applicant will only be allowed to clear two hectares of vegetation within the pit area at any given time. Furthermore, the applicant is required to revegetate the area within 12 months of completion of extraction to avoid the exposure of bare soils for an extended period of time.

The Delegated Officer recognised that the proposed clearing area contains habitat suitable for Western Ringtail Possum (WRP) (*Pseudocheirus occidentalis*). The Delegated Officer considered that as the suitable WRP is narrow and linear and adjacent to areas of better quality habitat, the implementation of appropriate management actions should minimise potential impacts to the species. As a condition of the permit, no trees containing dreys will be allowed to be cleared and all WRP habitat recorded within the application area will be inspected before clearing to minimise potential impacts to individuals of the species.

The Delegated Officer considered that the proposed clearing may increase the risk of weeds and dieback being introduced or spread into adjacent areas. Weed and dieback management measures will minimise this risk.

The Delegated Officer noted that the applicant has obtained an extractive industry licence from the City of Albany, with the licence expiring on the 31 December 2021. A condition on the permit restricting clearing for the purpose of extractive industry within the lime pit area post 31 December 2021 has been imposed.

The Delegated Officer decided to grant a clearing permit subject to avoid and minimise, weed and dieback management, fauna management, revegetation and record keeping conditions.

It is determined that the management and mitigation measures conditioned on the permit is not likely to lead to an unacceptable risk to the environment.

2. Site Information

Clearing Description The application is to clear 15.19 hectares of native vegetation within Lot 9005, Nullaki, Lee Road reserve, Browns Road reserve and Lake Saide Road reserve, Youngs Siding, for the purpose of extraction, road construction and road upgrades.

The clearing includes eight hectares for the proposed lime pit, which will be progressively cleared (two hectares at a time) and rehabilitated after lime source removed (Aurora, 2019).

The remaining 7.19 hectares of clearing is associated with the haulage road, Lee Road, Brown Road and Lake Saide Road reserves.

The proposed clearing areas is defined under Figure 1, with each area defined.

Vegetation Description

The application area is mapped within the following Matiske vegetation complexes:

- Owingup (OW): Mosaic of open woodland of *Allocasuarina fraseriana*-*Banksia attenuata*-*Banksia ilicifolia*, low open woodland of *Melaleuca raphiophylla*-*Agonis juniperina*, low open woodland of *Melaleuca cuticularis* and tall shrubland of *Melaleuca densa* on broad swamps and plains in the hyperhumid zone;
- Collis 2 (Coy2): Open forest of *Eucalyptus marginata* subsp. *marginata*-*Corymbia calophylla*-*Banksia grandis*-*Allocasuarina fraseriana* on low hills in the humid zone;
- Meerup (Mf): Low woodland of *Eucalyptus megacarpa*-*Agonis flexuosa*-*Allocasuarina fraseriana* on flats between dunes some distance from the coast in the hyperhumid zone; and
- Meerup (Mp): Mosaic of open low woodland of *Agonis flexuosa* with some *Eucalyptus cornuta*, tall shrubland of *Agonis flexuosa* with *Trymalium floribundum* in gullies and closed heath of *Olearia axillaris*-*Spyridium globulosum*-*Acacia littorea* on stabilised dunes in the hyperhumid zone.

The condition and structure of the vegetation under application was obtained via the following reports/surveys;

- Bio Diverse (2016) - Vegetation Communities Survey. Lot 9005 Rock Cliff Circle, Denmark
- PGV Environmental (2019) - Flora and Vegetation Survey. Lee Road reserve and Lot 9005 Rock Cliff Circle Emergency Access Track, Nullaki
- Aurora (2019a) - Vegetation Survey – Flora Surveys. Vegetation Mapping for Clearing Permit: Lee Road, Brown’s Road and Lake Saide Road Reserves, Youngs Siding
- Aurora (2019b) - Level 1 Fauna Survey Proposed Lime Pit and Access – Clearing Permit Application CPS 8392/1, Nullaki and Youngs Siding
- DWER Site Inspection Report (2019).

Table 1 describes the vegetation under application as identified within the abovementioned flora, vegetation and fauna surveys.

Table 1. Vegetation types identified within the application area

Application Area	Vegetation types
Pit Area Haulage Road Lee Road	Open Heath: Occurs in swales, flats and on crests of dunes. Where overstorey is present, it consists of low and scattered <i>Agonis flexuosa</i> , <i>Acacia cyclops</i> or <i>Banksia attenuata</i> in flats with low thickets of <i>Agonis flexuosa</i> on ridgelines and in swales. The southern areas closest to the coast have a complete absence of overstorey. The understorey consists of a diverse mix of species. The most dominant include: <i>Hakea varia</i> , <i>Allocasuarina humilis</i> , <i>Jacksonia horrida</i> , <i>Pultenaea reticulata</i> , <i>Spyridium globulosum</i> , <i>Adenanthos cuneatus</i> and <i>Banksia attenuata</i> . A mix of sedges, herbs and grasses form the basis of the groundcover, some of which include: <i>Lyginia imberbis</i> , <i>Lyginia barbata</i> , <i>Lepidosperma squamatum</i> , <i>Desmocladius flexuosus</i> , <i>Hypolaena exsulca</i> and <i>Opercularia hispidula</i> .
Haulage Road	Agonis Woodland: Dominated by tall <i>Agonis flexuosa</i> with occasional <i>Eucalyptus cornuta</i> with <i>Taxandria parviceps</i> , <i>Pultenaea reticulata</i> with <i>Banksia attenuata</i> and <i>B. grandis</i> .
Haulage Road	Taxandria Woodland: Open woodland with overstorey dominated by <i>Taxandria juniperina</i> with sparse <i>Agonis flexuosa</i> with understorey of <i>Olearia axillaris</i> and <i>Spyridium globulosum</i> with <i>Spyridium globulosum</i> ,

	<i>Adenanthos</i> sp. <i>Banksia attenuata</i> , <i>Pultenaea reticulata</i> , <i>Hakea varia</i> .
Lee Road	Bullich – Banksia Woodland: <i>Eucalyptus megacarpa</i> , <i>Banksia littoralis</i> and <i>Agonis flexuosa</i> with <i>Xanthorrhoea preissii</i> , <i>Spyridium globulosum</i> , * <i>Psoralea pinnata</i> , <i>Acacia pulchella</i> and <i>Pultenaea reticulata</i> .
Lee Road	Bullich – Agonis Woodland: <i>Eucalyptus megacarpa</i> and <i>Agonis flexuosa</i> with <i>Bossiaea linophylla</i> and <i>Spyridium globulosum</i> over sedges and grasses. Some herbaceous weeds present.
Lee Road	Agonis – Yate Woodland: <i>Agonis flexuosa</i> with occasional <i>E. cornuta</i> with understorey of <i>Pteridium esculentum</i> , <i>Lepidosperma gladiatum</i> . Some grassy weeds present.
Brown Road	Yate and Agonis Woodland: <i>Eucalyptus cornuta</i> over <i>Agonis flexuosa</i> with <i>Lepidosperma gladiatum</i> , <i>Desmodcladus flexuosus</i> and * <i>Psoralea pinnata</i> .
Brown Road	Wattie and Melaleuca Woodland: <i>Taxandria juniperina</i> over <i>Melaleuca</i> sp. with <i>Lepidosperma gladiatum</i> .
Brown Road Lake Saide Road	Marri and Jarrah Woodland: <i>Corymbia calophylla</i> and <i>Eucalyptus marginata</i> over <i>Agonis flexuosa</i> . Weedy understorey.
Lake Saide Road	Karri, Marri and Jarrah Forest: <i>Eucalyptus diversicolor</i> with <i>Corymbia calophylla</i> and <i>Eucalyptus marginata</i> over <i>Agonis flexuosa</i> . * <i>Psoralea pinnata</i> and grassy weeds in understorey.

*denotes non-native species

Vegetation Condition

Vegetation condition recorded across the application area ranges from Degraded to Pristine using the Keighery (1994) scale.

Vegetation condition ratings are defined as follows:

- Pristine: Pristine or nearly so, no obvious signs of disturbance (Keighery, 1994).
- Excellent: Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species (Keighery, 1994).
- Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).
- Good: Vegetation structure significantly altered by very obvious signs of multiple disturbance; retains basic structure or ability to regenerate (Keighery 1994).
- Degraded: Basic vegetation structure severely impacted by disturbance; scope for regeneration but not to a state approaching Good condition without intensive management (Keighery 1994).
- Completely Degraded: The structure of the vegetation is no longer intact and the area is completely or almost completely without native species (Keighery, 1994).

The condition of the vegetation within the respective clearing areas is:

- Lime Pit - 'Pristine'
- Haul Road - 'Degraded to Excellent'
- Lee Road' - Degraded (western end where weeds are evident) to Excellent
- Browns Road - 'Very good to Degraded'
- Lake Saide Road - 'Good to Degraded'

Soil and Landform type

The application area is mapped within the following soil and land subsystems (Schoknecht et al., 2004):

- Nullaki Dunes System (Unit 254NK) subsystem is described as high dunes, on the southern coast of Warren Denmark Southland. Calcareous deep sand and pale deep sand. Coastal scrub and peppermint-jarrah-marri woodland; and
- Broke System (Unit 254Br) is described as poorly drained plain with low granitic rises, along the coast of the Warren-Denmark Southland. Non-saline wet soil and pale deep sand. Sedges, tea-tree heath and paperbark-banksia woodlands.

It should be noted that the current mapping has not mapped the pit area. However, Nullaki Dunes System runs along the northern boundary of the proposed pit area, for the purpose of this assessment, it is assumed the pit area comprises of the Nullaki Dunes System.

Comment

The local area referred to in this assessment is defined as the area within a ten kilometre radius of the application areas unless indicated different within the assessment.



Figure 1: Map of the application area.

- Brown Road
- Lake Saide Road
- Lee Road
- Haulage Road
- Pit Area



Figure 2: Photo of the vegetation within Pit area.



Figure 3: Photo of the vegetation within haulage road. The haulage road is the existing fire break and requires additional clearing (approximately 1 metre) along left hand side.



Figure 4: Photo of vegetation within Lee road area undeveloped



Figure 5: Photo of vegetation next to the Lee Road wetland



Figure 6: Photo taken of vegetation within Browns Road



Figure 7: Photo taken of the vegetation within Lake Saide Road

3. Applicant's Submission

The applicant has provided the following reason as to the need for such a proposal:

- The reduction of heavy haulage vehicles carrying lime between Margaret River into the Great Southern that services the Albany area.
- A substantial reduction in cost to the local farmers results in more lime afforded to reduce the acidity and the amount of super phosphate required for food production in the south eastern section of the great southern.

- The creation of an additional sealed road access as now required under new fire regulations that will benefit 36 individual land owners on the Nullaki Peninsula.
- The upgrading of gravel roads to bitumen resulting in safer roads for locals (Applicants Submission, 2020).

The applicant's submission also noted the following:

- In 1987 the applicant purchased the 2,000 hectares of land which was zoned rural at the time. The applicant rezoned the land to conservation with the clearing ability of only one hectare for a house per 40 hectare lot. The lots required 27 kilometres of road works which was not opposed and caused no detrimental impacts to the flora and fauna within the local area.
- The applicant spent \$170,000 on the construction of a vermin proof fence and eliminated over 1000 foxes in the area.

In minimising the proposed clearing footprint, the applicant intends to progressively mine a two hectare section of the pit at a time, with revegetation to commence immediately after the lime has been extracted. The applicant has also committed to using the existing firebreak for the haulage road, which will reduce the clearing impact for the construction of the haulage road.

4. Assessment of application against clearing principles, planning instruments and other relevant matters

(a) Native vegetation should not be cleared if it comprises a high level of biodiversity.

Proposed clearing is not likely to be at variance with this Principle

As discussed in Section 2, the application area comprises of 10 different vegetation complexes with the vegetation ranging from pristine to degraded (Keighery, 1994) condition.

According to available databases, 14 priority flora species have been recorded within the local area. Based upon these species and preferred habitat (soil and vegetation type) 11 priority flora species could occur within the application area (Pgv Environmental, 2019; Department of Biodiversity, Conservation and Attractions (DBCA), 2020a) (Table 2).

Table 2: Priority flora species that may occur within the application area

Taxon	Habitat
<i>Boronia virgate</i> (P4)	This species grows in peaty sand or clay on swampy or waterlogged places.
<i>Sphaerolobium calcicola</i> (P3)	The species is known to occur in the following habitats <ul style="list-style-type: none"> • white, grey and brown sands, sandy clay over limestone, • black peaty sandy clay on tall dunes, • winter wet flats, interdunal swamps, low lying areas.
<i>Gahnia sclerioides</i> (P4)	Grows on loam, sandy soils in moist shaded situations.
<i>Stylidium lepidum</i> (P3)	Grows within open heath/ <i>Melaleuca</i> shrublands/ <i>Eucalyptus</i> woodland, gravelly sandy loam, clay on winter-wet depressions.
<i>Melaleuca ordinifolia</i> (P2)	Grows within winter wet heath/shrubland, in sandy loam or clay soils.
<i>Ornduffia submerse</i> (P4)	Prefers <i>Melaleuca</i> dominated shrubland in freshwater pools, lakes, swamps, winter wet depressions and claypans.
<i>Stylidium roseonatum</i> (P3)	Occurs within swamps.
<i>Schoenus benthamii</i> (P3)	Prefers white, grey sand, sandy clay soils within winter wet flats and swamps.
<i>Isopogon buxifolius</i> var. <i>buxifolius</i> (P2)	Grows in grey sand in swampy areas.
<i>Trithuria australis</i> (P4)	The species can occur in granite, shallow pools with clay soils and seasonal swamps.
<i>Andersonia</i> sp. <i>Amabile</i> (N. Gibson & M. Lyons 355) (P3)	Occurs within grey or black peaty sands, along creek banks of loam soil, on the edges of swamps and within seasonally wet flats.

Flora surveys completed over the limestone pit, haulage road and the proposed new road within the Lee Road reserve did not record any priority flora. It is noted that targeted flora surveys were not undertaken within the limestone pit area or haulage road, however many of the priority species that occur within the local area occur within seasonally wet areas (DBCA, 2020a); Table 2). Therefore, based on their preferred habitat, the only priority flora likely to occur within the pit area and haulage road is *Gahnia sclerioides* (P4) and *Caladenia applanata* subsp. *erubescens* (P2). The flora survey was undertaken at the correct flowering period for *Caladenia applanata* subsp. *erubescens* and if present would have been recorded as the survey recorded other common *Caladenia*'s on site during the survey (DBCA, 2020a). If present, *Gahnia sclerioides* would have been recorded as it would have been identifiable noting the timing of the survey (DBCA, 2020a).

Banksia sessilis subsp. *cordata* (P4) was recorded within the survey undertaken by Bio Diverse (2016), with the species associated with *Banksia sessilis* Thicket, Coastal scrub and Tree Mallee vegetation types. The survey undertaken by Bio Diverse (2016) was of a larger 770 hectare area, with the pit area and haulage road within the southeast corner of the survey area. Based on the vegetation types identified within the survey and the location of the haulage road route and lime pit, *Banksia sessilis*

subsp. *cordata* is not located within areas proposed for clearing. Additionally, the species is known from 14 populations and approximately 3600 plants along the coast from Augusta to Albany in a variety of habitats with the species considered to be widespread. If the clearing was to impact on a few individuals of this species it is unlikely to have a significant impact on its conservation status. It should be known at the time of the Bio Diverse (2016), that *Billardiera drummondii* was also recorded on site however this species is no longer listed as a priority species (DBCA, 2020a).

In relation to the upgrades to Lee, Brown and Lake Saide Roads, it is noted that no targeted flora surveys have been conducted over these areas. The vegetation mapping undertaken by Aurora (2019a) observed wetland vegetation within Browns Road, in good to very good condition (Keighery, 1994). As noted above, the majority of the priority flora that occur in the local area favour seasonally wet areas. Therefore, as a small section of wetland vegetation is mapped as occurring within Browns Road, a number of priority flora could potentially occur (Table 2).

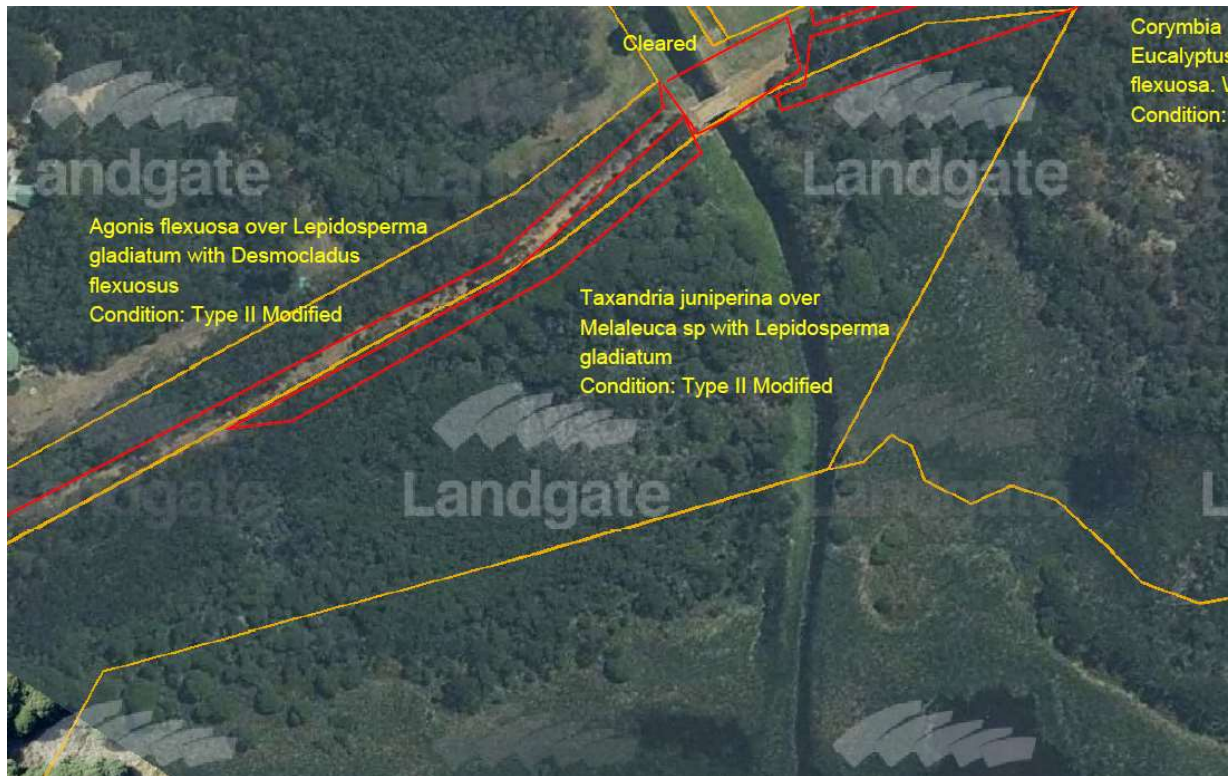


Figure 8. The mapping of *Taxandria juniperina* over *Melaleuca sp.* with *Lepidosperma gladiatum* occurs within the southern section of Browns Road clearing footprint. The orange lines indicates the roads cadastre boundaries. The red lines depict the proposed clearing boundary.

From the vegetation community mapping (Figure 8), the overall winter wet areas within the clearing footprint appears to be restricted (DBCA, 2020a). The survey noted the majority of the wetland vegetation occurs predominately outside of the road reserve and not within the proposed clearing footprint (Aurora, 2019a). Therefore, if clearing can be avoided in seasonally wet areas, the potential impact to wetland species is likely to be minimal. If these areas cannot be avoided and the proposed clearing is likely to be significant, a targeted priority flora survey is recommended in areas of suitable habitat (DBCA, 2020a). The delegated officer considered the clearing of the wetland vegetation not to be significant noting the small area of wetland vegetation of a linear shape that adjoins an existing road that is already subject to disturbance. It is also noted that a much larger area of similar vegetation occurs outside of the clearing footprint. Noting this, no further targeted surveys were required to inform this assessment. Any impacts to these species should they occur within wetland habitat is not considered to be significant and impact the conservation status of the species.

As discussed further under Principle (c), the application area is not likely to include or be necessary for the continued existence of threatened flora.

According to available databases, 19 terrestrial/arboreal conservation significant fauna listed under the *Biodiversity Conservation Act 2016* (BC Act) may occur within the application area. Based upon the vegetation types present (discussed under section 2), six conservation significant fauna species could occur within the application area (Aurora, 2019; DBCA 2020). As discussed under Principle (b), no significant breeding or foraging habitat for the aforementioned species is likely to occur within the application area. The proposed clearing area is also not determined to comprise of an ecological linkage and will not impact faunal dispersal across the landscape.

According to available databases, the following three priority ecological communities (PEC) have been recorded within the local area:

- Subtropical and Temperate Coastal Saltmarsh, 800 metres north of the application area;
- *Melaleuca spathulata*/*Melaleuca viminea* Swamp Heath, approximately 1.5 km north of the application area; and
- *Astartea scoparia* Swamp Thicket, approximately 8.1 kilometres east of the application area.

The Aurora (2019a) survey identifies a *Melaleuca densa* unit. This could possibly be *Melaleuca viminea* (easily mistaken) which is part of the *Melaleuca spathulata* / *Melaleuca viminea* Swamp Heath PEC which occurs 1.5 kilometres north of the application area (DBCA, 2020a). The report says its 'transformed' however the PEC is quite species poor with minimal understorey (DBCA, 2020). Noting this, it is possible that vegetation within this section of the application area may be a representation of the *Melaleuca spathulata*/*Melaleuca viminea* Swamp Heath PEC. However, the vegetation mapping within the Aurora survey notes the condition of the *Melaleuca densa* unit as being completely degraded to good and the unit within the road reserve is considered small in size (approximately 0.1 hectares), adjacent to an existing road and a cleared paddock. With this in mind, and that there are numerous records of the PEC within close proximity of the application area (18 records totalling 20.3 hectares in size), impacts to the PEC, should it be present in the application area, will not have a significant impact on this PEC. No other PEC is considered to occur within the application area.

There have been no state or commonwealth listed threatened ecological communities (TECs) mapped as occurring within the local area.

The mapped vegetation types with the application area are above the recommended threshold level (30 per cent), below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia 2001). Given this, the vegetation within the application area is not considered to be a significant remnant within an extensively cleared landscape.

Whilst it is acknowledged the application area comprises of vegetation in a pristine condition (Keighery, 1994), the Delegated Officer has determined that the application does not comprise a high level of biodiversity as the vegetation under application does not represent a TEC, does not comprise of significant habitat for conservation significant flora or fauna and will not have a significant impact on a wetland or watercourse of conservation value or the potential PEC present.

Given the above, the proposed clearing is not likely to be at variance with this Principle.

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna.

Proposed clearing is not likely to be at variance with this Principle

According to available databases, 42 records of conservation significant fauna occur within the local area, comprised of 19 threatened fauna species, 21 species protected under international agreement, seven priority fauna species and one specially protected fauna (DBCA, 2007-). The majority of these species are water based species that are associated with marine environments. Therefore, suitable habitat is not likely to occur within the application area for these fauna species.

Of the conservation significant species recorded within the local area, a fauna survey of the application area determined five terrestrial/aboreal conservation significant fauna listed under the BC Act that may occur within the application area based on suitable habitat types present (Aurora, 2019). These species being:

- *Calyptorhynchus banksii naso* - Forest red-tailed black-cockatoo;
- *Calyptorhynchus baudinii* - Baudin's cockatoo;
- *Calyptorhynchus latirostris* - Carnaby's cockatoo;
- *Pseudocheirus occidentalis* - Western ringtail possum (WRP); and
- *Zephyrarchaea mainae* - Main's assassin spider (MAS).

Whilst not listed as conservation significant fauna, the fauna survey also noted the presence of snake-necked turtles/long necked turtles (*Chelodina colliei*) in the Lee Road reserve (Aurora, 2019). In addition to the findings within the fauna survey, the DBCA also confirmed a recent sighting of an Australasian bittern (*Botaurus poiciloptilus*) at Lake Saide (DBCA, 2020). The species is listed as endangered under the BC Act and under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Carnaby's cockatoo is endemic to the south-west of Western Australia, with a widespread distribution. The species is highly mobile and displays a seasonal migratory pattern that is linked to its breeding (Parks and Wildlife, 2013). Breeding takes place between late July and December and occurs mostly in the inland wheatbelt region of its distribution, in areas receiving between 300 and 750 millimetres of annual average rainfall (Saunders, 1990). During the non-breeding season (January to July) the majority of the birds move to the higher rainfall coastal regions of their range including the midwest coast, Swan Coastal Plain and south coast (Saunders, 1980, 1990; Johnstone et al., 2011). There has been an apparent expansion in the breeding range to include areas further west and south since the middle of last century with a more rapid increase into the jarrah (*Eucalyptus marginata*) and marri (*Corymbia calophylla*) forests of the south west (Johnstone and Storr 1998; Johnstone et al., 2011). This expansion in breeding range is due to threatening processes such as clearing of breeding habitat and competition for suitable breeding hollows. The loss or degradation of foraging habitat within 12 kilometres of nesting sites is considered to pose the greatest risk to Carnaby's cockatoo (Parks and Wildlife, 2013).

Baudin's cockatoos are endemic to the humid and sub-humid zones of south-west Western Australia commonly within forested areas. The species lives mainly in flocks but birds sometimes congregate in large numbers at nightly roosting sites, especially in winter. Towards the start of their breeding season, the birds move away from their flocks and into karri and marri forests where they will remain and live as a pair during the breeding period. The species movement is generally in response to changing food resources (DEC, 2008). The species is currently under threat due to loss of habitat and forest management.

Forest red-tailed black cockatoo forages within jarrah and marri woodlands and forest, and edges of karri forests including wandoo and blackbutt, within the range of the subspecies. This species largely feeds on seeds of marri and jarrah, as well as

other *Eucalyptus* species and *Allocasuarina* cones (Commonwealth of Australia, 2012). The application area is within the south-eastern most extent of the modelled distribution of this species (Commonwealth of Australia, 2012).

Under the EPBC Act and BC Act, the Carnaby's and Baudin's cockatoo are listed as Endangered and the forest red-tailed black cockatoo is listed as Vulnerable. Carnaby's cockatoo, forest red-tailed black cockatoo and Baudin's cockatoo (collectively known as black cockatoos) forage on the seeds, nuts and flowers of a large variety of plants including proteaceous species (*Banksia*, *Hakea*, *Grevillea*), Eucalypts, *Corymbia* species and a range of introduced species (Valentine and Stock, 2008).

The fauna survey noted that the proposed lime pit area and haul road provided limited forage habitat, largely due to the absence of popular foraging species such as marri, jarrah, sheoak and balga. Other foraging species (e.g. *Banksia* and *Hakea*) are present, but in low numbers (Aurora, 2019). Lee Road reserve contains a small area of approximately 0.2 hectares of Bullich - *Banksia* woodland which supports foraging species. Brown Road and Lake Saide Road reserves also contain suitable foraging species such as marri and jarrah. There were no signs of foraging by black cockatoos occurring within the application area (Aurora, 2019).

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 (*Eucalyptus diversicolor*), marri, wandoo, tuart (*Eucalyptus gomphocephala*), salmon gum (*Eucalyptus salmonophloia*), jarrah, flooded gum, York gum (*Eucalyptus loxophleba*), powder bark (*Eucalyptus accedens*), bullich (*Eucalyptus megacarpa*) and blackbutt (*Eucalyptus* spp.) (Commonwealth of Australia, 2012). To be suitable as a black cockatoo breeding site, trees require a suitable nest hollow or need to be of a suitable diameter at breast height (DBH) to develop a nest hollow. For most tree species, a suitable DBH is 500 millimetres (Commonwealth of Australia, 2012).

The fauna survey confirmed that the proposed lime pit and haulage road did not provide trees of an appropriate size for breeding (Aurora, 2019). Lee, Brown and Lake Saide Road reserves contained 130 trees that meet the required DBH to be considered a potential breeding tree. While the trees met the criteria for habitat trees with several of these trees having small hollows or incipient hollows, no trees with hollows suitable for black cockatoos were observed (Aurora, 2019). Of the 130 trees recorded, 56 will not be impacted as they are outside the proposed clearing extent required for the road upgrades. The 74 potential habitat trees that are proposed to be removed comprises of 16 Karri, 47 Marri, five Jarrah, one Bullich and five dead unidentifiable trees.

DBCA (2020b) advises that there are no records or information on black cockatoos nesting occurring near the application area. The application area does provide some foraging habitat through the coastal heath and within the remnant vegetation along the proposed road realignment. Whilst it is acknowledged that lack of suitable nesting hollows is a key threat to all three black cockatoo species, it is not possible to determine what tree may develop a hollow suitable for black cockatoo nesting or when (DBCA, 2020b). Avoidance, where possible of habitat trees is recommended. Noting the above information relating to black cockatoos, the clearing is unlikely to constitute a significant impact on black cockatoo species as there has not been any confirmed nesting, no potentially suitable hollows were identified, there was little evidence of foraging or roosting occurring within the application area, and the proposed clearing area is relatively small in relation to the available habitat for the species in the surrounding area (DBCA, 2020b).

The application area has also been identified as having suitable habitat for WRP (*Pseudocheirus occidentalis*) which is listed as Critically Endangered under EPBC Act and BC Act. Critical habitat for the WRP is not well understood and is therefore based on the habitat variables observed where WRP are most commonly recorded. These appear to vary between key management zones, with the key management zones for the south coast being a diverse range of vegetation types between Walpole and Cheynes Beach, but principally in near-coastal limestone heath, jarrah marri thicket woodland and forest, riparian, peppermint woodland and karri forest vegetation (Parks and Wildlife, 2017). The common themes however are high nutrient foliage availability for food, suitable structures for protection/nesting, and canopy continuity to avoid/escape predation and other threats. Long-term survival of the species requires linkages between suitable habitat patches and as such habitat critical to survival incorporates this (Parks and Wildlife, 2017). Vegetation communities critical to WRP include long unburnt mature remnants of peppermint (*Agonis flexuosa*) woodlands with high canopy continuity, high nutrient foliage availability for food and habitat connecting patches of remnants (Parks and Wildlife, 2017).

The fauna survey of the application area recorded no traces of WRP within the proposed haul road or lime pit (Aurora, 2019). The fauna survey did record the following (Aurora, 2019);

- Two dreys (in poor condition) were located on Lee Road in a tree that will be retained;
- One WRP was observed adjacent to the unmade portion of Lee Road; and
- Three individuals were located adjacent to the eastern end of Lee Road.

The application area does contain *Agonis* Woodland or Bullich. *Agonis* Woodland would generally be considered suitable habitat to support WRP. In total, 0.48 ha of this habitat is proposed to be cleared on the unmade portion of Lee Road. The flora and vegetation survey noted that the *Agonis* Woodland habitat extends beyond the proposed clearing area. Open Heath areas are generally either marginal or not preferred habitat due to a lack of interconnected trees (Aurora, 2019).

The fauna survey occurred across various sites within the application area over a four day/night period and therefore can only be considered as presence/absence for those sites (DBCA, 2020b). The status of this species is not well known in the local area, other than the records from the survey. Additional records have recently been received by the DBCA regional office through survey undertaken by the Torbay Catchment Group. Prior to these surveys the species was not confirmed as occurring in the Nullaki, Youngs Siding or Lowlands localities. These records occur on the western edge of recent records for this species in the region and extends the South Coast management area identified in the recovery plan (DBCA, 2020b). The area of WRP habitat proposed to be cleared is 0.48 ha along Lee Road, according to the survey report. The proposed clearing within the suitable possum habitat is narrow and linear in the area and the implementation of appropriate management actions should minimise potential impact to the species (DBCA, 2020b).

As a condition of the permit, no trees containing dreys will be allowed to be cleared. In addition to this, all WRP habitat recorded within the application area will be inspected before clearing to minimise potential impacts to individuals of the species.

MAS has very specific habitat requirements. Within the coastal forests in which it occurs, the species can only be found in the complex understorey layer of 'elevated leaf-litter' which forms in low-growing grasses, 'wiry' herbs (Rix and Harvey, 2009). With the exception of a single record from Mount Hallowell, all specimens of MAS have been found within long-unburnt groves of Peppermint Trees (*Agonis* spp.), especially the dark, thickly-vegetated groves which develop in valleys, gullies and depressions in the landscape (Rix and Harvey, 2009). The species was first discovered in 1983 at Torndirrup National Park, south of Albany, and it was not until 2007 that the species was observed again near the Albany wind farm (Rix and Harvey, 2009).

The fauna survey determined the preferred habitat type for MAS, being suspended leaf litter, was absent for the majority of the application area. One location of the proposed lime pit (seven samples sieved) and two locations in the unmade portion of Lee Road (three samples sieved) appeared to have similar habitat characteristics (Aurora, 2019). Of the 10 samples sieved, a number of species of spiders were observed and released during the site reconnaissance, however, none had features that were characteristic of MAS (Aurora, 2019). The explanation as to why there was almost complete absence of suspended leaf litter underneath stands of *Agonis flexuosa* is possibly due to the area being subject to repeat burning. Anecdotal evidence suggest that the area has been historically burnt at intervals of five years (Aurora, 2019). There was no suitable habitat for MAS within Brown and Lake Saide Road reserves (Aurora, 2019). Noting the above, it is unlikely that MAS occurs within the application area.

Three Southwestern Snake-necked turtles or Long Necked Turtles (*Chelodina colliei*) were observed in Lee Road reserve (Aurora, 2019). The species is not listed as a threatened or priority fauna species. The species (under former taxonomy) was assessed and classified as near threatened in 1996 by the Tortoise and Freshwater Turtle Specialist Group for the International Union for the Conservation of Nature (IUCN) Red List of Threatened Species (DBCA, 2020b). Concern for the conservation of species has been recently raised by some researches for the Swan Coastal portion of the species distribution due to loss of wetlands and nesting habitat and poor recruitment at study sites. If the loss of breeding habitat and poor recruitment continues and occurs across a significant portion of the species distribution, then the species may meet eligibility for listing as a threatened or priority species in the future (DBCA, 2020b). Females usually leave the waterbody in spring and summer to find suitable nesting sites in nearby sandy areas (DBCA, 2020b). The survey identified one potential nesting site, "a north facing sand bank" within the Lee Road reserve. Whilst the proposed clearing is unlikely to have a significant impact on the species habitat, future road use may impact on females searching for nesting sites and hatchling turtles seeking water (DBCA, 2020b).

DBCA's South Coast Region were notified of a sighting of a Australasian bittern by a member of the local birding group who photographed the species on 28 February 2020. The species is listed as Endangered under the BC Act and EPBC Act. The species is known to occur in south-east Queensland to south-east South Australia as far as the Adelaide Region, southern Eyre Peninsula, Tasmania and in the southwest of Western Australia. The species is also known to occur in New Zealand and New Caledonia (Threatened Species Scientific Committee, 2019). In Western Australia, the Australasian Bittern was formerly widespread in the south-west, however, following range declines throughout the 1900s, it is now likely that it only occurs on the western coastal plain between Lancelin and Busselton, in the southern coastal region from Augusta to the east of Albany and inland to some wetlands in the Jarrah forest belt, with small, isolated populations in swamps from west of Esperance eastwards to near Cape Arid (Threatened Species Scientific Committee, 2019). There is estimated that less than 1000 birds remain in the wild with the population declining. Declining numbers are attributed to the clearing or modification of wetlands for urban and agricultural development, as well as the extraction of water from wetlands for irrigation (Threatened Species Scientific Committee, 2019). The Australasian Bittern occurs mainly in freshwater wetlands, where it favours wetlands with tall dense vegetation, where it forages in still, shallow water up to 0.3 metres deep, often at the edges of pools or waterways, or from platforms or mats of vegetation over deep water. It favours permanent and seasonal freshwater habitats, particularly those dominated by sedges, rushes and reeds (Threatened Species Scientific Committee, 2019). The application will impact on approximately 0.064 hectares of Lake Saide wetlands mapped within Browns road, however this section of the proposed clearing is not a reflection of the preferred habitat of the species.

It is acknowledged that suitable habitat for the Australasian bittern occurs in the vicinity of the application area, however the proposed clearing is unlikely to have a significant impact on the species. This is due to the lack of preferred habitat within the application area and that the species is known to have a wide distribution range with recent tracking studies have shown extensive movements (over hundreds of kilometres) between wetlands in southeast Australia (Threatened Species Scientific Committee, 2019).

Based upon the habitats that occur within the application area, it is considered that the application area is likely to also provide habitat for non conservation significant fauna that occur in the local area. It is acknowledged the proposed clearing will impact on habitat for fauna in the local area, however their habitat is not limited to the application area and is well representant outside of the proposed clearing footprint. To avoid potential impacts to non-conservation fauna that may occur within the application area, a condition will be placed on the permit requiring slow, directional clearing to allow fauna to escape into the adjacent native vegetation.

The application area is within Strategic Zones A of the Western Australian South Coast Macro Corridor Network, which was designed to identify a regional-scale Macro Corridor Network of native vegetation (see figure 3 below). This network extends from around 700 kilometres from Israelite Bay, east of Esperance and westwards through Albany along Western Australia's southern coastline (CALM, 2006). The vegetation in Zone A is considered to potentially form the most strategic link between major protected areas and are thus of potentially higher value and significance for fauna movement across the landscape (CALM, 2006). While the proposed clearing will impact on vegetation recognised for its importance as a fauna corridor, noting that the proposed clearing will not sever the corridor, and is surrounded by vegetation in similar condition on either side throughout its

length, impacts to the corridor are not expected to be significant. The proposed clearing along the road reserves and haulage route will not impede fauna movement through the landscape.



Figure 9. Occurrence of the Western Australian South Coast Macro Corridor Network and the zones the application area falls within.

Noting the above, the proposed clearing is not likely to be at variance with this Principle.

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.

Proposed clearing is not likely to be at variance with this Principle

According to available datasets, no threatened flora species have been recorded within the local area. Whilst this is acknowledged, it does not conclude that the application area does not provide habitat for threatened flora species outside of the local area. It is a reflection of a lack of survey efforts within the local area that no threatened flora have been identified. By expanding the data base search by 20 kilometres from the application area, the following threatened flora species have been recorded;

- *Calectasia cyanea*
- *Drakaea micrantha*
- *Kennedia glabrata*
- *Banksia goodie*
- *Isopogon uncinatus*
- *Grevillea fuscolutea*

An additional data base search using the EPBC Act protected matters search tool identified an additional species, *Chordifex abortivus*, that could potentially occur within the application area based on the habitat within five kilometres of the site.

Flora, fauna and vegetation surveys of the application area considered that threatened flora species *Calectasia cyanea* and *Chordifex abortivus* could occur within the application area (Pgy Environmental, 2019). This assumption was based upon the soil, vegetation and habitat type recorded within the application area.

Calectasia cyanea is known from 16 records (WA Herbarium, 1998) generally associated with yellow sand or gravel over laterite in low near coastal heathland. Associated species include *Adenanthos cuneatus*, *Agonis flexuosa*, *Banksia grandis*, *Melaleuca thymoides*, *Hakea ruscifolia*, *H. prostrata*, *Allocasuarina humilis*, *Spyridium globulosum*, *Jacksonia horrida* and *Lysinema ciliatum* (DEC, 2009).

Advice received from DBCA (2020a) suggest that the application area provides suitable habitat for *Calectasia cyanea*. The species can be cryptic and difficult to identify when not in flower (DBCA, 2020a). The targeted flora surveys were conducted in October which is after the species peak flowering period in August, however it is noted that the nearest occurrence is 26 kilometres from the site and therefore it is not considered likely to occur (DBCA, 2020a). It was also noted that within the species list compiled for the vegetation and flora surveys that no records of *Calectasia* were observed within the application areas.

Chordifex abortivus is known from 14 records (WA Herbarium, 1998) generally associated with sand over gravelly clay in heath or scrub with a sedge understorey. Associated species include *Hakea cucullata*, *Banksia brownii*, *B. baxteri*, *B. coccinea*, *Melaleuca striata*, *Pericalymma ellipticum* and *Dasypogon bromeliifolius* (DEC, 2008). *Chordifex abortivus* is not considered to occur within the application area, as the nearest record is 40 kilometres away. It was also noted that within the species list compiled for the vegetation and flora surveys that no records of *Chordifex* were observed within the application areas.

Based on the flora and vegetation survey findings, it is considered that the application area is unlikely to include or be necessary for the continued existence of threatened flora.

Given the above, the proposed clearing is not likely to be at variance with this Principle.

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

Proposed clearing is not likely to be at variance with this Principle

According to available databases, there have been no state-listed TECs mapped as occurring within the local area.

The closest state-listed TEC to the application area is the endangered Mount Lindesay TEC, described as the Little Lindsey Vegetation Complex. The TEC is located approximately 23 kilometres north, north-east from the application area within the Mount Lindesay National Park and is described as 'E. *marginata* shrub-mallee and heath predominates on the upper slopes and summit area with mixed E. *marginata* – *Corymbia calophylla* – E. *megacarpa* low woodland in gullies.'

The vegetation types identified within the application area were not considered to represent a TEC, including the Mount Lindesay TEC. Noting this, the proposed clearing will not impact on vegetation that is a representation of a TEC

Given the above, the proposed clearing is not likely to be at variance with this Principle.

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

Proposed clearing is not likely to be at variance with this Principle

The National Objectives and Targets for Biodiversity Conservation 2001-2005 include a target to have clearing controls in place that prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750 (Commonwealth of Australia, 2001), below which species loss appears to accelerate exponentially at an ecosystem level.

As indicated in Table 3, the remaining extents of the mapped vegetation complexes in the bioregion are above the 30 per cent threshold (Government of Western Australia, 2018b).

Aerial imagery indicates that the local area retains approximately 45 per cent native vegetation cover.

Noting the vegetation extents in the local area and that the application area does not comprise of significant habitat for fauna and flora, the vegetation within the application area is not considered a significant remnant within an extensively cleared landscape.

The proposed clearing is not likely to be at variance with this Principle.

Table 3: Vegetation statistics within the Warren IBRA Region

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Current Extent in DBCA Managed Lands (%)
IBRA Bioregion*				
Warren	833 985	659 438	79	84.5
Mattiske Vegetation Complex in Bioregion **				
Owingup (OW)	8 755	5 589	64	40
Collis2 (Coy2)	2 951	2 312	78	67.5
Meerup (Mf)	9 780	9 259	94.5	82
Meerup (Mp)	24 407	23 794	97.5	77.5

*Government of Western Australia. (2018a)

** Government of Western Australia (2018b)

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Proposed clearing is at variance with this Principle

There are numerous watercourses and wetlands within the local area (10 kilometre radius). Of these, a South Coast Significant wetland (refer to here on as Lake Saide Wetland), a man made wetland adjacent to Lee Road and a major drain that passes through Browns road will be impacted upon from the proposed clearing. There are also several constructed drainage lines in close proximity to the proposed clearing area. An additional South Cost Significant wetland is also occurring approximately 1.1

kilometres north of the application footprint. This wetland is a Priority 3 PEC and extends approximately 350-480 metres north of the most northern point of the proposed clearing footprint (DBCA, 2020c).

Approximately 0.064 hectares of the Lake Saide Wetland will be cleared as a part of the proposal. The clearing is to occur on the northern side of the already developed Browns Road. Lake Saide Wetland occupies an area of approximately 49.21 hectares, with aerial imagery showing large areas of the southern and western boundary of the wetland comprises of very little vegetation and appears to have been subject to previous clearing for agricultural activities. Aerial imagery indicates that if the clearing of 0.064 hectares of the vegetation within the Lake Saide Wetland is within the gazetted road reserve, an approximately 140 metre vegetation buffer will remain to the edge of the water line from the constructed road.

The major drain that travels in a north to south direction that travels through Browns Road reserve connects the South Coast Significant Wetland north of the application area to the Lake Saide Wetland. A site inspection of the application area (DWER, 2019) and a fauna report (Aurora, 2019) along Browns road noted that there appears to be no native vegetation within the proposed clearing area associated with this watercourse. There is currently a bridge that is in place over the watercourse within Browns road. Although it is unlikely native vegetation will be cleared associated with the bridge upgrade, the upgrade will impact on the bed and banks of the watercourse. The applicant has applied for a bed and banks permit in accordance with the *Rights in Water and Irrigation Act 1914* (RIWI Act). This is discussed further under planning and other matters.

The proposed clearing with the development of Lee road will impact on a manmade wetland that runs alongside Lee Road. The area north of Lee Road reserve is characterised by cleared paddocks with high groundwater levels associated with valley floors which are inundated during wetter months. The paddocks have predominantly been used for growing potatoes and are inundated in winter and spring. The site inspection within the Lee Road reserve adjacent to this wetland noted that the area had been subject to earthworks, with the construction of drainage lines with excavated material placed in the undeveloped Lee road, resulting in the road reserve being more elevated than surrounding ground level. The proposed clearing area does not appear to be prone to inundation (DWER, 2019).

Noting the above, the proposed clearing will impact on vegetation growing in association with a wetland, and the proposed clearing is at variance with this Principle. However, the clearing of vegetation in association with these wetlands will be minimal (DBCA, 2020c). Lake Saide Wetland has already been significantly cleared, with an injunction with agricultural landuse which is likely to already had impacts to the water quality of the wetland. The proposed clearing of 0.064 hectares of the Lake Saide Wetland is unlikely to decrease the environmental values of the wetland. This conclusion has been based upon the small amount of clearing of a linear nature on the northern side of an existing road and that a large proportion of vegetation will remain between the proposed road development and the wetlands water edge.

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Proposed clearing may be at variance with this Principle

As discussed under section 2, the application area comprises of two land unit subsystems. Approximately 75 per cent of the application area occurs within the Nullaki Dune System. The remaining 25 per cent of the application area occurs within the Broke System. The lime pit area comprises an eroded high ridge of interbedded sequences of coastal dunes of limestone 120 to 140 metres rising to 160 metres on the highest peaks overlying an undulating Proterozoic granitic basement that outcrops of granite hills in the Denmark – Wilson Inlet area (Aurora, 2019). The limestone is a calcarenite made from beach sand containing predominantly shell fragments with minor and variable quartz (Landform Research, 2018).

The limestone pit area based upon its location, landform and soil type is likely to be prone to wind erosion if left bare for long periods. The applicant has indicated that the clearing within the pit will be restricted to two hectares at a time and once the extraction has finished within the two hectare area, revegetation of the site will commence immediately. The site inspection of the application area noted that the proposed pit area was of a lower point of an otherwise elevated landscape and noted that the proposed pit area was also surrounded by intact vegetation (DWER, 2019). Noting this, the application is unlikely to result in appreciable land degradation via wind erosion. As a condition of the permit, the applicant will only be allowed to clear two hectares of vegetation within the pit area at any given time. Once the extraction has finished within the two hectare area, a condition on the permit will require the applicant to commence revegetation immediately after the extraction has finished and before any further clearing can occur within the pit area.

The acid sulphate soil mapping indicates that the area proposed to be cleared lies within portions of both class one and class two risk areas. Class one risk areas are areas identified as a moderate to high risk of acid sulphate soils occurring within three metres of the natural soil surface (DWER, 2020). A portion of the application area is also identified a class two risk, which have moderate to low risk of acid sulphate soils occurring within three metres of the natural soil surface. The proposed clearing of any native vegetation would render some soils vulnerable to possible acidification (DWER, 2020). Although some soil disturbance will occur during the proposed clearing, the likely acid sulphate soils risk will be low, as soil exposure is likely to be at shallow depths within the root zone of cleared vegetation and will likely have a low acid sulphate soil generation capacity (DWER, 2020). Whilst the proposed clearing is unlikely to have an impact on acid sulphate soils, it is noted that the future road works could potentially require an acid sulphate soils condition if soil excavation is in excess of 100 cubic metres or if dewatering is proposed. If required, this should be a local government responsibility and considered during the development approval (DWER, 2020).

As noted under section 2, Broke System landform and soil unit is described as a poorly drained plain. The soils associated with this system have been mapped as occurring within a small section of Lee Road, next to the man made wetland. Noting this, the soils within this area could be subject to waterlogging. The remainder of this soil unit has been mapped as occurring over Brown and Lake Saide road. As discussed under Principle (f), Lake Saide Wetland occurs within Brown road and will be impacted upon from the proposed clearing. Noting this, and that the associated soils with the Broke System are poorly drained, the area may also be subject to waterlogging. However, the extent of possible waterlogging occurring from the proposed clearing would be

minimal noting the linear nature of the clearing with Browns road and the small portion (approximately 0.064 hectares) of the vegetation associated with the Lake Saide Wetland. As mentioned above, Lee Road reserve adjacent to this wetland had been subject to earthworks, with the construction of drainage lines resulting in excavated material placed in the undeveloped Lee road, resulting in the road reserve being more elevated than surrounding ground level and does not appear to be prone to inundation (DWER, 2019). It is for these reasons the proposed clearing is not likely to result in appreciable land degradation via waterlogging.

Noting that the pit area may be subject to wind erosion, the proposed clearing may be at variance with this Principle. Land management techniques described above will mitigate the impact of wind erosion from the proposed clearing.

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

Proposed clearing is not likely to be at variance with this Principle

According to the available databases, the following conservation areas occur within the local area;

- West Cape Howe National Park (approximately 5.2 kilometres south east from the application area);
- Tennessee North Nature Reserve (approximately 5.6 kilometres east from the application area); and
- Rudyard Beach Nature Reserve (approximately 6.2 kilometres north from the application area).

As the application area is not within close proximity to a managed conservation area, it is unlikely that the proposed clearing will have a direct impact on a conservation area. The application areas contain vegetation with a rating of very good or better which also connects to similar vegetation outside of the clearing area. Noting this, it is likely the proposed clearing could introduce weeds and dieback into these areas. Weed and dieback management measures will help to mitigate this risk.

Based on the mapping and location, the application area falls within a northwest to southeast line of the West Cape Howe National Park and the Rudyard Beach Nature Reserve. Noting this, it is possible the application area may act as a fauna stepping stone to facilitate fauna movement across the landscape. However, a large percentage of coastal vegetation remains intact within the local area, with these areas offering greater fauna movement between conservation areas than the application area.

Given the above, the proposed clearing is not likely to be at variance with this Principle.

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

Proposed clearing may be at variance with this Principle

As discussed under Principle (f), wetlands and water courses are known to occur within close proximity of the proposed clearing to Lee and Browns Road, with a small portion of the proposed clearing to occur within the mapped Lake Saide Wetland. Noting this, the proposed clearing may increase short term sedimentation of these areas, particularly if there is any surface water flow at the time of clearing.

There are no wetlands or watercourses that will be impacted upon from the proposed clearing within the pit area or the associated haulage road.

The groundwater salinity within the application area is 500-1000 milligrams per litre of Total Dissolved Solids. This level of groundwater salinity is considered to be marginal. Noting this low level and the local area retains a large amount of vegetation, the proposed clearing is unlikely to increase salinity risk to the local area.

Given the above, and noting the minimal extent of clearing associated with the Lake Saide Wetland, and the large vegetation buffer that will remain intact from the application area and waterline edge, it is expected that impacts of sedimentation will be short term and localised.

The proposed clearing may be at variance with this Principle.

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Proposed clearing is not at variance with this Principle

The City of Albany, located around 40 kilometres from the application area, reports a mean annual rainfall of 1000 millimetres, with the evapotranspiration being 900 millimetres.

Noting that the bulk of the clearing does not occur within close proximity of a wetland or water course (lime pit, haulage road), occurs within areas built up from nearby wetland (Lee Road) or large vegetation buffers remain to nearby wetlands and that the clearing within close proximity to wetlands are of a linear nature adjacent to existing roads, it is unlikely that the proposed clearing will cause, or exacerbate the incidence or intensity of flooding in the local area.

Noting the above, the proposed clearing is not likely to be at variance with this Principle.

Planning instruments and other relevant matters.

The applicant has applied for a permit to interfere with bed and banks for the upgrade to the bridge upgrade on Brown's Road in accordance with the RIWI Act. The upgrade to the bridge does not require the clearing of native vegetation.

The application was originally referred to the Environmental Protection Authority (EPA) for assessment under Section 39A of the *Environmental Protection Act 1986* (EP Act). Pursuant to s39A(1) of the EP Act, the EPA declined to assess the application under Part IV of the EP Act and that the matter can be dealt with under Part V Division 2 of the EP Act (Clearing).

In early 2018, the applicant submitted a Development Application for the purpose of extractive industry to construct and operate a lime pit within the Nullaki Peninsula with the City of Albany (the City). The City refused the application. In response to this decision, the applicant sought review by the State Administrative Tribunal (SAT) under s252(1) of the *Planning and Development Act 2005* on the decision of the City of Albany to refuse the Development Approval under the City's Local Planning Scheme No.1. In January 2019, SAT overruled the City's decision to refuse the Development Approval, giving approval to the applicant to establish and operate a lime pit within the Nullaki Peninsula. This approval was subject to number of conditions and further approvals.

The applicant has obtained an Extractive Industry Licence from the City, with the licence expiring on the 31 December 2021.

The application area (pit area) is located adjacent to an area under conservation covenant, covering an area of approximately 341 hectares. Given the close proximity of the application area to the covenant area, there is potential for weeds and dieback to spread or be introduced into this area as a result of the proposed clearing. A weed and dieback condition will help mitigate this risk. No Aboriginal sites of significance have been mapped within the application area.

The clearing permit application was advertised on the DWER website on 15 August 2020 with a 21 day submission period. A total of 26 submissions were received in relation to the application. Table 4 provides a response to the comments raised within the submissions. Each submission has not been responded to separately, as the submissions raised similar issues and have been combined to provide a streamlined response.

Table 4: Issues raised in public submissions (Submission, 2020).

Comment	Response
The application area falls within an area of high biodiversity values.	The application area comprises of a variety of vegetation types in conditions ranging from degraded to pristine. The proposed clearing does not comprise of significant habitat for conservation significant fauna of flora and is not representative of a TEC or PEC.
The application area has vegetation is a Pristine condition and therefore should not be cleared.	The vegetation surveys provided indicated that some of the vegetation within in the application area was in a 'pristine' condition. The condition of the vegetation is not a limiting factor to refuse a clearing permit however it is considered in the context of the residual impacts identified within the assessment. The broader survey of the larger peninsula identified areas of pristine native vegetation outside of the proposed clearing area. The proposed clearing will not remove the only area of pristine vegetation within the local area.
The application area will impact on conservation significant fauna, specifically the following species, Forest red-tailed black-cockatoo, Baudin's cockatoo, Carnaby's cockatoo, Western ringtail possum, Main's assassin spider and the Australasian Bittern.	Fauna surveys and expert advice was requested in relation to conservation significant fauna known to occur in the local area. Current literature was also referred to when considering impacts to conservation significant fauna. The information did identify that the application area does provide some habitat for the mentioned species, however the habitat was not limited within the application area and not considered to be significant. It was also noted that there was larger amounts of similar vegetation remaining in the local area outside of the clearing footprint.
The application will impact on fauna species in general.	It is acknowledged that native fauna may occur within the application area, however their preferred habitat is not limited to the application area and is not currently under threat. It is the applicant's responsibility through management plans to avoid impacts to native fauna and meet responsibilities in accordance to the BC Act. A condition on the permit for slow, directional clearing is to allow fauna to escape into the adjacent native vegetation.
There is a lack of flora and fauna surveys undertaken to identify the impacts.	At the time of DWER accepting the application, flora and vegetation surveys had not been provided for the proposed Lee Road development and the upgrade to the existing part of Lee Road, Browns Road and Lake Saide Road. These have now been received and have been uploaded onto DWER's FTP site. These surveys

	were used to inform DWER assessment of the clearing permit application.
The proposed clearing may impact on threatened and priority flora.	A review of the flora surveys provided and the expert advice received during the assessment of this application has identified that impacts to threatened and priority flora is unlikely to occur from the proposed clearing.
There are several wetlands and watercourses in the area and the application will have an impact on these waterbodies and their water quality.	Within the assessment it is acknowledged that the proposed clearing will impact on a significant south coast wetland. However, the clearing size and nature of the clearing of the mapped wetland that occurs within an existing road (Browns Road) is not considered to have a significant impact on the wetland and its water quality. Any potential impacts are likely to be minimal and short term.
The application will impact on conservation areas and their values.	The closest conservation area is the West Cape Howe National Park, approximately 5.2 kilometres from the application area. It is acknowledged that the zoning of the proposed pit area and haulage road is zoned as conservation. This is through a planning mechanism and not assessed as a conservation area under the clearing principles. Planning and zoning of land within the clearing area and their intended land use is a responsibility of the local government.
The proposed clearing will cause soil and water erosion.	Based upon the lack of steep slopes and the linear nature of the clearing within the proposed Lee Road development, the upgrade to the existing part of Lee Road, Browns Road and Lake Saide Road and the soil types mapped within these areas, the proposed clearing is unlikely to increase the risk of soil or water erosion in these areas, thus resulting in land degradation. The assessment identified that clearing within the proposed lime pit may cause land degradation in the form of wind erosion based on the location and mapped soil type. As a condition of granting this permit, the applicant will be restricted to two hectares of clearing at a time. Once the extraction has finished within the two-hectare area, revegetation of the site will commence immediately before any further clearing can commence. The Delegated Officer determined that the abovementioned management measures will mitigate against any soil and water erosion.
The proposed clearing will result in an increase of weed and dieback to the area.	This has been noted within the assessment report. In granting this application a weed and dieback condition will be placed on the permit to mitigate against such impacts.
The application has not fulfilled the conditions as a result of the State Administrative Tribunal outcome. The applicant also requires additional approvals that are still outstanding.	The findings of the hearing and conditions imposed by the SAT in relation to the development approval is an external process. The Department will not grant the permit without the relevant local government approvals in place.
There are known acid sulfate soils (ASS) in the local area and the proposed works will increase the risk. The proponent should be required to undertake a full ASS assessment of the proposed impacted areas so the risk can be determined.	Based on expert advice and the available data sets, the proposed clearing is unlikely to increase the risk of ASS to the local area.
The application will impact on the Commonwealth listed TEC 'Banksia Woodland of the Swan Coastal Plain'.	The geographical location of the proposed clearing is outside of the known occurrences of the Commonwealth listed TEC 'Banksia Woodland of the Swan Coastal Plain'. Therefore is not considered a relevant matter in this assessment.
The application will have an impact on the areas social surroundings	In considering a clearing matter under section 51O of the EP Act, the CEO shall have regard to any planning instrument and other relevant matters when making decisions as to clearing permits. 'Other matters' are not defined in the EP Act, and consequently are any matters the CEO considers relevant. Other matters are generally environmental issues not directly within the scope of the clearing principles, but within the object and principles of the EP Act. The Delegated Officer

	considered that the social impacts arising from the proposal would have been adequately considered during the planning and SAT processes.
The proponent has cleared unlawfully prior to receiving the required approvals.	This matter has been reported and dealt with by DWER's Compliance and Enforcement team, therefore it is not considered to be a relevant matter when assessing the application.
The proposal presented to the EPA for assessment was factually incorrect.	The referral to the EPA was considered under Part IV of the EP Act. The EPA declined to assess the application under Part IV of the EP Act and that the matter can be dealt with under Part V Division 2 of the EP Act (Clearing).
The proposed bridge upgrades on Brown's road will have impacts on the nearby water courses and wetlands.	It is acknowledged through the proposal that the applicant intends to upgrade the bridge, the upgrade does not require the clearing of native vegetation.

5. References

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- DBCA Managed Estate
- Directory of Important Wetlands
- Groundwater salinity
- Geomorphic wetlands (classification) Swan Coastal Plain
- Hydrography, hierarchy
- Hydrography, linear
- Land Degradation datasets
- Mean annual rainfall
- NLWRA, Current Extent of Native Vegetation
- Position Statement for Wetlands
- SAC Bio Datasets (Accessed January 2020)
- Soils, Statewide
- Topographic contours
- Vegetation Complexes SW