



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 4707/1
Permit Holder:	Shire of Perenjori
Duration of Permit:	9 April 2012 – 9 April 2020

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 and gravel pits.

2. Land on which clearing is to be done

Lot 4293 on Deposited Plan 238623, BUNJIL
Lot 3540 on Deposited Plan 204721, ROTHSAY
Lot 4417 on Deposited Plan 37036, ROTHSAY
Lot 4261 on Deposited Plan 220394, ROTHSAY
Crown Reserve 16273, ROTHSAY

3. Area of Clearing

The Permit Holder shall not clear more than 9.24 hectares of native vegetation within the combined areas shaded yellow on attached Plan 4707/1a and Plan 4707/b and Plan 4707/1c.

4. Period in which clearing is authorised

The Permit Holder shall not clear any native vegetation after 9 April 2015

5. 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.

6. Type of clearing authorised

This Permit authorises the Permit Holder to clear native vegetation for activities to the extent that the Permit Holder has the power to clear native vegetation for those activities under the *Local Government Act 1995* or any other written law.

7. Compliance with Assessment Sequence and Management Procedures

Prior to clearing any native vegetation under conditions 1, 2 and 3 of this Permit, the Permit Holder must comply with the Assessment Sequence and the Management Procedures set out in Part II of this Permit.

PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

8. Avoid, minimise etc 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.

9. Flora management

- (a) Prior to undertaking any clearing authorised under this Permit, the Permit Holder shall engage a *botanist* to inspect the area for the presence of the following rare flora listed in the *Wildlife Conservation (Rare Flora) Notice* and for the following *priority flora taxa*:
 - (i) *Stylidium* sp. Yalgoo (T)
 - (ii) *Acacia woodmaniorum* (T)
 - (iii) *Allocasuarina tessellata* (P1)
 - (iv) *Acacia karina* (P2)
 - (v) *Chamelaucium* sp. Warriedar (P1)
 - (vi) *Grevillea subtiliflora* (P3)
 - (vii) *Micromyrtus trudgenii* (P3)
 - (viii) *Grevillea scabrida* (P3)
 - (ix) *Acacia diallaga* (P2)
- (b) Where rare flora or *priority flora taxa* are identified in relation to condition 9(a) of this Permit, the Permit Holder shall ensure that:
 - (i) no clearing occurs within 50 metres of identified rare flora, unless approved by the CEO.
 - (ii) no clearing occurs with 10 metres of identified *priority flora taxa*, unless approved by the CEO.

10. Weed control

- (a) 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*:
 - (i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
 - (ii) ensure that no *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
 - (iii) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

11. Retain vegetative material and topsoil, revegetation and rehabilitation

The Permit Holder shall:

- (a) retain the vegetative material and topsoil removed by clearing authorised under this Permit and stockpile the vegetative material and topsoil in an area that has already been cleared.
- (b) within 6 months following completion of gravel extraction, *revegetate* and *rehabilitate* the area(s) within the combined areas shaded yellow on attached Plan 4707/1a and Plan 4707/1b by:
 - (i) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land; and
 - (ii) ripping the ground on the contour to remove soil compaction; and
 - (iii) 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:

- (a) In relation to the clearing of native vegetation authorised under this Permit:
 - (i) the species composition, structure and density of the cleared area;
 - (ii) 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;
 - (iii) the date that the area was cleared; and
 - (iv) the size of the area cleared (in hectares).
- (b) In relation to flora management pursuant to condition 9 of this Permit:
 - (i) the location of each rare and *priority flora* species, 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;
 - (ii) the species name of each rare and *priority flora* identified; and
 - (iii) a copy of the flora survey report.
- (c) In relation to the *revegetation* and *rehabilitation* of areas pursuant to condition 11 of this Permit:
 - (i) the location of any areas *revegetated* and *rehabilitated*, 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;
 - (ii) a description of the *revegetation* and *rehabilitation* activities undertaken;
 - (iii) the size of the area *revegetated* and *rehabilitated* (in hectares);
 - (iv) the species composition, structure and density of *revegetation* and *rehabilitation*, and
 - (v) a copy of the environmental specialist's report.

13. Reporting

- (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 year.
- (b) Prior to 9 January 2020 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:

botanist means a person with specific training and/or experience in the biology, identification and taxonomy of Western Australian flora;

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;

environmental specialist means a person who is engaged by the Permit Holder for the purpose of providing environmental advice, 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;

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

flora specialist means a person with specific training and/or experience in the ecology and taxonomy of Western Australian flora;

local provenance means native vegetation seeds and propagating material from natural sources within 10 kilometres of the area cleared.

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;

priority flora taxa means those plant taxa that described as priority flora classes 1, 2, 3 or 4 in the *Department's Declared Rare and Priority Flora List for Western Australia* (as amended).

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

regenerate/ed/ion means re-establishment of vegetation from in situ seed banks and propagating material (such as lignotubers, bulbs, rhizomes) contained either within the topsoil or seed-bearing mulch;

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.

weed/s means a species listed in Appendix 3 of the "Environmental Weed Strategy" published by the Department of Conservation and Land Management (1999), and plants declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*.

Wildlife Conservation (Rare Flora) Notice means those plant taxa gazetted as rare flora pursuant to section 23F(2) of the *Wildlife Conservation Act 1950* (as amended).

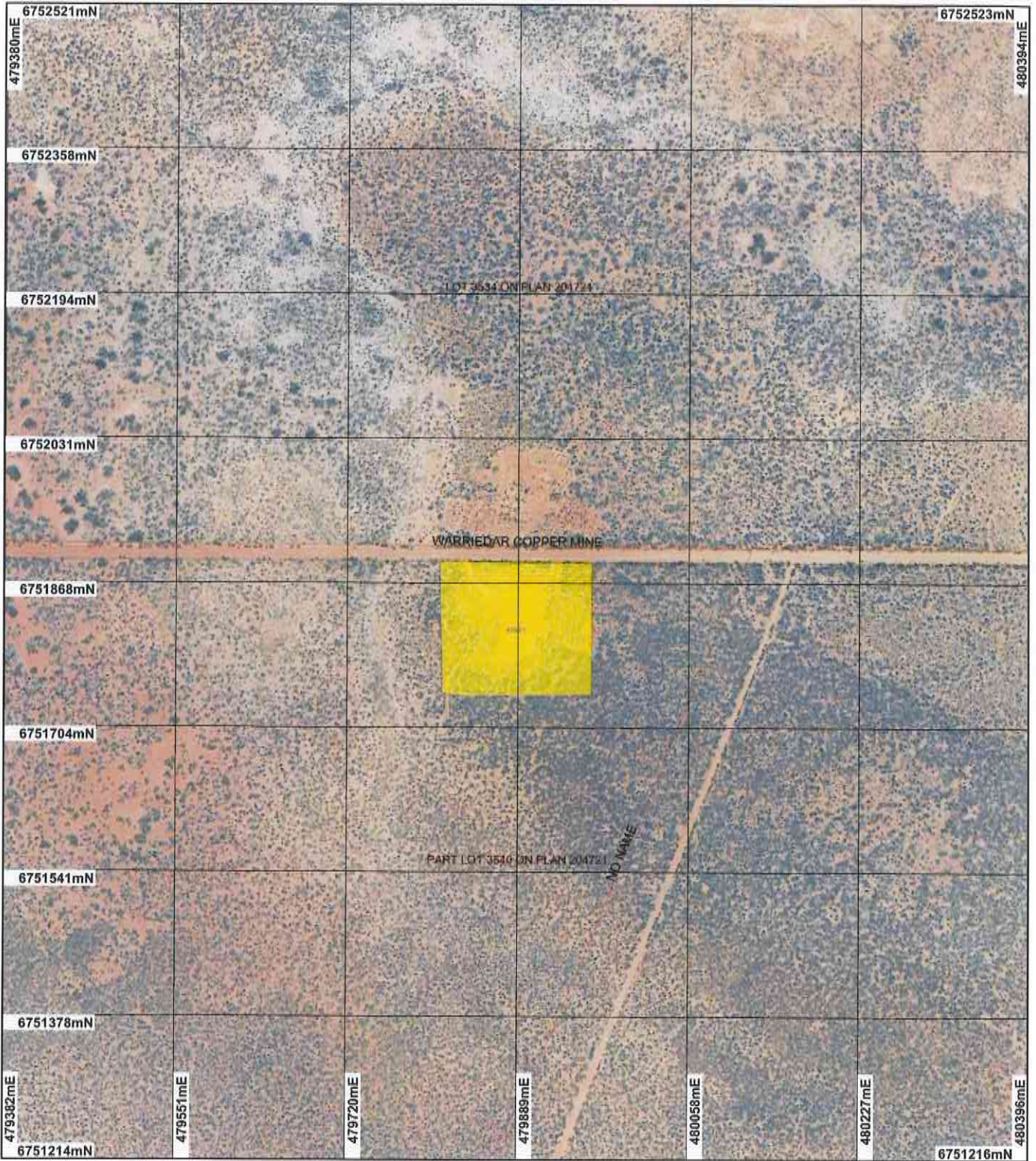


Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

15 March 2012

Plan 4707/1a



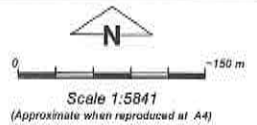
LEGEND

- Road Centrelines
- Cadastre for labelling
- Freehold
- Crown Reserve
- State Forest / Timber Reserve (cont)

- Marine Park
- Crown Lease
- Lease / Reserve
- Lease on State Forest / Timber Reserve
- Public Roads
- Unallocated Crown Land (cont)

- Water
- Clearing Instruments**
- Areas Applied to Clear
- Areas Subject to Conditions
- Areas Approved to Clear

Rothsay 50cm Orthomosaic - Landgate 2006
 Ninghan 80cm Orthomosaic - Landgate 2005



Geocentric Datum Australia 1994
 Note: the data in this map have not been projected. This may result in geometric distortion of measurement inaccuracies.

Date 15/3/12
 K. Faulkner

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

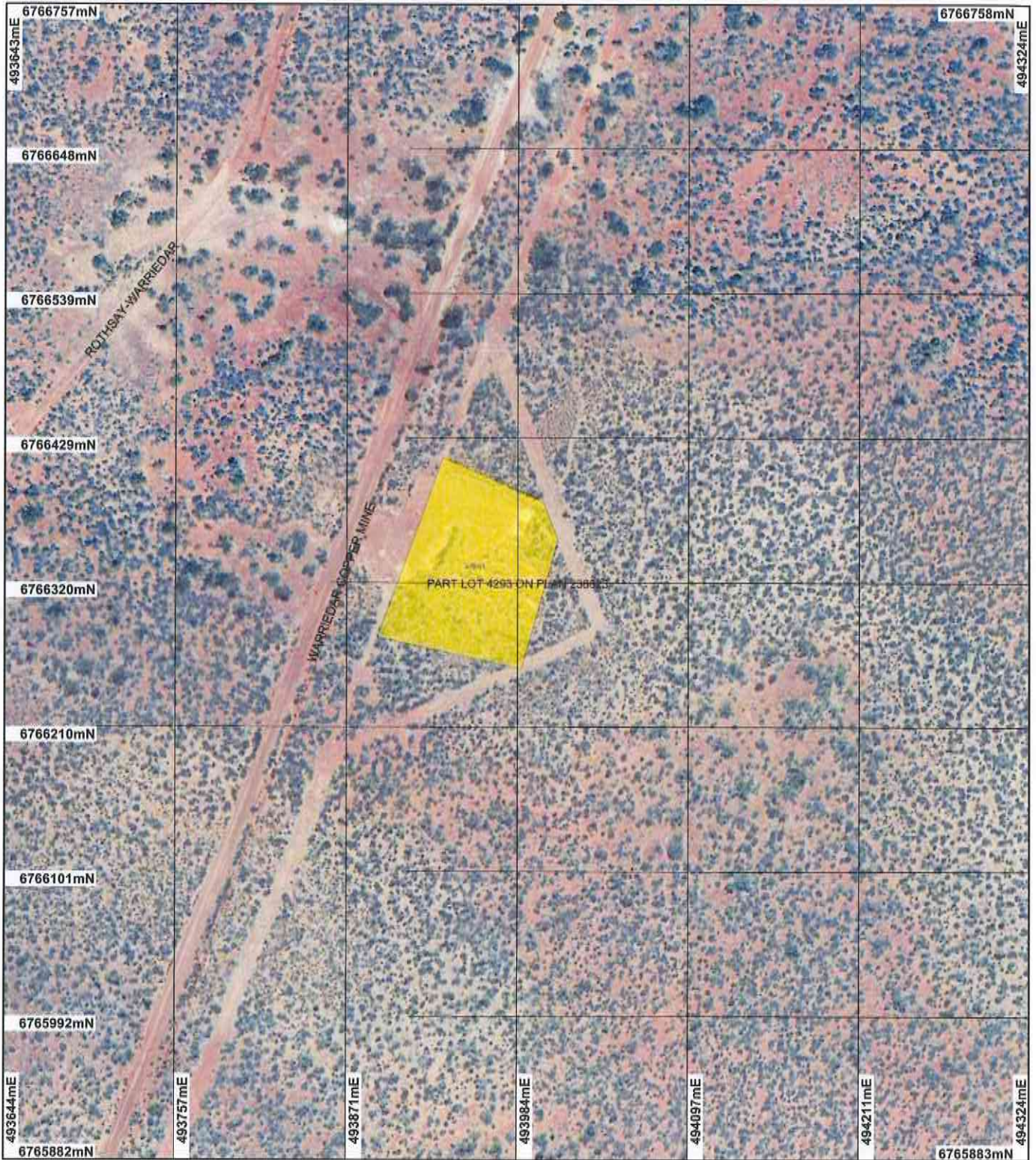
Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



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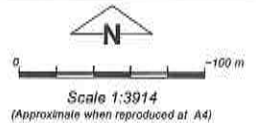
Plan 4707/1b



LEGEND

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|---|--|--|
| <ul style="list-style-type: none"> Road Centrelines Cadastre for labelling Freshhold Crown Reserve State Forest / Timber Reserve (cont) | <ul style="list-style-type: none"> Marine Park Crown Lease Lease / Reserve Lease on State Forest / Timber Reserve Public Roads Unallocated Crown Land (cont) | <ul style="list-style-type: none"> Water Clearing Instruments Areas Applied to Clear Areas Subject to Conditions Areas Approved to Clear |
|---|--|--|

Rothsay 50cm Orthomosaic - Landgate 2006
Ninghan 80cm Orthomosaic - Landgate 2005



Geocentric Datum Australia 1994

Note: the data in this map have not been protected. This may result in geometric distortion or measurement inaccuracies.

Date 15/3/12
K. Faulkner

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

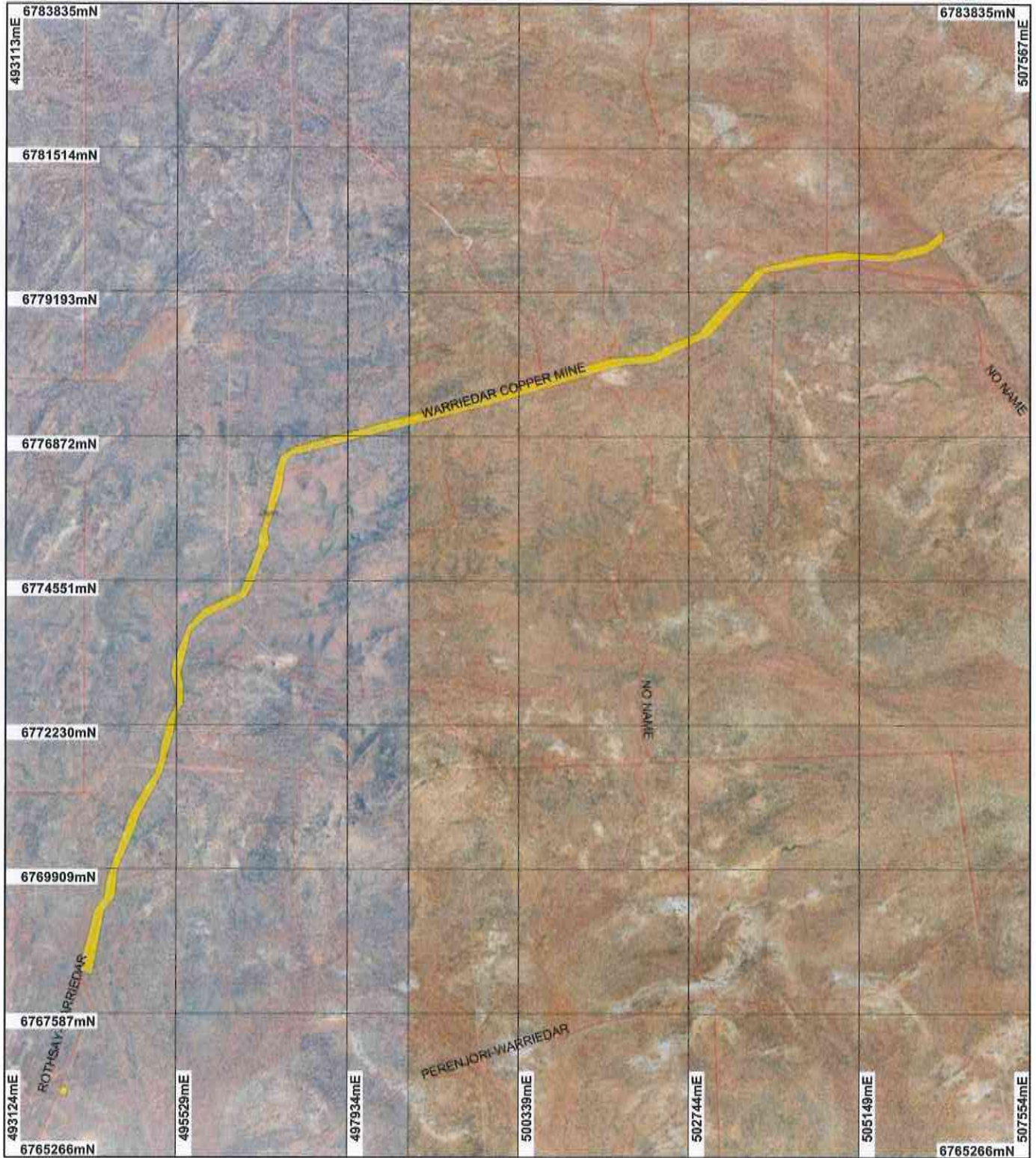
Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



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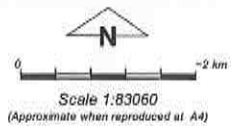
Plan 4707/1c



LEGEND

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| <ul style="list-style-type: none"> Road Centrelines Cadastre for labelling Freehold Crown Reserve State Forest / Timber Reserve (cont) | <ul style="list-style-type: none"> Marine Park Crown Lease Lease / Reserve Lease on State Forest / Timber Reserve Public Roads Unallocated Crown Land (cont) | <ul style="list-style-type: none"> Water Clearing Instruments <ul style="list-style-type: none"> Areas Applied to Clear Areas Subject to Conditions Areas Approved to Clear |
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Rothsay 50cm Orthomosaic - Landgate 2006
 Ninghan 80cm Orthomosaic - Landgate 2005



Geocentric Datum Australia 1994
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Date 15/3/12
 K. Faulkner

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1. Application details

1.1. Permit application details

Permit application No.: 4707/1
 Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Shire of Perenjori

1.3. Property details

Property: PART LOT 3540 ON PLAN 204721 (ROTHSAY 6620)
 LOT 4417 ON PLAN 37036 (ROTHSAY 6620)
 CROWN RESERVE 16273 (ROTHSAY 6620)
 LOT 4261 ON PLAN 220394 (ROTHSAY 6620)
 PART LOT 4293 ON PLAN 238623 (House No. 705 WANARRA EAST BUNJIL 6623)
 PART LOT 3540 ON PLAN 204721 (ROTHSAY 6620)

Local Government Area: Shire of Perenjori
 Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
2		Mechanical Removal	Extractive Industry
7.24		Mechanical Removal	Road construction or maintenance

1.5. Decision on application

Decision on Permit Application: Grant
 Decision Date: 15 March 2012

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
Mapped Beard vegetation association 355 is described as Shrublands; bowgada & jam scrub with scattered York gum & red mallee	The proposed clearing of 9.24 hectares is for the purpose of road widening and gravel pits.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	Condition of the vegetation was established through aerial a site visit carried out by DEC officers on the 21 February 2012 (DEC 2012)
Mapped Beard vegetation association 420 is described as Shrublands; bowgada & jam scrub	The vegetation within the proposed clearing boundary of gravel pit 1 consists of open Acacia aneura medium shrubland in degraded (Keighery 1994) condition.	To Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	
Mapped Beard vegetation association 434 is Shrublands; Acacia scrub-heath (unknown spp.)	The vegetation within the proposed clearing boundary of gravel pit 2 consists of open scattered Acacia ramulosa medium shrubland in a degraded (Keighery 1994) condition.		
Mapped Beard Vegetation association 326 is Low woodland over scrub; mulga over bowgada & minnieritchie scrub. (Shepherd 2009)	The vegetation within the area proposed to cleared on the Warriedar Coppermine road vegetation consists of three main vegetation types, all in very good (Keighery 1994) condition;		
	Type one consists of Acacia shrubland.		
	Type two consists of scattered Eucalyptus over open shrubland of Acacia species on low rises.		
	Type three consisted of Allocasuarina acutivalvis subsp. prinsepiana, Acacia and Melaleuca hamata open shrubland/heath		

over *Borya sphaerocephala*. *Acacia diallaga* (P2) and *Grevillea subtiliflora* (P3) were recorded within this vegetation type.

3. Assessment of application against clearing principles

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

Comments **Proposal may be at variance to this Principle**

The area under application consists of five vegetation types including open *Acacia aneura* medium shrubland, open scattered *Acacia ramulosa* medium shrubland, *Acacia* shrubland, scattered *Eucalyptus* over open shrubland of *Acacia* species on low rises and *Allocasuarina acutivalvis* subsp. *prinsepiana*, *Acacia* and *Melaleuca hamata* open shrubland/heath over *Borya sphaerocephala* (DEC 2012).

The vegetation along Warriedar -Coppermine road occurs in a very good (Keighery 1994) condition with vegetation within the gravel pits occurring in a degraded (Keighery 1994) condition.

Approximately 5 ha of the proposed clearing (a 5km stretch of Warriedar Coppermine Road) occurs within a mapped Priority Ecological Community (PEC) Blue Hills (Mount Karara/mungada Ridge/Blue Hills) vegetation complexes (banded ironstone formation). This PEC incorporates a number of discrete vegetation types each of which varies in extent and conservation significance (DEC 2011). The PEC is known from 29 occurrences and totalling 24950 hectares, however the extent of some of the vegetation units that make up this PEC may be extremely restricted especially those confined to Banded Ironstone Formation (BIF) ironstone massifs (DEC 2011).

A site inspection identified two vegetation types (scattered *Eucalyptus* over open shrubland of *Acacia* species on low rises and *Allocasuarina acutivalvis* subsp. *prinsepiana*, *Acacia* and *Melaleuca hamata* open shrubland/heath over *Borya sphaerocephala*) that may be associated with this PEC. However, DEC does not consider these vegetation communities to consist of the PEC as they occur on basalt outwash and not BIF (DEC 2012a). Therefore, it is unlikely that the proposed clearing will impact on a PEC.

A site visit of the application area identified one specimen of the priority flora *Acacia diallaga* (P2) and *Grevillea subtiliflora* (P3) sparsely distributed throughout the *Allocasuarina acutivalvis* subsp. *prinsepiana* community within the application area (DEC 2012). Populations of these species occur in the Yalgoo and Perenjori local government areas (WA Herbarium 1998-). Numerous other priority species have been recorded within close proximity to the proposed clearing including, *Chamelaucium* sp. Warriedar (P1), *Rhodanthe collina* (P1) and *Hydrocotyle* sp. Warriedar (P1), *Allocasuarina tessellata* (P1), *Acacia karina* (P2), *Micromyrtus trudgenii* (P3) and *Grevillia scabrida* (P3) (DEC 2012a).

Given that the proposed clearing of 9.24 hectares is scattered along a long and linear area and that the local area consists of similar habitat in the same or better condition as the area under application, it is not considered for the proposed clearing to significant impact priority flora species.

However, given the vegetation under application contains priority flora, it may be considered for the proposed clearing to be at variance to this Principle. A requirement for weed management and for a targeted flora survey to be conducted prior to clearing will assist in mitigating these impacts.

Methodology

References

-DEC (2011)
-DEC (2011a)
-DEC (2012)
-DEC (2012a)
-Shepherd (2009)
-Keighery (1994)
GIS Databases
-SAC Bio datasets (1 December 2011)
-Pre- European Vegetation

(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 indigenous to Western Australia.

Comments **Proposal is not likely to be at variance to this Principle**

Nine conservation significant fauna species have been recorded within the local area (10 km radius). Of these nine it is considered for the vegetation under application to provided habitat for the Western Spiny- tailed Skink (*Egernia stokesii badia*) and the Malleefowl (*Leipoa ocellata*) both of which are listed as Threatened under the Wildlife Conservation Act (1952) and have been recorded from numerous nearby sites (DEC 2011a, RCC 2011).

A site visit of the application area identified numerous *Eucalyptus* trees containing small hollows and spiny tailed skink habitat within application area (DEC 2012). No Malleefowl mounds were observed within application

area during the site visit (DEC 2012).

The proposed clearing occurs within the Yalgoo bioregion which has 98% of pre-European vegetation remaining and the local area is highly vegetated.

In addition, the majority of the proposed clearing occurs within Department of Environment and Conservation's (DEC) managed lands which have been reserved for the purpose of future conservation and which contains similar habitat.

Given the relatively small area (9.24ha) to be cleared and the highly vegetated local area (10 km radius) containing similar habitat in the same or better condition, it is not considered for the proposed clearing to consist of significant fauna habitat. The application has advised that habitat trees will be avoided where possible and any logs within the clearing area will be moved to the side of the clearing (DEC 2012).

Methodology	References
	-DEC (2011a)
	-RCC (2011)
	-DEC (2012)
	-Shepherd (2009)
	GIS Databases
	-Nature Map
	-IBRA Bioregion

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

Comments Proposal may be at variance to this Principle

Two rare flora species have been recorded within the local area (10 km radius); *Stylidium* sp. Yalgoo, and *Acacia woodmaniorum*. These two species occur in similar soil and vegetation types as the area under application.

A site visit of the application area did not identify these species; however a comprehensive survey was not carried out (DEC 2012).

The application area consisted of consisted of *Acacia* shrubland, scattered *Eucalyptus* over open shrubland of *Acacia* species on low rises and *Allocasuarina acutivalvis* subsp. *prinsepiana*, *Acacia* and *Melaleuca hamata* open shrubland/heath over *Borya sphaerocephala* in very good (Keighery 1994) condition (DEC 2012).

The soil within the application area consists of rocky skeletal soils, red silty sands and red brown silty sands with lateritic gravel (DEC 2012).

Acacia woodmaniorum occurs on skeletal red silt, red-brown soil, banded ironstone and laterite on slopes, sides of hills, crests of ridges, ranges and disturbed overburden of mine sites (WA Herbarium 1998-).

Stylidium sp. Yalgoo has been recorded in the local area within open *Acacia* woodland on a low rocky hill with exposed shaly ironstone with skeletal red clay loam soils (WA Herbarium 1998-).

Given that the area under application contains areas of *Acacia* shrubland over red loam soil, the application area may provide habitat for these species.

Therefore, the proposed clearing may be at variance to this Principle. A requirement for weed management and for a targeted flora survey to be conducted prior to clearing will assist in mitigating this possible impact.

Methodology	References
	-DEC (2012)
	-WA Herbarium (1998-)
	GIS Databases
	-Pre-European Vegetation
	-Soils, statewide
	-SAC Bio datasets (1 December 2011)

(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.

Comments Proposal is not likely to be at variance to this Principle

No Threatened Ecological Communities (TEC) occur within the local area (10 km radius). The closest TEC, Plant Assemblages of the Koolanooka System, occurs 23km west of the application area.

Given the distance to the nearest known recording of a TEC, it is not considered likely for the proposed clearing

to be at variance to this principle.

Methodology GIS Databases
-Sac Bio datasets (1 December 2011)

(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.

Comments Proposal is not likely to be at variance to this Principle

The proposed clearing area occurs within the Yalgoo IBRA bioregion with 98.68% of pre-European vegetation remaining.

In addition, the Beard vegetation associations recorded within the application area retains more than the threshold level (30%) of pre-European vegetation extent recommended in the National Objectives Targets for Biodiversity Conservation, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia 2001).

The application area does not occur within an extensively cleared landscape as approximately 90% of remnant vegetation remains in the local area (10 km radius) and 55.98% remains in the Shire of Perenjori.

Therefore, the proposal is not likely to be at variance to this principle

	Pre-European (ha)	Current Extent (ha)	Remaining (%)
IBRA Bioregion*			
Yalgoo	5057314.9	4990570.5	98.68
Shire*			
Shire Perenjori	830134.9	464703.6	55.98
Beard Vegetation Association in Yalgoo Bioregion*			
355	55019	53979	98.11
420	621396.	620996	99.94
434	25872	22192	86.00
326	1034327	1034327	100.00

* (Shepherd 2009)

Methodology References
- Commonwealth of Australia (2001)
- Shepherd (2009)
GIS Databases
- Pre-European Vegetation
- Rothsay 50cm Orthomosaic - Landgate 2006

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

Comments Proposal is at variance to this Principle

There are six minor, non perennial watercourses intersecting the application area as well as one non-perennial lake.

The removal of limited vegetation associated with small non-perennial watercourses is unlikely to significantly impact on the watercourse network as a whole throughout the landscape.

However given the vegetation growing in association with a watercourse and wetland is proposed to be cleared, it is considered for the proposed clearing to be at variance to this Principle.

Methodology GIS Databases
-Hydrography, linear

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

Comments Proposal is not likely to be at variance to this Principle

The proposed clearing of 9.24 hectares is for the purpose of road widening and gravel pits along a 42 kilometre stretch of Warriedar - Coppermine road.

The soils of the applied area are identified by Northcote et al. (1960-68) as broad plains of surface gravels and soils of shallow red earths and earthy loams (My50), ranges of rock outcrops with soils of shallow loams (FA4), gypseous and saline loams on riverine wash (SV4) and shallow yellow earthy sands on crests and small plains of shallow red earthy sands and shallow red earths (AC11).

The site visit identified the soil within the application area consisting of rocky skeletal soils, red silty sands and red brown silty sands with lateritic gravel (DEC 2012). The above soils are not highly susceptible to wind erosion however are susceptible to water erosion.

Given that the proposed clearing is relatively small (9.24ha) and is spread along a long and linear area, it is not considered for it to cause appreciable land degradation in the form of water erosion.

Methodology References:
-Northcote et al (1968)
GIS Database
-Salinity Risk LM 25m
-Soils, Statewide

(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.

Comments Proposal is at variance to this Principle

The majority of the application area occurs within former leasehold crown land proposed for conservation and is currently managed by Department of Environment and Conservation (DEC).

The clearing of 9.24 hectares within the conservation area will directly impact the environmental values of the conservation area. The clearing will also indirectly impact the area through the introduction and spread of weeds which can lead to a decrease in biodiversity.

Therefore, the clearing of 9.24 hectares within DEC managed land is at variance to this Principle. Weed management practices would minimise the impacts of clearing on conservation areas through increase weed dispersal.

Methodology GIS Databases
-DEC Managed Lands
-CALM Regional Parks

(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.

Comments Proposal is not likely to be at variance to this Principle

There are six minor, non perennial watercourses intersecting the application area.

The proposed clearing for road widening may cause short term water quality issues in terms of localised surface water sedimentation and waterlogging. The applicant has indicated on the site visit (DEC 2012) that roadside infrastructure to prevent water quality issues associated with roads (i.e. table drains and culverts) will be put in place.

Therefore, the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Databases
-Hydrography, linear

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

Comments Proposal is not likely to be at variance to this Principle

There are six minor, non perennial watercourses intersecting the application area.

The proposed clearing for road widening may cause short term water quality issues in terms of localised surface water sedimentation and waterlogging. These issues can be minimised if roadside infrastructure to prevent water quality issues associated with roads (i.e. table drains and culverts) are put in place. The applicant has indicated on the site visit (DEC 2012) that roadside infrastructure to prevent water quality issues associated with roads (i.e. table drains and culverts) will be put in place. In addition, it is not considered for the proposed clearing to cause or exacerbate flooding due to its small size (9.24ha) over a long and linear area.

Therefore, the proposed clearing is not likely to be variance to this Principle.

Methodology GIS Databases

-Hydrography, linear

Planning instrument, Native Title, Previous EPA decision or other matter.

Comments

The proposed clearing of 9.24 hectares is for the purpose of road widening and gravel pits. The applicant has stated that the widening is necessary to increase the safety of the road due to an increase in traffic.

The proposed clearing is along Warriedar Coppermine Road which intercepts Unallocated Crown Land properties with the majority of them vested with Department of Environment and Conservation. Other vesting authorities include Department of Regional Development and Lands and Department of Water.

The Department of Environment and Conservation (DEC) received a submission on the 14th December 2011 objecting to the clearing of 9.24 ha and states that the application should be reviewed in light of alternative options to address road safety issues which involve less clearing such as passing pockets and selectively removing vegetation (Submission 2011). In addition, the submission highlighted that the area is highly biodiverse and an over cleared area (Submission, 2011). The concerns raised in the submission have been addressed in the relevant clearing principles (a) and (e).

The Roadside Conservation Committee (RCC) advise that a fauna survey for Malleefowl and Western Spiny-tailed Skink should be conducted and a fauna specialist should be on hand during road works to remove fauna if necessary (RCC 2011). In addition, they advise that a flora survey should be undertaken prior to road works to determine location of Priority and Rare flora. The RCC also recommend that old logs or vegetation that could be suitable habitat for Western Spiny-tailed Skink should be moved away from the roadside into bushland, populations of Rare or Priority flora should be marked out prior to clearing, building materials should not be heaped in bushland, a permit under the Wildlife Conservation Act 1954 to be obtained if conservation flora found, weed invasion should be avoided and gravel pits should be rehabilitated (RCC, 2011).

One aboriginal site of significance occurs within the application area. It is the proponent's responsibility to comply with the Aboriginal Heritage Act 1972 and ensure that no Aboriginal Sites of Significance are damaged throughout the clearing process.

Methodology

References

- Submission (2011)
- RCC (2011)
- GIS databases
- Cadastre
- Aboriginal sites of significance

4. References

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

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DEC (2012) Site Inspection Report for Clearing Permit Application CPS 4707/1, Warriedar Coppermine Road, Rothsay. Site inspection undertaken 21 February 2012. Department of Environment and Conservation, Western Australia (DEC ref A481555).

DEC (2012a) Species and Communities Branch, Department of Environment and Conservation advice on Priority Ecological Community for Clearing Application CPS 4707/1. Warriedar Coppermine Road, Rothsay. DEC ref A482913.

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RCC (2011) Advice for clearing application CPS 4707/1 Shire of Perenjori. Warriedar Coppermine Road, Rothsay. Roadside Conservation Committee (DEC ref A460587).

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5. Glossary

Term	Meaning
BCS	Biodiversity Coordination Section of DEC
CALM	Department of Conservation and Land Management (now BCS)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment
DoIR	Department of Industry and Resources
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DEC)