



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 5350/1
Permit Holder:	Shire of Esperance
Duration of Permit:	28 December 2012 – 28 December 2022

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 extracting base material for road construction and maintenance.

2. Land on which clearing is to be done

Unallocated Crown land, Buraminya (PIN: 1117304)

3. Area of Clearing

The Permit Holder must not clear more than 15.5 hectares of native vegetation within the area hatched yellow on attached Plan 5350/1.

4. Period in which clearing is authorised

(a) The Permit Holder shall not clear any native vegetation after 28 December 2017.

(b) The Permit Holder shall not clear more than 4 hectares of native vegetation within a 12 month period.

(c) The Permit Holder shall not clear native vegetation unless actively mining within 3 months of the authorised clearing being undertaken.

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 the activities described in condition 1 of this Permit to the extent that the Permit Holder has the power to carry out works involving clearing 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. Dieback and weed control

When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds* and *dieback*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) shall only move soils in *dry conditions*;
- (c) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (d) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

10. 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 *priority flora*.
- (b) Where *priority flora* are identified in relation to condition 10(a) of this Permit, the Permit Holder shall ensure that:
 - (i) no clearing of identified *priority flora* occurs, unless approved by the CEO; and
 - (ii) no clearing occurs within 20 metres of identified *priority flora*, unless approved by the CEO.

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 3 months following completion of extractive activities, *revegetate* and *rehabilitate* the area cross-hatched yellow on attached Plan 5350/1 by:
 - (i) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land; and
 - (ii) laying the vegetative material and topsoil retained under condition 11(a) on the cleared area
- (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 11(c)(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 10 of this Permit:
 - (i) the location of each priority flora 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; and
 - (ii) the species name of each *priority flora* identified.

- (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); and
 - (iv) the species composition, structure and density of *revegetation* and *rehabilitation*.

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 to 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 28 September 2022, 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 ecology 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;

local provenance means native vegetation seeds and propagating material from natural sources within 30 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;

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

priority flora means those plant taxa 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);

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; and

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*.



M Warnock
A/MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

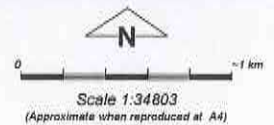
6 December 2012

Plan 5350/1



LEGEND

- | | |
|--|--|
| Clearing Instruments | <input type="checkbox"/> Recently added |
| <input type="checkbox"/> Areas Approved to Clear | <input type="checkbox"/> Coverage |
| <input checked="" type="checkbox"/> Road Centrelines | <input checked="" type="checkbox"/> Local Government Authorities |
| <input type="checkbox"/> Cadastre | Sandy Bight 1.4m Orthomosaic - Landgate 2003 |
| <input type="checkbox"/> Image Index (cont) | |



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

M. Warnock Date **6/12/12**

M. Warnock
 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.



Department of Environment and Conservation

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1. Application details

1.1. Permit application details

Permit application No.: 5350/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Shire of Esperance

1.3. Property details

Property: UNALLOCATED CROWN LAND (BURAMINYA 6452)
Local Government Area: Shire of Esperance
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
15.5		Mechanical Removal	Extractive Industry

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 6 December 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
The area under application has been mapped as Beard Vegetation Association 1047 which has been described as 'Shrublands; Eucalyptus incrassata mallee-heath' (Shepherd et al, 2001).	<p>This application proposes to clear up to 15.5 hectares of native vegetation for the purpose of extracting base material for road construction.</p> <p>The area under application was surveyed in November 2012 and it was reported that the site comprised entirely of Eucalyptus incrassata mixed heath and 70 native flora species (Massenbauer, 2012).</p> <p>The canopy was dominated by very sparse (2-10 per cent cover) Eucalyptus incrassata and Eucalyptus extrica mallee (<2m), with a mid-dense (60 per cent) open low (<1m) heath dominated by various Hakeas, Verticordia, Petrophile, Allocasuarina, Isopogon, Melaleuca, Taxandria, Micromyrtus and Xanthorrhoea species (Massenbauer, 2012). The ground cover is made up of a sparse mix of Thysanotus, Lepidobolus, Anarthria, Anigozanthos, Patersonia, Caustis dioica, Desmocladius asper, Banksia repens, Banksia obtusa, and mixed herbs (Massenbauer, 2012).</p>	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The condition of the vegetation was determined via a Level 1 Flora and Vegetation Survey (Massenbauer, 2012).

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 is at variance to this Principle**
This application proposes to clear up to 15.5 hectares of native vegetation within unallocated Crown land (PIN: 1117304) for the purpose of extracting base material for road construction.

In early November 2012 a Level 1 Flora and Vegetation Survey was carried out over a portion of the application area (Massenbauer, 2012). This survey reported that the site comprised entirely of Eucalyptus incrassata mixed heath and 70 native flora species (Massenbauer, 2012). The presence of about 20 juvenile Priority 4 listed Grevillea sp. plants were identified during the Level 1 survey. Flora management practices will minimise impacts to priority flora. No other priority or rare flora was identified (Massenbauer, 2012).

No priority ecological communities have been recorded within the local area (10km radius).

The application area falls within a large intact remnant (unallocated Crown land) of native vegetation. The disturbance caused by the proposed clearing will increase the risk of weeds and dieback being introduced into surrounding areas of vegetation. Weed and dieback management practices will assist in mitigating this risk.

The area under application is in an excellent (Keighery, 1994) condition and contains priority flora, therefore is likely to contain a high level of biodiversity.

The proposed clearing is at variance to this clearing principle.

Methodology References:
Keighery (1994)
Massenbauer (2012)

GIS Database:
- Pre European Vegetation
- SAC Biodatasets - accessed November 2012

(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**

There are numerous records of conservation significant fauna mapped within a 10km radius of the application area, including *Calyptorhynchus latirostris* (Carnaby's cockatoo), *Dasyurus geoffroii* (Chuditch, Western Quoll), *Pezoporus wallicus* (Ground Parrot) and *Pezoporus wallicus* subsp. *flaviventris* (Western Ground Parrot) (DEC, 2007-). These four fauna species are all listed as 'rare or likely to become extinct' under the Wildlife Conservation Act 1950.

Ground Parrots favour areas of heath that have not been burnt for decades. The area under application has been burnt within the previous three years and therefore is not likely to provide habitat for Ground Parrots.

Flora species known to be preferred feeding habitat for Carnaby's cockatoo have been mapped within the application area. Given that the area under application is surrounded by a large remnant (unallocated Crown land) of native vegetation in similar or better condition, it is not likely that the vegetation proposed to be cleared is significant foraging habitat for this species. In addition the local area contains approximately 60 per cent vegetation.

Chuditch prefer areas containing riparian vegetation and large fallen logs which they use as a refuse. The preferred habitat for the Chuditch is not present within the application area.

Considering the above the area under application is not likely to provide significant habitat for indigenous fauna. Therefore, the proposed clearing is not likely to be at variance to this principle.

Methodology References:
DEC (2007-)

GIS Database:
- Pre European Vegetation
- SAC Biodatasets - accessed November 2012

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

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

No rare flora has been recorded within the local area (10km radius).

In November 2012 a Level 1 Flora and Vegetation Survey was conducted over a portion of the application area and no rare flora was recorded (Massenbauer, 2012).

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

Methodology References:
Massenbauer (2012)

GIS Database:
- Pre European Vegetation
- SAC Biodatasets - accessed November 2012

(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) have been recorded within the local area (10km radius).

 In November 2012 a Level 1 Flora and Vegetation Survey was conducted over a portion of the application area and no TEC's were recorded (Massenbauer, 2012).

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

Methodology References:
 Massenbauer (2012)

 GIS Database:
 - Pre European Vegetation
 - SAC Biodatasets - accessed November 2012

(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 area under application is located within the Esperance Plains Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion has approximately 51 per cent of its Pre European vegetation extent remaining (Government of Western Australia, 2011).

 The application area is mapped as Beard Vegetation Association 1047. This vegetation association has approximately 85 per cent of its pre-European extent remaining in the Esperance Plains bioregion (Government of Western Australia, 2011).

 Digital imagery (Howick 50cm Orthomosaic - Landgate 2007) indicates that the local area (10km radius) retains approximately 60 per cent vegetation.

 The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

 The local area, Shire and Beard Vegetation Associations retain above the nationally recommended threshold level.

 This application is not likely to be at variance to this clearing principle.

	Pre-European (ha)	Current Extent Remaining (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion* Esperance Plains	2 899 950	1 489 289	51	54
Shire* Shire of Esperance	4 459 701	3 187 495	71	30
Beard Vegetation Association in Bioregion* 1047	217 778	185 056	85	65

* Government of Western Australia (2011)

Methodology References:
 Commonwealth of Australia (2001)
 Government of Western Australia (2011)

 GIS Database:
 - Howick 50cm Orthomosaic - Landgate 2007
 - Pre European Vegetation

(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 not at variance to this Principle**
No wetlands or watercourses have been mapped within close proximity to the application area.

Therefore, the proposed clearing is not at variance to this principle.

Methodology GIS Database:
- Hydrogeology, Linear

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

Comments **Proposal is at variance to this Principle**
The soils within the application area are mapped as soil type Xd1, described as gently undulating plain or plateau at low elevation with small granitic hills as for unit Ca26, some flats, seasonal swamps and talus; and some more strongly undulating land where dissection has begun: chief soils are sandy neutral yellow mottled soils (Northcote et al, 1960-68).

The proposed clearing has a high risk of wind erosion due to the high sand content and relative ease at which these materials can be transported by wind.

Both the annual rain fall (600mm) and the gradient of the site are low, therefore the risk of water erosion is low.

Given the high risk of wind erosion the proposed clearing is at variance to this principle.

The applicant has advised that the clearing will be carried out in a staged approach, clearing no more than 4 hectares per year. This staged approach will assist in minimising land degradation.

Methodology References:
Northcote et al. (1960-68)

GIS Database:
- Pre European Vegetation
- SAC Biodatasets - accessed November 2012
- Topographic Contours, 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 not at variance to this Principle**
The closest conservation reserve is Cape Arid National Park which is located approximately 8km south of the application area.

Given the distance to the closest conservation reserve the proposed clearing will not negatively impact upon its environmental values.

The proposed clearing is not at variance to this principle.

Methodology GIS Database:
- DEC Tenure

(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**
The groundwater salinity within the application area is 14000 - 35000 milligrams per litre of Total Dissolved Solids. This level of groundwater salinity is considered to be highly saline. The local area (10km radius) contains approximately 60 per cent vegetation, therefore the proposed clearing is not likely to increase the levels of groundwater salinity.

There are no watercourses mapped within the application. Therefore surface water is not likely to be affected by the proposed clearing.

Given the above, this application is not likely to be at variance to this clearing principle.

Methodology GIS Database:
- Groundwater Salinity, Statewide

- Hydrogeology, 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

Given the porous nature of the soil and the relatively low rain fall the risk of flooding is low.

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

Methodology

GIS Database:

- Annual Rainfall, Statewide

- SAC Biodatasets - accessed November 2012

- Topographic Contours, Statewide

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

Comments

A native title claim exists over the area under application. The Esperance Nyungar Native Title Claimants and their representative body have been notified of the clearing application.

The Goldfields Land and Sea Council Aboriginal Corporation has advised that as the proposed work will involve extensive ground disturbance it is necessary for an Aboriginal Heritage Survey to be conducted with the Traditional Owners, the Esperance Nyungar (GLSCAC, 2012).

No public submissions have been received in relation to this application.

Methodology

Reference:

GLSCAC (2012)

GIS Database:

- Native Title Claims

4. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- GLSCAC (2012) Advise for Clearing Permit Application CPS 5350/1. Goldfields Land and Sea Council Aboriginal Corporation, Western Australia (DEC Ref: A567489).
- Government of Western Australia (2011); 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, Perth.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Massenbauer (2012) Fisheries Road Gravel Extraction Sites, Level 1 Flora and Vegetation Survey. Prepared for the Shire of Esperance (DEC Ref: A571159).
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
- Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.

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)