



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Purpose Permit Number: 3139/1

File Number: DEC9362

Duration of Permit: From 9 August 2009 to 9 August 2015

PERMIT HOLDER

Shire of Laverton

LAND ON WHICH CLEARING IS TO BE DONE

UNALLOCATED CROWN LAND PIN 11796049 (PLUMRIDGE LAKES)

PURPOSE FOR WHICH THE CLEARING MAY BE DONE

Clearing of up to 43.56 hectares for the purposes of gravel extraction and road maintenance.

CONDITIONS

1. 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.

2. 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*:

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

3. Retain vegetative material and topsoil, revegetation and rehabilitation

- (a) The Permit Holder shall 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 six months following clearing authorised under this Permit and by 3 May 2013, the Permit Holder must *revegetate* and *rehabilitate* any areas no longer required for the purpose for which they were cleared under this Permit by:
 - (i) deliberately laying the vegetative material and topsoil retained under condition 3(a) on the cleared area;
 - (ii) 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
 - (iii) ensuring only *local provenance* seeds and propagating material are used to *revegetate* and *rehabilitate* the area..

- (c) Within twelve months of undertaking *revegetation* in accordance with condition 3 (b) of this Permit, the Permit Holder must:
 - (i) 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 3(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, the Permit Holder must undertake additional *planting* or *direct seeding* of native vegetation in accordance with the requirements of condition 3(b)(ii) and (iii) of this Permit.

4. Records to 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 the *revegetation* and *rehabilitation* of areas pursuant to condition 3 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;
 - (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*.

5. Reporting

- (a) The Permit Holder must provide to the CEO, on or before 30 June of each year, a written report of records required under condition 4 of this Permit and activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.
- (b) Prior to 9 May 2015, the Permit Holder must provide to the CEO a written report of records required under condition 4 of this Permit where these records have not already been provided under condition 5(a) of this Permit.

Definitions

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

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;

local provenance means native vegetation seeds and propagating material from natural sources within 10-40 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;

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 *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*.

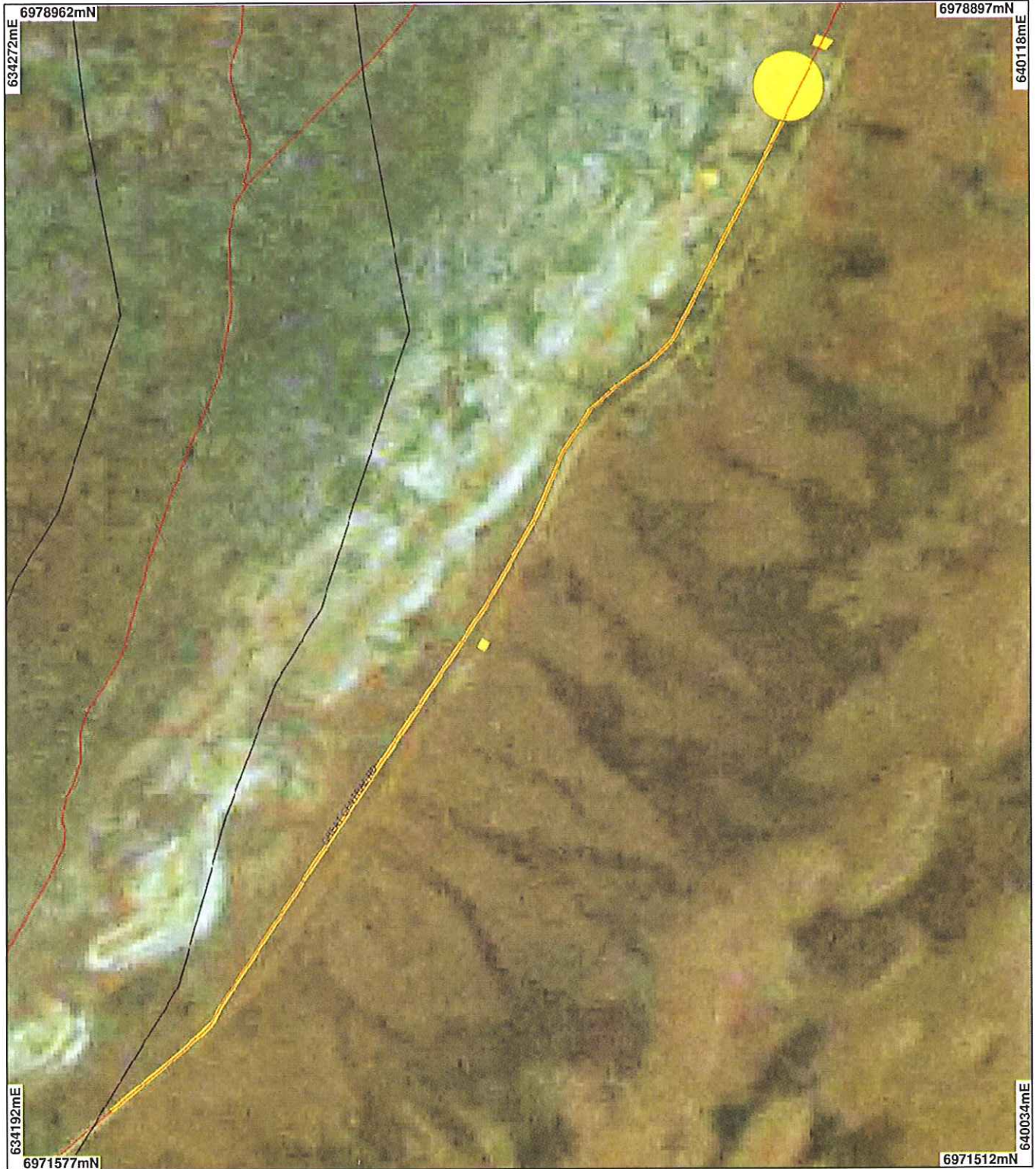


Keith Claymore
A/ ASSISTANT DIRECTOR
NATURE CONSERVATION DIVISION

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

9 July 2009

Plan 3139/1



LEGEND

- | | |
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| <ul style="list-style-type: none"> Clearing Instruments Road Centrelines □ Cadastre □ Cadastre for labelling ● 20090529_Threatened_Fauna | <ul style="list-style-type: none"> Northcliffe 1.4m Orthomosaic • Landgate 2009 Western Australia Landsat Mosaic 25m • AGO 2008 |
|---|---|



Scale 1:33247
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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

Kate Claymore Date *9/2/09*

K Claymore
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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1. Application details

1.1. Permit application details

Permit application No.: 3139/1
 Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Shire of Laverton

1.3. Property details

Property: UNALLOCATED CROWN LAND (PLUMRIDGE LAKES 6431)
 Local Government Area: Shire Of Laverton
 Colloquial name:

1.4. Application

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

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
Beard Vegetation Unit: 24 - Low woodland; Allocasuarina cristata 676 - Succulent steppe; samphire	The proposal is to clear 43.56 ha of native vegetation for the purpose of gravel extraction and road widening.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The condition of the vegetation was determined through aerial imagery Western Australian Lansat Orthomosaic 25m AGO 2005.

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 not likely to be at variance to this Principle**
 The proposed clearing is for 43.56 ha of native vegetation for the purpose of road maintenance and gravel extraction along the Great Central Road.

The local area (50km radius) is highly vegetated (approximately 90%) and there are no rare or priority flora within the local area.

There is one known record of threatened or priority fauna within the local area, namely Ramphotyphlops margaretae (Reptile).

Given the extent of vegetation in similar condition retained in the local area the vegetation proposed to be cleared is not considered to have a high level of biological diversity in a local context.

Methodology GIS Database:
 GIS Database:
 SAC Bio Datasets - accessed 2 June 2009

(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**
 Within a 20km radius there are is one known record of threatened and or priority fauna, namely Ramphotyphlops margaretae (Priority 2; Long tailed blind snake ssp).

Given that the local area is highly vegetated the area under application is not likely to be significant habitat for any fauna indigenous to Western Australia.

Methodology GIS Database:
SAC Bio Dataset - accessed 2 June 2009

(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**
There are no known records of rare flora within a 20km radius of the applied area.

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

Methodology GIS Database:
SAC Bio Dataset - accessed 2 June 2009

(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**
There are no known records of Threatened Ecological Communities (TECs) within a 20km of the applied area.

Therefore the vegetation under application is not likely to comprise whole or part of, or be necessary for the maintenance of a TEC.

Methodology GIS Database:
SAC Bio Datasets accessed 2 June 2009

(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**

	Pre-European (ha)	Current extent (ha)	Remaining (%)	% In reserves DEC Managed Land
IBRA Bioregions*				
Great Victorian Desert	21,794,205	21,784,756	99.96	8.47
Shire*				
Laverton	17,999,851	17,992,328	99.96	6.60
Beard Vegetation Association*				
24	263,147	263,147	100	0.92
676	2,061,210	1,957,106	94.95	11.85
Beard Vegetation Association with Bioregion*				
24	226,361	226,361	100	0.00
676	206,634	206,516	99.94	14.11

* (Shepherd et al. 2007)

The local area is well vegetated and the vegetation under application is not considered to be significant in an extensively cleared landscape.

Methodology References:
Shepherd (2007)

GIS Database:
Interim Biogeographic Regionalisation of Australia - EA 18/10/00
Pre European Vegetation, SAC Bio Dataset accessed 2 June 2009
Western Australian Landsat Orthomosaic 25m 741- AGO 2005

(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 likely to be at variance to this Principle**
The closest mapped watercourse is approximately 400m south west (lake, non-perennial) which is associated with ANCA wetland, namely Lake Throssell.

Given the distance between these wetlands and watercourses the vegetation under application is not likely that

the vegetation under application is growing in or in association with an environment associated with a wetland or watercourse.

Methodology GIS Database:
Hydrography linear (hierarchy) - DoW 13/7/06

(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 local area (50km radius) is highly vegetated and the soils are mapped as chiefly alkaline red earths and shallow loams (Northcote et al., 1968).

Removal of deep rooted perennial vegetation from these soils may result in additional recharge and increased wind erosion within the applied area however land degradation as a result of clearing is not likely to be appreciable considering the high vegetation retention in the local area (approximately 90% in a 50 km radius).

Given the above the clearing as proposed may be at variance to this principle.

Methodology References:
Northcote et al. (1968)

GIS Database:
Evapotranspiration Isopleths - WRC 29/09/98
Groundwater Salinity Statewide DoW 13/07/06
Hydrographic catchments, catchments - DoW 01/06/07
Hydrogeology, statewide DOW 13/07/06
Mean Annual Rainfall Isohytes (1975 - 2003) DEC 02/08/05
Soils, Statewide DA 11/99
Topographic Contours, Statewide - DOLA 12/09/02

(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 likely to be at variance to this Principle

There are no known areas of conservation significance within the local area (20km radius).

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

Methodology GIS Database:
CALM Managed Lands and Waters - CALM 01/06/05
System 1 to 5 and 7 to 12 areas DEC 11/7/06

(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

Given the high vegetation representation within the local area (20km radius) and the distance between the applied area and the closest watercourse (400m), the clearing as proposed is not likely to degrade surface water quality.

Removal of deep rooted native vegetation within the application area may lead to an increase in recharge in the immediate area, however given the extent of vegetation within the local area (approximately 90% in a 50 km radius) the clearing as proposed is not likely to be at variance to this principle.

Methodology GIS Database:
Hydrographic catchments, catchments - DoW 01/06/07
Hydrography linear - DOW 13/7/06
Western Australian Landsat Orthomosaic 25m 741- AGO 2005

(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

Given that the local area is highly vegetated (approximately 90% native vegetation retained) and the soils under application, the clearing as proposed is not likely to cause or exacerbate the incidence or intensity of flooding.

Methodology References:
Northcote et al. (1968)

GIS Database:
Hydrogeographic catchments, catchments - DOW 01/06/07
Western Australian Landsat Orthomosaic 25m 741 - AGO 2005

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

Comments

One Native Title Claim over the application area. Native Title Claimants and Representatives have been notified of the proposal (DOC85885 and DOC85886). No comments have been received regarding this proposal to date.

There are two Aboriginal Sites of Significance within the area under application (Matura and Wuur). It is the responsibility of the applicant to ensure that no Aboriginal Sites of Significance are impacted by this proposal.

The proposal is for road maintenance and gravel extraction. Given that gravel extraction is a temporary land use conditions have been placed on the permit to ensure temporary use areas are revegetated and that weed management is undertaken during clearing to ensure maintenance of the integrity of the soil seed bank for later use in rehabilitation and revegetation works.

Methodology

GIS Database:
Native Title Claims - LA 2/5/07
Aboriginal Sites of Significance 26 April 2007

4. Assessor's comments

Comment

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986, and the proposed clearing is not likely to be at variance to any of the clearing Principles.

5. References

- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
- Shepherd, D.P. (2007). Adapted from: 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. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.

6. 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)