



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 3204/1
Permit Holder:	Michael James Armstrong
Duration of Permit:	12 December 2009 – 12 December 2014

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 limestone extraction.

2. Land on which clearing is to be done

LOT 1 ON DEPOSITED PLAN 49358

3. Area of Clearing

The Permit Holder must not clear more than 5.5 hectares of native vegetation within the area hatched yellow on attached Plan 3204/1.

4. Application

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

5. 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

6. 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:

- avoid the clearing of native vegetation;
- minimise the amount of native vegetation to be cleared; and
- reduce the impact of clearing on any environmental value.

7. 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*:

- clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- shall not move soils in wet 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.

PART III - RECORD KEEPING AND REPORTING

8. 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 species composition, structure and density of the cleared area;
- (b) 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;
- (c) the date that the area was cleared; and
- (d) the size of the area cleared (in hectares).

9. 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 8 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 12 September 2014, the Permit Holder must provide to the CEO a written report of records required under condition 8 of this Permit where these records have not already been provided under condition 9(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;

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;

term means the duration of this Permit, including as amended or renewed;

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*.

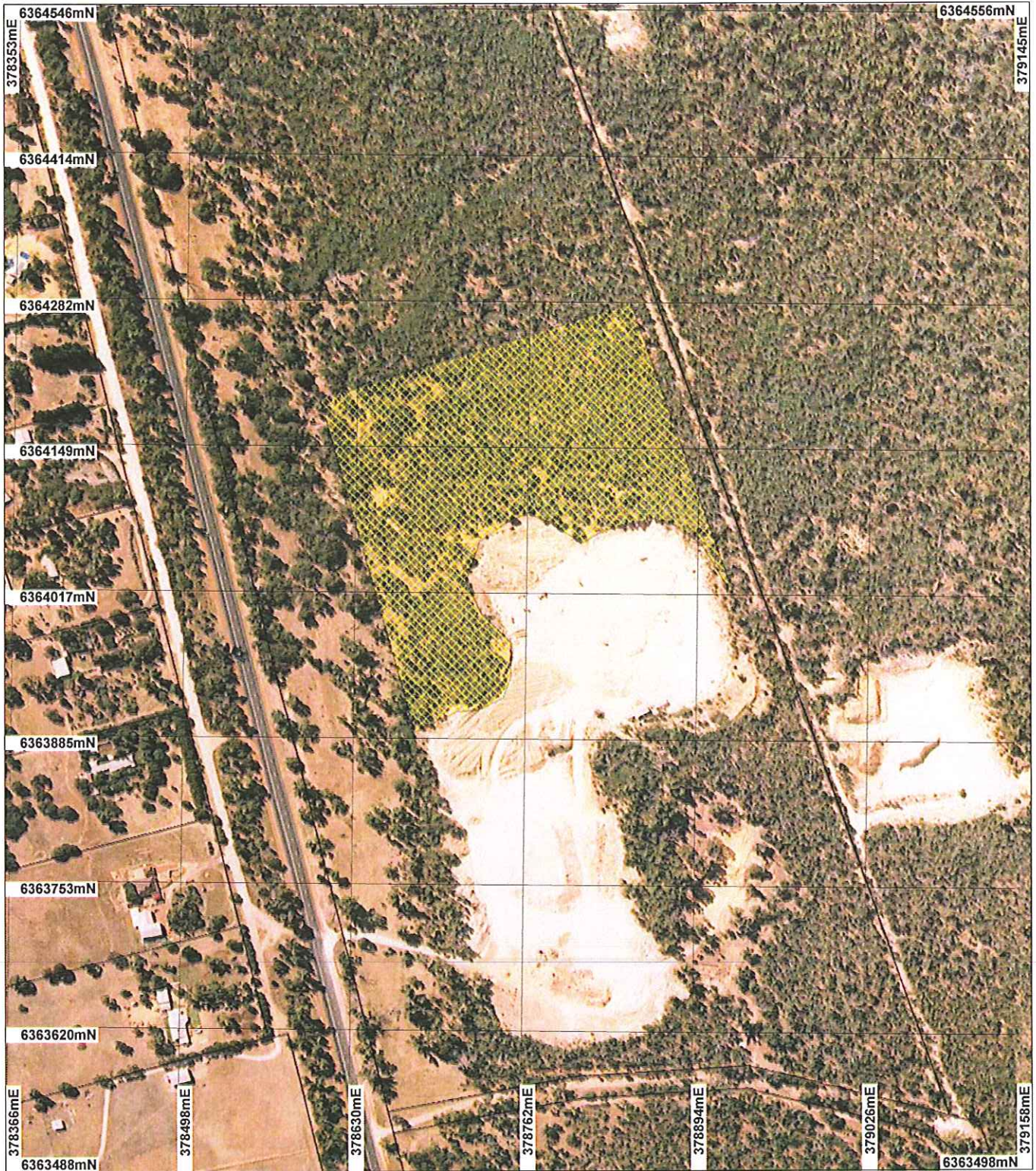


Keith Claymore
A/ ASSISTANT DIRECTOR
NATURE CONSERVATION DIVISION

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

12 November 2009

Plan 3204/1



LEGEND

Clearing Instruments
 Cadastre
 Pinjarra 50cm Orthomosaic



0 ————— 125 m

Scale 1:4664

(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.

Kirsty Claymore Date *12/11/09*
 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.



Department of Environment and Conservation

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1. Application details

1.1. Permit application details

Permit application No.: 3204/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Michael James Armstrong

1.3. Property details

Property: LOT 1 ON PLAN 49358 (LAKE CLIFTON 6215)

Local Government Area:

Colloquial name:

1.4. Application

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

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: 998 - Medium woodland; tuart (Shepherd et al., 2007)	The proposal is to clear 5.5ha of native vegetation for the purpose of extending a current limestone extraction pit.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The vegetation condition was determined through a site inspection of the applied area by DEC Officers on the 13 August 2009 (DEC, 2009a).
Hedde Vegetation Complex: COTTESLOE COMPLEX - CENTRAL AND SOUTH : Mosaic of woodland of Eucalyptus gomphocephala (Tuart) and open forest of Eucalyptus gomphocephala (Tuart) - Eucalyptus marginata (Jarrah) - Corymbia calophylla (Marri); closed heath on the Limestone outcrops. (Hedde et al., 1980)			

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 proposal is to clear 5.5ha of native vegetation for the purpose of limestone extraction.

The vegetation under application is in degraded (Keighery, 1994) condition and was observed to be impacted by grazing pressure (DEC, 2009a).

The applied area is in close proximity to several Threatened Ecological Communities (TECs) in particular TEC SCP26a (limestone ridges) with the closest mapped occurrence being 380m south of the applied area. A survey of the applied area identified that some areas directly north of the applied area (within the same property) may also be representative of TEC SCP26a (Landform Research, 2009).

The applied area is approximately 20m west of the Myalup State Forest and approximately 400m east of the Yalgorup National Park.

The local area retains approximately 50% native vegetation, most of which is in similar or better condition as the applied area (some of which is within secure tenure).

Given the condition of the vegetation under application and the presence of vegetation in close proximity which is likely to retain a higher level of biological diversity the vegetation under application is not likely to contain a high level of biodiversity in the local context.

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

Methodology

References:

DEC (2009a)

Keighery (1994)

Landform Research (2009)

GIS Database:

SAC Biodataset accessed 23 July 2009

CALM Managed Lands and Waters - CALM 01/06/05

Heddle Vegetation Complexes - DEP 22/06/95

Pre European Vegetation - DA 01/01

Clearing Regulations, Environmentally Sensitive Areas 30 May 2005

NLWRA, Current Extent of Native Vegetation 20 Jan 2001

(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

The vegetation under application is in a degraded (Keighery, 1994) condition with the area being predominately Peppermint thicket with scattered Tuarts (DEC, 2009a).

Western Ringtail Possums (WRP) are known to occur within the local area however given the degraded condition of the vegetation it is not likely that the applied area has sufficient vegetation cover and litter to provide habitat for WRP (DEC, 2009a).

Carnaby's Black Cockatoo is also known to nest within the Yalgorup National Park and would likely occur within the applied area should suitable habitat be present (DEC, 2009b). A site inspection of the applied area did not identify any habitat trees suitable for Black Cockatoo's or many species on which Black Cockatoo's would be likely to feed on (DEC, 2009a).

Given the condition of the vegetation and the presence of nearby vegetation in better condition than the applied area the vegetation under application is not likely to be significant habitat for any native fauna.

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

Methodology

References:

DEC (2009a)

DEC (2009b)

Keighery (1994)

GIS Database:

CALM Managed Lands and Waters - CALM 01/06/05

SAC Biodatasets accessed 23 July 2009

Pre European Vegetation - DA 01/01

Clearing Regulations, Environmentally Sensitive Areas 30 May 2005

NLWRA, Current Extent of Native Vegetation 20 Jan 2001

(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 4 records of rare flora occurring within the local area (10km radius) of the vegetation under application, namely *Caladenia huegelii*, *Diuris micrantha*, *Diuris purdiei* and *Eucalyptus argutifolia*.

Of these the vegetation under application was noted as not being suitable habitat for *D. micrantha* and *D. purdiei* (DEC, 2009a) which are usually found in winter wet swamps (WA Herbarium, 1998).

A site inspection of the applied area identified several occurrences of *Caladenia* sp however due to the time of year in which the site inspection was undertaken it was not possible to determine the species of *Caladenia* (DEC, 2009a), however it is not likely to be *C. huegelii* as the soils noted on site are not known to support this species (DEC, 2009c).

In addition it is not likely that *E. argutifolia* occurs within the applied area as it is only known from northern limestone ridges and outcrops (DEC, 2009c).

The site inspection also noted that the applied area had been heavily grazed and rabbits were observed on site (DEC, 2009a).

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

Methodology References:
 DEC (2009a)
 DEC (2009c)
 Keighery (1994)
 WA Herbarium (1998)

GIS Database:
 Heddle Vegetation Complexes - DEP 22/06/95
 Pre European Vegetation - DA 01/01
 SAC Biodatasets - accessed 23 July 2009
 Soils, Statewide DA 11/99

(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 may be at variance to this Principle

There are eight Threatened Ecological Communities (TEC) recorded within the local area (10km radius).

The closest mapped TEC is approximately 380m south of the applied area, namely SCP 26a (limestone ridges). A vegetation survey of the property of which the applied area is a part noted the likely presence of TEC SCP26a in the north east corner of the property (directly north of the applied area) (Landform Research, 2009).

The vegetation under application is in a degraded (Keighery, 1994) condition (DEC, 2009a) and is not likely to represent any known TEC however the vegetation may be providing a buffer to the potential TEC north of the applied area.

Given the above the clearing as proposed may be at variance to this principle as the clearing may indirectly decrease the environmental values of an unmapped TEC.

Methodology References:
 DEC (2009a)
 Keighery (1994)
 Landform Research (2009)

References:
 SAC Biodatasets accessed 23 July 2009
 Heddle Vegetation Complexes - DEP 22/06/95
 Pre European Vegetation - DA 01/01
 Soils, Statewide DA 11/99

(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* Swan Coastal Plain	1,501,208	583,140	38.84	32.55
Shire* Waroona	83,230	46,404	55.75	78.12
Beard Vegetation Association 998	50,866	21,225	41.73	38.10
Heddle Vegetation Complex** 27	44,995	18,474	41.1	8.8

* (Shepherd, 2007)
** (Heddle et al, 1980)

The vegetation under application is in a degraded (Keighery, 1994) condition and is impacted by grazing pressures (DEC, 2009a).

The local area (10km radius) retains approximately 50% native vegetation most of which is in similar or better condition as the applied area (much within secure tenure).

Given the above the clearing as proposed is not likely to be at variance to this principle as the vegetation under application is not likely to be significant in an extensively cleared landscape.

Methodology

References:

DEC (2009a)
Keighery (1994)
Heddle et al (1980)
Shepherd (2007)

GIS Database:

Heddle Vegetation Complexes - DEP 22/06/95
Interim Biogeographic Regionalisation of Australia - EA 18/10/00
Local Government Authorities - DLI 8/07/04
Pre European Vegetation - DA 01/01
SAC Biodatasets - accessed 23 July 2009
NLWRA, Current Extent of Native Vegetation 20 Jan 2001

(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 applied area is located on the edge of a limestone ridge, the closest surface water expression area is located approximately 400m west of the applied area.

A site visit did not identify any riparian vegetation within the applied area (DEC, 2009a).

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

Methodology

References:

DEC (2009a)

GIS Database:

CALM Managed Lands and Waters - CALM 01/06/05
EPP Lakes Policy Area - DEP 14/05/97
EPP, Wetlands 2004 (DRAFT) - EPA 21/7/04
Clearing Regulations, Environmentally Sensitive Areas 30 May 2005
Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain DEC 11/04/07
Hydrography linear - DOW 13/7/06
Hydrography linear (hierarchy) - DoW 13/7/06
Ramsar wetlands - DEC 03
South Coast Significant Wetlands - WRC 10/06/2003

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

Comments

Proposal may be at variance to this Principle

The applied area is located on the western side of a limestone ridge with shallow sandy soils within the A Horizon, in close proximity to Lake Clifton (approximately 500m west) (DEC, 2009a).

Given the westerly facing situation of the applied area, proximity to the coast and presence of sandy soils land degradation in the form of wind erosion may result from the removal of native vegetation within the applied area.

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

Methodology

References:

DEC (2009a)

GIS Database:

Acid Sulfate Soil Risk Map, Swan coastal Plain - DEC 07/08/06
Average Annual Rainfall Isohyets - WRC 29/09/98
Annual Evaporation Contours (Isopleths) - WRC 29/09/98
Hydrogeology, statewide DOW 13/07/06
Hydrographic catchments, catchments - DoW 01/06/07
Hydrography, linear - DOW 13/7/06
Salinity Risk LM 25m - DOLA 00
Soils, Statewide DA 11/99
Topographic contours statewide - DOLA and ARMY 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 at variance to this Principle

The applied area is located approximately 20m west of Myalup State Forest and approximately 400m east of the Yalgorup National Park.

The vegetation under application was observed to be impacted by heavy grazing pressure (DEC, 2009a) clearing of native vegetation within this area may increase the spread of weeds from the applied area to areas of conservation significance.

The applied area is mapped as have an annual rainfall of 900mm and annual evapotranspiration rate of 800mm. While no evidence of dieback was apparent during a site inspection the applied area is at high risk of obtaining and spreading dieback due to machinery movement through the applied area.

Given the above the clearing as proposed is at variance to this principle as the proposal is likely to result in the spread of weeds and potentially dieback into nearby conservation areas.

Methodology References:
DEC (2009a)

GIS Database:
CALM Managed Lands and Waters - CALM 01/06/05
Hydrography, linear - DOW 13/7/06
Register of National Estate - Environment Australia, Australian and world heritage division 12 Mar 02
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 may be at variance to this Principle

The applied area is situated on the western side of a limestone ridge in close proximity to Lake Clifton.

The vegetation under application is predominately Peppermint thicket with scattered Tuart trees in a degraded (Keighery, 1994) condition (DEC, 2009a).

Removal of deep rooted perennial vegetation may incrementally impact on the quality and quantity of surface and ground water flowing into Lake Clifton. It is also noted that Lake Clifton supports a conservation significant community of Thrombolites which are sensitive to groundwater change (DEC, 2009a).

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

Methodology References:
DEC (2009a)
Keighery (1994)

GIS Database:
Evapotranspiration Isopleths - WRC 29/09/98
Groundwater Salinity Statewide DoW 13/07/06
Hydrographic catchments, catchments - DoW 01/06/07
Hydrographic catchments, subcatchments - DoW 01/06/07
Hydrography, linear - DOW 13/7/06
Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
Salinity Risk LM 25m - DOLA 00
Topographic Contours, Statewide - DOLA 12/09/02

(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**
The applied area is located on the western side of a limestone ridge with sandy soils overlaying the limestone deposits (DEC, 2009a).

The local area (10km) retains approximately 50% native vegetation cover.

Given the above the removal of 5.5ha of native vegetation from the applied area is not likely to increase or exacerbate the incident or intensity of flooding within the local area.

Methodology **References:**
DEC (2009a)

GIS Database:
Evapotranspiration Isopleths - WRC 29/09/98
Groundwater Salinity Statewide DoW 13/07/06
Hydrographic catchments, catchments - DoW 01/06/07
Hydrographic catchments, subcatchments - DoW 01/06/07
Hydrography, linear - DOW 13/7/06
Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
Salinity Risk LM 25m - DOLA 00
Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

The proposal is to clear 5.5ha of native vegetation for the purpose of limestone extraction. Supporting documentation provided by the applicant identifies long term plans to extract limestone over the whole of Lot 1 in the future (Figure 1: DOC90505). An extractive industry licence has been obtained from the Shire of Waroona for the proposed activity (DOC105128).

The applied area falls within the Peel Region Scheme under which the land is identified as a mineral and resource site.

The applied area includes some Tuart trees and the applied area falls within the boundary of the Tuart Conservation and Management Strategy. Given the sparsity of Tuarts within the applied area the clearing as proposed is not likely to be inconsistent with this strategy.

Methodology **GIS Database:**
Cadastre - Landgate Dec 07
Native Title Claims - LA 2/5/07
RIWI Act, Groundwater Areas - DoW 13/07/06
RIWI Act, Irrigation Districts - DoW 13/07/06
Town Planning Scheme Zones - MFP 31/08/98
Country Area Water Supply Act (Part IIA) Clearing Control Catchments 29/06/2006
Aboriginal Sites of Significance 26 April 2007
Public Drinking Water Source Areas (PDWSAs) 07/02/06

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 at variance to Principle (h), may be at variance to Principles (d), (g) and (i) and is not likely to be at variance to the remaining clearing Principles.

5. References

DEC (2009a) Site Inspection Report for Clearing Permit Application CPS 3204/1, Lot 1 Old Coast Rd, Lake Clifton. Site inspection undertaken 13/08/2009. Department of Environment and Conservation, Western Australia (TRIM Ref. DOC94371).

DEC (2009b) Fauna Advice. Department of Environment and Conservation Trim Ref DOC92483

DEC (2009c) Flora Advice. Department of Environment and Conservation Trim Ref DOC94643

Heddl, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Landform Research (2009) Vegetation Assessment of Lot 1, Old Coast Road, Lake Clifton, TRIM Ref DOC90505.

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.

Western Australian Herbarium (1998-). FloraBase The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> Accessed on Monday, 21 August 2009.

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)

