



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 3092/1
Permit Holder:	City of Albany
Duration of Permit:	4 July 2009 – 4 July 2015

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 gravel extraction.

2. Land on which clearing is to be done

Lot 6984 on Plan 195519, REDMOND WEST

3. Area of Clearing

The Permit Holder must not clear more than 0.6 hectares of native vegetation within the area hatched yellow on attached Plan 3092/1.

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. Type of clearing authorised

(a) 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.

(b) The Permit Holder shall not clear native vegetation unless the purpose for which the clearing is authorised is enacted within 3 months of the clearing being undertaken.

(c) Any clearing authorised under this Permit must be completed by 4 July 2013, being 4 years from the date from which this Permit becomes valid.

6. 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

7. 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.

8. Dieback and 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* and *dieback*:

- (i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (ii) shall not move soils in wet conditions;
- (iii) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (iv) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

(b) At least once in each 12 month period for the *term* of this Permit, the Permit Holder must remove or kill any *weeds* growing within areas cleared under this Permit.

9. Retain vegetative material and topsoil, ripping, 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 is already cleared.

(b) Prior to undertaking works pursuant to conditions 9(c), the Permit Holder shall rip the pit floor and contour batters within the extraction site.

(c) Within twelve months following the completion of gravel extraction authorised under this Permit, the Permit Holder must *revegetate* and *rehabilitate* the area cross-hatched yellow on attached Plan 3092/1 by:

- (i) deliberately laying the vegetative material and topsoil retained under condition 9(a) on the cleared area;
- (ii) deliberately *planting* and/or *direct seeding* native vegetation that will result in a similar species composition (including Priority Flora species *Stylidium plantagineum*), structure and density of native vegetation to pre-clearing vegetation types in that area;
- (iii) ensuring only *local provenance* seeds and propagating material are used to *revegetate* and *rehabilitate* the area; and

(d) Within twelve months of undertaking *revegetation* and *rehabilitation* in accordance with condition 9(c) of this Permit, the Permit Holder must:

- (i) determine the species composition (including Priority Flora species *Stylidium plantagineum*), 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 9(d)(i) of this Permit will not result in a similar species composition (including Priority Flora species *Stylidium plantagineum*), 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 9(c)(ii) and (iii) of this Permit.

PART III - RECORD KEEPING AND REPORTING

10. Records must be kept

- (a) 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:
- (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 9 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*.

11. 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 10 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 4 April 2015, the Permit Holder must provide to the CEO a written report of records required under condition 10 of this Permit where these records have not already been provided under condition 11(a) of this Permit.

Definitions

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

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

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

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;

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);

regenerate/ed/ion means *revegetation* that can be established from in situ seed banks 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 *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area;

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



Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

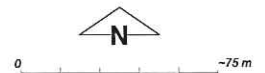
4 June 2009

Plan 3092/1



LEGEND

- Clearing Instruments
- Cadastre
- Albany Mount Barker 1.4m
- Orthomosaic - Landgate



Scale 1:2747

(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.

K Faulkner Date 4/6/09

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.



Department of Environment and Conservation

WA Crown Copyright 2002



1. Application details

1.1. Permit application details

Permit application No.: 3092/1
 Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: City of Albany

1.3. Property details

Property: LOT 6984 ON PLAN 195519 (REDMOND WEST 6327)
 Local Government Area: City of Albany
 Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.6		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 Association - 3: medium forest; <i>Eucalyptus marginata</i> (Jarrah), <i>Corymbia calophylla</i> (Marri).	The application is for the clearing of 0.6ha of native vegetation for the purpose of gravel extraction. The vegetation is in very good (Keighery 1994) condition. The application area has been previously logged, reducing the over storey species, and there are some areas of weed intrusion (<i>Watsonia bulbifera</i>) in more disturbed areas.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The vegetation condition and description was determined from Redmond Hay Reserve Preliminary Flora Survey (Spatial Information Surveys 2004).
Mattiske Vegetation Complex - Mitchell: open forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> , <i>Corymbia calophylla</i> , <i>Allocasuarina fraseriana</i> on broad undulating uplands in perhumid and humid zones.			

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

The application is for the clearing of 0.6ha of native vegetation for the purpose of gravel extraction. The vegetation is considered to be in very good (Keighery 1994) condition, with some weed intrusion and has been previously logged (Spatial Information Surveys 2004). The local area (10km radius) is approximately 50% vegetated with native vegetation.

A flora survey identified *Styliidium plantagineum* (P4) populations throughout the property under application (Spatial Information Surveys 2004). The clearing as proposed is likely to impact on several clusters of this species, and as such is at variance to this principle. However, the impact on the conservation of this priority species is not considered to be significant as not all plants within the population will be taken and conditions requiring the revegetation, including this species, of cleared areas will be imposed on the permit (DEC 2009).

The application area lies within a reserve vested with the City of Albany for gravel extraction, however the vegetation within this reserve holds conservation value due to the presence of priority flora species and its very good to excellent (Keighery 1994) condition. The clearing as proposed may increase the risk of weed and dieback intrusion into surrounding vegetation. Weed and dieback management conditions will be imposed on the permit.

Methodology

Keighery (1994)
 Spatial Information Surveys (2004)
 DEC (2009)

GIS database:
 - CALM Managed Lands and Waters - CALM 01/06/05
 - SAC Biodatasets - accessed 29 April 09
 - Mattiske Vegetation (01/03/1998)

- Declared Rare and Priority Flora List - CALM 13/08/03
- Heddl 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

Two rare and 3 priority fauna species have been recorded within the local area (10km radius), including *Calyptorhynchus banksii naso* (Forest Red-tailed Black Cockatoo) and the priority 4 species *Macropus irma* (Western Brush Wallaby). All records, excluding one for *Galaciella munda* (Western Mud Minnow), were within the Mt Lindsay National Park north west of the application area.

As the vegetation under application is surrounded by large remnants of native vegetation, and the proposed clearing is small (0.6ha), the significance of this vegetation as fauna habitat is reduced. The applied area is not considered necessary for the maintenance of a significant habitat for local fauna species. The clearing as proposed is therefore not likely to be at variance.

Methodology GIS database:

- CALM Managed Lands and Waters - CALM 01/06/05
- SAC Biodatasets - accessed 29 April 09
- Hydrography linear - DOW 13/7/06
- Hydrography linear (hierarchy) - DoW 13/7/06

(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

Two rare and 6 priority flora species have been recorded within the local (10km radius) area within the same soil and vegetation types as the application area.

A flora survey conducted throughout the property under application identified no rare flora species (Spatial Information Surveys 2004). It is therefore unlikely the vegetation under application is necessary for the continued existence of rare flora species. The clearing as proposed is not likely to be at variance to this principle.

Methodology Spatial Information Surveys (2004)

GIS database:

- Declared Rare and Priority Flora List - CALM 13/08/03
- Matiske Vegetation (01/03/1998)
- Pre European Vegetation - DA 01/01
- SAC Biodatasets - accessed 29 April 09
- 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 is not likely to be at variance to this Principle

There are no known threatened ecological communities recorded within a 10km radius of the application area. Therefore, the clearing as proposed is not likely to be at variance to this principle.

Methodology GIS Database:

- SAC Biodatasets - accessed 29 April 09
- Matiske Vegetation (01/03/1998)
- 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

The application lies within the City of Albany and the Jarrah Forest IBRA Bioregion, which retains 38.00% and 54.16% native vegetation respectively (Shepherd 2007). Orthomosaic imagery suggests the local area (10km radius) retains more than 50% native vegetation.

The vegetation under application is comprised of Beard Vegetation Association 3, of which 69.32% of its pre-

European extent remains (Shepherd 2007). The vegetation is also mapped as Mattiske Vegetation Complex Mitchell (MI) of which 77.8% remain (Mattiske Consulting 1998).

The vegetation under application is therefore not considered to be a significant remnant in the local area, and the clearing as proposed is therefore not likely to be at variance to this principle.

Methodology Mattiske Consulting (1998)
Shepherd (2007)

GIS Databases:

- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Local Government Authorities - DLI 8/07/04
- Mattiske Vegetation - CALM 1/03/1998
- Pre European Vegetation - DA 01/01
- SAC Biodatasets - accessed 29 April 09
- 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 application area lies 350m west and 366km south of the Blue Gum Creek, a minor perennial river, and 6.5km from Sheepwash creek (Mitchell Creek Suite wetland). The vegetation under application is therefore not considered to be growing in association with any watercourses or wetlands, and the proposal is not likely to be at variance to this principle.

Methodology GIS Databases:

- ANCA wetlands - Environment Australia 26/3/99
- EPP Lakes Policy Area - DEP 14/05/97
- EPP, Wetlands 2004 (DRAFT) - EPA 21/7/04
- Clearing Regulations, Environmentally Sensitive Areas 30 May 2005
- 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 is not likely to be at variance to this Principle**

The mapped soil type (Cb42) is described as plains with a succession of swampy flats broken by low sandy, or ironstone gravelly, knolls and hillocks: chief soils are leached sands, some of which have thin peaty surface horizons.

The risk of land degradation is minimal given the application area is small (0.6ha) and the surrounding land is well vegetated. The clearing as proposed is not likely to be at variance.

Methodology GIS database:

- 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
- Hydrogeology, Statewide 05 Feb 2002

(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**

The application is surrounded by conservation areas including Blue Gum Creek Nature Reserve (200m North), Denmark Catchment State Forest (15km South), and Mt Lindesay National Park (2km West). The application area may be providing some linkage between these reserves, however the significance is reduced by the small size of the proposed clearing and the extent of vegetation remaining around it.

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

Methodology GIS Databases:
- 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 is not likely to be at variance to this Principle**
Given the small (0.6ha) size of the application area, the proposed clearing is not expected to have a significant impact on water runoff or water entering the groundwater table. The clearing as proposed is therefore not likely to be at variance to this principle.

Methodology GIS database:
- Evaporation Isopleths - WRC 29/09/98
- Hydrographic catchments, catchments - DoW 01/06/07
- Hydrography, linear - DoW 13/7/06
- Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
- 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**
Given the size of the application area (0.6ha), and that vegetation in good (Keighery 1994) or better condition surrounds the extraction site, the proposal is not likely to cause or exacerbate the incidence or intensity of flooding. The clearing as proposed is therefore not likely to be at variance to this principle.

Methodology Keighery (1994)

GIS database:
- Evapotranspiration Isopleths - WRC 29/09/98
- Groundwater Salinity Statewide DoW 13/07/06
- Hydrographic catchments, catchments - 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
No submissions were received regarding this application.

Methodology

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 (a) and is not likely to be at variance to the remaining clearing Principles.

5. References

DEC (2009) Species and Communities Branch Advice. Department of Environment and Conservation Trim Ref DOC86350.
Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALMScience after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.
Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
Mattiske, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.
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.
Spatial Information Surveys (2004). Redmond Hay Reserve 06984 - Preliminary Flora Survey. TRIM ref DOC82228.

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)