



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 4010/1
Permit Holder:	Eleanor Hoy
Duration of Permit:	25 December 2010 – 25 April 2011.

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 soil sampling and root profile research.
- 2. Land on which clearing is to be done**
Licence number Lic 00333/2009_1_145
Located within the following properties:
unallocated Crown land (TELFER 6762)
- 3. Area of Clearing**
The Permit Holder must not clear more than 0.763 hectares of native vegetation within the area hatched yellow on attached Plan 4010/1.
- 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 *Land Administration Act 1997* or any other written law.
- 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.

PART III - RECORD KEEPING AND REPORTING

8. Records must be kept

The Permit Holder must maintain the following records in relation to the clearing of native vegetation authorised under this Permit:

- (a) 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;
- (b) the date that the area was cleared; and
- (c) 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:

- (i) of records required under condition 8 of this Permit; and
- (ii) concerning activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.

(b) Prior to 25 April 2015, 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.

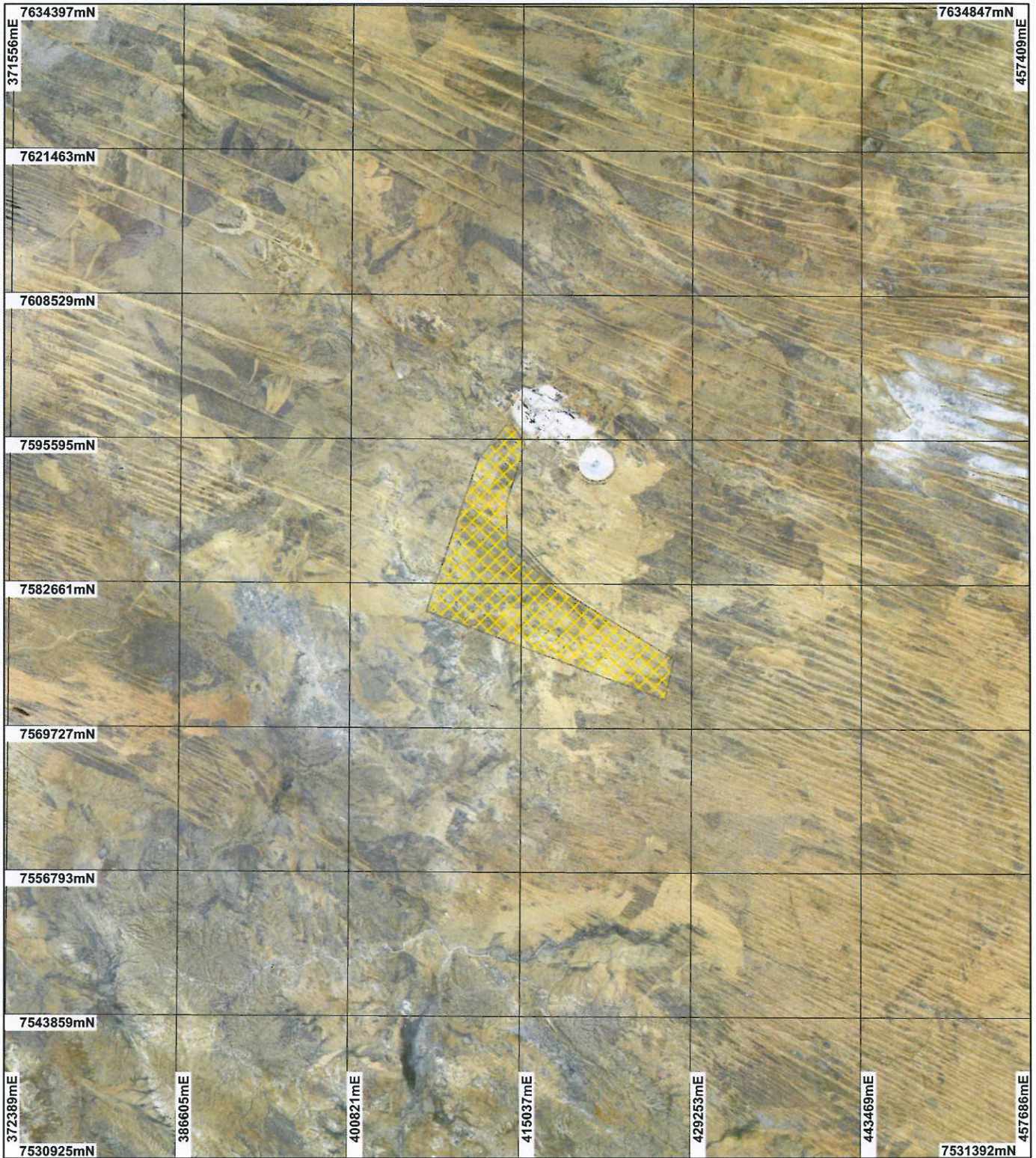


M Warnock
A/MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

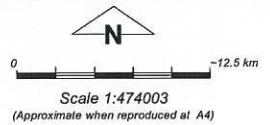
25 November 2010

Plan 4010/1



LEGEND

- Clearing Instruments
-  Areas Approved to Clear
 -  Road Centrelines
 -  Cadastral
- Western Australia Landsat Mosaic 25m - AGO 2006



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 *25/11/10*

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.



1. Application details

1.1. Permit application details

Permit application No.: 4010/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Eleanor Hoy School of Plant Biology University of WA

1.3. Property details

Property: UNALLOCATED CROWN LAND (TELFER 6762)
Local Government Area:
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.763		Mechanical Removal	Soil sampling and root profile research

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 25 November 2010

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 clearing envelope is mapped as being comprised of two Beard vegetation associations: - Beard 157 : Hummock grasslands, grass steppe; hard spinifex, Triodia wiseana - Beard 134 : Mosaic: Hummock grasslands, open low tree steppe; desert bloodwood and feathertop spinifex on sandhills / Hummock grasslands, shrub steppe; mixed shrubs over spinifex between sandhills. (Shepherd, 2009).	The proposed clearing of 0.763ha is required for the purpose of scientific investigations. The study seeks to collect detailed information of soil physical and chemical properties from a total of 23 soil pits at seven different locations. The vegetation is considered to range in condition from degraded to very good (Keighery, 1994). The dominant species recorded within the clearing envelope include Acacia robeorum, Triodia basedowi, Acacia ancistrocarpa, Acacia stipuligera and Triodia shinzii (Supporting information, 2010).	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994) Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994) Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The condition and description of the vegetation was determined via the use of aerial imagery.

3. Assessment of application against clearing principles

Comments

The proposed clearing of 0.763ha is required for the purpose of scientific investigations. The study seeks to collect detailed information of soil physical and chemical properties from a total of 23 soil pits at seven different locations and existing access track will be used to reduce clearing.

The dominant species recorded within the clearing envelope include Acacia robeorum, Triodia basedowi, Acacia ancistrocarpa, Acacia stipuligera and Triodia shinzii (Supporting information, 2010). The vegetation is considered to range in condition from degraded to very good (Keighery, 1994).

The local area (50km radius) has approximately 90 - 95% remaining vegetation and the Beard vegetation associations mapped over the clearing footprint have ~100% of pre-European levels of vegetation remaining (Shepherd, 2009).

There are a number of minor non-perennial watercourses that intersect the applied area, however these are not expected to be impacted by the proposed sampling activities.

Given the small size of the proposed clearing sites where soil and vegetation is to be removed, no significant impacts are anticipated. However the priority one flora species, *Eremophila tenella* (P1), was recorded within the clearing footprint and may occur at one or more of the selected soil sampling sites.

The applicant has advised that soil pits will remain open for up to seven days. To minimise the risk of fauna species being trapped within pits, a 30 degree batter will be maintained to prevent fauna entrapment. To further reduce the likelihood of impacts to fauna, soil pits should be filled immediately following the completion of soil sampling activities.

The proposed clearing is not likely to be at variance with any of the clearing principles.

Methodology

Keighery (1994)

Shepherd (2009)

GIS database:

- Western Australia Landsat Mosaic 25m- AGO 2006
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- DEC Tenure
- SAC Biodatasets (accessed Oct 2010)
- Soils, Statewide DA 11/99
- Pre European Vegetation (DA 2001)
- Clearing Regulations, Environmentally Sensitive Areas (2009)
- Current Extent of Native Vegetation (NLWRA 2001)
- NLWRA, Current Extent of Native Vegetation 20 Jan 2001
- Hydrography linear (hierarchy) - DoW 13/7/06

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

Comments

The applicant is conducting research which is supported by Newcrest Mining Ltd. Newcrest have a Section 91 licence which allows for soil sampling on the properties under application (Licence No: 00333/2009_1_145). Section 6.2(b)(i) of the Section 91 licence states that 'the Licensor, its servants, agents and contractors may enter the Licence Area at any time with all necessary materials and equipment to execute all or any required works as the Licensor thinks fit.' Newcrest have provided written authorisation for the applicant to access and clear on UCL covered by the Section 91. The Section 91 licence expires on 25 April 2011.

The Western Desert Lands Aboriginal Corporation (Martu native title claimant's representative body) have supplied in-principle agreement for the proposed soil sampling activities (DEC Ref: A341694).

Methodology

4. 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.
- Shepherd, D.P. (2009) 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.
- Supporting information (2010) Proposed Soil Sampling Activities As Part of Newcrest - UWA Eco - Hydrological Research. DEC Ref: A337374.

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)