GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 3416/1
Permit Holder:	Department of Corrective Services
Duration of Permit:	10 January 2010 – 10 January 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 constructing a work camp and associated infrastructure.

2. **Land on which clearing is to be done**
   Lot 622 on Plan 207146 (Great Northern Highway)

3. **Area of Clearing**
   The Permit Holder must not clear more than 6.9 hectares of native vegetation within the area hatched yellow on attached Plan 3416/1.

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:
   (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

7. 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).

8. 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 7 of this Permit and activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.

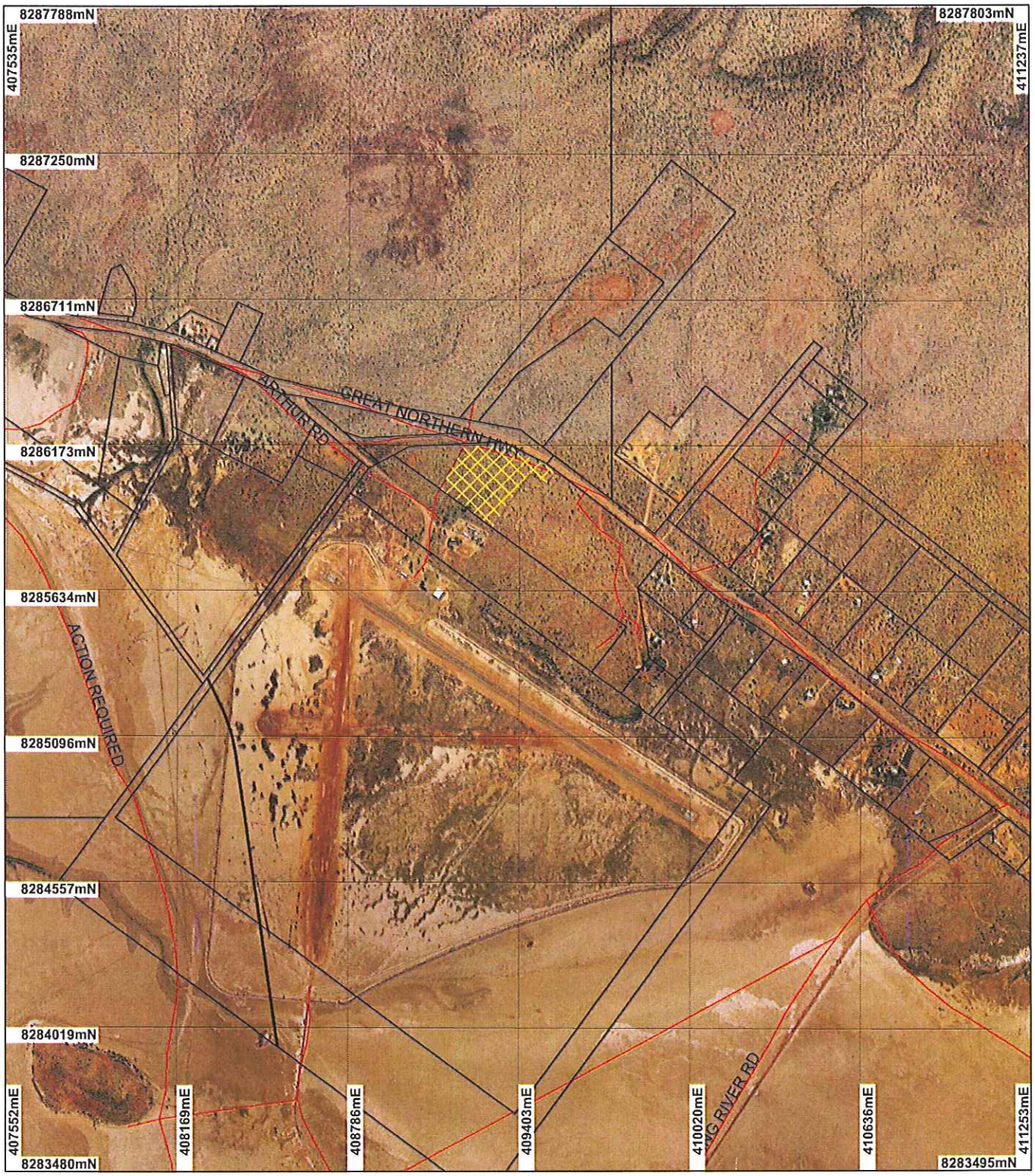
(b) Prior to 10 October 2014, the Permit Holder must provide to the CEO a written report of records required under condition 7 of this Permit where these records have not already been provided under condition 8(a) of this Permit.

Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

Officer delegated under Section 20
of the Environmental Protection Act 1986

10 December 2009

Plan 3416/1



LEGEND

- Road Centrelines
- Wyndham 50cm Orthomosaic * Landgate 2007
- Erskine 50cm Orthomosaic * Landgate 2004
- Cadastre

Clearing Instruments

- Areas Approved to Clear

N

0 ~500 m

Scale 1:18816
(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 10/12/09

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 acknowleged by the agency acronym in the legend.

Department of Environment and Conservation

Our environment, our future

* Project Data. This data has not been quality assured. Please contact map author for details.

Department of Environment and Conservation
Our environment, our future

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 3416/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Department of Corrective Services**

1.3. Property details

Property: LOT 622 ON PLAN 207146 (Lot No. 622 GREAT NORTHERN WYNDHAM 6740)
Local Government Area:
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
6.9		Mechanical Removal	Building or Structure

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
Comprises a single, relatively uniform community represented by Beard Vegetation Association Victoria Bonaparte 914, typically categorised as grasslands, high grass savanna woodland; grey box & Eucalyptus foelscheana over kangaroo (Themeda australis) & white grass (Shepherd, 2007).	The application is to clear 6.9 hectares of native vegetation for the purpose of a building or structure. The vegetation condition is Good (Keighery 1994).	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Going by aerial photography, the area under application appears sparsely vegetated with limited ground cover and lacking any distinctive groundcover or upper storey. This appearance is typical of a vegetaion community represented by Beard Vegetation Association Victoria Bonaparte 914 - i.e. grasslands.

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 purpose of clearing is for the construction of work camp buildings and assosciated infrastructure.

The vegetation comprises a single, relatively uniform type represented by Beard Vegetation Association Victoria Bonaparte 914 - i.e. grasslands, high grass savannah woodland; grey box & Eucalyptus foelscheana over kangaroo (Themeda australis) & white grass (Shepherd, 2007).

The vegetation within the application site is associated with a relatively narrow and restrictive soil type (red/brown loamy friable earth) within the general area of the proposed clearing. The vegetation type changes within 5km to the south to Beard Vegetation Association Victoria Bonaparte 127 - i.e. bare areas of mud flats. Within 5klm to the north Beard Vegetation Association Victoria Bonaparte 911 occurs - i.e. grasslands, high grass savannah woodland; bloodwood over upland tall grass & curly spinifex.

Victoria Bonaparte 914 vegetation type is still well represented in the IBRA Bioregion and the Shire of Wyndham-East Kimberley with more than 98% of the vegetation type remaining.

Three Priority 1 listed flora species (Echinochloa kimberleyensis, Goodenia brachypoda and Trachymene oleracea subsp. sediment), one Priority 2 (Utricularia aurea) and one Priority 3 (Brachychiton incanus) have been recorded within 20km of the application site (WAHERB, DEFL).

Trachymene oleracea subsp. sediment and Brachychiton incanus occur between 4-6km to the northwest of the application site, and within the same soil type. However the species preferred habitat is rocky sandstone

outcrops higher up in the landscape (WAHERB, DEFL). Going by aerial photography, the application site appears to lack such habitat, is low in the landscape with a uniform, flat elevation. The next occurrence of these species is 4-7km to the north and 13km to the southeast, and are well represented at those sites. Given the differing landform, it is unlikely that these species occur within the application site.

Given the extent of the remaining vegetation association remaining (more than 98%) within the surrounding area, the proposed clearing of 6.9ha is unlikely to have a significant impact on the biodiversity of the area.

Methodology Keighery (1994)
Shepherd (2007)

GIS - SAC Biodata sets:
- Clearing Regulations - Environmentally Sensitive Areas
- Soils - Northcote et al. (1968)
- DEFL, WAHERB; accessed 4.12.09
- Imagery - Erskine 50cm Orthomosaic Landgate 2004; Wyndham 50cm Orthomosaic Landgate 2007

(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**
One individual of the Water-rat (Priority 4; recorded in 1968) and one Northern Quoll (Endangered; recorded in 1908) are the only mammal species recorded within a 30km radius of the application site.

Two Priority 4 bird species, 1 Vulnerable and 1 Endangered have been recorded within a 20km radius of the application site. The Eastern Curlew (Priority 4; recorded in February 1998) and Gouldian Finch (Endangered; recorded in August 1999) were recorded within 5km of the application site. The Flock Bronzewing (Priority 4) and Australian Painted Snipe (Vulnerable) were recorded beyond 15km of the application site.

Going by aerial photography, it is unlikely that the application site, with its scattered grassy vegetation and minimal tree canopy, is suitable habitat to support any of these fauna species in the short or long term.

Methodology GIS - SAC Biodata sets:
- Fauna; accessed 4.12.09
- Imagery; Erskine 50cm Orthomosaic Landgate 2004; Wyndham 50cm Orthomosaic Landgate 2007

(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 recorded occurrances of declared rare flora within the proposed clearing area or within a 30km radius.

Given this, it is unlikely that the clearing proposal is at variance to this principle.

Methodology GIS SAC Bio datasets:
Accessed 4.12.09 - DEFL, WAHERB

(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 recorded occurrances of threatened ecological communities within the proposed clearing area or within a 30km radius.

Given this, it is unlikely that the clearing proposal is at variance to this principle.

Methodology GIS - SAC Biodata sets:
Accessed 4.12.09 - TEC

(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 proposed clearing is not likely to be at variance to this principle given: 1) the area has not been extensively cleared, 2) the majority of the pre-European vegetation extent remains for this vegetation type (greater than 98% remains; Shepherd et al, 2007) and 3) the proposed clearing of 6.9ha is not consider a significant remnant in the local area.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	% In reserves DEC Managed Land
IBRA Bioregions				
Victoria Boneparte	1,871,000	1,848,000	98.77	5.83
Shire				
Wyndham East Kimberley	11,191,000	159,071	83.2	N/A
Beard Vegetation Association				
914	50,138.37	50,026.45	99.78	7.31
Beard Vegetation Association with Bioregion				
914	44,424	41,424	100	8.82
Beard Vegetation Association with Shire				
914	50,133	50,025	99.79	7.31

(Shepherd et al. 2007)

Methodology GIS SAC Biodata sets:

Shepherd (2007)
- Imagery; Erskine 50cm Orthomosaic Landgate 2004; Wyndham 50cm Orthomosaic Landgate 2007

(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

The application area is located 5km west and 7km south of ANCA Wetlands, within the Ord River Flood Plain RAMSAR system. The main river systems of King River, Ord River and West Arm occur approximately 3km to the southeast, 13km east and 13km (also) east respectively of the proposed clearing. Parry Creek, a minor system, also occurs 13km east.

As the application area is outside all of the recommended buffer zones for these wetlands and river systems (Department of Water, 2006), given the distance to the nearest creek/river course and given that none of the vegetation under application is riparian, it is considered the area under application is not an environment associated with a watercourse or wetland.

Methodology Department of Water (2006)
GIS SAC Biodata sets:
- ANCA wetlands
- DEC Managed Lands and Waters
- EPP Lakes Policy Area
- EPP, Wetlands
- Clearing Regulations, Environmentally Sensitive Areas
- Hydrography linear

(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 soil of the area under application is described as red/brown loamy soil that is very porous and friable, with gravel present on moderate to gentle slopes (Northcote et al, 1960-1968). The soil is characterised by having a minor distribution in the Pilbara, a high available water storage, low wind erodibility and moderate soil permeability. Water erosion is a risk on steeper slopes.

Rainfall for the area averages 900mm with evaporation at 600mm; ground water salinity is less than 500mg/L.

The area under application has a uniform elevation and low relief.

Given the characteristics of the soil, the proposed clearing is unlikely to cause appreciable land degradation.

Methodology GIS SAC Biodata sets:

Soils - Northcote et al. (1960 - 1968)

(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 proposed clearing is not likely to be at variance to this principle given the large distance between the application site and the conservation areas. Parry Lagoons Nature Reserve occurs 5km to the southeast, Ord river Nature Reserve 13km to the east and a 5(1)(h) crocodile management reserve occurs 11km southwest of the area under application.

Methodology

Department of Water (2006).

GIS SAC Bio data sets:
- ANCA wetlands
- DEC Managed Lands and Waters
- EPP Lakes Policy Area
- EPP, Wetlands
- Clearing Regulations, Environmentally Sensitive Areas
- Hydrography linear

(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 clearing as proposed is unlikely to have any impact upon the quality of surface or ground water.

The area is not within any Rights in Water and Irrigation (RIWI) area or Public Drinking Water Source Area.

Methodology

GIS SAC Bio data sets:
- Public Drinking Water Source Areas (PDWSA)
- Hydrography, 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

Proposal is not likely to be at variance to this Principle

The vegetation of the area under application is recorded as high grass savannah woodland. Going by aerial photography, the area appears sparsely vegetated with limited ground cover and/or lacking any distinctive groundcover. The loamy soil is very porous, has a high available water storage and moderate soil permeability [Department of Agriculture (2002); Northcote et al (1960-1968)]. There is no evidence from aerial photography, given the vegetation and soil chararcteristics, of previous flooding having occurred.

Given this, the clearing as proposed is unlikely to contribute to, or have any influence on, the incidence of flooding.

Methodology

Department of Agriculture (2002).

GIS Bio data sets:

- Soils - Northcote et al. (1960-1968)
- Imagery - Erskine 50cm Orthomosaic Landgate 2004; Wyndham 50cm Orthomosaic Landgate 2007

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

Comments

The area under application is zoned "Z-public purposes" under the Town Planning Scheme.
Shire of Wyndham-East Kimberley has granted access to the land for clearing activities.

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 was found to be not likely to be at variance to Principles (a), (b), (c), (d), (e), (g), (h), (i) and (j) and to be not at variance with Principles (f).

5. References

Department of Water (2006) Water Quality Protection Note 6: Vegetation Buffers to Sensitive Water

Department of Agriculture (2002), Soil Groups of Western Australia, Resource Management Technical Report 246.
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.
Sac Bio Datasets (4/12/2009). Department of Environment and Conservation, Sac Bio Datasets, Kensington, Western 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.

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 (now DEC)
DMP	Department of Mines and Petroleum (ex DoIR)
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)