



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 413/4
Permit Holder:	Paddington Gold Pty Ltd
Duration of Permit:	9 July 2005 to 9 July 2018

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 mining.

2. Land on which clearing is to be done

Mining Tenement M24/165

Mining Tenement M24/390

3. Area of Clearing

The Permit Holder must not clear more than 50 hectares of native vegetation within the area cross hatched yellow on attached Plan 413/4.

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.

PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

5. 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.

6. 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*:

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

7. Flora management

Where *priority flora* species *Ptilotus chortophytus* has been identified and its written location provided to the CEO, the Permit Holder shall ensure that:

- (a) no clearing of identified *Ptilotus chortophytus* occurs; and
- (b) no clearing occurs within 50 metres of identified *Ptilotus chortophytus* unless first approved by the CEO.

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 July to 30 June of the preceding year.
- (b) If no clearing authorised under this Permit was undertaken between 1 July to 30 June of the preceding year, a written report confirming that no clearing under this permit has been carried out, must be provided to the CEO on or before 30 June of each year.
- (c) Prior to 9 April 2018 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:

fill means material used to increase the ground level, or fill a hollow;

priority flora means those plant taxa described as priority flora classes 1, 2, 3, 4 or 5 in the *Department of Environment and Conservation's Threatened and Priority Flora List for Western Australia* (as amended);

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;

weed/s means any plant -

- (a) that is declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*; or
- (b) published in the Department of Environment and Conservation Regional Weed Assessments, regardless of ranking; or
- (c) not indigenous to the area concerned

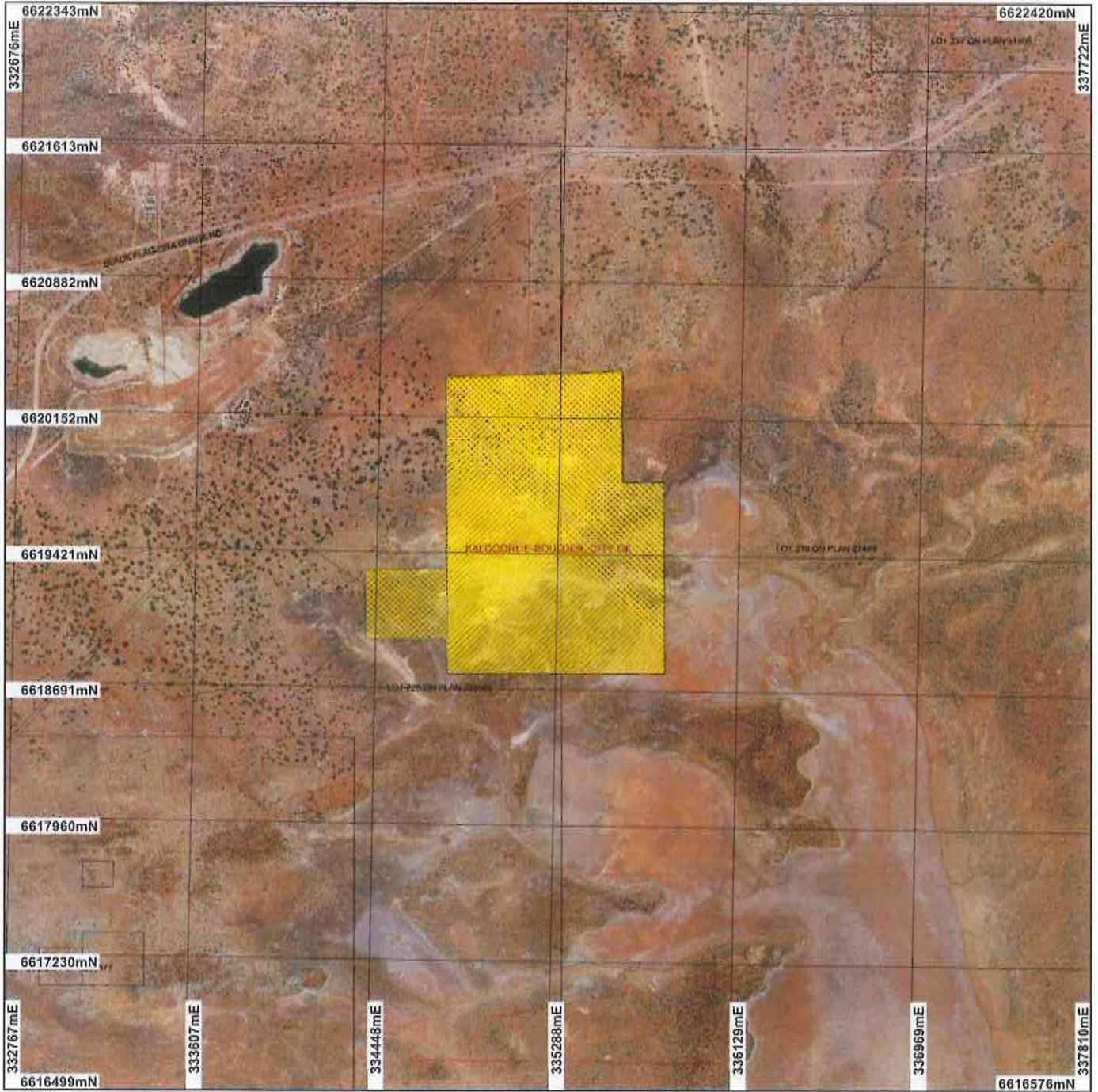


M Warnock
A/MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

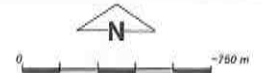
4 April 2013

Plan 413/4



LEGEND

- Road Centrelines
- Cadastre
- Local Government Authorities
- Clearing Instruments
- Areas Approved to Clear
- Kalgoorlie 50cm UTM mosaic - Landgate 2006



Scale 1:20121
(Approximate when reproduced at Letter)

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 26/4/13
M. Warnock

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

Our environment, our future
WA Crown Copyright 2002

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



1. Application details

1.1. Permit application details

Permit application No.: 413/4
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Paddington Gold Pty Ltd

1.3. Property details

Property: LOT 225 ON PLAN 238065 (KANOWNA 6431)
UNALLOCATED CROWN LAND (KANOWNA 6431)
LOT 219 ON PLAN 27467 (KANOWNA 6431)
LOT 237 ON PLAN 31605 (KANOWNA 6431)
Local Government Area: City of Kalgoorlie - Boulder

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
50		Mechanical Removal	Mineral Production

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 4 April 2013

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
Mapped Beard Vegetation Association 540 is described as Succulent steppe with open low woodland consisting of sheoak over saltbush (Shepherd et al, 2001).	This application proposes to clear 50 hectares of native vegetation within Lot 219 on Plan 27467 and Lot 225 on Plan 238065, Kanowna (Mining Tenement M24/165). There are six main vegetation associations located within the application area (GHD, 2012).	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The condition of the vegetation was established through a Level 1 Flora and Fauna Assessment (GHD, 2012).
Mapped Beard Vegetation Association 125 is described as bare areas consisting largely of salt lakes (Shepherd et al, 2001).	Vegetation Association V1 Eucalyptus salmonophloia woodland consists of a Eucalyptus salmonophloia over scattered tall shrubs comprised of Exocarpos aphyllus and Casuarina pauper over Atriplex nummularia, Eremophila scoparia, Maireana sedifolia, and Cratystylis subspinescens open heath over a low open shrubland of Tecticornia doleiformis and Ptilotus obovatus.	To Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	
Mapped Beard Vegetation Association 468 is described as medium woodland consisting of salmon gum & goldfields blackbutt (Shepherd et al, 2001).	Vegetation Association V2 open samphire shrubland consists of Tecticornia indica subsp. bidens, Maireana glomerifolia and Frankenia interioris var. interioris low shrubland over Eragrostis dielsii scattered grasses over Disphyma crassifolium, Calandrinia polyandra and Eriochiton sclerolaenoides scattered herbs. Vegetation Association V3 Eucalyptus clelandii woodland consists of Eucalyptus clelandii over Casuarina pauper, Alectryon oleifolius subsp. canescens and Santalum spicatum scattered low trees over Eremophila interstans subsp. interstans, Eremophila oldfieldii subsp. angustifolia, Acacia tetragonophylla and Dodonaea lobulata scattered tall shrubs over Ptilotus obovatus, Atriplex nummularia, Atriplex vesicaria and Olearia muelleri low scattered shrubs over scattered herbs and grasses. Vegetation Association V4 mixed open woodland consists of Eucalyptus sp. over scattered low trees of Casuarina pauper over Acacia tetragonophylla, Alectryon oleifolius subsp. canescens and Eremophila sp. scattered tall shrubs over Atriplex nummularia, Maireana sedifolia and Dodonaea lobulata shrubland over a low open shrubland of Cratystylis microphylla, Ptilotus obovatus, and Scaevola spinescens.		

Vegetation Association V5 Eucalyptus sp. open woodland consists of Eucalyptus griffithsii and Eucalyptus cylindrifolia over Casuarina pauper and Acacia burkittii low open woodland over Santalum spicatum, Eremophila miniata subsp. miniata and Exocarpos aphyllus high open shrubland over Scaevola spinescens, Melaleuca laterifolia, and Eremophila oppositifolia subsp. angustifolia shrubland over Westringia rigida, Ptilotus obovatus, Olearia muelleri and Zygophyllum eremaeum low open shrubland over an open hummock grassland of Triodia irritans.

Vegetation Association V6 open Chenopod shrubland consists of Hakea preissii, Acacia tetragonophylla and Eremophila scoparia scattered tall shrubs over Rhagodia drummondii, Maireana pyramidata, Tecticornia doleiformis and Atriplex nummularia shrubland over Ptilotus obovatus, Frankenia interioris var. interioris and Sclerolaena obliquicuspis low shrubland over scattered herbs and grasses.

The main disturbance at the site is the result of previous clearing and grazing impacts, weed invasion, roads and tracks.

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

This application proposes to clear 50 hectares of native vegetation within Lot 219 on Plan 27467, Lot 225 on Plan 238065, Kanowna (Mining Tenements M24/165 and M24/390). The condition of the vegetation under application ranges from very good to completely degraded (Keighery, 1994), with the majority of the vegetation in a very good condition (GHD, 2012).

A survey undertaken by GHD (2012) identified six main vegetation associations within the survey area, with a total of 130 plant taxa representing 26 families and 67 genera. One priority flora species (approximately 30 individuals) was identified within the southern portion of the application area. This species is listed as a priority one species under the Wildlife Conservation Act 1950. There are currently only two other known populations of this species in geographically separated locations (GHD, 2012). The applicant has advised that this species will be avoided during works. Fauna management requiring the maintenance of a 50 metre buffer around this species will help to mitigate the effects of clearing.

There are no priority ecological communities within the local area (20 kilometre radius).

The City of Kalgoorlie - Boulder is extensively vegetated with 99.8 per cent pre-European vegetation remaining (Government of Western Australia, 2011).

A fauna survey identified one conservation significant fauna species within the application area, the Australian Bustard (GHD, 2012). Given that the City of Kalgoorlie - Boulder is extensively vegetated with 99.8 per cent of pre-European vegetation remaining (Government of Western Australia, 2011), it is unlikely for the proposed clearing to significantly impact fauna indigenous to Western Australia.

A total of nine weed species were identified within the survey area (GHD, 2012). The proposed clearing will increase the risk of weeds spreading into adjacent vegetated areas. Weed management practices will assist in mitigating this risk.

Given that the application area includes a geographically isolated priority one flora species and vegetation predominantly in a very good (Keighery, 1994) condition, the proposed clearing is at variance to this Principle.

Methodology

References:

- GHD (2012)
- Keighery (1994)
- Government of Western Australia (2011)
- DEC (2013)

GIS Databases:

- SAC Bio Datasets (Accessed January 2013)

(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**
There are four conservation significant fauna species recorded within the local area (20 kilometre radius), these being *Leipoa ocellata* (Malleefowl), *Branchinella denticulata* (fairy shrimp), *Ardeotis australis* (Australian Bustard) and *Charadrius rubricollis* (Hooded Plover) (DEC, 2007-).

One of these species, the Australian Bustard, was identified in a flora and fauna survey of the application area (GHD, 2012). This species inhabits grassland, including tussock grassland, hummock grassland, grassy woodland, low shrublands, and structurally similar artificial habitats, such as croplands and golf courses (BirdLife International, 2012).

Given the range of habitats that can be utilised by this species, and that the Beard Vegetation Associations located within the application area retain greater than 97 per cent of pre-European vegetation in the Eastern Goldfields Bioregion, it is not likely that the vegetation under application provides significant habitat for this species.

The south eastern corner of the application area partially falls within Black Flag Lake. This Lake holds importance as a breeding, feeding, roosting and nursery area for animal taxa and supports significant numbers of migratory species (DEC, 2013). The vegetation associated with this lake (open shrubland) is consistent with the well represented mapped Beard Vegetation Associations on site, therefore the vegetation under application is not considered necessary for the maintenance of a significant habitat for fauna indigenous to Western Australia.

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

Methodology References:
-GHD (2012)
-BirdLife International (2012)
-DEC (2007-)
-DEC (2013)

(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 species of rare flora mapped within the local area (20 kilometre radius).

The proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Databases:
-SAC Bio Datasets (Accessed January 2013)

(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 threatened ecological communities mapped within the local area (20 kilometre radius).

The proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Databases:
-SAC Bio Datasets (Accessed January 2013)

(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 at variance to this Principle**
The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

Beard Vegetation Associations 540 and 125 all retain greater than 97 per cent of pre-European vegetation within the Eastern Goldfields Bioregion. The City of Kalgoorlie - Boulder and the Eastern goldfields Bioregion retains approximately 100 per cent of pre-European vegetation (Government of Western Australia, 2011).

The vegetation under application contains vegetation predominantly in a very good (Keighery, 1994) condition, and contains a priority one flora species, however the vegetation is not within an area that has been extensively cleared and therefore the proposed clearing is not at variance to this Principle.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion*				
Eastern Goldfields	12,912,205	12,677,932	98	16
Shire*				
City of Kalgoorlie-Boulder	9,543,212	9,526,602	99.8	4
Beard Vegetation Associations in Bioregion*				
540	75,811	73,620	97	0
125	545,718	539,092	99	6

Government of Western Australia (2011)

Methodology References:
 -Keighery (1994)
 -Commonwealth of Australia (2001)
 -Government of Western Australia (2011)

(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 at variance to this Principle**
 A non-perennial lake (Black Flag Lake) occurs partially within the south eastern corner of the application area and several minor non-perennial watercourses run through the application area.

Black Flag Lake is recognised as a regionally significant wetland in the Coolgardie 3 IBRA subregion, and is part of a wider wetland system that also includes White Flag Lake, Lake Arrow and King of the West Lake. Black Flag Lake holds importance as a breeding, feeding, roosting and nursery area for animal taxa and supports significant numbers of plant and animal taxa, particularly migratory species. The lake is considered to be in a good condition (DEC, 2013).

Riparian vegetation in the form of open samphire shrubland occurs within the southern portion of the application area (GHD, 2012), therefore the proposed clearing is at variance to this Principle. However, the vegetation associated with this lake (open shrubland) is consistent with the well represented mapped Beard Vegetation Associations on site, and the removal of a small portion of this vegetation is unlikely to significantly impact on the values of this lake.

Methodology References:
 -GHD (2012)
 -DEC (2013)

GIS Databases:
 -Hydrography, linear
 -Hydrography, hierachy

(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 soils within the application area have been mapped by Northcote et al (1960-68) as shallow calcareous loamy soils, with shallow brown and grey-brown calcareous earths below which weathered rock occurs at shallow depths and gypseous and saline loams, together with gypseous and saline soils on the lake beds.

Given the sparseness of the vegetation under application, wind and water erosion causing appreciable land degradation as the result of clearing is unlikely.

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

Methodology References:
 -Northcote (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 at variance to this Principle**
 There are no conservation reserves within the local area (20 kilometre radius), therefore the proposed clearing is not at variance to this Principle.

Methodology GIS Databases:
-DEC Tenure

(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**

A non-perennial lake (Black Flag Lake) partially occurs within the south eastern portion of the application area and several minor non-perennial watercourses run through the application area.

These watercourses are likely to flow after major rainfall events, therefore the proposed clearing may cause short term issues with surface water sedimentation in Black Flag Lake, however, given the sparse open nature of the vegetation under application, and the low annual rainfall of the local area (300 millimetres per year), this impact is considered to be minimal.

Groundwater Salinity within the application area ranges between 14000 to 35000 milligrams per litre (highly saline). Despite this, it is not likely that the proposed clearing will result in the deterioration of surface or groundwater through salinity given the open nature of the vegetation under application, well vegetated surrounding area (99 per cent in the Goldfields Bioregion (Government of Western Australia, 2011)) and the low annual rainfall (300 millimetres per annum).

The proposed clearing may be at variance to this Principle.

Methodology References:
-Government of Western Australia (2011)

GIS Databases:
-Rainfall, Mean Annual
-Hydrography, linear
-Groundwater Salinity, Statewide

(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**

Flooding is unlikely to be an issue given the low annual rainfall (300 millimetres per annum) of the area, the sparseness of the vegetation to be removed and the topography on site.

Methodology GIS Databases:
-Topographic Contours, Statewide
-Rainfall, Mean Annual

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

Comments

No submissions from the public have been received for the proposed clearing.

The proposed clearing falls within the Goldfields Groundwater Area which is an area proclaimed under the Rights in Water and Irrigation Act 1914. The Department of Water (DoW) were notified of the proposed clearing and advised that they had no comment (DoW, 2012). The proponent has obtained a licence to take groundwater for the purpose of dewatering from the DoW.

The application area is zoned 'rural' under the town planning scheme.

The proponent has submitted a Mining Proposal to the Department of Mines and Petroleum for Environmental Approval. The proposal is currently under assessment. This assessment will take into consideration impacts associated with the mining operations post clearing.

The proposed clearing is to amend previous clearing permit CPS 413/3, by extending the proposed clearing area from 20ha to 50ha and extend the duration of the clearing permit by an additional 5 years.

Methodology References:
-DoW (2012)

GIS Databases:
-Town Planning Scheme Zone

4. References

- BirdLife International 2012. IUCN 2012. IUCN Red List of Threatened Species. Version 2012.2. Accessed February 2013.
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed February 2013.
- DEC (2013) Species and Communities Wetlands advice. Additional information for CPS 413/4. DEC Ref: A596822
- Department of Water (2013) Rights in Water and Irrigation advice for CPS5313/1. DEC Ref: A59193
- GHD (2012) Golden Flag Project Level 1 Flora and Fauna Assessment. Additional information for CPS 413/4. DEC Ref: A591812.
- Government of Western Australia (2011); 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, Perth.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Norton Gold Fields (2013) Golden Flag Open Cut Pit Mining Proposal. Additional information for CPS 413/4.
- 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., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.

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)