



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 4688/1

File Number: 2011/006788-1

Duration of Permit: From 16 January 2012 to 16 January 2014

PERMIT HOLDER

City of Cockburn

LAND ON WHICH CLEARING IS TO BE DONE

Lot 2 on Diagram 17998, HENDERSON 6166

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 0.99 hectares of native vegetation within the area hatched yellow on attached Plan 4688/1.

CONDITIONS

Nil.

A handwritten signature in cursive script, appearing to read "M Warnock", written over a horizontal line.

M Warnock
A/MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

22 December 2011

Plan 4688/1



LEGEND

-  Road Centrelines
-  Cadastre
-  Clearing Instruments
-  Areas Approved to Clear
-  Local Government Authorities

Swan Coastal Plain Central
20cm Orthomosaic - Landgate
2009



0 50 m

Scale 1:2000

(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.

M Warnock Date: 22/12/11
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.



Department of
Environment and Conservation

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1. Application details

1.1. Permit application details

Permit application No.: 4688/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: City of Cockburn

1.3. Property details

Property: LOT 2 ON DIAGRAM 17998 (HENDERSON 6166)
Local Government Area: City of Cockburn
Colloquial name: Henderson Waste Recovery Park – Cell 7 Leachate Ponds

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.99		Mechanical Removal	Dam construction or maintenance

1.5. Decision on application

Decision on Permit Application: GRANT
Decision Date: 22 December 2011

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: 998: Medium woodland; tuart (Shepherd, 2009)	The application is for the clearing of up to 0.99 hectares of native vegetation for construction of three leachate evaporation ponds associated with the Cell 7 expansion of the Henderson Waste Recovery Centre.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994)	The vegetation condition was determined from aerial photography and flora and fauna report undertaken by the City of Cockburn in September 2011 (City of Cockburn, 2011).
Hedde Vegetation Complex: Cottesloe Complex - Central and South is described as 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)	The application area consists of large mounded soil heaps of limestone and rocks and scattered trees and shrubs (City of Cockburn, 2011). It has been historically disturbed through previous land clearing activities, quarrying for limestone and is adjacent to areas utilised for the existing waste recovery facility. The native vegetation is described as Eucalyptus gomphocephala open woodland over exotic grassland (City of Cockburn, 2011). Floristic diversity is reduced, with 10 native species and 24 non-native species recorded in the area during a recent site visit (City of Cockburn, 2011). Structure is disturbed, with a significant loss of understorey, weed invasion and scattered trees and shrubs (GHD, 2011) The vegetation is considered to be in degraded to completely degraded (Keighery, 1994) condition.	To Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994)	

3. Assessment of application against clearing principles

Comments

The native vegetation proposed to be cleared is described as *Eucalyptus gomphocephala* open woodland over exotic grassland (City of Cockburn, 2011). Ten native and 24 non-native flora species were recorded during a recent site visit (City of Cockburn, 2011). The vegetation is in degraded to completely degraded (Keighery, 1994) condition and is not considered to be representative of the mapped vegetation types.

Considering the type and condition of the vegetation under application, the proposed clearing is not likely to impact upon flora or ecological communities of conservation significance.

Given the condition of the vegetation, the size of the proposed clearing (0.99 ha) and that better condition vegetation occurs in numerous nearby conservation reserves, the application area does not comprise significant fauna habitat

A fauna assessment was conducted in September to investigate the significance of the vegetation under application for conservation significant fauna (primarily black cockatoo feeding, breeding and roosting habitat) (GHD, 2011). The application area mainly comprises young tuarts and *Acacia rostellifera* that have regenerated following historical clearing and disturbance (GHD, 2011). There are two tuart (*Eucalyptus gomphocephala*) trees with a diameter at breast height over 500mm located on the eastern boundary of the proposed clearing area, on the battering of the leachate ponds (GHD, 2011). The fauna assessment reported that these trees do not contain hollows (GHD, 2011) and as such are not considered to hold high habitat value for native fauna.

Weeds identified as high priority for control are present within the application area, including Victorian coastal teatree, exotic grasses and *Pelargonium capitatum* (City of Cockburn, 2011).

There are no watercourses or wetlands mapped within the application area and the proposed clearing is not likely to result in appreciable land degradation or increase the incidence or intensity of flooding.

Considering the above, the proposed clearing is not likely to be at variance with the clearing principles.

Methodology

References:

City of Cockburn, 2011

Keighery, 1994

GHD, 2011

GIS Databases:

- Existing DEC Managed Lands and Waters - DEC 06/11

- Hydrography, Linear - DoW 02/04

- SAC Bio datasets (Accessed: 18/11/11)

- Swan Coastal Plain Central 20cm Orthomosaic - Landgate 2009

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

Comments

The design of the leachate ponds has been conducted in such a way as to minimise the areas required to be cleared by locating a portion of the ponds in an already cleared site and the batters have been trimmed as much as possible to reduce the overall impact of clearing on the site (City of Cockburn, 2011).

The City of Cockburn intends to undertake planting using native tree species, specific to the foraging needs of black cockatoos, across the site to improve amenity and also replace vegetation to create a corridor between Mt Brown and remnant vegetation to the east of the site (City of Cockburn, 2011). Prior to clearing, the City intends to engage a fauna specialist to ensure the site is free of native animals (City of Cockburn, 2011).

The Department of Environment and Conservation supports the City's proposed mitigation and rehabilitation actions.

Cell 7 and the proposed leachate ponds are located in the Latitude 32 redevelopment area and are zoned for Resource Recovery and Transport Industry Use (City of Cockburn, 2011).

The Western Australian Planning Commission (WAPC) considered the proposed construction of Cell 7 in relation to the Hope Valley - Wattleup Redevelopment Act 2000 and granted unconditional approval for the construction of Cell 7 on the 10 May 2010 (City of Cockburn, 2011).

Works Approval (W4619/2009/1) was amended by Department of Environment and Conservation (DEC) on the 1 September 2011 to allow for the construction of the proposed leachate ponds (DEC, 2011).

The site under application was reported under the Contaminated Sites Act 2003 due to its past use as an operational class I and III putrescibles and asbestos landfill and was classified as 'possibly contaminated - investigation required' on the 17 July 2009. A variety of contaminants such as heavy metals, nutrients and petroleum hydrocarbons have been identified in groundwater beneath the site. The proposed clearing is

considered unlikely to impact upon the potential groundwater contamination of the site.

The Henderson Waste Recovery Park is located within the Environmental Protection (Kwinana) (Atmospheric Waste) Policy Boundary 1999.

The Department of Water (DoW) has advised that, should groundwater abstraction be required, a licence from the DoW will be required as the application area is located within the Cockburn Groundwater Area proclaimed under the Rights in Water and Irrigation Act 1914. The issuing of a groundwater licence is not guaranteed, but if issued will contain a number of conditions that are binding upon the licensee (DoW, 2011). The City of Cockburn holds an existing groundwater licence GWL 49549, allocated for dust suppression (DEC, 2011).

There are no known Aboriginal Sites of Significance within the application area.

Methodology

References:

City of Cockburn, 2011

DEC, 2011

DoW, 2011

GIS Databases:

- Aboriginal Sites of Significance - DIA 02/10

- EPP, Kwinana Atmospheric Waste Policy - EPA 1999

- RIWI Act, Groundwater Areas - DoW 07/06

4. References

- City of Cockburn (2011) Flora and Fauna Report Leachate Ponds, Henderson Waste Recovery Park Cell 7 Construction and Supporting Information. City of Cockburn, October 2011. DEC Ref: A446467
- DEC (2011) Works Approval W4619/2099/1 Henderson Waste Recovery Park. Department of Environment and Conservation, Western Australia. DEC Ref: A453185
- DoW (2011) Rights in Water and Irrigation Act licensing advice received 07/12/2011. Department of Water, Western Australia. DEC Ref: A455551
- GHD (2011) Significant Fauna Assessment, Henderson Waste Recovery Park Cell 7 Construction. GHD Pty Ltd, September 2011. DEC Ref: A446467
- 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.

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)