



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 4386/2
File Number: 2011/004721-1
Duration of Permit: From 25 July 2011 to 25 July 2013

PERMIT HOLDER

Alcoa of Australia Ltd

LAND ON WHICH CLEARING IS TO BE DONE

Lot 151 on Plan 10914, OAKLEY 6208

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 4 hectares of native vegetation within the area hatched yellow on attached Plan 4386/2.

CONDITIONS

1. Fauna management

- (a) Prior to undertaking any clearing authorised under this Permit, the area(s) shall be inspected by a *fauna specialist* who shall:
- (i) identify *habitat trees* suitable to be utilised by Carnaby's black cockatoo (*Calyptorhynchus latirostris*), Baudin's black cockatoo (*Calyptorhynchus baudinii*) and Red-tailed black cockatoo (*Calyptorhynchus banksii naso*); and
 - (ii) inspect *habitat trees* identified under condition 1(a)(i) for the presence of Carnaby's black cockatoo (*Calyptorhynchus latirostris*), Baudin's black cockatoo (*Calyptorhynchus baudinii*) and Red-tailed black cockatoo (*Calyptorhynchus banksii naso*).
- (b) Where *habitat trees* identified under condition 1(a) contain hollows suitable for use by Carnaby's black cockatoo (*Calyptorhynchus latirostris*), Baudin's black cockatoo (*Calyptorhynchus baudinii*) and Red-tailed black cockatoo (*Calyptorhynchus banksii naso*); the Permit Holder shall retain these *habitat trees* in situ, or if this is not possible the Permit Holder shall construct and install 2 artificial nesting hollows, per each habitat tree removed, as follows:
- (i) each artificial nesting hollow shall be constructed using PVC pipe 0.3m in diameter, 25mm thickness and 1m in length;
 - (ii) each artificial nesting hollow shall include an external perch constructed of wood, and an internal ladder constructed of 50mm galvanised mesh affixed to the wall, to enable access;
 - (iii) each artificial nesting hollow shall have a free-draining floor constructed of galvanised woven wire mesh and lined with weathered woodchips to a depth of 20cm;
 - (iv) each artificial nesting hollow shall be attached to a tree located within 10 km of the area to be cleared;
 - (v) each artificial nesting hollow shall be attached to a tree that must have a diameter, at 1.5 metres above the ground, of at least 300 millimetres;
 - (vi) each artificial nesting hollow shall be attached to a tree at a height of no less than 3 metres above the ground, and no closer than 20 metres from any other tree to which a constructed artificial nesting hollow is attached; and
 - (vii) each artificial nesting hollow shall be attached to a tree in an inconspicuous position with the entrance hole facing away from the prevailing winds and rain, and protected from direct sunlight.

- (c) Where *habitat trees* identified under condition 1(a) contain hollows suitable for use by Carnaby's black cockatoo (*Calyptorhynchus latirostris*) Baudin's black cockatoo (*Calyptorhynchus baudinii*) and Red-tailed black cockatoo (*Calyptorhynchus banksii naso*), the Permit Holder shall retain these *habitat trees* in situ, or if this is not possible the Permit Holder shall:
 - (i) remove and retain intact hollows;
 - (ii) each removed and retained intact hollow shall be attached to a tree located within no more than 10 km from any clearing authorised under this Permit;
 - (iii) each removed and retained intact hollow shall be attached to a tree within one month of removing it; and
- (d) Within one week prior to undertaking any clearing authorised under this Permit, the Permit Holder shall engage a *fauna clearing person* to remove and relocate fauna identified under condition 1(a)(ii).

2. 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 only move soils in *dry 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.

3. Records must be kept

The Permit Holder must maintain the following records in relation to the fauna management of areas pursuant to condition 1 of this Permit:

- (a) the location of any habitat tree, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings; and
- (b) the location of the artificial nesting hollows, 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 location of surrogate trees for relocation with vacant hollows, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings; and
- (d) the location and date where relocated fauna was released, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings.

4. 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 3 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 2013, the Permit Holder must provide to the CEO a written report of records required under condition 3 of this Permit where these records have not already been provided under condition 4(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;

dry conditions means when soils (not dust) do not freely adhere to rubber tyres, tracks, vehicle chassis or wheel arches;

fauna clearing person means a person who has obtained a licence from the Department, issued pursuant to the *Wildlife Conservation Regulations 1970* authorising them to take fauna;

fauna specialist means a person with training and specific work experience in fauna identification or faunal assemblage surveys of Western Australian fauna;

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

habitat tree(s) means trees that have a diameter, at average adult human chest height, of greater than 70cm, healthy but with dead limbs and broken crowns that are likely to contain hollows and roosts suitable for native fauna, or where these are not present then healthy but with the potential to contain hollows and roosts;

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;

weeds 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*.

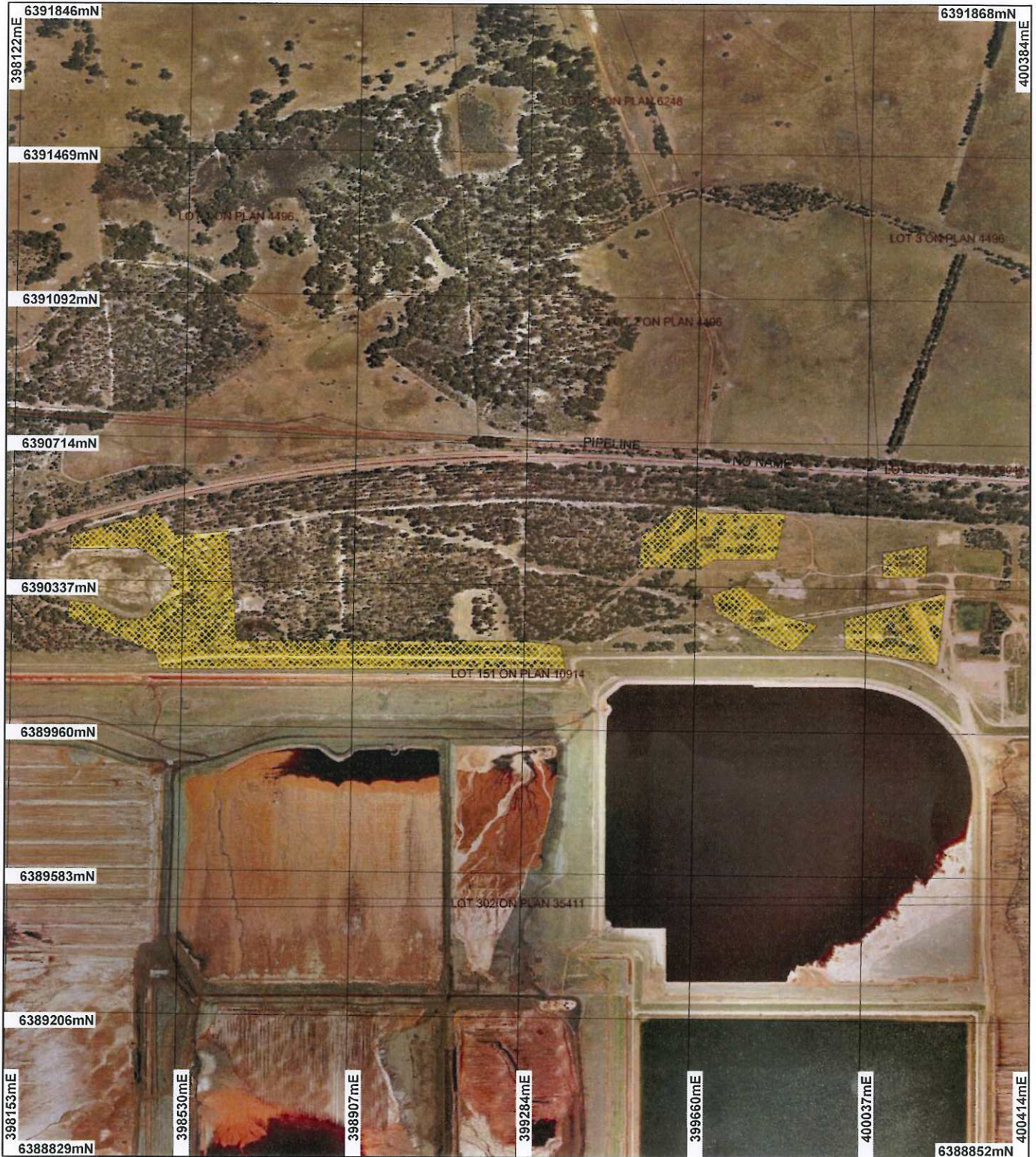


Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

18 August 2011

Plan 4386/2



LEGEND

- Road Centrelines
- Cadastre for labelling
- Freehold
- Crown Reserve
- State Forest / Timber Reserve
- Marine Park (cont)

- Crown Lease
- Lease / Reserve
- Lease on State Forest / Timber Reserve
- Public Roads
- Unallocated Crown Land
- Water
- Clearing Instruments**
(cont)

Areas Approved to Clear
Swan Coastal Plain South
20cm Orthomosaic - Landgate
2009



0 375 m

Scale 1:13311
 (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.

Date *12/2/10*

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

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1. Application details

1.1. Permit application details

Permit application No.: 4386/2

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Alcoa of Australia Limited

1.3. Property details

Property: LOT 151 ON PLAN 10914 (OAKLEY 6208)

Local Government Area: Shire of Murray

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
4		Mechanical Removal	Industrial

1.5. Decision on application

Decision on Permit Application: Grant

Decision Date: 18 August 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: 968 Medium woodland; jarrah, marri & wandoo (Shepherd 20009)	The clearing proposed is 4ha of native vegetation within a 22.2ha footprint for the purpose of the construction of residue storage area.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	The condition and description of the vegetation has been established through a site visit conducted by DEC officers on the 10 June 2011 (DEC, 2011)
Heddle Vegetation Complex: Guildford Complex A mixture of open forest to tall open forest of <i>Corymbia calophylla</i> (Marri) - <i>Eucalyptus wandoo</i> (Wandoo) - <i>Eucalyptus marginata</i> (Jarrah) and woodland of <i>Eucalyptus wandoo</i> (Wandoo) (with rare occurrences of <i>Eucalyptus lane-polei</i> (Salmon White Gum)). Minor components include <i>Eucalyptus rudis</i> (Flooded Gum) - <i>Melaleuca raphiophylla</i> (Swamp Paperbark). (Hedde et al 1980)	The area under application predominately consists of scattered mature Marri trees and scattered <i>Kingia australis</i> over pasture weeds and planted eastern states <i>Eucalyptus</i> in a completely degraded condition. Cattle graze within these areas.		
As above	A small area to the west around a man-made lake consists of Marri woodland over <i>Kingia australis</i> , native sedges, <i>Banksia attenuata</i> , and sheoak over grassy weeds occurs in a degraded area. The application areas have been extensively grazed by stock. Numerous Marri trees contained small to medium sized hollows with one Marri tree containing a large sized hollow suitable for black cockatoo species (DEC 2011).	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	As above

3. Assessment of application against clearing principles

Comments

An administrative error has occurred at conditions 1(b)(iv) and 1(c)(ii) relating to the relocation distance for artificial nesting hollows and intact hollows. These conditions have now been amended to reflect a 10 km relocation distance. The assessment against the clearing principles has not changed and can be found in the Clearing Permit Decision Report CPS 4386/1.

Methodology

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

Comments

The assessment against planning instruments and other matters has not changed and can be found in the Clearing Permit Decision Report CPS 4386/1.

Methodology

4. References

DEC (2011) Site Inspection Report for Clearing Permit Application CPS 4386/1, Lot151 Alcoa Rd, Oakley. Site inspection undertaken 10 June 2011. Department of Environment and Conservation, Western Australia (DEC Ref. DOCA403023).

Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.

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)