



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 4481/1
File Number: A1254/201101
Duration of Permit: From 1 October 2011 to 1 October 2016

PERMIT HOLDER

BHP Billiton Worsley Alumina Pty Ltd

LAND ON WHICH CLEARING IS TO BE DONE

Alumina Refinery (Worsley) Agreement Act 1973, Mining Lease 258SA (AM 70/ 258), Lease 3116/7574, Document I 150306 L, Lot 5314 on Deposited Plan 220209.

Alumina Refinery (Worsley) Agreement Act 1973, Mining Lease 258SA (AM 70/ 258), Lease 3116/8072, Document I 154246 L, Lot 5315 on Deposited Plan 220209.

AUTHORISED ACTIVITY

1. The Permit Holder must not clear more than 5.04 hectares of native vegetation. All clearing must be within the area cross hatched yellow on attached Plan 4481/1.

CONDITIONS

Avoid, minimise etc clearing

1. 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:
 - (i) avoid the clearing of native vegetation;
 - (ii) minimise the amount of native vegetation to be cleared; and
 - (iii) reduce the impact of clearing on any environmental value.

Dieback and Weed control

2. 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.

Fauna management

3. (a) Prior to undertaking any clearing authorised under this Permit, the areas shall be inspected by a *fauna specialist* who shall identify *habitat trees* suitable to be utilised as habitat by fauna listed in the *Wildlife Conservation (Specially Protected Fauna) Notice 2010(2)*.
 - (b) Prior to clearing, any *habitat trees* identified by Condition 3(a) shall be inspected by a *fauna specialist* for the presence of fauna listed in the *Wildlife Conservation (Specially Protected Fauna) Notice 2010(2)*.
 - (c) 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 3(b).

Retain vegetative material and topsoil, revegetation and rehabilitation

4. The Permit Holder shall:

- (a) retain the vegetative material and topsoil removed by clearing authorised under this Permit and stockpile the vegetative material and topsoil in an area that has already been cleared.
- (b) within 6 months following completion of clearing authorised under this permit, *revegetate* and *rehabilitate* the areas that are no longer required for the purpose for which they were cleared under this Permit by:
 - (i) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land; and
 - (ii) ripping the ground on the contour to remove soil compaction; and
 - (iii) laying the vegetative material and topsoil retained under Condition 4(a).
- (c) within 4 years of laying the vegetative material and topsoil on the cleared area in accordance with Condition 4(b) of this Permit:
 - (i) engage an *environmental specialist* to determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and
 - (ii) where, in the opinion of an *environmental specialist*, the composition structure and density determined under Condition 4(c)(i) of this Permit will not result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, *revegetate* the area by deliberately *planting* and/or *direct seeding* native vegetation that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area and ensuring only *local provenance* seeds and propagating material are used.

Records to be kept

5. The Permit Holder must maintain the following records for activities done pursuant to this Permit:

- (a) In relation to the clearing of native vegetation authorised under this Permit:
 - (i) 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 or decimal degrees;
 - (ii) the date that the area was cleared;
 - (iii) the size of the area cleared (in hectares); and
 - (iv) purpose for which clearing was undertaken.
- (b) In relation to fauna management pursuant to Condition 3 of this Permit:
 - (i) the location of each *habitat tree* identified recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
 - (ii) the species name of fauna reasonably likely to utilise, or that have been observed utilising, the habitat/habitat tree(s); and
 - (iii) 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 or decimal degrees.
- (c) In relation to the *revegetation* and *rehabilitation* of areas pursuant to Condition 4 of this Permit:
 - (i) the location of any areas *revegetated* and *rehabilitated*, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
 - (ii) a description of the *revegetation* and *rehabilitation* activities undertaken; and
 - (iii) the size of the area *revegetated* and *rehabilitated* (in hectares).

Reporting

6. (a) The Permit Holder shall provide a report to the Executive Director, Environment, Department of Mines and Petroleum by 31 July each year for the life of this permit, demonstrating adherence to all conditions of this permit, and setting out the records required under Condition 5 of this permit in relation to clearing carried out between 1 July and 30 June of the previous financial year.
- (b) Prior to 1 October 2016, the Permit Holder must provide to the Executive Director, Environment, Department of Mines and Petroleum a written report of records required under Condition 5 of this Permit where these records have not already been provided under Condition 6(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;

direct seeding means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;

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

environmental specialist means a person who is engaged by the Permit Holder for the purpose of providing environmental advice, who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit;

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;

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;

local provenance means native vegetation seeds and propagating material from natural sources within 50 kilometres of the area cleared;

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;

planting means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species;

regenerate/ed/ion means *revegetation* that can be established from in situ seed banks contained either within the topsoil or seed-bearing *mulch*;

revegetate/ed/ion means the re-establishment of a cover of *local provenance* native vegetation in an area using methods such as *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area;

rehabilitate/ed/ion means actively managing an area containing native vegetation in order to improve the ecological function of that area;

weed/s 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*.



Phil Gorey
EXECUTIVE DIRECTOR
ENVIRONMENT
DEPARTMENT OF MINES AND PETROLEUM

Officer with delegated authority under Section 20
of the Environmental Protection Act 1986

8 September 2011