



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Purpose Permit Number: 3318 / 1
File Number: A1692/200901
Duration of Permit: From 05 December 2009 to 30 September 2014

PERMIT HOLDER

ARC Energy Limited

LAND ON WHICH CLEARING IS TO BE DONE

Petroleum Production Licence L 4 R1
Petroleum Production Licence L 5 R1

PURPOSE FOR WHICH THE CLEARING MAY BE DONE

1. Clearing for the purposes of petroleum production.

CONDITIONS

Authorised activity

1. The Permit Holder must not clear more than 15 hectares of native vegetation. All clearing must be within the area shaded yellow on attached Plan 3318/1.

Avoid, minimise etc clearing

2. 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.

Dieback and weed control

3. 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 not move soils in wet 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.

Retain vegetative material and topsoil, revegetation and rehabilitation

4. (a) The Permit Holder shall 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 12 months of the area no longer being required for petroleum production, the Permit Holder must *revegetate* and *rehabilitate* the areas shaded yellow on attached Plan 3318/1 by:
- (i) laying the vegetative material and topsoil retained under Condition 4(a) on the cleared area;
 - (ii) 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
 - (iii) ensuring only *local provenance* seeds and propagating material are used to *revegetate* and *rehabilitate* the area.
- (c) Within twelve months of undertaking *revegetation* and *rehabilitation* in accordance with Condition 4(b) of this Permit, the Permit Holder must:
- (i) 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, the Permit Holder must undertake additional *planting* or *direct seeding* of native vegetation in accordance with the requirements of Condition 4(b) (ii) and (iii) of this Permit.

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;
 - (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 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;
 - (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 Director, Environment Division, 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 30 September 2014, the Permit Holder must provide to the Director, Environment Division, 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:

dieback means the effect of *Phytophthora* species on native vegetation;

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

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 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*.

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;

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;

local provenance means native vegetation seeds and propagating material from natural sources within 10 kilometres of the area cleared.

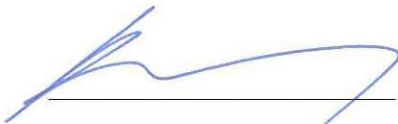
mulch means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

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*;

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

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;



Phil Gorey
DIRECTOR
ENVIRONMENT DIVISION
DEPARTMENT OF MINES AND PETROLEUM
Officer with delegated authority under Section 20
of the Environmental Protection Act 1986

5 November 2009