



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Purpose Permit Number: 3347/1

File Number: DEC 13313

Duration of Permit: From 22 November 2009 to 22 November 2014

PERMIT HOLDER

BHP Billiton Worsley Alumina Pty Ltd

LAND ON WHICH CLEARING IS TO BE DONE

Gastaldo Road Reserve, Worsley

PURPOSE FOR WHICH THE CLEARING MAY BE DONE

Clearing for the purpose of road reconstruction

CONDITIONS

1. The Permit Holder must not clear more than 0.25 hectares of native vegetation within the area cross hatched yellow on attached Plan 3347/1.
2. Dieback and 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* and *dieback*:
 - (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
 - (b) shall not move soils in wet conditions;
 - (c) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
 - (d) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.
3. Fauna management
 - (a) Prior to undertaking any clearing authorised under this Permit, the area(s) shall be inspected by a *fauna specialist* who shall identify tree(s) that contain hollows suitable to be utilised as habitat by fauna listed in the *Wildlife Conservation (Specially Protected Fauna) Notice 2009*.
 - (b) Prior to clearing, any *habitat tree(s)* 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 2009*.
 - (c) Prior to clearing, the Permit Holder shall ensure that any fauna identified by condition 3(b) shall be removed and relocated by a *fauna clearing person*, in accordance with a licence issued by the Department.
4. Records must be kept
In relation to fauna management pursuant to condition 3 of this Permit:
 - (a) the location of each tree that contains hollows, 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 species name of fauna reasonably likely to utilise, or that have been observed utilising, the trees that contain hollows;
 - (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.

5. Reporting

- (a) The Permit Holder must provide to the CEO, on or before 30 June of each year, a written report of records required under condition 4 of this Permit and activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.
- (b) Prior to 22 August 2014, the Permit Holder must provide to the CEO a written report of records required under condition 4 of this Permit where these records have not already been provided under condition 5(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;

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;

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;

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*.

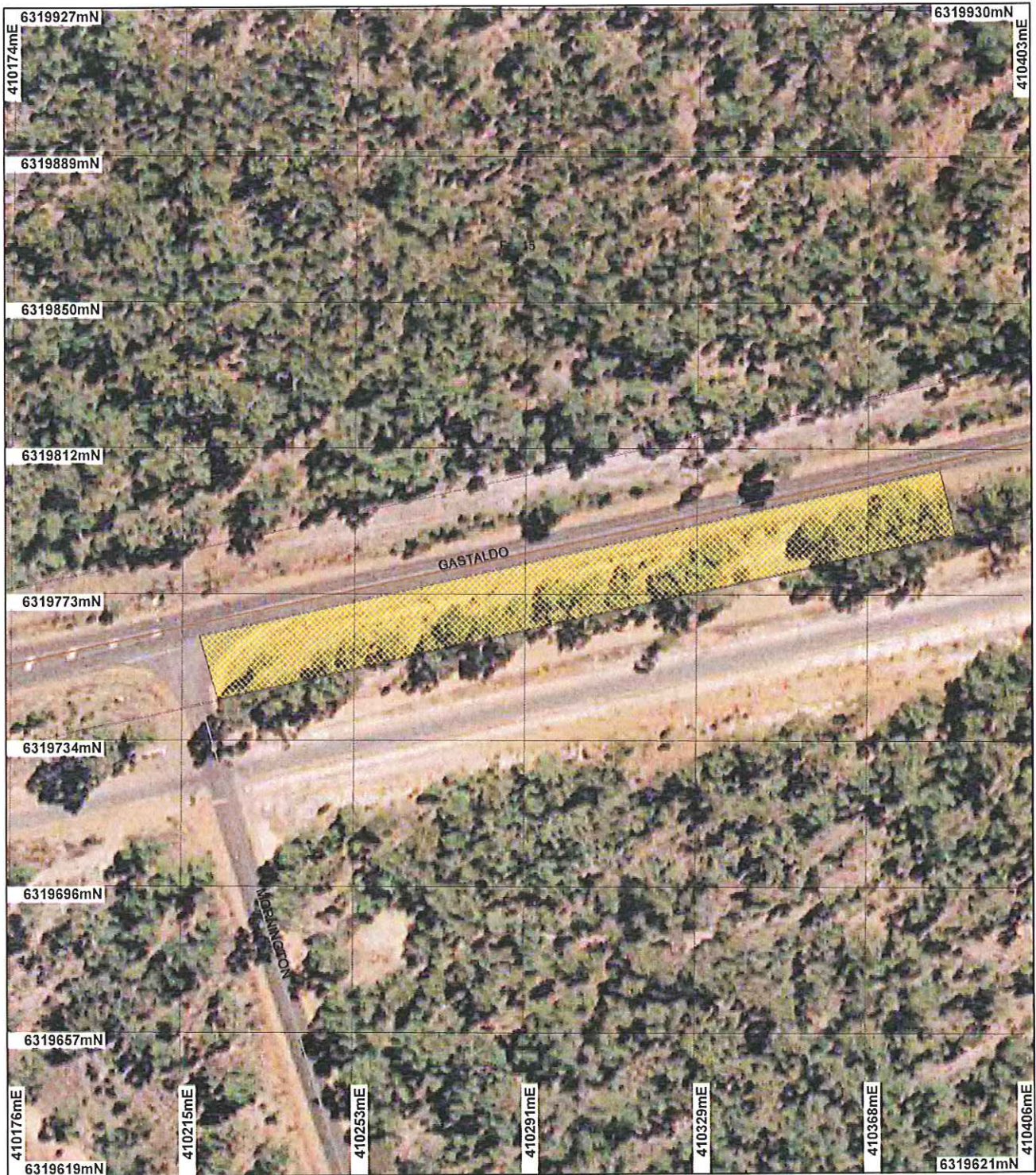


Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

22 October 2009

Plan 3347/1



LEGEND

☐ Cadastre for labelling

Road Centrelines

FW

HY

LRQ

LRB

(cont)

MR

N

TR

Clearing Instruments

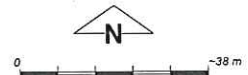
☐ Areas Approved to Clear

Colle 50cm Orthomosaic -

Landgate 2006

Bunbury 50cm Orthomosaic -

Landgate 2006



Scale 1:1421

(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.

K. Faulkner Date 22/10/09

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.



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Environment and Conservation

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1. Application details

1.1. Permit application details

Permit application No.: 3347/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: BHP Billiton Worsley Alumina Pty Ltd

1.3. Property details

Property: ROAD RESERVE (WORSLEY 6225)
Local Government Area:
Colloquial name:

1.4. Application

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

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 3: Medium forest; jarrah-marri	The proposal is to clear 0.25 ha (37 trees) within Gastaldo Road Reserve for road reconstruction.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The condition of the native vegetation under application was determined through aerial photography and site assessment carried out by GHD (2009).
Mattiske Vegetation Complex: D1: Open forest of Eucalyptus marginata subsp. marginata-Corymbia calophylla on lateritic uplands in mainly humid and subhumid zones.	The native vegetation under application consists of medium open forest of Marri (Corymbia calophylla) and Jarrah (Eucalyptus marginata) in a good to very good condition.		
Heddlie Vegetation Complex: Yarragil Complex (Max): no data			

(Shepherd 2007, Mattiske 1998, SAC Bio Datasets 14/10/09)

3. Assessment of application against clearing principles

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Comments

The area under application consists of medium open forest of Marri (*Corymbia calophylla*) and Jarrah (*Eucalyptus marginata*) (GHD 2009) in a good to very good (Keighery 1994) condition. Given this, the vegetation may comprise of a high level of biological diversity.

The vegetation under application contains feeding habitat for the conservation significant Baudin Black Cockatoo (*Calyptorhynchus baudinii*) and Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*). Given the proposed clearing is for 0.25ha and that the area under application is in close proximity to better condition habitat, it is not considered likely for the vegetation to be significant feeding habitat for these species. However, as the vegetation under application consists of 37 mature Marri and Jarrah trees (GHD 2009), the area under application may provide nesting habitat for the Baudin Black Cockatoo and Red-tailed Black Cockatoo. Given this, the vegetation under application may be significant habitat for these conservation significant species and subsequently, fauna management conditions will be placed on the permit.

The proposed clearing is surrounded by the conservation reserve Harris River State Forest and dieback has been recorded along Gastaldo Road Reserve (GHD 2009). The proposed clearing could impact on this conservation area through the spread and introduction of weeds species or dieback by machinery. This can cause potential local extinction of species. A weed and dieback condition will be placed on the permit to mitigate this impact.

The area under application is within the Controlled Catchment, the Wellington Dam Catchment which occurs within Zone C under the CAWS Act. However, given the small area to be cleared it is not considered likely for the proposed clearing to impact on environmental water values

The assessment considered that the proposed clearing is not likely to impact any land degradation, Threatened Ecological Communities, Rare flora or wetland values within the local or regional context, given its small size (0.25ha) and linear shape. In addition, the area under application is not considered significant as a remnant due to its small size (0.25 ha) and connectivity to surrounding state forest.

Methodology	References
	-GHD (2009)
	-Keighery (1994)
	GIS Databases
	-DEC Managed Lands and Waters
	-Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
	-Hydrography, linear
	- Mattiske (1998)
	-SAC Bio Databases (14/10/2009)
	-Soils, Statewide

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

Comments

The proposal is to clear 0.25 ha (37 trees) within Gastaldo Road Reserve for road reconstruction. The expansion of Worsley's Collie Refinery is expected to increase the volume of traffic entering and exiting the Gastaldo Rd and Mornington Rd intersection (GHD 2009). Therefore, it is proposed to upgrade the road and allow for a turning lane (GHD 2009).

The Shire of Collie stated that they have no objections to the clearing provided that a current clearing permit is obtained, any damage to the existing road surface is to be repaired at BHP Billiton's expense and that the site is left clean and tidy to the satisfaction to the Shire (GHD 2009).

Advice has been received from the Department of Water (DoW) regarding the affect of the clearing on the Wellington Dam Catchment CAWS area. DoW state that 90% (25 trees) occurs within Zone C which is at moderate salinity risk and within the Wellington Dam catchment area. DoW Policy and Guildelines for the 'Clearing of Licence to Clear Indigenous Vegetation' in Zone C provides for the grant of a licence to clear for small areas for essential management works. Therefore DoW has no objections to the proposal (DoW 2009).

Methodology	References
	-GHD (2009)
	-DoW(2009)

4. Assessor's comments

Comment

The assessable criteria have been addressed and the clearing as proposed is at variance to Principle (h) and may be at variance to Principle (a) and (b).

5. References

DoW (2009) Department of Water - Advice on the impact of clearing within the Wellington Dam Catchment CAWS area for CPS 3347/1. Trim ref DOC101898'

GHD (2009) Report for Bechtel on Behalf of Worsley Alumina Pty Ltd: Gastaldo Road/Mornington Road Intersection Upgrade - Preliminary Environmental Impact Assessment Report. TRIM Ref DOC99655

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Mattiske, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.

Shepherd, D.P. (2007). 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. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.

6. 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)