



CLEARING PERMIT
Granted under section 51E of the Environmental Protection Act 1986

Purpose permit number:	CPS 2351/3
Permit holder:	BHP Billiton Nickel West Pty Ltd
Purpose of clearing:	Mineral Exploration
Shire:	City of Kalgoorlie-Boulder
Duration of permit:	22 June 2008 – 22 June 2019

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The permit holder is authorised to clear native vegetation for the above stated purposes, subject to the conditions of this Permit.

PART I – CLEARING AUTHORISED

1. Land on which clearing is to be done

Lot 14 on Deposited Plan 58833, Feysville.

2. Area of clearing

The Permit holder must not clear more than 300 hectares within the area cross-hatched yellow on attached Plan 2351/3.

3. Application

This Permit allows the Permit holder to authorise persons, including employees, contractors and agents of the Permit holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit holder.

4. Compliance with Assessment Sequence and Management Procedures

Prior to clearing any native vegetation under conditions 1 and 2 of this Permit, the Permit holder must comply with the Assessment Sequence and the Management Procedures set out in Part II of this Permit.

PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

5. Avoid, minimise etc clearing

(a) In determining the amount of native vegetation to be cleared for the purposes of mineral exploration 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.

6. Weed Control

(a) When undertaking any clearing and *revegetation*, or other activity pursuant to this Permit the Permit holder must take the following steps to minimise the risk of the introduction and spread of *weeds*:

- (i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (ii) ensure that no *weed*-affected *mulch*, *fill* or other material is brought into the area to be cleared; and
- (iii) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

7. Flora Management

- (a) Prior to undertaking any clearing within the area in accordance with this permit, the area shall be inspected by a *flora specialist* who shall identify *Priority Flora taxa* and *Significant Flora taxa*.
- (b) Where *Priority Flora taxa* and *Significant Flora taxa* are identified in relation to condition 7(a) the Permit holder shall ensure that:
 - (i) All records of *Priority flora taxa* and *Significant Flora taxa* are submitted to the CEO;
 - (ii) No clearing occurs with 10m of identified *Priority Flora taxa* and *Significant Flora taxa*, unless approved by the CEO.

8. Fauna Management

- (a) Prior to clearing, the site shall be walked, inspected and surveyed by a *fauna specialist* to identify the presence of Malleefowl (*Leipoa ocellata*) mounds.
- (b) The Permit holder shall not clear within 50m of Malleefowl (*Leipoa ocellata*) mounds identified in condition 8(a) above.

9. Revegetation

The Permit holder must *revegetate* all areas cleared for the purpose of exploration and prospecting in accordance with the following:

- (a) The Permit holder shall retain the vegetative material and topsoil removed by clearing in accordance with this Permit;
- (b) Within six months of the area no longer being required for the purpose of the exploration and prospecting the Permit holder must *revegetate* the area by:
 - (i) Deep ripping the soil of any area to be rehabilitated;
 - (ii) Laying topsoil retained in accordance with condition 9(a) on the area;
- (c) Within one year of undertaking *revegetation* in accordance with condition 9(b), the Permit holder must:
 - (i) Determine the species composition, structure and density of the area *revegetated*;
 - (ii) Where, in the opinion of an *flora specialist*, the composition structure and density determined under condition 9(c)(i) will not result in a similar species composition, structure and density to pre-clearing vegetation types in that area the Permit holder must undertake planting or seeding of native vegetation; and
 - (iii) Propagative material must be sourced from within 50 km of the area to be *revegetated*.

PART III – RECORD KEEPING AND REPORTING

10. Records must be kept

The Permit holder must maintain the following records for activities done pursuant to this Permit, as relevant:

- (a) In relation to the clearing of native vegetation undertaken pursuant to the purpose of clearing:
 - (i) the location where the clearing occurred, recorded using Geocentric Datum Australia 1994;
 - (ii) the date that the area was cleared; and
 - (iii) the size of the area cleared (in hectares).
- (b) In relation to Flora Management pursuant to condition 7:
 - (i) the location of each *Priority Flora taxa* and *Significant Flora taxa* recorded using Geocentric Datum Australia 1994; and
 - (ii) the species of each *Priority Flora taxa* and *Significant Flora taxa* identified.
- (c) In relation to fauna management pursuant to condition 8:
 - (i) The location of each Malleefowl mound in accordance with condition 8(a) recorded using Geocentric Datum Australia 1994.
- (d) In relation to the *revegetation* of areas pursuant to conditions 9(b) and (c):
 - (i) The location of any area *revegetated* recorded using Geocentric Datum Australia 1994;
 - (ii) A description of the *revegetation* activities undertaken; and
 - (iii) The size of the area *revegetated* (in hectares).

11. Reporting

The Permit holder must provide to the CEO, on or before 30 June of each year, a written report of records required under condition 10 and activities done by the Permit holder under this Permit between 1 January and 31 December of the preceding year.

Definitions

The following meanings are given to terms used in this Permit:

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;

flora specialist means a person with specific training and/or experience in the ecology and taxonomy of Western Australian flora;

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;

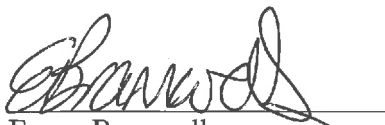
Priority Flora taxa means those plant taxa that described as priority flora classes 1, 2, 3 or 4 in the *Declared Rare and Priority Flora List for Western Australia*, Department of Biodiversity, Conservation and Attractions, as amended;

revegetation means the re-establishment of a cover of native vegetation in an area such that the species composition, structure and density is similar to pre-clearing vegetation types in that area, and can involve regeneration, direct seeding and/or planting.

Significant Flora taxa means the species identified as *Daviesia sp. affin. pachyloma* and *Lepidosperma sp. affin. diurnum* within the Western Botanical (2007) Flora and Vegetation Assessment, Selcast Project Area, December 2007.

weed means any plant –

- (a) that is a declared pest under section 22 of the *Biodiversity and Agriculture Management Act 2007*;
- (b) published in the Department of Biodiversity, Conservation and Attractions Regional Weed Assessments, regardless of ranking; or
- (c) not indigenous to the area concerned.

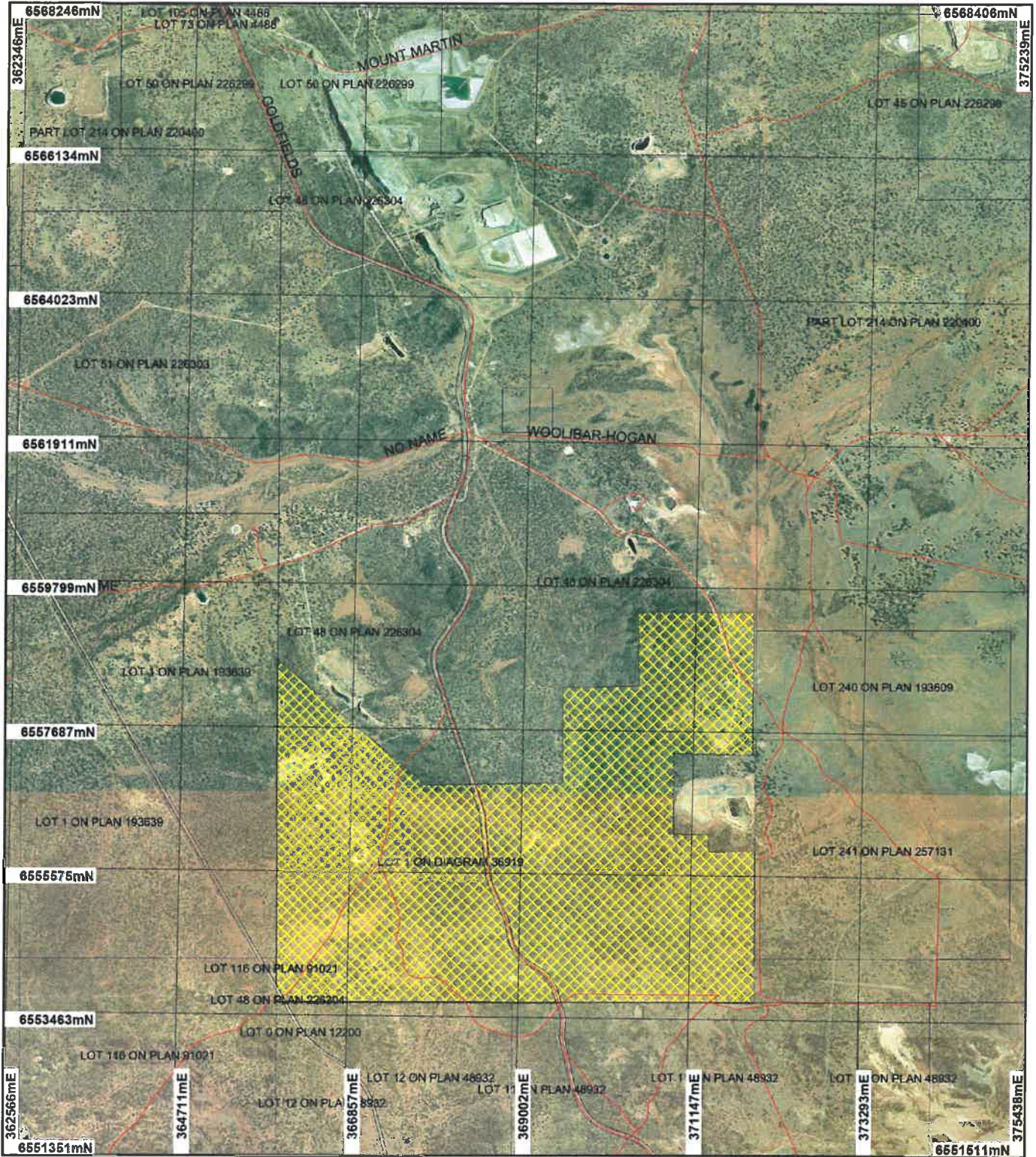


Emma Bramwell
A/ MANAGER
CLEARING REGULATION

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


12 June 2018

Plan 2351/3



LEGEND

- Clearing Instruments
- Areas Approved to Clear
- Road Centrelines
- Cadastre for labelling
- Lake Lefroy 1.4m Orthomosaic
- DLI 02

0  2 km
 Scale 1:75000
 (Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been protected. This may result in geometric distortion or measurement inaccuracies.

E. Bramwell Date 12/06/18
 E. Bramwell

Officer with delegated authority under Section 20 of the Environmental Protection Act 1988

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.





1. Application details

1.1. Permit application details

Permit application No.: CPS 2351/3
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: BHP Billiton Nickel West Pty Ltd

1.3. Property details

Property: Lot 14 on Deposited Plan 58833, Feysville
Local Government Authority: City of Kalgoorlie-Boulder
DWER Region: Goldfields

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
300		Mechanical Removal	Mineral exploration

1.5. Decision on application

Decision on Application: Final Amendment

Decision Date: 12 June 2018

Reasons for Decision: The applicant applied to amend Clearing Permit CPS 2351/2 by extending the duration of the permit by five years to 22 June 2023. The application was received by the Department of Water and Environmental Regulation (DWER) on 30 April 2018.

On review of the available information, the Delegated Officer noted the time that has elapsed since the original assessment in 2008, and that the conditions in Clearing Permit CPS 2351/2 do not align with DWER's current practice. The Delegated Officer determined that an extension of five years is not appropriate, however formed the view that an extension of twelve months would provide the applicant with sufficient time to re-apply for the clearing, including to consider whether additional information is required to support the application.

2. Site information

Clearing Description: The application is to amend the duration of Clearing Permit 2351/2 by five years to 22 June 2023.

Clearing Permit CPS 2351/2 authorises the applicant to clear up to 300 hectares of native vegetation (within a 2,452 hectare footprint) within Lot 14 on Deposited Plan 58833, Feysville, for the purpose of mineral exploration. The extent of the project footprint is indicated in Figure 1.

Vegetation Description: The application area is mapped as the following Beard vegetation associations:

- 9: Medium woodland; coral gum (*Eucalyptus torquata*) and Goldfields blackbutt (*Eucalyptus lesouefii*);
- 221: Succulent steppe; saltbush; and
- 468: Medium woodland – salmon gum (*Eucalyptus salmonophloia*) and Goldfields blackbutt (Shepherd et al., 2001).

A flora and vegetation survey of the Selcast Project Area conducted by Western Botanical in 2007 identified the following ten vegetation associations within the survey area:

- woodlands of coral gum, Goldfields blackbutt with sclerophyll shrubs on subcropping mafic basalt, dolerite, gabbro and felsic porphyry;
- sclerophyll shrublands and woodlands on ferricrete, sedimentary or kaolinitic remnants and saprolitic ultramafics often expressed as low breakaways;
- rocky *Acacia-Mallee* shrublands on sands over gabbro, granite or schist;
- mixed eucalypt woodlands with *Atriplex nummularia* shrub understorey on shallow alkaline loams with calcrete nodules;
- eucalypt woodlands with sclerophyll understorey on deep alluvial clays and loams;
- eucalypt woodlands with *Maireana sediflora* (pearl bluebush);
- jam thickets (*Acacia* sp. narrow phyllode (BR Maslin 7831)) in clay depressions;
- internally drained Claypans and Crabholes;
- broad drainage Tract with salmon gum, *Eucalyptus salubris* (gimlet) woodlands with *Eremophila ionantha* (violet-flowered eremophila) shrubland; and
- chenopod Shrublands, *Atriplex bunburyana* (silver saltbush) and/or *Atriplex vesicaria* (bladder saltbush) (Western Botanical, 2007).

Overall the region is broadly characterised by eucalypt woodlands with either chenopod or sclerophyll understorey (Western Botanical, 2007).

Vegetation Condition:

A flora and vegetation survey of the Selcast Project Area conducted by Western Botanical in 2007 identified that the condition of the vegetation within the application area is (Western Botanical, 2007):

- Excellent: Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species (Keighery, 1994).

Evidence of past disturbance is visible throughout the Selcast Project Area, including old drill pads and tracks (Western Botanical, 2007). The vegetation under application also includes some rehabilitation areas from previous mining activities. These rehabilitation areas are less than 10 yrs old although have progressed well (Western Botanical, 2007).

The vegetation appears to range in condition from excellent (~90%) to degraded in areas of localised disturbance, therefore an overall condition rating of excellent has been assigned.

Soil / Landform Type:

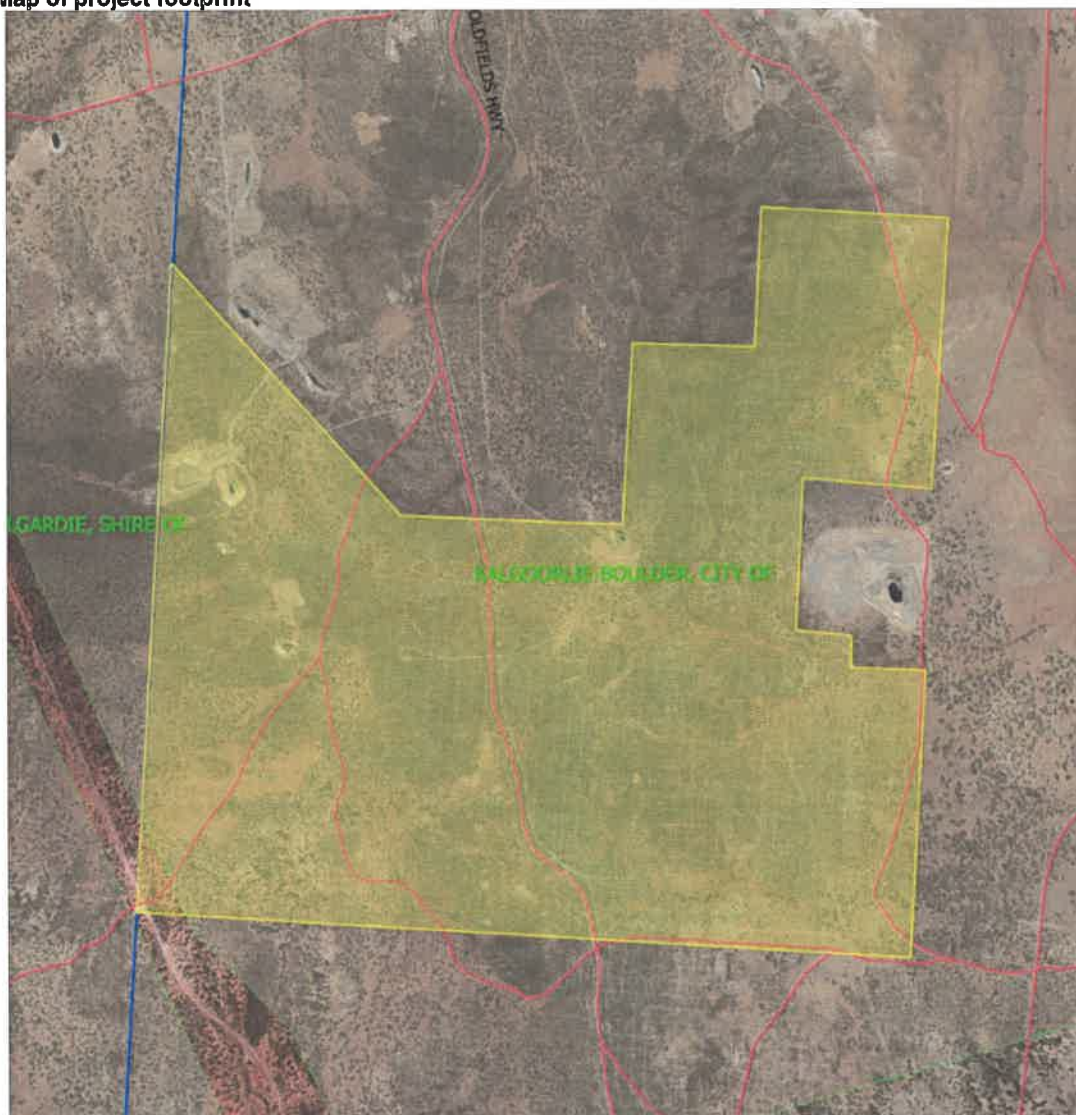
The application area is located within the Kalgoorlie soil-landscape province (Tille 2006).

The majority of the application area is associated with rocky ranges and hills of greenstones-basic igneous rocks with chief soils of shallow calcareous loamy soils, with shallow brown and grey-brown calcareous earths and below which weathered rock occurs at shallow depths (Northcote et al. 1960-68).

A small portion of the application area in the north-eastern corner is associated with gently undulating valley plains and pediments; some outcrop of basic rock and chief soils of alkaline red earths with limestone or limestone nodules at shallow depth (less than 24 inches) (Northcote et al. 1960-68).

A small portion of the application area on the western perimeter is associated with gently sloping to gently undulating plateau areas, or uplands, on granites, gneisses, and allied rocks, with long gentle slopes and, in places, abrupt erosional scarps, some granitic bosses, and tors; and irregularly traversed by narrow shallow valleys and flats with chief soils of yellow earthy sands and sandy yellow earths on depositional sites, and ironstone gravels (Northcote et al., 1960-68).

Figure 1: Map of project footprint



3. Assessment of application against clearing principles

On review of Clearing Permit CPS 2351/2, it has been identified that a substantial amount of time has passed since the permit was originally granted in 2008, suggesting that a re-assessment of the potential impacts of the clearing may be appropriate, and that the conditions in the permit do not align with DWER's current practice. However, an extension of twelve months is considered sufficient time to enable the applicant to re-apply for the clearing, including to consider whether additional information is required to support an assessment of the flora, vegetation and fauna values of the proposed clearing area.

Planning instruments and other relevant matters.

The application was advertised on DWER's website on 24/05/2018 for a seven day public submission period. Two submissions were received during this period.

Both submissions objected to the amendment for the following (summarised) reasons:

- The applicant's statement 'Clearing for mineral exploration only to the extent that is required for access and conduct of operations' doesn't detail what the applicant has done to avoid, minimise and reduce clearing to the maximum extent possible (Submission, 2018a; Submission, 2018b). The applicant should demonstrate implementation of their management plans during exploration activities, and should document actions taken, both during the planning, but also during the implementation, to avoid, minimise and reduce clearing to the maximum extent possible (Submission, 2018a; Submission, 2018b).
- Assessment of impacts should not rely solely on statements or management documents prepared by the applicant, as has been seen in previous amendments (Submission, 2018a; Submission, 2018b). A re-assessment against the clearing principles needs to be undertaken to determine whether the proposed clearing is still acceptable, in particular that the proposal must be designed to, and assessed against, the requirement to avoid, minimise and reduce clearing to the maximum extent possible (Submission, 2018a; Submission, 2018b).
- The flora and vegetation data for exploration tenement appears to be at least 10 years old, and the status of flora and vegetation is likely to have changed since that time (Submission, 2018a; Submission, 2018b). In order to accurately assess the environmental impacts of the proposed clearing for exploration, comprehensive, complete and appropriately-timed flora and vegetation surveys are required (Submission, 2018a; Submission, 2018b).
- Given recent improvements in managing exploration activities in Western Australia, any new or amended Clearing Permit needs more modern, up-to date and more environmentally sound and comprehensive conditions to be imposed, in particular that the proposal must be designed to, and assessed against, the requirement to avoid, minimise and reduce clearing to the maximum extent possible (Submission, 2018a; Submission, 2018b).
- Areas disturbed by exploration should be revegetated and rehabilitated to their pre-impact condition using locally native plant species, and completion criteria need to be set to ensure that rehabilitation success can be measured following exploration activities (Submission, 2018a; Submission, 2018b).
- DWER needs to undertake early and regular inspection, policing and enforcement of Clearing Permit conditions, including of excessive or un-necessary clearing, especially of any incidental damage/clearing and a closeout/completion report with photos of before and after needs to be completed by the proponent and submitted to the DWER with evidence, and made publically available to stakeholders (Submission, 2018a; Submission, 2018b).

The assessment of amendment application CPS 2351/2 was undertaken in accordance with the requirements of sections 51E and 51O of the *Environmental Protection Act 1986*, including having regard to the ten clearing principles and to planning instruments and other matters considered to be relevant. The assessment of amendment application 2351/2 noted that the project footprint remained unchanged. The assessment of amendment application CPS 2351/2 found that on review of current environmental information, the application was consistent with the findings outlined in the decision report for application CPS 2351/1. It is noted that a 21 day appeal period applied to the decision to grant amended Clearing Permit CPS 2351/2, and no appeals were received.

Clearing Permit CPS 2351/2 requires the Permit Holder to avoid, minimise and reduce the impacts and extent of clearing in determining the amount of native vegetation to be cleared. Clearing Permit CPS 2351/2 also requires the Permit Holder to, prior to undertaking the proposed clearing, undertake surveys:

- engage a flora specialist to conduct a targeted flora survey of the project footprint for the presence of priority flora taxa and significant flora taxa, to provide the results of the survey to the Department's Chief Executive Officer (CEO), and to avoid clearing within 10 metres of identified priority flora taxa and significant flora taxa (unless approved by the Department's CEO);
- engage a fauna specialist to conduct a targeted fauna survey of the project footprint to identify the presence of malleefowl (*Leipoa ocellata*) mounds, and to avoid clearing within 50 metres of identified malleefowl (*Leipoa ocellata*) mounds (unless approved by the Department's CEO);
- engage an ecologist to conduct a flora and vegetation survey of the project footprint to identify threatened ecological communities (TEC) and priority ecological communities (PEC), to provide the results of the survey to DWER, and to avoid clearing the habitat surrounding rare and priority flora (unless approved by DWER).

The above requirements have not changed in the amended permit, and it is considered that the conditions are adequate to ensure that impacts to conservation significant flora, fauna and ecological communities as a result of the proposed clearing are avoided.

In relation to the submitters' views that disturbed areas are revegetated and rehabilitated to pre-clearing condition and composition, Clearing Permit CPS 2351/2 requires the Permit Holder to revegetate all areas cleared for the purpose of exploration and prospecting, and to monitor the outcome of the revegetation to ensure that it achieves a similar species composition, structure and density to pre-clearing vegetation types in that area. This requirement has not changed in the amended permit.

In relation to the submitters' views that the Permit Holder should be required to prepare a completion report and that this should be made publicly available, Clearing Permit CPS 2351/2 requires the Permit Holder to record information in relation to the clearing undertaken, flora management, fauna management and revegetation, and to report on these periodically. This requirement has not changed in the amended permit.

4. References

- Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Northcote, K.H. with Beckmann, G.G., Bettenay, E., Churchward, H.M., van Dijk, D.C., Dimmock, G.M., Hubble, G.D., Isbell, R.F., McArthur, W.M., Murtha, G.G., Nicolls, K.D., Paton, T.R., Thompson, C.H., Webb, A.A. and Wright, M.J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) *Native Vegetation in Western Australia, Extent, Type and Status*. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
- Submission (2018a) Public submission received in relation to clearing permit amendment application CPS 2351/3 (DWER ref. A1687124).
- Submission (2018b) Public submission received in relation to clearing permit amendment application CPS 2351/3 (DWER ref. A1687117).
- Tille, P. (2006) *Soil-landscapes of Western Australia's Rangelands and Arid Interior*. Technical Report 313. Department of Agriculture and Food, Western Australia. ISSN 1039-7205.
- Western Botanical (2007) *Flora and Vegetation Assessment*. Selcast Project Area. December 2007. Prepared for BHP Billiton Nickel West. Prepared by Western Botanical, Bassendean, Western Australia (TRIM Ref. DOC45389).

GIS Databases:

- Aboriginal Sites of Significance
- DBCA Managed Estate
- Directory of Important Wetlands
- Groundwater salinity
- Hydrography, hierarchy
- Hydrography, linear
- Land Degradation datasets
- NLWRA, Current Extent of Native Vegetation
- SAC Bio Datasets (Accessed March 2018)
- Soils, Statewide
- Topographic contours
- Vegetation Complexes SCP