Our ref: DOC16/47246-1

Mr Matthew Riley
Senior Planning Officer
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear Matt

Exhibition – Wilpinjong Extension Project (SSD 6764)

The Office of Environment Heritage (OEH) has reviewed the exhibited Environmental Impact Statement (EIS) for the Wilpinjong Extension Project, and provides the following comments for consideration by the Department of Planning and Environment.

OEH's major concerns regarding this development are:

- the potential for impact on the natural features of Munghorn Gap Nature Reserve;
- the potential for indirect impact to a maternity colony of Eastern Bentwing-bats;
- anomalies regarding Regent Honeyeater habitat;
- the suitability of exotic pasture for inclusion into the reserve system;
- a shortfall in Regent Honeyeater species credits; and
- Cumulative harm to Aboriginal sites

OEH has not been provided with a complete Biodiversity Assessment Report (including the required spatial data), so comments are based on desktop analysis only and through the site visits and familiarity with the area by OEH staff. Once the proponent has made the suggested changes to their assessment and provide to OEH the complete Bar OEH may have additional comments.

If you have any questions regarding this matter further please contact David Geering on 02 6883 5335.

Yours sincerely

PETER CHRISTIE
Senior Manager, North West Region
Regional Operations

Contact officer: DAVID GEERING
6883 5335

Attachment A: OEH response to the Wilpinjong Extension Project Environmental Impact Statement

PO Box 2111 Dubbo NSW 2830
Level 1, 48-52 Wingewarra Street Dubbo NSW 2830
Tel: (02) 6883 5330 Fax: (02) 6884 8675
ABN 30 841 387 271
www.environment.nsw.gov.au

ATTACHMENT A
Wilpinjong Extension Project
Response to Environmental Impact Statement

Acronyms

ACH – Aboriginal cultural heritage

ACHMP - Aboriginal Cultural Heritage Management Plan

BAR – Biodiversity Assessment Report

BVT – Biometric Vegetation Type

FBA – Framework for Biodiversity Assessment

DP&E – Department of Planning & Environment

OEH – Office of Environment and Heritage

PCT – Plant Community Type

RAPs – Registered Aboriginal Parties

VCA – Voluntary Conservation Agreement

1. Impacts to Munghorn Gap Nature Reserve

Sections of the Wilpinjong Extension, i.e. extensions of Pit 5 and Pit 1, share a significant length of boundary with the Munghorn Gap Nature Reserve. Section 3.6 of the BAR states that these extensions will be between zero and 370 m (average 84m, median 64m) from the reserve boundary. The BAR indicates that the *Guidelines for developments adjoining land and water managed by the Department of Environment and Climate Change and Water* and the *Goulburn River National Park and Munghorn Gap Nature Reserve Plan of Management* was considered during an assessment of the potential indirect impacts on Munghorn Gap Nature Reserve however there is no discussion as to how this has been implemented.

It is noted that Moolarben Coal complex is approved for mining 50m from the Munghorn Gap Nature Reserve boundary. OEH regards this as the minimum distance required to buffer impacts on the reserve.

Recommendations

1.1 The boundary of the project site with Munghorn Gap Nature Reserve is identified and surveyed prior to the commencement of open cut mining.

1.2 Maintain a buffer of at least 50m between any open cut mining operations or infrastructure and the adjacent Munghorn Gap Nature Reserve.

2. Potential Impacts to Eastern Bentwing-bats

Section A12 of Attachment A, the Threatened Species Assessment of Significance, states that "*no breeding colonies of this species have been recorded in or near the BAR footprint*". This is in direct contradiction to the Terrestrial Fauna Baseline Report (Attachment D) which states "*Some of the bats* (i.e. Eastern Bentwing-bats) *emerging from the adit were lactating or young, indicating that the adit is a potential maternity roost site*" (p40) and Section 3.1.3 of the BAR which also indicates that the adit is Eastern Bentwing-bat breeding habitat (p55).

The historical mine adit is 152 metres from the proposed Pit 8. It is acknowledged in Section 3.1.3 of the BAR that "*At this distance, it is possible that the nearby blasting vibration may quicken the collapse of the adit or cause bats to exit the adit during the day*". To mitigate the potential for future collapse of the entrance it is proposed that "*a concrete or steel pipe at the entrance would be installed to help maintain an opening in the event of any further rockfall around the entrance*". OEH suggests that further measures may be required to ensure the integrity of the adit entrance.

The potential for blasting vibration to cause bats to exit the adit during the day has not been addressed in the BAR. Bats exiting the maternal colony during the day has the potential to increase mortality as bats are placed at high risk of predation by diurnal predators and abandoned young being placed at risk of dehydration and starvation should females not return during the day.

The BAR suggests that the Eastern Bentwing-bat is "*unlikely to be dependent on the man-made historical mine adit, since the local and regional geology lends itself to a wide range of alternative natural caves and associated structures*". Cave microclimate is an important factor in determining the use of caves by bats. Eastern Bentwing-bats are dependent on maternity caves that have specific structural characteristics that allow heat and humidity to build up. Until it can be established that other Eastern Bentwing-bat maternity colonies exist locally the historical adit must be considered an important site for this species.

Recommendations

2..1 The proponents explore engineering solutions to ensure the integrity of the adit entrance is maintained in as a natural state as possible.

2..2 That mitigation measures be proposed to minimise the potential for disturbance of bats during the breeding season (December – March). This may include no blasting within a specified distance, to be determined, or a reduced blast intensity during this period.

2..3 A monitoring program be established to determine whether the adit is used all year round or purely as a maternity site and to determine the degree of impact blasting vibration has on bats utilising the adit.

3. Regent Honeyeater habitat

The BAR has identified an issue with the BioNet Threatened Species Profile Database (TSPD) where a number of BVTs assigned with threatened species are currently not visible within the database. OEH is currently addressing this. This problem does not extend to vegetation types being available to the BioBanking Credit Calculator meaning that credit calculations are correct. The issue does, however, create problems when consultants attempt to view the vegetation associations that OEH staff have identified as regent honeyeater habitat (and other threatened species).

For the Wilpinjong Extension Project the primary species of concern is the Regent Honeyeater. The author of the BAR has made an effort to compile a list of Biometric Vegetation Types (BVTs) using the OEH Vegetation Information System database and various documents including recovery plans and scientific literature. Unfortunately, the authors lack specific ecological knowledge of the Regent Honeyeater has resulted in several vegetation communities being incorrectly assigned, or not assigned, as Regent Honeyeater habitat. For example, HU981 - Rough-baked Apple grassy woodland, has been included as potential Regent Honeyeater habitat on the basis of Oliver (2000) noting that it was being used as a feed source in Warrumbungle National Park. In this instance Regent Honeyeaters were taking honeydew and lerp from Rough-barked Apple in close proximity to flowering Mugga Ironbark which was the primary driver behind the presence of the birds at this location. Regent Honeyeaters are known to opportunistically take non-nectar carbohydrates, such as honeydew and lerp, from a wide range of trees but the inclusion of these trees as indicators of suitable habitat is often not justified. HU981 does not generally include any high-nectar flow eucalypt species so is not regarded as Regent Honeyeater habitat. This is supported by the description of MU6a and MU6b (allocated to HU981) in Appendix 1 of the Terrestrial Flora Baseline Report.

The authors have not regarded HU891 – Caley's Ironbark – Red Ironbark – Currawang shrubby woodland, another BVT current missing from the TSPD, as Regent Honeyeater habitat. Caley's Ironbark is a known feed tree of the Regent Honeyeater and this vegetation type, present on Offset Area 2, should be included as Regent Honeyeater habitat.

OEH has provided advice to the consultants and proponent separately to assist in determining the suitability of vegetation types on the development and offsets sites as habitat for the Regent Honeyeater.

Recommendation

3.1 OEH assist the consultants and proponent in determining which BVTs are suitable as Regent Honeyeater habitat on the Wilpinjong Extension development site and identified offsets.

4. Disturbance to environmental conservation areas

A section of the existing Wollar to Wellington 330kv electricity transmission line (ETL) will be relocated to facilitate mining in Pit 8. It is proposed that the relocated ETL will traverse approximately 3ha of land currently subject to a Voluntary Conservation Agreement (VCA). The proponents have been involved in discussions with OEH regarding the relocation of the ETL. If the proposed impacts to the conservation areas are unavoidable OEH will require:

- Management actions and a budget allocation to buffer any impacts and improve the VCA
- Amendment of the VCA at the expense of Peabody Energy. This will involve an ecological and spatial survey, preparing documentation for the minister's signature and registering the new area on title
- A suitable offset to compensate for the loss of land conserved under the VCA.

Recommendations

4.1 That the proponents continue to liaise with OEH regarding impacts to land subject to a VCA.

5. Offset suitability

OEH has undertaken a site inspection of the offset lands and has identified concerns with some of the areas proposed for inclusion into the reserve system. Suitability of the offset lands for inclusion may influence the proponent to review its offset strategy.

OEH has communicated to the proponent separately its initial response to the offset lands suitability for inclusion in the reserve system.

Recommendations

5.2 The proponent review its offset strategy in light of OEH feedback and where required propose alternate arrangements for the inclusion, and conservation, of the areas of the offset strategy that are not to be transferred to OEH estate.

6. Calculation of credits

The landscape value score has been incorrectly calculated using the linear based development landscape value assessment method in the Credit Calculator. This method is to be used for linear major projects such as pipe lines and electricity transmission lines. The landscape value score should have been calculated as a site based development.

6.1 Ecosystem credits

The BioBanking credit report indicates that a total of 15,314 ecosystem credits are required to offset impacts to native vegetation on the development site. The credit report for the BioBank sites indicates that the five proposed offset sites generate 10,893 ecosystem credits. 5,837 credits directly satisfy the required credit profile for the development site while an additional 2,903 credits are consistent with the variation rules within the FBA.

The Biodiversity Offset Strategy proposes to include HU801, White Box shrubby woodland, as a means of reducing this deficit by a further 2,153 credits leaving a deficit of 6,574 ecosystem credits. AS OEH has not been provided with the BAR and its associated credit calculator files OEH is yet to fully explore the implications of allowing this variation outside the current rules and will advise the proponent and DPE of its review. It is proposed to revegetate101.5ha of exotic pasture/cultivation within the offset sites. The credit calculator indicates that an additional 1,056 ecosystem credits would be generated by this management action.

It is also proposed that rehabilitation of post-mining land to "*one or more woodland types that occur in the surrounding sub-region and are the same vegetation class as the vegetation types listed in the BAR footprint*" will generate a further 3,415 ecosystem credits. It is stated that rehabilitation would consist of Grassy Woodland formation communities including Fuzzy Box (which does not occur on any of the offset sites).

The above strategy results in a surplus of 250 ecosystem credits.

6.2 Species credits

Species credits are required for impacts to *Ozothamnus tesselatus* (23,560 credits), Regent Honeyeater (21,021 credits) and Koala (4,290 credits).

The species credit offset requirements are met for both *Ozothamnus tesselatus* and Koala with 45,852 and 4,598 credits respectively generated on the offset sites. However, the five proposed offset sites generate only 4,413 species credits for the Regent Honeyeater. An additional (??) 3,230 species credits have been generated by the revegetation of 455 ha of post mine landform with vegetation consistent with Regent Honeyeater habitat.

In order for OEH to be confident that the restored landscape will become a suitable offset for Regent Honeyeaters the proponents must nominate the Plant Community Types (PCTs) to be established on the rehabilitation area and demonstrate that the overstorey will be dominated by Regent Honeyeater feed species and that the soil substrate and mine rehabilitation techniques provide a suitable substrate for the trees to provide a viable food resource. Performance criteria must be developed that will establish whether or not the vegetation on the rehabilitation site is trending towards a PCT of sufficient quality that will provide habitat for the Regent Honeyeater. Provisions should also be made should it be demonstrated that the rehabilitation work is not trending towards Regent Honeyeater habitat.

Regent Honeyeaters are regarded as a “rich patch specialist” seeking out areas with high resources within the landscape. Regent Honeyeaters have a strong habitat preference for box-ironbark eucalypt associations, where they prefer wetter, more fertile sites including creek flats, broad river valleys and lower slopes. OEH has concerns as to whether the reformed landscape will have the ability to support forests and woodlands that will ultimately produce the high nectar flows required by Regent Honeyeaters. Section 12.2.1.5d of the FBA clearly states that “*the vegetation or other habitat features are providing habitat for the fauna species for which the credit species are proposed to be created*”. This implies that not only does the PCT have to be associated with the Regent Honeyeater but that the habitat features that the species uses within that PCT must be present. In the case of the Regent Honeyeater the primary habitat feature is the presence of key eucalypt species in a situation where high nectar flows will be produced.

As indicated in Issue 3 above, there are anomalies regarding the identification of Regent Honeyeater habitat. It is likely that the credit requirement for Regent Honeyeaters on the development site may be reduced while the credits generated on the offset sites may be increased as a result of a review of the suitability of vegetation types as Regent Honeyeater habitat. Nevertheless, it is unlikely that the current offset proposal will generate the required number of credits for this species. The shortfall will be required to be satisfied through the process outlined in the FBA.

Recommendations

6.1 The consultant re-run the credit calculator using the correct landscape value assessment method.

6.2 That a review of the suitability of vegetation types as Regent Honeyeater habitat be conducted in consultation with OEH to establish the precise deficit in species credits for the Regent Honeyeater.

6.3 A Biodiversity Offset Management Plan be prepared that clearly addresses all points within the FBA relating to the use of mine rehabilitation in the generation of species credits for the Regent Honeyeater. This must include a clear set of completion, performance and monitoring criteria be prepared that will identify whether the rehabilitation is strongly trending towards Regent Honeyeater habitat and clear provisions should monitoring demonstrate that the rehabilitation work is not trending towards Regent Honeyeater habitat.

6.4 A soils and land capability assessment be completed to determine the capability of the reformed landscape to provide habitat for the Regent Honeyeater.

6.5 That the proponents develop an offset strategy that fully satisfied the credit requirements for the Regent Honeyeater in accordance with the NSW Biodiversity Offsets Policy for Major Projects and the FBA.

7. ACH assessment

The size of the proposed Wilpinjong extension is significantly large. OEH have not had adequate time to review all details contained within the ACH assessment report but have examined the scope of works proposed, ACH assessment methodology and results, and examined the records of consultation with the RAPs. OEH assume that all details within the ACH assessment report prepared by, South East Archaeology Pty Ltd (2015), are accurate.

OEH accept the ACH assessment methodology presented in the report for the proposed extension areas including those areas of new and modified infrastructure. The methodology is well developed on an adequate environmental and archaeological review of site and landscape relationships for the Wilpinjong mine precinct. OEH note that the survey coverage has been comprehensive.

Aboriginal Cultural Heritage Management Plan

OEH accept the proposed modifications for the existing ACHMP which build on the previous ACHMPs prepared in 2008 and 2013.

Aboriginal consultation

OEH accept the Aboriginal consultation conducted with the RAPs as proscribed in the SEARS including the responses to matters raised by the RAPs about the ACH assessment methodology and proposed mitigation. OEH note the issues raised by the RAPs about the harm to Aboriginal sites in general.

Cumulative harm to Aboriginal heritage

OEH wish to point out that the current proposal is the 5th extension to the Wilpinjong mine since 2008. The cumulative harm to Aboriginal heritage incurred from these extensions including those impacts recorded to Aboriginal sites from the neighbouring Moolarben and Ulan mine precincts is significant notwithstanding the mitigated measures put in place. OEH would welcome opportunities to engage with DP&E on this matter with the aim to finding a solution that appropriately mitigates harm across the mine precinct and establishing a measurable net gain for the conservation of ACH.