

Our reference: LIC06/381-09 &
DOC11/33720
Contact: Sheridan Ledger, (02) 6332
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Mr Howard Reed
Manager Mining Projects
Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

22 August 2011

Dear Mr Reed

I refer to the Environmental Assessment "*Modification of Ulan Continued Operations – North 1 Underground Mining Area, Minor Modifications to Ulan No. 3 & Ulan west Mine Plans & Proposed Concrete Batching Plant*" (the EA) received by the Office of Environment and Heritage (OEH) on 25 July 2011.

OEH has reviewed the information provided and has determined that it is able to support the proposal subject to the Department of Planning and Infrastructure (DOP&I) adopting the recommended conditions of consent as contained in Attachment 1.

In assessing the proposal, OEH has also identified the broader issue of cumulative impacts on Aboriginal Cultural Heritage (ACH). While OEH acknowledges that the Aboriginal stakeholder groups support the proposed management strategy for ACH potentially affected by the North 1 Underground, consideration needs to be given the total number of rock shelters potentially affected by Ulan No 3, Ulan West and the North 1 underground mines (UG) and the appropriateness of the Brokenback Conservation Area as an offset for the total potential impact.

The approved Ulan No 3 and Ulan West UGs will impact on 53 rock shelters sites with a high to moderate level of significance (Appendix 9 page 201 Ulan Coal Continued Operations EA) within those areas, with the North 1 UG impacting on 43 rock shelters. The Brokenback Conservation Area contains 27 rockshelters, 11 of which are regarded as being of high significance. As such, OEH considers that this issue requires further discussion.

Should you have any further enquiries, please contact Sheridan Ledger at the Bathurst Office of the OEH on (02) 6332 7608.

Yours sincerely

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Attachment 1 – OEH Recommended Conditions of Consent – Ulan Coal Mine Modification 1

Aboriginal Cultural Heritage

OEH considers that the impact mitigation measures as recommended in Section 8 of Appendix 6 of the EA be implemented and are preferential to those as included in Section 6.5.5. The majority of these recommendations relate to the requirement to update the Heritage Management Plan (HMP) and the continued implementation of management techniques contained in the HMP.

Recommendations:

1. The Heritage Management Plan is updated to include the recommendations made in Section 8, Appendix 6, of the EA.
2. All works as indicated in Section 8, Appendix 6 of the EA, are undertaken prior to the commencement of works for the North 1 Underground.

Air quality

The OEH considers that there will be a minimal increase in the site's overall dust impacts as a result of the operation of the Concrete Batching Plant, provided that all dust mitigation options are implemented to minimise dust. OEH does not consider that any additional conditions pertaining to air quality are required as OEH will regulate dust emissions from the Concrete Batching Plant through the conditions of Ulan Coal Mines Environment Protection Licence.

Biodiversity

OEH notes from the EA that:

- an additional 0.07 hectares of vegetation will be cleared for the installation of the Concrete Batching Plant;
- 204 hectares of vegetation may be affected by subsidence within the North 1 UG area (Section 4.2.2.1 Appendix 5);
- 1124 metres of cliff line lies within North 1 UG area are subject to subsidence, with 225 metres considered to potentially being subject to rock fall;
- 18 metres less of cliff line will potentially be affected by the reconfiguration of Ulan No 3 and Ulan West; and
- the subsidence impact on the vegetation in Ulan No 3 and Ulan West areas will decrease by 1.4 hectares.

In addition, it is noted that no Endangered Ecological Communities (EEC) or Groundwater Dependent Ecosystems (GDEs) are located within the North 1 UG area. Three threatened fauna species were recorded during the field surveys for North 1 UG. An assessment of significance for the eight (5 being bats) potentially impacted threatened fauna species found:

...proposed modifications have some potential to result in a significant impact on ... (5 species bat, large-footed myotis), however it is considered highly unlikely.

OEH response to the biodiversity assessment

Section 5.2.1 of the EA provides that “consultation with DECCW regarding the additional provision of cliff line management areas will be carried out as part of the modification approvals process”. OEH is not aware of any contact being made in regards to a cliff line offset and notes that there is no commitment made in the EA in regards to increasing the cliff line offset established previously. It should be noted that while a cliff line management area was approved previously, OEH preference remains with habitat areas being avoided. This is of particular importance with the cliff lines as they are not regenerative.

Appendix 5 Section 5.2.2 Micro-bat Cliff Line Monitoring, proposes pre-mining surveys for up to five years to identify cave habitats.

If roosting / breeding cave is identified through these surveys, the appropriate mitigation and management requirements will be determined in consultation with an appropriate expert and relevant authorities. Such mitigation and management measures may include:

- *Review the mining schedule against the breeding season of the cave dependant large-eared pied bats. The progression of the long-wall may be such that there are likely to be no impacts on the cave during the breeding season;*

OEH comment: These bats exhibit high roost fidelity, especially maternity and crèche roost sites. It is not acceptable to destroy significant habitat during the time of year when the bats are not present. Harming the habitat is still considered harm to the threatened species.

- *Compensatory habitat – such as construction of artificial tunnels / caves, provision of bat boxes. This would also include monitoring of the effectiveness of such measures, and;*

OEH comment: There is published material from Australia that shows rehabilitation of impacted cave roosts is very difficult and unlikely to work. Please provide an assessment of why these measures are likely to be successful here.

- *Engineering measures – use of methods such as rock-bolting or support columns to improve cave stability and minimise potential impacts. May also include remediation of caves post-mining.*

OEH comment: Maternity caves for the large-eared pied bat are relatively small. The installation of support columns is likely to impact on the suitability of a cave as a roosting site. Please provide evidence of why the installation of support columns and rock bolting within maternity caves is unlikely to have an impact.

Appendix 5 Ecology Assessment - Appendix D provided information regarding a Test for Ecological Significance – Environmental Planning and Assessment Act 1979

Little Bentwing Bat

Question b) concludes that *“In relation to the regional distribution of potential habitat for this species, it is not likely that the proposed modifications will modify, remove or isolate a significant area of known habitat from currently interconnecting or proximate areas.”*

OEH comment: It is simply not possible to draw this kind of conclusion without knowledge of how much little bentwing bat roosting habitat is within the modification area, or within the region. There may be cliff line in the modification area and elsewhere within the region but the question is about little bentwing roosting habitat within the cliff line.

Eastern Bentwing Bat

Question a) states *“... the impact could disrupt the life cycle of the species such that a local viable population of the species could be placed at risk of extinction.”*

OEH comment: The potential extinction of a local viable population of the species is not acceptable.

Question b): OEH comment as for question b) under little bentwing bat

Little Pied Bat

Question a) states *“... the impact could disrupt the life cycle of the species such that a local viable population of the species could be placed at risk of extinction.”*

OEH comment: The potential extinction of a local viable population of the species is not acceptable.

Question b): *Comment* as for question b) under little bentwing bat

Large-eared Pied Bat

Question a) states *“... the impact could disrupt the life cycle of the species such that a local viable population of the species could be placed at risk of extinction.”*

OEH comment: The potential extinction of a local viable population of the species is not acceptable.

Question b): *Comment* as for question b) under little bentwing bat

Eastern Cave Bat

Question a) states "... *the impact could disrupt the life cycle of the species such that a local viable population of the species could be placed at risk of extinction.*"

OEH Comment: The potential extinction of a local viable population of the species is not acceptable.

Question b): *Comment* as for question b) under little bentwing bat

Conclusion

The conclusion states, in part that "*No evidence of potential roosting/breeding habitat has been recorded within the cliff lines of the proposed North 1 underground mining area, however there is still habitat (albeit very small) that such habitation could occur in this area.*"

OEH comment: The conclusion is unsupported as an appropriate survey has not been conducted which would identify roosting and or breeding habitat with the North 1 area.

In summary, OEH considers that the EA has not:

- a) adequately assessed and quantified roosting habitat for threatened cave dependent miro-bats within North 1 underground.
- b) provided sufficient justification of how the proposal will maintain or improve cliff line habitat and hence adequately offset the loss of this habitat as a result of the proposal.
- c) demonstrated that measures are able to be implemented which will improve existing cliff line habitat in the 'cliff line management areas' that compensate for the loss of cliff line habitat within the mine site.

Further, that the development as currently proposed does not maintain or improve biodiversity values for the following reasons:

1. The development as proposed fails to adequately avoid high conservation value areas including Endangered Ecological Communities and cliff line habitats for threatened microbat species.
2. The EA does not propose measures to adequately mitigate impacts on threatened cave-dwelling microbats and other biodiversity values which may be impacted by the proposal.
3. No additional offset has been provided.

OEH Recommendation

OEH considers that insufficient information has been provided to allow OEH to indicate its level of support for this proposal as the impact on threatened bat species is not able to be determined at this time. As such, OEH requests that the proposed monitoring of the entire area of the North 1 underground, in accordance with Appendix 5 Section 5.2.2, is be undertaken prior to undermining this area. It is OEH's expectation that the opportunity to gather information on roosting sites of cave dwelling bats will then be used to modify mine plans to avoid impact bats or their habitats completely, not just during periods or seasons when they are not occupied. The modification requirements should be determined in consultation with OEH.

Noise

The OEH considers that there is likely be a minimal increase in the site's overall noise impacts as a result of the operation of the Concrete Batching Plant, provided that all noise mitigation options are implemented to minimise noise. OEH does not consider that any additional conditions pertaining to noise are required as OEH will regulate noise from the Concrete Batching Plant through the conditions of Ulan Coal Mines Environment Protection Licence. However, it is OEH's recommendation that the Concrete Batching Plant operations are limited to 7 am to 5 pm Monday to Friday to protect residence 254 and those located to the west of the proposed Concrete Batching Plant.

Water

OEH notes that mining of the proposed North 1 mining area will result in an increase in the predicted groundwater inflows of less than 1 ML per day. OEH considers that the water management system established at the site (and including the approved discharge to the Talbragar River catchment) provides sufficient capacity for the additional water generated.

Comments regarding the potential impact of the North 1 underground mine on groundwater resources (eg aquifer pressure and baseflow), potential impacts on the Ulan Creek and bores, should be provided by the NSW Office of Water.

OEH does not consider that any additional conditions pertaining to water management are required as OEH will regulate water management through the conditions of Ulan Coal Mines Environment Protection Licence.