

ULAN COAL

GLENCORE

25 January 2019

Seq No: 04/19

Ms Jessie Evans
Team Leader, Resource Assessments
Department of Planning & Environment
GPO Box 39
Sydney, NSW

Dear Ms Evans,

Subject: Ulan Coal Mines Continued Operations - Modification 4 Longwall Optimisation

The following information is provided to address the feedback received after the Response to Submissions for Ulan Continued Operations Project - Modification 4 Longwall Optimisation Project.

Matters raised by 'Woodbury' Land owner

The owner of 'Woodbury' raised concerns in relation to Subsidence, Aboriginal Heritage and shallow aquifer impacts on the property 'Woodbury' associated with MOD 4. UCML committed to address the concerns through additional assessments (as detailed in the email dated 6 November 2018 in **Attachment A**).

Subsidence

The owner of 'Woodbury' wanted to know if rockfalls that occurred on 'Woodbury' in 2014 were from mining related impacts. Assessment of the potential for mining impacts either previously, causing the rockfall, or as a consequence of future mining was undertaken by SCT Operations Pty Ltd (SCT) with the land owner on 3 December 2019. The report of the findings of the assessment was provided to the land owner and DPE on 16 and 17 January 2019 respectively. The key findings of the subsidence assessment were:

- the rock fall that occurred in March 2014 is a natural event caused by tree root invasion into a natural joint, with the event itself most likely triggered by a high intensity rainfall event;
- there is no potential for the rock fall to be associated with mining subsidence, blasting or the recently constructed ventilation shaft;
- the stability of the cliff where the rock fall occurred is improved as a result of the rock fall, but natural cliffs are always in a cycle of ongoing erosion that involves intermittent rock falls so other adjacent sections of the cliff line still have potential to become unstable;
- there is no potential for subsidence associated with the MOD4 application submitted by UCML to increase the potential for cliff instability along the section of cliff line UCML are committed to protecting; and
- although the rock fall that occurred in March 2014 did not involve any of the cultural heritage sites, there remains a low-level potential for further natural rock falls to impact these sites, but the potential would not be increased by mining subsidence associated with the MOD 4 application.

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Manager of the Ulan Joint Venture

The assessment recommended vibration monitoring during construction of the already approved ventilation shaft and weather station, approximately 500 metres south west of the rockshelters. UCML commits to implementing the recommended vibration monitoring.

Cultural Heritage

The owner of 'Woodbury' wanted to know if the rockfall, that occurred in 2014, changed the significance of the Mona Creek Heritage sites that are near where the rockfall occurred. The Mona Creek Cultural Heritage Assessment undertaken by South East Archaeology Pty Ltd (SEA) (provided in **Attachment B**) further assessed the archaeological significance of the Mona Creek Heritage sites and considered the potential for rockfalls to impact the significance of the sites. A copy of the report was provided to the landowner on 25 January 2019.

The key findings of the Mona Creek cultural heritage assessment were:

- Eight sites were assessed as having low research potential and two assessed as having moderate to high research potential; and
- The inspection confirmed that the rock falls that occurred in 2014 have not directly impacted any Heritage site (noting site Ulan ID#184 is the closest site to where the rock fall occurred).

Shallow Aquifers

The owner of 'Woodbury' requested that the assessment and monitoring of shallow groundwater, committed to as part of the environment assessment and response to submissions for MOD4, take into account water sources historically relied upon by the local community in dry times

Australian Groundwater Engineers Pty Ltd (AGE) inspected the area on 17 January 2019 with the landowner of 'Woodbury'. This included visiting historical water source locations identified by the landowner. The consultation feedback will inform the scope definition for the shallow aquifer assessment. UCML is committed to finalising the scope of the assessment and completing set up works by the end of 2019. Data collected and collated from the assessment will be reported in annual reviews commencing 2019.

Matters raised by Agencies

Office of Environment and Heritage (OEH)

- **Vegetation clearing in Durridgere SCA**

Consistent with OEH feedback the infrastructure within the Durridgere SCA will be micro-sited in consultation with National Parks and Wildlife Service (NPWS) and Glossy Black Cockatoo foraging habitat will be avoided where possible. The procedures for preclearing and nest hollow replacement outlined in the current approved UCML Biodiversity Management Plan (BMP) will be followed.

- **Biodiversity Offset**

If land based offsets are adopted by UCML, then consultation with OEH will be undertaken and retirement of offset obligations will be satisfied in a suitably agreed timeframe. A timeframe of 3 years, post agreement of the offset is considered necessary, based on our experience with processes and timeframes for the currently approved UCML offsets.

UCML will submit the BioBanking Credit Calculator (BBCC) to OEH on or before Tuesday 29 January 2019 for review of the generated credit liability under the Framework for Biodiversity Assessment (FBA). UCML understands that the OEH's review of the BBCC is not required for approval and requests that DPE progress determination of MOD 4, while discussion with OEH continues.

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Modification 4 does not fall within the definition of planning approval for the purposes of Part 7 of the Biodiversity Conservation (Savings and Transitional Regulation 2017 (BC (S&T) Regulation) Regulation and hence the BC Act does not apply to this modification. This was confirmed by OEH during the agency inspection on 31 May 2018. At that meeting, the OEH also confirmed use of the FBA methodology and that the biodiversity assessment method does not apply to MOD4. Despite this, UCML committed to providing a land based offset for MOD 4 because the OEH requested it and to offset the 1.42ha of disturbance beyond that already approved.

OEH requested that UCML manually add species credits for Regent Honeyeater, Squirrel Glider and Koala to the BBCC on the basis that offset obligations calculated using FBA become obligations to retire under the *Biodiversity Conservation Act 2017*. However given there is no legal requirement for UCML to provide offsets for MOD4 or apply the FBA, this is considered unnecessary.

- **Aboriginal Cultural Heritage**

The OEH feedback on clarity with respect to the reasons for significance rankings is noted and this feedback will be provided to the author of the Cultural Heritage Assessment.

- **Durridgere SCA Access**

UCML agrees that a Management Plan detailing agreed access points, security requirements, asset protection and maintenance, which will be developed in consultation with NPWS is an appropriate method for agreeing on access arrangements. UCML commits to progressing this, post approval.

Department of Planning and Environment (DPE)

- **Water allocations**

UCML was advised by the Department of Industry on 7 January 2019 that it had successfully secured the water allocations required for the life of the project approval including MOD 4 as outlined in Table 1, in Attachment C. UCML completed purchase of the allocation on 24 January 2019 and is awaiting receipt of the Water Access Licence.

Please immediately advise if there is any further information required. If you have any questions, please contact Brad Tanswell on 0429 598 542 or via email: Bradley.Tanswell@glencore.com.au

Yours sincerely,



Charlie Allan
General Manager
Ulan Coal Mines Limited

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Attachment A- UCML Email 6 November 2019

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Manager of the Ulan Joint Venture

Tanswell, Bradley (Ulan No 3 - AU)

From: Tanswell, Bradley (Ulan No 3 - AU)
Sent: Tuesday, 6 November 2018 10:03 AM
To: Anthony Ko
Cc: Stoney, Robyn (Ulan No 3 - AU)
Subject: Ulan Coal Mine Mod 4

Hi Anthony,

Thanks for the recent update and discussion in relation to the status of the assessment for Modification 4 (Mod 4).

Based on our discussion I understand the 2 key issues delaying finalisation of DPE's assessment for Mod 4 are:

- 1) Landowner consent from the *National Parks and Wildlife Service (NPWS)* to allow access to the Durrigere State Conservation Area (SCA). Ulan understands based on discussions with the NPWS Mudgee office that this has been at the Ministers Office for approximately 8 weeks for approval; and
- 2) Concerns raised by Geoff Mitchell in relation to potential impacts from Subsidence and to Aboriginal Heritage and shallow aquifers on his property 'Woodbury'.

In relation to item 1) Glencore are planning on seeking advice from the Ministers Office in relation to the status of landowners consent and an anticipated timeframe for a response. As discussed, UCML would appreciate if DPE would consider seeking advice separately from the Ministers Office in relation to an anticipated timeframe for a response.

In relation to item 2) UCML are keen to work with Geoff and Mary Mitchell and the DPE to resolve concerns that Mr and Mrs Mitchell have in relation to potential impacts from Subsidence and to Aboriginal Heritage and shallow aquifers and are of the view that these matters can be resolved to the satisfaction of all parties post consent. It is noted that the Agencies have not expressed similar concerns.

UCML have commissioned additional assessments to address concerns raised by the Mitchells and are willing to commit to the completion of the following:

Cultural Heritage

UCML commits to engaging an appropriately qualified and experienced person to further assess the significance of the Mona Creek Heritage sites, located on the property "Woodbury" and to prepare a report documenting the findings of the assessment. The report will consider impacts from the rockfall associated with the Mona Creek Heritage sites on the significance of the sites and will be provided to the landowner and the Department of Planning and Environment within 6 months of approval of Modification 4.

Subsidence

UCML will engage an appropriately qualified and experienced person to assess the cause of the rockfall that has occurred at the Mona Creek Heritage sites, located on the property "Woodbury". The assessment will consider whether mining associated with Ulan Coal Mine is likely to have caused, or contributed to the rockfall. Based on the findings of the assessment referred to above, the predicted subsidence impact assessment for modification 4 will be updated accordingly and a report will be prepared and submitted to the landowner and Department of Planning and Environment within 6 months of approval of Modification 4.

Shallow Aquifers

Past and current model iterations of the groundwater model have simulated the ephemeral creeks with drain cells. The models have also considered the presence of alluvial aquifers and other shallow perched aquifers (including the Triassic and Jurassic aquifers). However, the models to date consider the “perched aquifers” to not be in hydraulic connection with the broader regional water table that mine dewatering is impacting on. That is, as the aquifers are not in connection the mining impact is not likely to impact the perched aquifers. This conceptualisation is supported by observations in 2008, such as the Mona Creek alluvium investigation by Mackie Environmental Research MER (2008) and data from monitoring bores PZ09 and PZ10. The MER Mona Creek alluvium investigation (2008) comprised the excavation of a number of locations and the installation of two monitoring bores. The bores within the alluvium associated with Mona Creek were found to be either dry or only damp following investigations in 2008 and the two monitoring bores were found to have minimal saturated thicknesses. Based on this, the alluvium was incorporated into the regolith (weathered rock) layer/zones.

UCML has committed to collecting more data in the Mona Creek area and to allow establishment of existing conditions for these systems. Appropriately qualified and experienced hydrogeologists will design a monitoring program which will be implemented within 12 months of approval of modification 4.

As a minimum, at least three (and up to five) monitoring bores will be installed in the Mona Creek alluvium in the area north of UWLW6-UWLW8. One of the bores will be located close to PB2 in order to compare any potential impacts to the fractured rock aquifer and the overlying alluvial aquifer. The need for a second fractured rock bore, directly below the alluvium, to form a bore cluster of an alluvial aquifer bore and a fractured rock bore, will be reviewed as part of design of the monitoring program. The deep and shallow monitoring will aim to assess hydraulic connectivity of the Mona Creek alluvium. Further, the information obtained from the monitoring wells can be used to support development of the groundwater model, such that it includes a shallow alluvium structure, appropriate to the regional conceptualisation approach. Furthermore, a review of the extent of saturated alluvium in Mona Creek (in the direction the Talbragar River) will be undertaken as part of the alluvium bore planning.

The monitoring program will be implemented and the groundwater model updated within 12 months of approval of MOD4.

Water levels will be measured in farm bores at ‘Woodbury’ and ‘Billir’ to compare with data collected annually in November/ December since 2011 to address the Mitchell’s concern that impact to the shallow alluvium may have occurred since drilling of the UWLW6 bores commenced in July 2018. It is not considered that this is part of the MOD4, rather provided for your information given the Mitchell’s have raised it.

Further delays may place the MOD4 project at risk and we respectfully request that DPE consider incorporating the above commitments into the draft assessment report to allow the assessment to be finalised. If DPE could provide a copy of the draft assessment report for our review we would give it priority to prevent any further delays in the process.

Pls let me know if you need any additional information or if you would like to discuss this further.

Regards,

Brad

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