



Office of
Environment
& Heritage

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DA 305-11-01 MOD 7

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Dear Philip

Liddell Coal Mine (DA 305-11-01) Modification 7

I refer to the Department of Planning and Environment's email of 27 August 2018, inviting the Office of Environment and Heritage (OEH) to review and comment on the proposed Modification 7 for the Liddell Coal Mine.

The modification includes plans to change the boundary of the Mountain Block Offset so that remedial works may be implemented to stop soil erosion on the edge of an old open-cut mine, in accordance with the approved Biodiversity Offset Management Plan. OEH has identified aspects of Aboriginal cultural heritage management that will need to be updated if this proposal is approved, and includes comments on flood risk from the project.

OEH's recommendations are provided in **Attachment A** and detailed comments are provided in **Attachment B**. If you require any further information regarding this matter, please contact Nicole Davis, A/Senior Team Leader Planning, on 0409 394 343.

Yours sincerely

Sharon Molloy 14/9/2018

SHARON MOLLOY
Director Hunter Central Coast Branch
Regional Operations Division

Contact officer: NICOLE DAVIS
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Enclosure: Attachments A and B

OEH's recommendations

Liddell Coal Mine (Modification 7)

1. OEH is satisfied with the proposed offset package for this modification.
2. OEH is satisfied with the proposed reduction in post-mine rehabilitation to 'grassland suitable for grazing use'.
3. OEH has no comment on the proposed changes to Condition 2 of Schedule 2, or Conditions 16 and 39 of Schedule 3, as they are outside of OEH's expertise.
4. Consultation with the registered Aboriginal parties must be maintained in the ongoing management of the Aboriginal cultural heritage values at Liddell Coal Operations.
5. The existing Aboriginal Cultural Heritage Management Plan for the Liddell Coal Operations (2018) must be updated to show the MOD 7 consent boundary.
6. The Aboriginal Cultural Heritage Management Plan for the Liddell Coal Operations must include a protocol for the management of unexpected finds within the MOD 7 consent boundary.
7. The Aboriginal Cultural Heritage Management Plan for the Liddell Coal Operations must include a protocol for the management of any human remains uncovered in the MOD 7 consent boundary.
8. No ground disturbance from MOD 7 works are to occur outside of the area assessed for the modification.
9. OEH recommends that any works in the area included in the area for DA boundary amendment must not adversely affect flood characteristics on privately owned properties, for the full range of flood events, up to and including the Probable Maximum Flood (PMF).
10. OEH recommends that any changes to the Conceptual Final Landform must not adversely affect flood characteristics on privately owned properties, for the full range of flood events, up to and including the Probable Maximum Flood (PMF).

OEH's detailed comments

Liddell Coal Mine (Modification 7)

Biodiversity

1. OEH is satisfied with proposed offset for this modification

OEH reviewed the report, *Ecological Assessment, Liddell Coal Operations, DA305-11-01 Modification 7* (dated August 2018) that was prepared by Umwelt (Australia) Pty Limited, and presented in Appendix D of the Environmental Assessment (EA). This report describes the 3.5 ha of land proposed to be disturbed in the Mountain Block Biodiversity Offset Area to stabilise and reshape areas prone to erosion on the edge of the historic Mountain Block Mining Area. Once remediation works are completed and a final landform is established, the land would be revegetated and managed as a biodiversity offset area.

The remediation works will have a direct impact on about 0.01 hectare of Central Hunter Ironbark – Spotted Gum – Grey Box Forest Endangered Ecological Community and approximately 1 hectare of habitat for the Spotted-tailed Quoll, as well as likely habitat for a range of threatened birds and bats, and the Tiger Orchid (*Cymbidium canaliculatum*). Once stabilised, this land will be revegetated to floristic equivalents of the two woody vegetation communities affected by the works. The proponent is also offering an offset of 5.86 hectares of surplus land in the Bowmans Creek Riparian Corridor (3.52 hectares) and Mountain Block Biodiversity Offset Area (2.34 hectares) – land included in the Conservation Agreements in preparation under the *Biodiversity Conservation Act 2016* that is additional to the requirements of the DPE consent. The environmental values of this surplus land are described in section 5.1.1 of the EA, focusing on threatened biodiversity values.

The biodiversity offset package has a larger area of remnant native vegetation than the area that will be cleared, including Central Hunter Ironbark – Spotted Gum – Grey Box Forest Endangered Ecological Community. The new offset will be secured under a Conservation Agreement, and the remediated area will be revegetated with a similar species mix that will be impacted. The biodiversity offsetting policy for the proposed offset for this project was not stated. However, OEH considers that the proposed offset package meets the thirteen *OEH principles for the use of biodiversity offsets in NSW*.

Recommendation 1

OEH is satisfied with the proposed offset package for this modification.

2. OEH is satisfied with the proposed reduction in grassland on post-mine rehabilitation

The proponent has identified that it is physically not possible to reinstate 731 hectares of Central Hunter Box – Ironbark Woodland and 1,247 hectares of 'grassland suitable for grazing use' on the post-mined landscape of the Liddell Coal Mine, as stated in Table 8 in Schedule 3, Condition 37 of DA 305-11-01. This is due to the presence of final voids, dams, and road and rail corridors. Therefore, the proponent proposes reducing the extent of grassland to approximately 1000 hectares, and maintaining the 731 hectares of Central Hunter Box – Ironbark Woodland to be recreated.

Recommendation 2

OEH is satisfied with the proposed reduction in post-mine rehabilitation to 'grassland suitable for grazing use'.

3. OEH has no comment on the proposed administrative amendments to conditions

The proponent proposes modifying the wording of consent Condition 2 of Schedule 2, which relates the operation of the Liddell Coal Mine, to that proposed in the environmental assessments for DA 305-1101 and all subsequent modifications. It proposes removing reference to the Development Layout Plans in all of those environmental assessments, so it is not locked in to the location of elements of the mining projects shown in the those plans, but rather it will operate 'generally in accordance' with the written descriptions in those environmental assessments. OEH has no comment on this proposed change, which is outside of OEH's area of expertise.

Further, the proponent is proposing changing the reporting threshold for dust set in Condition 16 of Schedule 3. The current threshold of the short-term assessment criteria for dust (PM₁₀ (50µg/m³)) may be triggered by dust generated outside the Liddell Coal Operations alone. The proponent seeks to change the condition so it is only triggered by dust generated on the Liddell Coal operations site. OEH has no comment on this proposed change, which may best be assessed by the Environment Protection Authority.

The proponent seeks to change consent Condition 39 of Schedule 3 so that the Rehabilitation Management Plan is prepared to the satisfaction of the Department of Planning and Environment – Division of Resources and Geoscience (DPI – DRG), and that any related management plans are also prepared to the satisfaction of DPI – DRG. OEH has no comment on this proposed change, which is outside of OEH's area of expertise.

Recommendation 3

OEH has no comment on the proposed changes to Condition 2 of Schedule 2, or Conditions 16 and 39 of Schedule 3, as they are outside OEH's expertise.

Aboriginal Cultural Heritage

4. Consultation with the registered Aboriginal Parties for Liddell Coal Operations

OEH notes that the *Aboriginal and Historic Due Diligence Archaeological Assessment* (OzArk EHM, 2018) was undertaken for the Modification 7 (MOD 7) on 31 May 2018 and that no Aboriginal community members were present. No new Aboriginal sites were recorded and the report states that no previously recorded Aboriginal sites are expected to be directly impacted by the proposed Modification (OzArk EHM, 2018).

Liddell Coal Operations Pty Limited (LCO) must consult with the registered Aboriginal parties in the ongoing management of the Aboriginal cultural heritage values at LCO. Evidence of ongoing consultation must be provided to the consent authority upon request. OzArk EHM (2018) stated that a meeting was held by LCO with members of the Aboriginal Stakeholder Reference Group on 16 July 2018, as per *Section 4.2.1 Ongoing Consultation* of the Aboriginal Cultural Heritage Management Plan (ACHMP 2018), and that no issues were raised regarding cultural values during the meeting.

Recommendation 4

Consultation with the registered Aboriginal parties must be maintained in the ongoing management of the Aboriginal cultural heritage values at Liddell Coal Operations.

5. The Liddell Coal Operations Aboriginal Cultural Heritage Management Plan must be updated

The current LCO ACHMP (2018) must be updated in consultation with the registered Aboriginal parties to manage Aboriginal cultural heritage within the proposed MOD 7 consent boundary. The proposed MOD 7 consent boundary, as shown on *Figure 1-3* of the Aboriginal Cultural Heritage Assessment Report (OzArk EHM, 2018), must be updated on all relevant figures in the updated LCO ACHMP. This process must be undertaken prior to commencing any ground disturbance or development works.

Recommendation 5

The existing Aboriginal Cultural Heritage Management Plan for the Liddell Coal Operations (2018) must be updated to show the MOD 7 consent boundary.

6. Unexpected Finds

If ground disturbance works reveal any previously unidentified Aboriginal objects within the MOD 7 consent boundary, these unexpected finds must be managed following the protocols outlined in *Section 6.2 Previously Unrecorded Finds* in the LCO ACHMP 2018.

Recommendation 6

The Aboriginal Cultural Heritage Management Plan for the Liddell Coal Operations must include a protocol for the management of unexpected finds within the MOD 7 consent boundary.

7. Human Remains

If ground disturbance works reveal any human remains or burial in the MOD 7 consent boundary, the protocols in *Section 6.2.3 Management of Potential Human Skeletal Remains* in the LCO ACHMP 2018 must be followed.

Recommendation 7

The Aboriginal Cultural Heritage Management Plan for the Liddell Coal Operations must include a protocol for the management of any human remains uncovered in the MOD 7 consent boundary.

8. Modification Assessment Area

The area assessed for the modification is shown on *Figure 3.1* of the archaeological due diligence assessment by OzArk EHM (2018). There must be no impacts outside of the area assessed for the modification.

Recommendation 8

No ground disturbance from MOD 7 works are to occur outside of the area assessed for the modification.

Water, Flood and Coast

9. Flood impacts from amendments to the DA boundary must remain on site

OEH's review of the Environmental Assessment for Liddell MOD 7 by Hanson Bailey (dated August 2018) identified that the proposed boundary amendment in the north of the site borders privately owned lands. Any remediation works in this area will need to ensure that any properties not owned by the proponent are not adversely impacted by flood waters as a result of the changes in landform, for the full range of flood events, up to and including the Probable Maximum Flood (PMF).

Recommendation 9

OEH recommends that any works in the area included in the area for DA boundary amendment must not adversely affect flood characteristics on privately owned properties, for the full range of flood events, up to and including the Probable Maximum Flood (PMF).

10. Flood impacts from changes to mine site rehabilitation must remain on site

Rehabilitation objectives for the mine site are defined in consent Condition 37 of Schedule 3 and shown schematically in *Appendix 3 Conceptual Final Landform* of DA 305-11-01. The proposed changes of this condition relate to the achievement of specified revegetation areas. The Conceptual Final Landform map in *Appendix 3* of DA 305-11-01 indicates a number of dams

along the eastern side of the site. Any changes to the final landform of the mine site need to ensure that any properties not owned by the proponent are not adversely impacted by flood waters as a result of the changes in landform, for the full range of flood events, up to and including the Probable Maximum Flood (PMF).

Recommendation 10

OEH recommends that any changes to the Conceptual Final Landform must not adversely affect flood characteristics on privately owned properties, for the full range of flood events, up to and including the Probable Maximum Flood (PMF).