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By email: lauren.evans@planning.nsw.gov.au

Maxwell Underground Coal Mine Project (SSD-9526) - Adequacy of the Environmental Impact Statement (EIS).

Dear Lauren,

I refer to the email dated 7 August 2019 inviting the Resources Regulator (Regulator) to provide advice regarding the adequacy of the Environmental Impact Statement (EIS) for the State Significant Development application for the Maxwell Underground Coal Mine Project (the Project).

Development Details

Maxwell Ventures (Management) Pty Ltd, a wholly-owned subsidiary of Malabar Coal Limited (Malabar) propose an underground coal operation called Maxwell Coal Mine Project. It is located in the Upper Hunter Valley of New South Wales, approximately 16km east-southeast of Denman and 21km south-southwest of Muswellbrook. The Maxwell Coal Mine Project proposes to:

- Extract run of mine coal from four seams within the Wittingham Coal Measures for approximately 26 years;
- Underground bord and pillar mining with partial pillar extraction in the Whynot Seam;
- Underground longwall extraction in the Woodlands Hill Seam, Arrowfield Seam and Bowfield Seam;
- Utilise existing infrastructure – areas within existing mining leases (including the CHPP, train load-out facilities and other infrastructure and services) and previous mining areas;
- Development of a Mine Entry Area in the north of EL 5460 to support underground mining and coal handling activities;
- Transport corridor between Maxwell Underground and Maxwell Infrastructure (comprising the proposed access road, covered overland conveyer, power supply and other ancillary infrastructure); and
- A potential realignment of Edderton Road.

The Regulator has previously provided the following advice:

- Secretary's Environmental Assessment Requirements (SEARs) on 29 August 2018 (refer to DOC18/590689) with the recommendation that the standard mining development rehabilitation SEARs, provided in the Advice Response section, be applied to this project.

Environment and Rehabilitation

The Mining Act Inspectorate within the Resources Regulator has responsibility for providing strategic advice for environmental issues pertaining to the proposed project in so far as they relate to or affect rehabilitation.

The Resources Regulator advises the Department of Planning– Resources Assessments that SEARs for rehabilitation have not been adequately addressed in the Environmental Impact Statement (EIS) for **Maxwell Underground Coal Mine Project (SSD-9526)**. To adequately address the SEARs recommended by the Regulator, the following information is required:

i. Conceptual final landform design

The proposed final landform (Appendix U, section 4.4 and figure 4) does not clearly depict final rehabilitation of waste emplacements and final voids. Further information is required to clarify:

- A clear description of landform design objectives
- Consideration of micro/macro relief and or variability in the landform design for remaining rehabilitation at the north void and south void (i.e. to integrate the rehabilitated highwall with adjacent rehabilitated landforms).
- Proposed final landform contours (at an appropriate interval) for rehabilitation areas and adjacent landforms.

ii. Rehabilitation objectives and preliminary completion criteria

The Regulator notes that the EIS includes rehabilitation objectives and preliminary completion criteria (appendix A within appendix U of the EIS). The Regulator requests that rehabilitation objectives are clearly set out for each rehabilitation domain (identified in appendix U, tables 9 and 10). The Regulator notes that the proposed preliminary completion criteria will be further refined and included in any rehabilitation management plan that may be required to be submitted in accordance with mining lease conditions in the event that project approval and mining authorisation(s) are granted.

iii. Rehabilitation methodology

The EIS does not provide sufficient information to determine whether effective rehabilitation practices can be implemented. The Regulator requests that the EIS is updated to clearly describe the key rehabilitation practices and measures proposed:

- during mining operations (for example, assessment and management of geochemically hazardous waste rock and materials suitable for rehabilitation)
- for all rehabilitation domains
- for all significant existing and proposed surface infrastructure / features.

The Regulator requests that the EIS identifies and describes any specific methods or controls required to minimise, mitigate or manage all identified risks, barriers or limitations to rehabilitation (such as availability of sufficient quantities of suitable rehabilitation resources and management of rejects emplacements).

iv. Rehabilitation schedule

The Preliminary Rehabilitation and Mine Closure Strategy for the project (appendix U) does not include a rehabilitation schedule for the life of the project, that demonstrates that opportunities for progressive rehabilitation have been maximised.

The Regulator requests that the EIS is updated to include a rehabilitation schedule for the life of the project, in the form of a series of figures and/or principles (e.g. in the form of decision making principles or metrics) to identify progressive rehabilitation milestones. The Regulator requests that a rehabilitation schedule for the project clearly articulates:

- proposed timeframes to complete rehabilitation of disturbance associated with the former Drayton mine open cut operations (including overburden emplacement areas and final voids)
- proposed staging of land clearing, construction of proposed key surface infrastructure, and rehabilitation of proposed surface infrastructure for the Project and existing Maxwell Infrastructure surface infrastructure.
- emplacement of coarse and fine rejects, and the decommissioning and capping of reject materials (if applicable).

v. Barriers or limitations to effective rehabilitation

The EIS does not adequately describe the management strategy for geochemically hazardous waste materials, and life of mine tailings management strategy to effectively manage risks to rehabilitation.

The Regulator notes that the EIS Surface Water Assessment comments that the total catchment reporting to the East Void is approximately 168.4 hectares and predicts that catchment inflows and groundwater recovery is likely to result in the East Void pit lake reaching equilibrium 9 m below the spill level (appendix C). The Regulator seeks further information to clarify the likelihood that the proposed desiccation and capping of the rejects emplacement within East Void will succeed, and whether alternative options to manage environmental risks associated with the rejects emplacement, such as maintaining a water cap above the rejects, was considered.

The Regulator requests that the EIS is updated to provide detailed management strategies for assessment and management of geochemically hazardous materials and rejects emplacement, with due consideration to the recommendations for management of hazardous materials included in the Geochemistry Assessment (appendix P of the EIS) and Surface Water Assessment (appendix C of the EIS).

The Resources Regulator requests a review of the draft development consent conditions prior to finalisation and any granting of development consent.

It should be noted that this review does not represent the Resources Regulator's endorsement of the proposed rehabilitation methodologies as presented in the EIS. Under the conditions of a mining authority granted under the *Mining Act 1992*, the Resources Regulator, requires an authority holder to adopt a risk-based approach to achieving the required rehabilitation outcomes. The applicability of the controls to achieve effective and sustainable rehabilitation is to be determined based on the site specific risk assessments conducted by an authority holder. This risk assessment should be used to not only establish a basis for managing risk when planning an activity, but it should also be used and updated (as required) to continuously evaluate risk and the effectiveness of controls used to prevent or minimise impacts. An authority holder may also be directed by the Resources Regulator to

implement further measures, where it is considered that a risk assessment and associated controls are unlikely to result in effective rehabilitation outcomes.

The Resources Regulator requests that Maxwell Ventures (Management) Pty Ltd provide information responding to the comments above.

For enquiries regarding this matter please contact me on 4063 6444 or nswresourcesregulator@service-now.com

Yours sincerely

A handwritten signature in dark ink, appearing to read 'Matthew Newton', with a long horizontal stroke extending to the right.

Matthew Newton
Principal Inspector Environmental Rehabilitation
Resources Regulator
NSW Department of Planning, Industry & Environment

25 September 2019