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30 October 2025

Gen Lucas
Team Leader
Department of Planning, Housing and Infrastructure

Via: NSW Major Projects Portal

**EPA Advice on Modification Report
Mod 3 Pit 8 Extension - Wilpinjong Coal Mine Extension – SSD-6764-Mod-3**

Dear Gen,

I am writing in response to your request for the NSW Environment Protection Authority (EPA) to review the Modification Report for the proposed Mod 3 for an extension to Pit 8 for the Wilpinjong Coal Mine Extension at 1676 Ulan-Wollar Road, Wilpinjong.

The EPA has reviewed the following documents:

- *Modification Report* prepared by Peabody
- *Noise and Blasting Assessment* (Version A) – RWDI Australia – 13 August 2025
- *Air Quality Impact Assessment* (Revision 0) – Airen Consulting – 13 August 2025
- *Greenhouse Gas Assessment* prepared by Peabody
- *Land Contamination Assessment* (Revision 1) – JBS&G Australia – 5 September 2025
- *Groundwater Impact Assessment* (Revision 7) – SLR Consulting – 11 September 2025
- *Surface Water Assessment* (Version D4) – WRM Water & Environment – 8 August 2025

The EPA understands the proposal is for open cut mining within the Pit 8 extension area including:

- Extraction of 14Mt of ROM coal,
- Additional six months of mining operations to 30 June 2034,
- Additional water management infrastructure,
- In-pit crushing of waste rock for use as construction or stemming material,
- Ancillary infrastructure works,
- Not proceeding with mining in approved areas at Cumbo Creek corridor (Pit 4) and Rocky Hill complex (Pit 8) – Approx. 7Mt of ROM coal.

The premises is regulated under environment protection licence (EPL) 12425, issued to Wilpinjong Coal Pty Ltd under the *Protection of the Environment Operations Act 1997* (POEO Act).

NSW Environment Protection Authority

As the environmental steward and regulator of our State we are committed to a sustainable future. Join us on our mission to protect tomorrow together.

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The EPA has reviewed the Modification Report and has the following comments and recommendations to the Department of Planning, Housing and Infrastructure (DPHI) for consideration as part of its assessment of the proposal:

1. Matters to be addressed prior to determination

The EPA recommends DPHI request further information to address the matters listed below and detailed in **Attachment A** prior to any determination of the proposal. This information is needed to allow us to complete our assessment and enable us to clearly determine the likely impacts from the proposal and adequacy of proposed mitigation measures.

- a. Water Management
- b. Air Quality
- c. Greenhouse Gas Emissions

In particular, the EPA recommends the proposal should clarify whether this modification includes any increase to discharge of treated mine water from the reverse osmosis plant (ROP) as part of addressing Item a. Water Management.

The EPA notes it recently received an application to vary EPL 12425, which seeks to increase ROP discharge from 6.5ML/day to 20ML/day. This modification seeks to increase extraction of ROM coal by 7Mt but does not indicate any potential for increased ROP discharges or address the proposed licence variation.

If any increase to water discharges are being sought by this proposal, the EPA recommends the Surface Water and Groundwater Impact Assessments be updated to assess potential impacts from increased discharges to receiving waters and potential mitigation measures.

2. Matters for consideration

- d. Previous dust and noise/overpressure concerns

The EPA is aware of, and has previously received, complaints from the local community about dust and noise/overpressure impacts from the premises. This has included independent verification of dust issues.

This modification will involve expansion towards Wollar and privately owned residences, and the EPA suggests DPHI note these previous concerns part of its assessment of the proposal.

The EPA asks that further opportunity for consultation be provided should the additional information identified above be provided. The EPA also suggests further consultation with relevant NSW government agencies should the proposal clarify inclusion of increased ROP discharges. The EPA would likely recommend draft conditions for the project relating to groundwater and noise impacts for consideration but would likely include other matters following review of additional information.

Please contact Carlos Ferguson at environmentprotection.planning@epa.nsw.gov.au if you have any further questions about this matter.

Yours sincerely,



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NSW Environment Protection Authority

ATTACHMENT A – Matters to be addressed prior to determination - Mod 3 Pit 8 Extension - Wilpinjong Coal Mine Extension – SSD-6764-Mod-3

The EPA provides the additional detail below regarding matters it recommends should be addressed prior to determination of the proposal. This information is considered necessary to clearly demonstrate the likely impacts of the proposal and assist the EPA in reviewing the adequacy of proposed mitigation measures.

a. Water Management

Clarification of increased ROP discharges

The proposal should clarify any increase to the ROP discharges resulting from the proposed modification. The EPA notes a recent application to vary EPL 12425 seeking to increase the ROP discharge from 6.5ML/day to 20ML/day.

The Surface Water Assessment (SWA) does not assess potential impacts of any proposed limit increase. Potential impacts would include increased pollutant concentrations in receiving waters that could arise from increased loads, noting that additional discharges could represent a significant proportion of typical flow rates within Wilpinjong Creek.

Additionally, increases of this magnitude to discharge volumes would likely impact the water balance presented in the SWA, which has been relied on to assess other water impacts including river flow objectives, flood mapping, water allocation and groundwater.

Recommendation: The EPA recommends that the assumptions and inputs used in the SWA are revised to ensure they reflect the applicant's proposed operations, including discharge rates from the ROP. If increased discharge rates are required from the ROP as part of this proposal, then the impact of those discharges should be assessed, which could include (but need not be limited to) salinity loads, ionic composition of salts, and other key site pollutants.

Opportunities to avoid additional ROP discharges

It is understood that the existing and proposed ROP discharges are required to reduce site inventory and assist with managing inventory during prolonged rainfall and wet climatic conditions. However, it is noted that the mine water system also receives:

- sediment laden water captured by sediment basins
- clean water from some undisturbed catchments where clean water diversion is not considered reasonable and feasible.

It is unclear whether the proposal considers options to reduce inputs to the mine water system, thereby reducing the need for ROP discharges.

Recommendation: The EPA recommends that if additional discharges are required from the ROP, the proposal consider measures to reduce site inventory and avoid the discharge, including but not limited to:

- treatment and discharge of sediment laden water separate to the mine water system,
- diverting additional clean water catchments where practicable.

Details of clean water diversion around the Pit 8 Extension area

A new clean water diversion is proposed for the catchment upgradient of the Pit 8 Extension area. Where considered reasonable and feasible by the applicant, runoff from undisturbed upgradient areas would be captured in four clean water dams and diverted via pipeline to Wollar Creek.

If designed and operated appropriately, the clean water diversion may present a low risk of pollution and may not require licensing. However, limited detail is provided, and it is unclear whether some associated risks (sedimentation, contamination, scouring, etc.) would be mitigated.

Additionally, and consistent with other clean water diversion works being undertaken at the site, monitoring should also be undertaken.

Recommendation: The EPA recommends that:

- further information is provided regarding the design of the clean water diversion system, including the discharge point and practical measures considered to prevent, control, abate and/or mitigate impacts from the discharge.
- the clean water diversion system is considered in the surface water quality monitoring program.

Review and updated of surface water quality monitoring program

The EPA notes the surface water quality monitoring program (SWMP) referenced in the SWA is in the Water Management Plan dated August 2017 and its appendix (Appendix 2 – Surface Water Management Plan, dated June 2018).

In particular, the EPA provides the comments below on potential issues with the existing monitoring program for consideration:

- Appropriateness of upstream monitoring locations, noting apparent extensions of Pit 6,
- Monitoring locations downstream of Moolarben Coal Complex extension may not be representative of natural conditions,
- Including an additional monitoring location further upstream on Wollar Creek, noting proposal may impact existing monitoring point,
- Including additional monitoring locations in undisturbed catchments upstream of the site to measure potential deviations from natural conditions,
- Considering all pollutants that have the potential to impact receiving waters and providing a rationale for the analytes to be tested, or alternatively where potential pollutants are not proposed for monitoring, inclusion of appropriate justification,
- Clarifying methodology used to derive the proposed water quality impact criteria, including use of appropriate reference sites.

Recommendation: The EPA recommend that the SWMP is reviewed and updated to reflect current operations and the proposed modification as part of any approval of the proposal. The EPA can provide further detail on these matters as part of any recommended condition considerations for the proposal. The EPA recommends these matters be considered as part of any revision of the SWA.

b. Air Quality

Predicted 24-hour PM_{2.5} exceedances have not been adequately addressed

Appendix D of the AQIA identifies several exceedances of maximum 24-hour average PM_{2.5} at several receptors. During 2030 and 2032, the Wollar Public School (receptor 944) and a separate community receptor (sensitive receptor 901) are predicted to have exceedances of the 25µg criteria for PM_{2.5} (24-hour).

Although the Wollar Public School is formally closed, it is understood that the premises contains buildings which are currently tenanted. Additionally, the *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales* (Approved Methods) includes “*public recreational areas*” under the definition of a sensitive receptor, therefore, community receptor 901 should also be treated as a sensitive receptor in the AQIA. Section 6.6 of the AQIA partially addresses the potential impacts to these community facilities, noting that on the day of exceedance/s the background contributions are elevated, and that the risk of the modification causing an exceedance is low.

Due to the predicted impacts of the 24-hour PM_{2.5} criteria, additional detail should be provided on reactive management measures that may be necessary to ensure compliance with the EPA’s

impact assessment criteria. The AQIA should clearly outline these reactive measures, including specific trigger levels and corresponding actions, and incorporate them into the dispersion modelling.

This information is essential to transparently demonstrate that no additional exceedances of the impact assessment criteria will occur at sensitive receptors because of the Proposal.

Recommendation: The EPA recommends the AQIA be amended to include the following:

- A scenario which employs reactive measures to demonstrate that no additional exceedances for 24-hour average PM_{2.5} criteria will occur due to the Proposal,
- Describes the actual reactive measures which will be utilised to achieve compliance with the impact assessment criteria,
- Specific details of reactive measures previously used at Wilpinjong Coal Mine to mitigate dust impacts.

Cumulative assessment does not utilise up-to-date information

Section 5.1 of the AQIA states that modelling by Todoroski Air Sciences Pty Ltd (2017 TAS Assessment) has shown that there is very little risk of cumulative air quality impacts between Wilpinjong and Moolarben Mine within the township of Wollar. The AQIA stated that based on the 2017 TAS Assessment, impacts from the Moolarben operation are not significant enough to change the outcome of the AQIA.

However, the assessment cited in the AQIA appears to be out-of-date, whilst adequate evidence has not been provided to support this statement.

The EPA notes annual TSP figures from the Moolarben Coal Complex OC3 Extension Project (2022) are significantly higher than those outlined in the 2017 TAS assessment. A summary in Table 2 and Table 3 below shows the difference in TSP emissions for the 2017 and 2022 assessments.

The EPA notes the Moolarben Coal Complex OC3 Extension Project may not yet be approved, however the EPA believes this should be considered to provide additional transparency and ensure that cumulative impacts are not underpredicted.

Table 1 Moolarben Coal Mine estimated TSP emissions (kg/year) - 2017 TAS Assessment

Parameter	2019	2021	2026
Estimated TSP Emissions (kg/year) Moolarben Coal Mine - OC Optimisation Modification	5,439,254	5,236,797	4,768,420

Table 2 Moolarben Coal Mine estimated TSP emissions (kg/year) - 2022 TAS Assessment

Parameter	2028	2029	2031
Estimated TSP Emissions (kg/year) Moolarben Coal Mine - OC3 Extension Project	7,534,803	7,683,922	9,118,540

The EPA advises that the AQIA should use the most recent data projections from nearby open cut coal mines, to allow for the accurate and transparent assessment of cumulative impacts from the combined operations. The AQIA should also transparently outline how cumulative impacts from nearby sources have been assessed in the AQIA.

Recommendation: The EPA recommends that:

- The AQIA be amended to incorporate the most recent data projections from other nearby mining operations to ensure that the cumulative assessment of dust is adequate.
- The AQIA transparently outline how cumulative dust impacts from nearby sources (including open cut mines) have been assessed in the AQIA.

c. Greenhouse Gas Emissions (GHG)

Clearly define the assessment boundary for the proposed Modification

In accordance with Section 2.1.3 of the Large Emitters Guide, Scope 1 and Scope 2 GHG emissions should be estimated over the full operational life of the project, based on its maximum capacity and planned operational throughput.

The Applicant indicates that the Wilpinjong Coal Mine, including the proposed Modification, will not alter the approved maximum annual production rate or mine life. Emissions have been assessed for the operational period of the Modification (FY27-FY33). The assessment notes that the Modification would result in an increase of approximately 6.1 million tonnes of run-of-mine (ROM) coal extraction compared to the approved Development Consent but does not seek to extend the approved timeframe for ROM coal production.

The GHG assessment is to account for projected emissions across the entire duration of the project's operations, including any changes introduced by the Modification. Most emissions estimates in the report are presented only up to the 2032–2033 financial year, despite the Modification proposing to extend mining activities by six months, until 30 June 2034. Therefore, clarification is required regarding the project in terms of:

- The project's maximum extraction capacity and planned operational throughput,
- Emissions estimates covering the full operational life, including the period for proposed extension,
- Emissions associated with decommissioning activities.

Recommendation: The EPA recommends DPHI request the Proponent to clearly define the assessment boundary for the proposed Modification and consider all relevant estimates over the course of the project's lifetime.

Update the estimated emissions

The EPA was unable to replicate some of the estimated emissions in the GHG assessment. Further, details are needed to demonstrate how the reported activity data were quantified and how they are reflective of the project.

Consistent with section 4.4.1 of the Large Emitters Guide, the GHG assessment should clearly document the assumptions, data and methods used in estimating Scope 1 and Scope 2 emissions. The assessment should include sufficient supporting information to enable replication of the emissions calculations, with information disaggregated for each operation.

In detail, EPA is unable to replicate the Scope 1 and 3 emissions based on the information provided in the report, as the methodology behind the calculations was not explained.

The underlying assumptions and input data used to develop the emissions estimates should be clearly documented for all relevant GHG sources, including but not limited to fugitive emissions, explosive use, and land clearing. In particular:

- No supporting information has been provided to substantiate the reported activity data, particularly for sources such as blasting and land clearing.
- No information was provided on how the reported emissions factors were determined, particularly for activities such as blasting, land clearing, fugitive emissions. The absence of methodical details limit the EPA's ability to assess the adequacy of the results reported.
- Fugitive emissions are referenced as being derived using a gas assignment model; however, no details were provided regarding the model's structure, assumptions, or data inputs.

Several apparent errors have been identified in the emissions estimates presented in Attachment A - Greenhouse Gas Calculation Report of the GHG assessment:

- Formula errors are present in the tables on pages 87, 99, 111, 123, and 135.
- Missing emissions data for blasting, oil, and greases in these tables is inconsistent with the narrative and scenario descriptions provided elsewhere in the attachment.
- Coking coal usage tables appear to contain errors, as no emissions have been reported across any of the scenarios.

The EPA notes that the calculations of Scope 1 and Scope 3 emissions do not reference the most up-to-date emissions factors published in the National Greenhouse Accounts Factors: 2025 by DCCEEW ([National Greenhouse Accounts Factors: 2025 - DCCEEW](#)). Additionally, for transport (rail and shipping) emissions estimates, EPA recommends considering the latest available factors from UK Department for Environment, Food & Rural Affairs (DEFRA 2024), which are more current than those referenced in the Australian NGER (Safeguard) Rule 2015.

Recommendation: The EPA recommends DPHI request the Applicant to review and update their greenhouse gas emissions estimates using the most updated emission factors, and to provide sufficient details, including all assumptions, methodologies, and input data, to enable replication of the estimates.

Include details of GHG mitigation measures

The Applicant reported current greenhouse gas mitigation measures for the Wilpinjong Coal Mine, prepared presumably in accordance with its Development Consent. However, the qualitative analysis provided for the Modification's mitigation strategy concludes with only one measure targeting Scope 1 emissions. No proposed timing has been outlined for the detailed assessment or implementation of this measure.

It is noted that this analysis is intended to be included in the Wilpinjong Coal Mine Greenhouse Gas Mitigation and Adaptation Plan, to be developed post-approval. However, in accordance with the Large Emitters Guide, mitigation measures to avoid, reduce and substitute Scope 1, Scope 2, and Scope 3 emissions are to be identified and assessed during the planning phase of the project, before using offsets.

For Scope 1 and 2 emissions in particular, the proposed measures should reflect the full range of best-practice design, technology, and management options, consistent with the greenhouse gas mitigation hierarchy. For example, it is unclear whether planned vegetation clearing has considered footprint minimisation or avoidance strategies.

To meet the requirements outlined in Sections 4.3.1 to 4.3.3 and Section 4.4 of the Large Emitters Guide, the Applicant should undertake both qualitative and quantitative assessments of opportunities to reduce GHG emissions. Furthermore, the emissions reductions associated with proposed mitigation measures should be quantified to demonstrate their effectiveness. Measures to monitor and report on emissions and mitigation performance are to be proposed.

The GHG assessment notes that residual emissions may be offset if no further reasonable and feasible mitigation measures are adopted. However, to meet the requirements of Section 4.6 of the Large Emitters Guide, any offset strategy should include details such as how offsets will be domestically sourced to support the project's emissions reduction goals.

Recommendation: The EPA recommends DPHI request the Applicant to expand and provide detailed information on the proposed greenhouse gas mitigation strategy, in accordance with Sections 4.3.1 to 4.3.3 and Section 4.4 of the Large Emitters Guide.

Emission reduction goals

The Applicant states that the Modification will result in only a minor increase in emissions compared to the approved project, and that these emissions have already been accounted for in the Net Zero Emissions Dashboard. As such, no additional reduction goals have been proposed or emissions trajectory represented, with the project expected to cease operations in 2033.

However, the Large Emitters Guide requires proponents to set both long-term and interim emissions reduction goals that are realistic and supported by a clear explanation of how they will be achieved. The Applicant should demonstrate how the proposed goals contribute meaningfully to NSW's broader emissions reduction targets in the context of their industry or sector.

If reduction goals rely on the timing and feasibility of emerging technologies, the Applicant should discuss uncertainties in the effectiveness of mitigation measures, or the prerequisites needed to deploy mitigation measures based on the best available information at the time and propose contingency actions that could be implemented to achieve the level of performance.

Recommendation: The EPA recommends DPHI request the Applicant to include greenhouse gas reduction goals in the revised GHG assessment.

Report details to be consistent with Appendix C of the Large Emitters Guide

To ensure consistency with the Large Emitters Guide, it is recommended that the report be revised to consider the details outlined in Appendix C. To assist us in our review, it will be helpful for the revised report to include:

- An executive summary
- Appendices with the project's activity and emissions data. Appendix D of the Large Emitters Guide (Emissions Estimate Template) could assist when updating these GHG report appendices.

Recommendation: The EPA recommends DPHI request the Applicant to update the greenhouse gas assessment with details consistent with Appendix C of the Large Emitters Guide. Justification should be included if the Applicant considers that some sections of the Large Emitters Guide are not applicable for the Modification.