Our ref: DOC25/885441-4

18 November 2025

Gen Lucas
Department of Planning, Housing and Infrastructure

Via: Major Projects Portal

EPA Advice on Environmental Impact Statement – Ulan West Continued Operations Mod 8 – MP08_0184-Mod-8

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 Ulan West Continued Operations – Mod 8 (Application MP08_0184-Mod-8).

The EPA has reviewed the following documents:

- *Ulan West Continued Operations Modification* – Umwelt – October 2025.
- *Ulan West Continued Operations Modification Appendix 6 Groundwater Impact Assessment Report* – Australasian Groundwater & Environmental Consultants – July 2025.
- *Ulan West Continued Operations Modification Appendix 7 Surface Water Impact Assessment* – ATC Williams – August 2025.
- *Ulan West Continued Operations Modification Appendix 13 Noise Impact Assessment – EMM Consulting – July 2025.*
- *Ulan West Continued Operations Modification Appendix 14 Air Quality Impact Assessment* – Airen Consulting – 30 July 2025.
- *Ulan West Continued Operations Modification Appendix 15 Greenhouse Gas Assessment* – Airen Consulting – 29 July 2025.

The EPA understands the proposal is for:

- Widening of Ulan West Underground LW12 by approximately 180 metres.
- An additional four longwall panels consisting of LW13A, LW13B, LW14A, LW14B, LW 15A, LW15B and LW16.
- Construction of a new tailings storage facility within existing surface infrastructure area.
- Construction of new surface infrastructure consisting of communication & monitoring services, service boreholes, dewatering infrastructure and upcast ventilation shaft and fans.

Based on the information provided, the proposal is subject to an environment protection licence under section 43 of the *Protection of the Environment Operations Act 1997* (POEO Act) for mining for coal clause 28 of Schedule 1 of the POEO Act.

The EPA has reviewed the EIS and notes that it does not provide the information required to allow us to complete our assessment. The EPA has the following comments and recommendations:

1. Matters to be addressed prior to determination (see Attachment A)

a. Tailing Storage Facility

b. Greenhouse Gas

2. Matters to be addressed with conditions

The EPA recommends that DPHI consider the conditions to address groundwater provided in Attachment B. Additional conditions may be provided following review of the additional information requested in Attachment A.

If you have any questions about this request, please contact Nick Vlasoff via email at environmentprotection.planning@epa.nsw.gov.au.

Yours sincerely

Christie Jackson
Unit Head – Environment Protection Planning
NSW Environment Protection Authority

ATTACHMENT A – MATTERS TO BE ADDRESSED PRIOR TO DETERMINATION

The EPA recommends the following matters in this attachment are addressed prior to determination of the application and provision of recommended conditions, should the project be approved.

Groundwater

1. Tailing storage facility

The EPA recommends an alternative location is proposed for the tailings storage facility (TSF) to avoid seepage pathways to the Goulburn River alluvium.

The TSF is proposed within previously mined open-cut/rehabilitated area, in proximity to the Goulburn River. The disposal of tailings in areas with hydraulic connection to alluvium presents a seepage pathway that was not considered in the current groundwater impact assessment. It is recommended that:

- An alternative location is proposed to a lower risk setting within the project area; or
- Demonstrate geological isolation of the TSF by more than, or equivalent to, the engineered containment permeabilities defined in the NSW Solid Waste Guidelines 2016, to reduce the risk of seepage from proposed tailing dams into alluvium and ultimately to the Goulburn River

Greenhouse Gas

1. 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 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 emission estimates in the report are presented only up to the 2039, despite the Modification proposing to extend mining activities by until 31 Dec 2041. Therefore, clarification is required regarding the proposed Modification in terms of:

- The project's maximum extraction capacity and planned operational throughput
- Emissions estimates covering the full operational life, including the full duration of the extended period
- Emissions associated with decommissioning activities
- Certain GHG sources were explicitly excluded from the assessment boundary on the basis that they are expected to contribute less than 1% of total emissions. However, no supporting data or sensitivity analysis was provided to substantiate this. Additionally, clarification is required regarding the exclusion of other potentially relevant sources, such as land clearing and explosives use, particularly if these activities are required for the proposed modification

Recommendation:

DPHI to require the Applicant to clearly define the assessment boundary for the proposed Modification and consider all relevant estimates over the course of the project's lifetime.

2. Update the estimate 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.

The EPA is unable to replicate the Scope 1 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, transport rail and shipping, and energy production. In particular:

- Inventoried emissions by source were predicted for the 2028-2039 period, despite the Modification aiming to extend the project lifespan until 31 Dec 2041.
- No supporting information has been provided to substantiate the reported predicted activity data.
- No details have been provided regarding the application of the methodologies referenced in determining the reported emissions factors, for activities such as rail transport, shipping, energy production and particularly fugitive emissions.
- Scope 3 emissions have been reported for energy production only, despite the broader assessment boundary including other sources. A justification should be provided for excluding these sources, particularly if they are considered immaterial to the overall emissions profile.

Several issues in the emissions estimates presented in Attachment A - Greenhouse Gas Emissions require clarification:

- UWCO Modification only: Diesel (transport) emissions are estimated for the period 2024-2035 only (page 2, Appendix A).
- The emissions estimate in the above referenced table is rounded to 2 t CO_2-e/year instead of 3 t CO_2-e/year.
- UWCO Modification only: The fugitive emissions table repeats the ROM coal(t) column (page 3, Appendix A).

The EPA also 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).

Recommendation:

DPHI to require the Applicant to review and update their greenhouse gas emissions estimates, and to provide sufficient details, including all assumptions, methodologies, and input data, to enable replication of the estimates.

3. Greenhouse gas mitigation strategy

The GHG assessment does not propose specific mitigation measures or an offset strategy for the project and is limited to referencing existing management practices at UCC.

In relation to Scope 1 and 2 emissions, the assessment should reflect the full range of best-practice design, technology, and management options, in line with the greenhouse gas mitigation hierarchy. However, the report merely states that the mentioned management measures represent current leading practices for Scope 1 and 2 emissions, without providing further detail or supporting evidence to justify this statement.

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 is to undertake both qualitative and quantitative assessments of opportunities to reduce GHG emissions. Furthermore, the emissions reductions associated with proposed mitigation measures is to be quantified to demonstrate their effectiveness. Measures to monitor and report on emissions and mitigation performance are to be proposed.

Recommendation:

DPHI to require 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.

4. Emission reduction goals

The GHG assessment does not reference any specific project-related emissions reduction targets beyond Glencore's current company policy. Instead, it states that the expected emissions under the

modified business scenario align with the anticipated decline in the NSW emissions trajectory. No quantitative emissions reduction targets have been proposed; rather, the project outlines qualitative management practices. As such, no additional emissions reduction goals or emissions trajectory have been presented for the project-only scenario.

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 is to 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 is to 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:

DPHI to require the Applicant to include greenhouse gas reduction goals in the revised GHG assessment.

5. 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 that addresses the expectations described in Appendix C of the LEG, including:
    - Key mitigation measures proposed
    - Emission reduction goals
    - A commitment to continuous improvement, with a minimum review cycle of every five years to ensure targets remain achievable and responsive to evolving standards.
- Update 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.
    - Tables in Attachment A would benefit from identification numbers to improve referencing

Recommendation:

DPHI to require 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.

ATTACHMENT B – RECOMMENDED CONDITIONS

The EPA recommends DPHI consider the following conditions as part of their determination of the application, should the project be approved.

Groundwater monitoring program

The EPA recommends that DPHI consider a condition to update the Ulan Groundwater Monitoring Program to incorporate the modification and the proposed TSF.

No monitoring is proposed for the new tailing dams. It is recommended the proponent provide an updated and comprehensive Groundwater Monitoring Program to include:

- Installation of additional appropriately screened multi-level groundwater monitoring bores around and down-gradient of the TSF footprint (including shallow alluvium, weathered rock/regolith and deeper fractured rock) to detect and resolve vertical gradient and any early seepage migration.
- Revised trigger levels for groundwater levels and groundwater quality, and update to existing Trigger Action Response Plans (TARP).
- Mitigation/contingency measures for exceedances.
- Ongoing data updates and model validation.