



Your ref: SSD-5012-MOD 6

Our ref: DOC26/138200

Brittany Golding
Acting Senior Environmental Assessment Officer
Department of Planning, Housing and Infrastructure- NSW Planning Group
Via Major Projects Portal: PAE-108039985

Dear Brittany

Subject: Atlas-Campaspe Mineral Sands Mine MOD 6

Thank you for your email dated 4 March 2026 seeking advice from the Conservation Planning and Assessment (CPA) Branch of the NSW Department of Climate Change, Energy, the Environment and Water about Modification 6 for the Atlas-Campaspe Mineral Sands Mine (SSD-5012-MOD 6).

We have reviewed the exhibited MOD 6 against the Secretary's Environmental Assessment Requirements (SEARs) issued to the proponent on 22 December 2025.

CPA considers that further work is required on the BDAR to meet the SEARs for biodiversity.

In summary, our key issues are:

- Selection of the proposal location does not demonstrate how impacts to biodiversity have been avoided and minimised.
- Impacts to the retained biodiversity offset area to the east have not been addressed.
- Additional information is required to mitigate prescribed impacts to connectivity and vehicle strike.
- Specific mitigation measures relating to the impacts resulting from this proposal are required to ensure proposed measures are feasible and achievable.

A summary of our assessment, advice and, where appropriate, recommended conditions of approval is provided in **Attachment A**. Detailed advice is in **Attachment B**.

All plans required as a Condition of Approval that relate to biodiversity should be developed in consultation with, and to the satisfaction of CPA, particularly the Environmental Management Plan and the Biodiversity Management Plan.

If you have any questions about this advice, please contact Andrew Fisher, Senior Team Leader, via planning.southwest@environment.nsw.gov.au or 02 6022 0623.

Yours sincerely

Tyrie Starrs
2 April 2026

**Senior Manager South
Conservation Planning and Assessment
Conservation Programs, Heritage and Regulation Group**

NSW Department of Climate Change, Energy, the Environment and Water

ATTACHMENT A – CPA Assessment Summary for Atlas-Campaspe Mineral Sands Mine MOD 6 Environmental Impact Statement (SSD-5012-MOD-6).

ATTACHMENT B – Detailed advice for Atlas-Campaspe Mineral Sands Mine MOD 6 Environmental Impact Statement (SSD-5012-MOD-6).

ATTACHMENT C – Bilateral assessment information and data requirements.

ATTACHMENT A CPA Assessment Summary for Atlas-Campaspe Mineral Sands Mine MOD 6 Environmental Impact Statement (SSD-5012-Mod-6)

Key Issues

The following issues and recommendation are to be resolved prior to determination.

Biodiversity

- 1.1. Update the BDAR to demonstrate how avoid and minimise has been applied for the proposal location consistent with s7.1.1 of the BAM.
- 1.2. Provide justification for no avoidance of Cobar Greenhood habitat.
- 2.1. Amend consent condition 12 to include the 64.8 hectares to be added to the existing biodiversity offset area.
- 2.2. Prepare a consent condition that includes the ecosystem and species credits outlined in Table 10.1 and 10.2 of the BDAR.
- 2.3. Include an additional 534 hectares in the biodiversity offset to the west of the proposal to account for the loss of connected vegetation in the offset to the east of the proposal.
- 2.4. Consult with the BCT regarding potential conversion of the existing biodiversity offset area to a 'Condition of Consent Conservation Agreement'.
- 3.1. Update the BDAR to address prescribed impacts in accordance with s6 and s8.3 of the BAM.
- 3.2. Update the BDAR to assess the impacts to connectivity within the remaining offset areas, and the increased risk of vehicle strike.
- 4.1. Provide further detail about measures to mitigate, monitor and manage potential impacts, including risk of failure.

Matters of National Environmental Significance

- 5.1. Update the BDAR to address information required to complete the bilateral assessment as per Attachment C.

ATTACHMENT B Detailed advice for Atlas-Campaspe Mineral Sands Mine MOD 6
Environmental Impact Statement (SSD-5012-Mod-6)

Biodiversity

The Biodiversity Development Assessment Report (BDAR) does not meet the SEARs for biodiversity.

In preparing this advice, CPA has reviewed the following documents:

- *Biodiversity Development Assessment Report (BDAR), Atlas Campaspe Mineral Sands Project Modification 6.* GHD, February 2026.
- *Supplementary offset area assessment, Atlas Campaspe Mineral Sands Project Modification 6.* GHD, February 2026.
- *Optimised Services Corridor modification Report, Atlas Campaspe Mineral Sands Project Modification 6.* Tronox, February 2026.

1. Avoidance and minimisation of impacts on native vegetation need to be clearly demonstrated

Section 7.1 of the BAM requires review of efforts to avoid and minimise impacts to biodiversity values including an analysis of alternatives. The BDAR does not propose any alternative options or legitimate avoidance measures.

Section 7.1.1 of the BDAR describes how 76 hectares of native vegetation was assessed and refined to 54 hectares. However, all the assessment was within the same proposed subject land. The development footprint is made up of 99 percent native vegetation and would clear 20 hectares of known habitat for the threatened orchid Cobar Greenhood (*Pterostylis cobarensis*). The BDAR does not demonstrate how the proposal location avoids and minimises impacts to biodiversity consistent with s7.1.1 of the BAM

Table 7.1 of the BDAR describes the proposed route as immediately adjacent to areas already approved for development and including non-native or previously disturbed vegetation as far as possible. The rest of the BDAR contradicts this statement as the corridor is mostly native vegetation and it is part of the existing biodiversity offset for the mine.

Recommendations:

- 1.1. Update the BDAR to demonstrate how avoid and minimise has been applied for the proposal location consistent with s7.1.1 of the BAM.
- 1.2. Provide justification for no avoidance of Cobar Greenhood habitat.

2. Biodiversity offsets require specific consent conditions and impacts to the residual offset area should be addressed.

The proposed modification will remove 50.41 hectares of native vegetation that is part of the biodiversity offset area identified in Appendix 4 of the Consolidated Consent for the project (SSD_5012). As per CoA 12 of the 2014 approval, the biodiversity offset area was secured by changing the lease purpose to 'conservation' under the *NSW Western Lands Act 1901*. The proposed addition of 64.8 hectares identified in the *Supplementary offset area assessment* to account for the loss of the 50.41 hectares and conversion to conservation under the *NSW Western Lands Act 1901* is appropriate.

CPA notes that the ecosystem and species credits outlined in Table 10.1 and 10.2 of the BDAR are required to offset biodiversity impacts of MOD 6 in addition to the 64.8 hectares added to the *Western Lands Act* biodiversity offset area.

The proposal will excise about 534 hectares from the existing biodiversity offset area. This remaining 534 hectares to the east of the development footprint will be bounded on all four sides

by the existing mine and associated ancillary facilities, thereby greatly reducing its value as a biodiversity offset. The BDAR does not assess the viability or impacts to the existing offset area that is retained to the east of the MOD 6 development footprint. CPA recommends that the remaining 534 hectare offset area (to the east of the proposal) be removed as a biodiversity offset and a new 534 hectares should be added to the existing offset being retained to the west of the proposed modification.

The proposed modification will result in both direct and indirect impacts to an existing biodiversity offset area. To minimise the potential for future impacts to the biodiversity offset area, CPA requests that DPHI consult with the Biodiversity Conservation Trust (BCT) to discuss the potential for the biodiversity offsets from the existing consent (granted June 2014) to be converted to a 'Condition of Consent Conservation Agreement' in accordance with the BCTs '*Guidelines for proponents and consent authorities – using offset conservation agreements*'. Further information can be obtained by contacting the BCT via Glenn.Harpley@bct.nsw.gov.au.

Recommendations:

- 2.1. Amend consent condition 12 to include the 64.8 hectares to be added to the existing biodiversity offset area.
- 2.2. Prepare a consent condition that includes the ecosystem and species credits outlined in Table 10.1 and 10.2 of the BDAR.
- 2.3. Include an additional 534 hectares in the biodiversity offset to the west of the proposal to account for the loss of connected vegetation in the offset to the east of the proposal.
- 2.4. Consult with the BCT regarding potential conversion of the existing biodiversity offset area to a 'Condition of Consent Conservation Agreement'.

3. Further consideration should be given to connectivity of threatened species habitat in the existing biodiversity offset

Section 8.3 of the BAM requires identification of prescribed impacts including; impacted entities, nature of the impact, extent, frequency, duration, timing and consequences. Tables 6.2 and 8.4 of the BDAR do not adequately address s8.3 of the BAM for connectivity and vehicle strikes.

Table 8.4 of the BDAR concludes that impacts to habitat connectivity would be moderate due to the project not including 'large or hazardous structures that would increase the risk or energy cost of movement of any threatened or migratory fauna'. However, Table 8.4 also states that the project would fragment and isolate the offset to the east of the proposal (see Issue 2). It is unclear how it has been concluded that the project will have a moderate risk rather than a high risk of connectivity impacts.

Table 8.4 of the BDAR states that the project would have low vehicle strike impact but it is unclear how this conclusion has been reached. Table 8.4 states that the proposal includes four haul trucks driving through the road each day at 50km/hr. This is an increase from no road through the current offset site. Section 4.3.5 of the *Biodiversity Assessment Method 2020 Operational Manual – Stage 2* outlines that for development with ancillary roads, an estimated rate of vehicle strike is required and should include an analysis of the target species' abundance, movement patterns, home range and ability to cross barriers. Table 8.4 of the BDAR states that this information has not been collected or analysed. As no analysis has occurred, the precautionary principle should be applied, vehicle strike risk should be assumed and appropriate measures provided to mitigate vehicle strike (see Issue 4).

Recommendations:

- 3.1. Update the BDAR to address prescribed impacts in accordance with s6 and s8.3 of the BAM.
- 3.2. Update the BDAR to assess the impacts to connectivity within the remaining offset areas, and the increased risk of vehicle strike.

4. Mitigation measures must be detailed in the BDAR to demonstrate impacts will be effectively managed.

Table 9.1 of the BDAR lacks specific mitigation measures for the potential prescribed impacts identified within the BDAR such as connectivity and vehicle strike.

The requirement of the previous EPBC Approval 2012/644 for the services corridor to be fenced on both sides is noted in BDAR Table 6.2 - 'vehicle strikes'. This has not been discussed elsewhere in the BDAR and requires further consideration. A fence would reduce casual crossing of the road corridor by Malleefowl (*Leipoa ocellata*) and may cause isolation of populations on each side of the development footprint. Risk of Malleefowl and other fauna species being caught within the road corridor by the fence must be considered.

Table 8.4 of the BDAR details that the proposal area would be 'rehabilitated back to native vegetation and included back into the mines offset area'. Section 1.2.2 of the BDAR states that the rehabilitation would not include replicating the existing PCTs but would aim for self-sustaining ecosystems with endemic native species. Thus, the duration of impact to the offset would be permanent, not temporary.

All mitigation measures should follow the SMART principles (specific, measurable, achievable, relevant, and time-bound) and be detailed in the BDAR. In line with Section 8.4 of the BAM, the proponent should detail measures upfront in the BDAR and not defer this step until they prepare post-approval management plans. Table 9.1 of the BDAR must demonstrate how each proposed measure will be effective and provide evidence these measures have been successfully implemented in similar environments.

Recommendation:

- 4.1. Provide further detail about measures to mitigate, monitor and manage potential impacts, including risk of failure.

Matters of National Environmental Significance

5. The BDAR must specifically address each of the bilateral assessment requirements as detailed in Attachment C to this response

MOD 6 was declared a 'controlled action' on 22 December 2025 (EPBC 2025/10354) and the bilateral assessment pathway applies. Section 10.3 of the BDAR states that 'No biodiversity offsets for impacts on MNES [Matters of National Environmental Significance] are therefore likely to be required in accordance with the EPBC Act Environmental Offsets Policy'.

The MNES assessment in the BDAR must be updated to address the controlled action determination and to include the information needed for CPA to complete a Bilateral Assessment in accordance with the supplementary SEARs dated 29 January 2026.

Recommendation:

- 5.1. Update the BDAR to address information required to complete the bilateral assessment as per Attachment C.

ATTACHMENT C Bilateral Assessment information and data requirements

To complete the assessment of threatened species and communities listed under the EPBC Act, the BDAR needs to include following information.

1. Background and description of action

The revised BDAR must:

1. Describe the operational and construction footprints of the project that relate to MNES and provide the relevant maps.
2. Describe staging and timing of the action that may impact on MNES and provide the relevant maps.
3. Provide maps of the subject land boundary showing the final proposal and disturbance footprint with regards to MNES.
4. Submit GIS shapefiles of all maps that relate to MNES.

2. Landscape context of the MNES

Ensure that the 'Establishing the site context' of BAM 2020 (Section 3) have been fully met in the BDAR in relation to MNES.

3. EPBC Act listed threatened species and communities

The revised BDAR must:

1. Demonstrate that field-based survey effort meets survey guidelines and, where available, Commonwealth survey guidelines.
2. Demonstrate supporting databases have been accessed and used (e.g. NSW BioNet Vegetation Classification, NSW BioNet Threatened Biodiversity Data Collection, NSW BioNet Atlas, Commonwealth Species Profile and Threats Database search results).
3. Demonstrate published peer-reviewed literature has been accessed and used.
4. Demonstrate local data has been accessed and used (if relevant).
5. Demonstrate all EPBC Act-listed threatened species and communities have been appropriately mapped in accordance with the relevant Commonwealth listing advice.
6. Demonstrate important populations and critical habitat as defined in Approved Listing Advice, Approved Conservation Advice and Recovery Action Plans have been considered.
7. Provide a list of all EPBC Act listed threatened species and communities that occur on the subject land, or in the vicinity (including species that are 'ecosystem credits' in BAM).
8. Include a discussion, with data and analysis where any species and communities identified by the Department of Climate Change, Energy, the Environment and Water (DCCEEW) referral documents have been ruled out as occurring on or near the subject site.

4. Avoidance, minimisation, mitigation and management

The revised BDAR must:

1. Demonstrate all feasible alternatives and efforts to avoid and minimise impacts on EPBC Act listed threatened species and communities (including direct, indirect and prescribed impacts) has occurred including an analysis of alternative:
 - a. designs and engineering solutions
 - b. modes or technologies
 - c. routes and locations of facilities
 - d. sites within the subject site

- e. the identification of any other site constraints in determining the location and design of the proposal (such as bushfire protection requirements, flood planning levels, servicing constraints, etc).
2. Include a discussion and justification of all feasible measures to avoid, mitigate and/or manage impacts on EPBC Act listed threatened species and communities (including direct, indirect and prescribed impacts) including:
 - a. techniques, timing, frequency and responsibility
 - b. identify measures for which there is risk of failure
 - c. evaluate the risk and consequence of any residual impacts
 - d. any adaptive management strategy proposed to monitor and respond to impacts.

5. Impact assessment

The revised BDAR must:

1. Identify the residual adverse impacts likely to occur to each EPBC Act listed threatened species and/or community after the proposed avoidance and mitigation measures are taken into account.
2. Justify and provide evidence for the predicted level of impact, with reference to the Commonwealth's 'Significant Impact Guidelines 1.1 - Matters of National Environmental Significance'¹ and DPIE's 'Guidance to Assist a Decision- Maker to Determine a Serious and Irreversible Impact'².
3. Provide a summary table with the following information:

Name of EPBC Act listed entity	Nature & consequence of impact (direct & indirect)	Duration of impact (e.g. construction, operation, life of project)	Quantum of impact	Consequence of impact (local, state & national scales)	Impact requires offsetting? (significant or not)

4. Provide data and justification where any EPBC Act-listed threatened species or communities to be considered in the BDAR are considered to be at low risk of impact during the assessment.

6. Offsets

The revised BDAR must:

1. Identify any MNES that have not been offset using the BAM.
2. Provide details of how impacts requiring offset correlate to the MNES impacts.
3. Provide details on the PCTs that require offsetting and the number and type of ecosystem credits required for impacts to MNES.

¹<https://www.dcceew.gov.au/environment/epbc/publications/significant-impact-guidelines-11-matters-national-environmental-significance#:~:text=This%20Significant%20impact%20guidelines%20provide,and%20Biodiversity%20Conservation%20Act%201999.>

²<https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Biodiversity/guidance-decision-makers-determine-serious-irreversible-impact-190511.pdf>

4. Provide details of threatened species requiring offset and the number of species credits required for impacts to MNES.
5. Demonstrate the correct uses the BAM (and BAM calculator) to identify the number and class of biodiversity credits that need to be offset to achieve a standard of 'no net loss' of biodiversity.
6. Provide any details of ecological rehabilitation and/or biodiversity conservation actions proposed for offsetting.
7. Identify any other offsetting approach proposed, such as land-based offsets, retiring credits by payment into the Biodiversity Conservation Fund and/or through supplementary measures.
8. Provide a summary table with the following information:

Threatened Species / Community listed under EPBC Act	PCTs associated with the ecosystem credit species / ecological community (if applicable)	Area of Impact (ha)	Credits Required	Offsetting Approach	Reference (EIS/BDAR)
TOTAL					

7. Other considerations

The revised BDAR must:

1. Consider all relevant Commonwealth guidelines and policy statements that are applicable to the action and listed threatened species and/or communities, including but not limited to:
 - a. International environmental obligations
 - b. Recovery Plans
 - c. Approved Conservation Advice
 - d. Threat Abatement Plans
2. Include an assessment for each EPBC Act listed threatened species and/or community, that has been adequately informed by applicable Commonwealth guidelines and/or policy statements. For example, the interaction between the proposed action and important populations or critical habitat identified in policy documents and/or the interaction between the proposed action and threatening processes or recommended conservation actions outlined in Commonwealth policies and plans.