



Jack Turner
Team Leader
Dept Planning Housing & Infrastructure

Dear Jack,

Subject: Amendment Report for the HVO North Open Cut Coal Continuation Project SSD-11826681 and HVO South Open Cut Coal Continuation Project (SSD-11826621)

Thank you for your Major Projects Portal requests dated 28 August 2025 seeking advice from the Conservation Programs, Heritage & Regulation Group (CPHR) of the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) on an Amendment Report for the HVO North Open Cut Coal Continuation Project SSD-11826681 and HVO South Open Cut Coal Continuation Project (SSD-11826621). A further request has been made to prepare one response for both projects.

CPHR has reviewed the Hunter Valley Operations Continuation Project Amended Report (dated August 2025), along with all relevant attachments and appendices, with a focus on biodiversity impacts.

During this assessment, CPHR identified several key concerns, including:

- The proposed impacts on the Hunter Floodplain Red Gum Woodland Endangered Ecological Community (EEC) appear to breach existing consent conditions and may pose a risk of Serious and Irreversible Impact.
- CPHR recommends that the proponent establish appropriate long-term security arrangements for the Offset Area, in line with Consent Condition 29.

Further detail on these issues, including specific comments and recommendations, is provided in **Attachment 1**.

The review also considered the proponent's responses to CPHR's previous comments and recommendations provided in correspondence dated 13/03/2023 (DOC23/57326-18). Many of these have been satisfactorily addressed. A comprehensive assessment of these responses is included in **Attachment 2**.

This advice is additional to the previous letter addressing land category associated with Hunter Valley Operations dated 11/09/2025 (DOC25/744898-16) titled HVO North & South Open Cut Coal Continuation Project – Land Category Assessment.

CPHR notes that advice relating to the Squirrel glider and Eastern pygmy possum is being dealt with via a separate process via the BOS Helpdesk.

If you have any further questions about this issue, please contact the Hunter Central Coast Planning Team at huntercentralcoast@environment.nsw.gov.au.

Yours Sincerely

A handwritten signature in black ink that reads "Joe Thompson". The signature is written in a cursive, slightly slanted style.

Joe Thompson
**Director Hunter Central Coast
Conservation Programs, Heritage & Regulation Group (CPHR)**

15 October 2025

Enclosure

Attachment 1 - Key Assessment Issues

Amendment Report for the HVO North Open Cut Coal Continuation Project SSD-11826681 and HVO South Open Cut Coal Continuation Project (SSD-11826621)

In preparing this advice CPHR has reviewed the following documents:

- Hunter Valley Operations Continuation Project, Amendment Report, EMM, August 2025.
- Hunter Valley Operations Biodiversity Development Assessment Report, Umwelt, July 2025. (BDAR)

No	Comments	Recommendation
1	<p>The BDAR continues to identify impacts to the Hunter Floodplain Red Gum Woodland EEC, which the Department considers may pose a risk of Serious and Irreversible Impact (SAII).</p> <p>Condition 31 of the consent explicitly states that “the applicant must protect all stands of the Hunter Lowland Red Gum Forest (also identified as Hunter Floodplain Red Gum Woodland Complex in the EA) endangered ecological community within the site, and adjacent lands under the control of the Applicant”. The proposed impacts are in direct contradiction to this consent condition.</p> <p>Furthermore, while the proposed restoration area is larger in size (6.6 ha), it does not represent a like-for-like offset for the impacted area. The restoration site comprises grasslands and exotic pasture with low to moderate native ground cover and contains only one <i>Eucalyptus camaldulensis</i>. This is not comparable to the ecological value of the impact zone.</p> <p>It is also notable that the proposed restoration area borders habitat that appears to be significantly more suitable, including six <i>Eucalyptus camaldulensis</i> specimens, raising questions about site selection.</p> <p>Additionally, the indirect impacts to Warkworth Sands Woodland CEEC have not been adequately addressed.</p>	<p>It is recommended that the proposal be revised to avoid any further impact on the Hunter Floodplain Red Gum Woodland Endangered Ecological Community (EEC).</p> <p>If avoidance is not feasible, the proponent should engage with the Department to identify and secure an area of equal or greater ecological value for protection and rehabilitation. This offset area must not be subject to any existing or proposed rehabilitation or conservation agreements.</p> <p>Ensure that any potential indirect impacts to the Warkworth Sands Woodland CEEC have been assessed and subsequently avoided and/or mitigated.</p>
2	<p>In accordance with the BC Act and The Departments website, the current Biodiversity Development Assessment Report (BDAR) must be prepared</p>	<p>It is recommended that the proponent makes suitable arrangements to provide the appropriate long-term security for the Offset Area in accordance with Condition 29.</p>

following the Biodiversity Assessment Method (BAM) and in accordance with the requirements for modifications. The BDAR will need to:

- Outline available information about the original impact of the development and consider any measures already taken to avoid, minimise or offset the impact on biodiversity values in connection with the approval before the proposed modification.
- Identify those offset requirements that have been discharged with documentary evidence.
- Assess any new impacts on biodiversity values resulting from the modification of the development in accordance with the BAM.
- Identify offset requirements and any new measures to avoid and minimise impacts in accordance with the BAM.

The BDAR must clearly outline how offset obligations for the previous impact(s) remain unmet and provide accurate and transparent information to support a proper assessment.

There is a requirement to satisfy condition 29 of the consent. It appears that the applicant has yet to implement the biodiversity offset strategy as described in the Warkworth Mine EIS, and outlined under Consent Condition 29 and Table 15.

CPHR has reached out to BCT and POTSE, they have no record of a BSA for this site. It is understood that a pre-submission meeting has occurred, and initial work is to have begun, with further consultation scheduled for late Oct/early Nov.

The development of the Biodiversity Offset Strategy and selection of the Offset Site was based on addressing the ecological impacts of the previous approval and was designed to mitigate impacts for the threatened species that were lost.

The establishment of the BSS to meet the offset obligation is an important element to support the current application and its proposed impacts. Without such it is unclear how impacts to threatened species can be justified and supported.

It is recommended that all offset areas associated with previous approvals (being the establishment of Biodiversity Stewardship Sites (BSS)), be established in parallel with the Mod to ensure compliance with all previous approvals and support the current modification application.

Attachment 2 – Review of Previous Comments and Amendments

Ref	Previous Comment	Previous Recommendation	Proponent Response	CPHR (BCD) Response
1	<p>The BDAR outlines that the project will clear 1.5 hectares of the EEC, which is about 0.35% of its estimated extent of 436 hectares. Section 5.2.3 of the BDAR describes measures that have been undertaken to avoid impacts to this EEC, including the avoidance of impacts to about 255 of the 269 River Red Gums that are in the vicinity of the transmission line that forms the part of the project that will cause impacts to this EEC. Table 6.9 states that the project triggers SAIL Principle 3 for the Warkworth Sands Woodland EEC. The project would clear 5.2 hectares of the EEC which represents 1.59% of its estimated extent of 333 hectares.</p> <p>BCD notes that both EECs have a very limited geographic distribution by having an extent of occurrence of < 1,000 square kilometres. Weeds have also caused a decline in the environmental quality and biotic interactions within both EECs, hampering the recruitment and establishment of characteristic species, even in areas of active management such as the Carrington Billabong for Hunter Floodplain Red Gum Woodland EEC and the Warkworth Mine's Northern Offset for Warkworth Sands Woodland EEC. As a result of these two factors BCD considers the project</p>	<p>BCD recommends that if the project is approved that it includes specific conditions of consent that will minimise the impact of the project on Hunter Floodplain Red Gum Woodland in the NSW North Coast and Sydney Basin Bioregion EEC and Warkworth Sands Woodland in the Sydney basin Bioregion EEC.</p> <p>BCD further recommends that management and mitigation strategies for these EECs are produced, and this is done in consultation with Planning and Assessment Group and with BCD.</p>	<p>Further avoidance measures have been undertaken to ensure that the Project has no direct impact to Warkworth Sands Woodland CEEC and a further reduction of impacts on Hunter Floodplain Red Gum Woodland EEC (refer to Section 5.0) Additional recommendations are provided in Section 5.6 of the revised BDAR in relation to additional measures for:</p> <ul style="list-style-type: none"> • Weed management. • Protection and habitat restoration. • Establishment of native vegetation. • Monitoring and adaptive management. <p>A Hunter Floodplain Red Gum Woodland Restoration Site is proposed to provide an 'additional measures' offset for impacts associated with SAIL (refer to Section 9.0).</p>	<p>The additional avoidance measures to direct impacts for the Warkworth Sands Woodland CEEC are noted, however there is insufficient evidence to ensure that indirect impacts have been adequately assessed and mitigated or avoided.</p> <p>The impact on Hunter Floodplain Red Gum Woodland EEC, and specifically the proposed impacts to <i>Eucalyptus camaldulensis</i> would be inconsistent with the Conditions of Consent – specifically condition 31. The restoration area, while being larger at 6.6 ha that the proposed impacts, is not like for like, or even comparable. Grasslands and exotic pastoral land with one (1) <i>Eucalyptus camaldulensis</i> does not adequately offset the proposed impacts.</p>

	represents a risk of SAIL to both EECs.			
2	<p>Proponent should provide the following information:</p> <ul style="list-style-type: none"> • Table of candidate threatened plant species surveyed for the project. Table to include: Area of suitable habitat within Project area (h) by VZ and PCT and a total area within the subject land; number of circular survey areas per VZ, per PCT, and in Project area; are surveyed by these circular survey areas by VZ, PCT, and for the subject land. • description of how 2-phase grid method was applied including details of how the 1 km grids sampled were chosen, and a discussion on any assumptions and limitations of the use of this method. <p>As described in Section 4.4 of 'Surveying threatened plants and their habitats: NSW survey guide for the Biodiversity Assessment Method' (EES, 2020) this survey method applies only where suitable habitat for a particular species is larger than 50 hectares, and this has not been demonstrated in the BDAR. BCD notes that only vegetation zones 13, 19 and 20 are larger than 50 hectares.</p>	<p>The proponent should provide the following information to demonstrate the effectiveness of the two-phase grid-based systematic survey technique applied for this assessment:</p> <ul style="list-style-type: none"> • A table of candidate threatened plant species surveyed for this project with the area of suitable habitat within the Project area given in hectares by Vegetation Zone and by Plant Community Type (PCT), and a total area within the subject land; the number of circular survey areas per Vegetation Zone, per PCT and in the Project area; and the area surveyed by these circular survey areas by Vegetation Zone, by PCT and for the subject land. • A description of how the two-phase grid-based systematic survey approach was applied for this project, including details of how the one-kilometre grids that were sampled were chosen, and a discussion on any assumptions and limitations of the use of this method. 	<p>Further detail and justification on grid-based approached provided in Section 4.1.3.1 and Table 4.1 of the revised BDAR.</p> <p>Targeted threatened flora surveys following the two-phase grid-based systematic approach was undertaken across all suitable habitat areas within the Development Footprints as outlined in Section 4.4.1. of the NSW survey guide for surveying threatened plants and their habitats (DPIE 2020e). Due to the size of the impact area and varying condition of PCTs (i.e. mosaic of vegetation zones) across the Development Footprints, it was determined that undertaking the two-phase grid method across all suitable habitat for all predicted species was the most effective way to cover the site (rather than assess habitat discretely by vegetation zone). The <i>NSW survey guide for surveying threatened plants and their habitats</i> (DPIE 2020e) does not specify a requirement to undertake the two-phase grid-based approach on a vegetation zone-basis.</p>	Adequate.
3	Columns should be added to a revised version of Table D2.2 including: 1. 'Minimum survey effort requirements'; 2. 'Survey requirements met (answered yes, no, partially). A 'Notes' column may	Columns should be added to a revised version of Table D2.2 of the BDAR that cover: <ul style="list-style-type: none"> • 'Minimum survey effort requirements'. 	Updated in Table D.2 of Annexure D to include information requested.	Adequate. Noted that additional surveys are required for a number of threatened species, and that those surveys are described and must occur.

	<p>be added, or the same text otherwise provided to explain why survey effort and survey methods used may not have met survey requirements.</p>	<p>• ‘Survey requirements met?’ (to be answered by ‘Yes’, ‘No’ or ‘Partially’).</p> <p>A ‘notes’ column may be added, or the same text otherwise provided to explain why survey effort and survey methods used may not have met survey requirements.</p>		
4	<p>For under-surveyed areas of potentially suitable koala habitat that additional surveys are undertaken, or the species is assumed to be present, or an expert report is prepared. Survey requirements for the koala changed during the period that the BDAR was being prepared, and after most targeted surveys for the koala has been undertaken. Nevertheless, the survey effort outlined in the BDAR for the koala does not meet the survey requirements applicable at the time of submission.</p>	<p>Further assessment should be undertaken for the potential presence of the koala where survey effort does not meet BCD’s survey requirements. The additional assessment may be in the form of additional targeted threatened species survey, done in accordance with current survey guidelines, or from the provision of an expert report, or by assuming the presence of the koala in areas of suitable habitat.</p>	<p>Thermal drone surveys and additional SAT surveys for the koala have been undertaken. The BDAR has been updated in Table 4.2 and Table D.2 to reflect these surveys. Figure 4.2 has been updated to identify the extent of survey coverage. Table D.3 in Annexure D outlines the assessment of suitable koala habitat as described in the Koala (<i>Phascolarctos cinereus</i>) Biodiversity Assessment Method Survey Guide. Annexure G includes the drone report. No koalas or signs of koala were recorded during the targeted surveys.</p>	<p>Adequate.</p>
5	<p>Annexure D ‘Threatened Species Assessment and Survey Methodology’ and the BAM Calculator file shows that the targeted surveys for some threatened species were either partially (e.g., Gang-gang Cockatoo, Eastern Pygmy Possum, and Thesium australe), or fully (e.g., <i>Cryptostylis hunteriana</i>) done outside of the specified survey months. Further details are required to demonstrate that BCD’s minimum survey requirements have been followed and that the minimum</p>	<p>Further information should be provided about the survey effort undertaken within the specified months for targeted surveys for all candidate species-credit species, and that surveys within the specified months are compared against the required survey effort. If some species have been inadequately surveyed then further surveys (done in the appropriate months), an expert report, or the species is assumed to be present and offset accordingly.</p>	<p>Table D.2 updated in Annexure D, where relevant. Each of the threatened species identified by BCD in their submission were adequately surveyed, with surveys undertaken during the survey windows specified in the TBDC. Additionally, surveys undertaken during sub-optimal seasons are also included in Table D.2 of Annexure D as supplementary surveys which contribute to the overall survey effort, noting that the majority of threatened species can be identified outside of the nominated survey</p>	<p>Adequate.</p>

	<p>survey effort has been done; if not those species will require further surveys (in the appropriate months), or an assessment by an Expert Report or to be assumed to be present and offset accordingly.</p>		<p>period and these surveys provide important contextual surveys for all species. Additional survey effort undertaken following the exhibition of the EIS included:</p> <ul style="list-style-type: none"> • Additional koala SAT surveys and thermal drone surveys targeting koala. • Pitfall trapping targeting the common planigale. • Further surveys were undertaken in October 2023 and November 2023 and March, April and June 2025 that included: <ul style="list-style-type: none"> • Spotlighting surveys for Stephens banded snake. • Hollow tree searches for breeding activity for gang-gang cockatoo. • Threatened flora transects targeting species detectable in November (<i>Thesium australe</i> and <i>Cryptostylis hunteriana</i>). • Additional remote camera surveys and green and golden bell frog surveys. • Hollow bearing tree surveys and nesting/roosting habitat constraints • Acoustic recorded surveys • Dip netting for green and golden bell frog tadpoles and <i>Gambusia</i> sp. 	
6	<p>The survey requirements for the common Planigale (<i>Planigale maculata</i>) have not been met. The appropriate survey technique for this species is pitfall trapping however,</p>	<p>Areas of suitable habitat for the common planigale in the subject land should be surveyed using pitfall trapping, or the species is assessed by an expert report, or that the</p>	<p>Pitfall traps were installed across the Development Footprint as outlined in Table 4.1 and Annexure D. Consultation with the BCD was undertaken to determine the survey</p>	<p>Adequate.</p>

	<p>Table 4.1 'Species-credit Species Surveys' of the BDAR states that the following survey has been conducted for common Planigale:</p> <ul style="list-style-type: none"> • Nocturnal spotlighting; and • Remote camera survey. <p>The Threatened Biodiversity Data Collection in BioNet states that 'surveys must be undertaken using pitfall traps.' Where that is not possible, due to rocky ground, for example, then the alternative is an expert report.</p>	<p>species is assumed to be present and then offset in accordance with the Biodiversity Offset Scheme.</p>	<p>effort required across the Development Footprints which is considered 'large-scale'. The conclusion was where "total suitable habitat > 50 ha: 22 arrays plus one additional for every 10 ha of suitable habitat above 10 ha. For example, 60 ha of suitable habitat will require 23 arrays."</p> <p>The Development Footprints contain approximately 420 ha of potentially suitable habitat subject to impacts in accordance with the predicted vegetation zones in the TBDC.</p> <p>Based on this advice, it was calculated that a total of 59 pitfall trap arrays should be established to adequately survey for the common planigale. A total of 64 pitfall trap surveys were installed.</p> <p>No common planigales were recorded. Consultation with BCD was undertaken to determine the extent of surveys required.</p>	
7	<p>Section 4.2.2.1 'Southern Myotis (Myotis macropus)' of the BDAR outlines that habitat polygon mapping for the southern Myotis was calculated on the direct impacts to the population by buffering all recorded individuals by 30 metres. This approach does not cover all waterbodies within the project site. Under the BAM 2020, for fauna species assessed by area (as per the threatened biodiversity data collection (TBDC)), the species polygon is meant to be used to</p>	<p>The species and habitat polygons for the southern Myotis should be updated to include waterbodies as outlined in the BAM 2020 and associated guidance documents.</p>	<p>Section 4.2.2.1 of the BDAR does not state this. The southern myotis habitat polygon mapping was undertaken by clipping associated PCTs within the Development Footprint and within 200 m of a waterbody what was 3 m or wider. This included rivers (such as the Hunter River), creeks and dams within the locality of the Project. This is consistent with the requirements outlined in Table 1 of 'Species credit' threatened bats and their habitats NSW survey guide for the Biodiversity Assessment Method</p>	<p>Adequate.</p>

	<p>measure the area of suitable habitat on the subject land.</p> <p>The 'Species credit' threatened bats and their habitats - NSW survey guide for the Biodiversity Assessment Method, outlines that 'All habitat on the subject land where the subject land is within 200 m of a waterbody with pools/ stretches 3 m or wider including rivers, creeks, billabongs, lagoons, dams and other waterbodies on the subject land' should be included in the species polygon for the southern Myotis.</p>		(OEH 2018). No changes to the assessment in the revised BDAR have been undertaken.	
8	<p>The assessor should not exclude the Stephens banded snake from assessment and should provide further details of potential habitat for cave-dwelling bats within the project area that could be provided by built structures and mine shafts.</p>	<p>Stephens banded snake (<i>Hoplocephalus stephensii</i>) – the TBDC notes that this species uses very old primary forest with many large old hollow bearing trees and therefore discounts this species. However, this description is provided as a general guidance and the TBDC also states that fallen timber, hollow bearing trees and areas within 500 metres of arboreal vine tangles can also provide habitat. As the Project area contains these features, the species habitat constraints, the species should not be ruled out due to lack of habitat.</p>	<p>Surveys were undertaken for this species in accordance with relevant survey guidelines however the species is no longer a candidate species, as per the TBDC, following an update to the BAM-C and TBDC in October 2024.</p>	Adequate.
		<p>Cave-dwelling microbats (<i>Chalinolobus dwyeri</i> and Bentwings) – the BDAR does not contain enough information to quantify prescribed impacts to threatened microbats from the loss of mine shafts, and other old mine workings, and buildings in the Project area.</p>	<p>Additional text added to the justification in Table D.1 in Annexure D noting that there are no mine shafts, workings, or old buildings within the Development Footprints.</p>	Adequate.

		<p>Foraging <i>Miniopterus australis</i> bats were recorded on site. This species roosts in caves, tunnels, tree hollows, abandoned mines, stormwater drains, culverts, bridges, and buildings. BAM assessments that require surveys for roosting sites for this species and also require an assessment of the importance of the habitat to the migration of this species. This species is very selective for roosting habitat and will move between roosts sites depending on temporal variance. The removal of any roosting habitat should be compensated with supplementary habitat so as to not disrupt migration to the maternity roost: a significant impact to a maternity roost for this species would be considered to be a Serious and Irreversible Impact.</p>	<p>Additional text added to the justification in Table D.1 in Annexure D noting that there are no mine shafts, workings, or old buildings within the Development Footprints. Furthermore, targeted searches of culverts in October 2023 (undertaken as part of the Commonwealth assessment for the Project) did not result in the identification of roosting microbats. As there was no roosting habitat identified in the Development Footprint, or nearby further assessment of the disruption to migratory patterns. As there is no impact to roosting or maternity habitat of <i>Miniopterus australis</i>, the species is not at risk of a SAIL.</p>	<p>Adequate.</p>
9	<p>Vegetation at and around BAM Plot 18, within Warkworth Sands Woodlands appears to be in a discharge zone of the local aquifer, this suggests that consideration of groundwater impacts will be required for the proposed relocation of Lemington Road in this area. During the site visit of 22 February 2023, it was noted that the vegetation in and around BAM Plot 18 included <i>Myriophyllum</i> sp., <i>Xyris</i> sp., and <i>Drosera burmanni</i>. The soil at the site was wet too, with standing water, but the presence of these wetland species suggests this is due to a local, relatively persistent source of water rather than from the heavy</p>	<p>An assessment of potential impacts to Warkworth Sand Woodland in areas adjacent to BAM Plot 18 should be undertaken if development activities in that area are likely to change local groundwater conditions (e.g. by either draining the upslope section of sandsheet or blocking the flow of water)</p>	<p>Further discussion on this provided in Table 6.4 of the BDAR including a graphic (Figure 6.2) from the groundwater assessment demonstrating that the community relies on the perched aquifer and will not be altered by groundwater impacts.</p>	<p>Adequate.</p>

	<p>rain that fell before the site visit. Given that this site is downslope of part of the biodiversity offset for the Warkworth Mine, with Warkworth Sands Woodland, BCD recommends that an assessment of the local aquifer, within the sandsheet is undertaken to ensure that any development of the site will not adversely affect the aquifer and affect other areas of Warkworth Sands Woodland, by either draining the upslope section of sandsheet or blocking the flow of water.</p>			
10	<p>Figure 6.1 'Location of Prescribed Impacts' shows the general location of corridors within the project area. However, the BDAR does not show how the corridors in the project area fit within the wider landscape and important corridors have not been identified. This does not meet the requirements of Section 7.2.1 (c) of the BAM 2020, which requires the proponent to 'locate the proposal to avoid severing or interfering with corridors connecting different areas of habitat and migratory flight paths, to important habitat or local movement pathways.'</p>	<p>The BDAR should be amended to discuss how the project fits within the wider landscape and presents a new, or revised version of Figure 6.1, or both that has clear lines that indicate probable corridors.</p>	<p>Table 6.4 (formerly Figure 6.1) updated to show regional corridors based on native vegetation mapped on SVTM. Further justification is provided in Table 6.6 of the BDAR, demonstrating that HVO is not located within an important regional corridor and that the project will not result in the severing of regional corridors.</p>	<p>Adequate.</p>
11	<p>Figure 6.4 'Assessment of Indirect Impacts' of the BDAR provides a brief discussion of indirect impacts, including from weed invasion. BCD recommends that further information is provided in relation to measures to be implemented to prevent new weeds from becoming established in Warkworth Sands Woodland from the re-routed Lemington Road. BCD</p>	<p>Further details should be provided around measures to be implemented to prevent new weeds from becoming established in Warkworth Sands Woodland from the re-routed Lemington Road.</p>	<p>Additional recommendations are provided in Section 5.6 of the revised BDAR in relation to additional measures for:</p> <ul style="list-style-type: none"> • Weed management. • Protection and habitat restoration. • Establishment of native vegetation. 	<p>Section 5.7. Adequate and supported.</p>

	notes that several exotic species are already present in the patch of Warkworth Sands Woodland at Archerfield (such as <i>Eragrostis curvula</i> , <i>Melinis repens</i> and <i>Heterotheca grandiflora</i>) but the patch is vulnerable to the establishment of other weeds from sandy soils nearby (such as <i>Bryophyllum delagoense</i> and <i>Coreopsis lanceolata</i>).		• Monitoring and adaptive management.	
12	Table 5.4 'Impacts and Avoided Impacts in Easement Realignment Design' of the BDAR does not document the limitations and risk of failure of the proposed measures to mitigate or manage impacts as required by Chapter 8 'Assessing the impacts of the proposal on biodiversity values' of the BAM 2020.	The BDAR should be revised include the limitations and risk of failure of the proposed measures to mitigate or manage impacts, as required under the BAM 2020.	Additional text is provided at Table 5.8 and Section 5.5 of the BDAR to confirm that the impact minimisation and mitigation strategies are well known and represent a low risk of failure. These strategies are implemented widely across mining projects in the Hunter Valley and elsewhere and will be documented in a BMP.	Adequate.
13	The BDAR does not adequately discuss prescribed impacts in relation to southern Myotis from direct impacts to waterbodies, including dams, within the subject land. Table 6.5 'Prescribed Impacts identified at HVO North and HVO South' discusses potential impacts to the habitat of threatened species or ecological communities, including impacts to human-made structures, impacts to connectivity, and impacts to '...water quality, water bodies and hydrological processes that sustain threatened species and threatened ecological communities.' The first two potential impacts were identified as likely to occur for this project, but not the last one. Table 6.6	The BDAR should include an assessment of potential prescribed impacts of the project on the southern Myotis by the removal of water bodies in accordance with section 8.3 'Assess prescribed biodiversity impacts' in the BAM 2020.	Additional prescribed impact assessment included in Table 6.7 and shown on Figure 6.4.	Adequate.

	<p>'Prescribed Impacts Assessment' discusses '...impacts on the habitat of threatened species or ecological communities associated with the connectivity of different areas of habitat of threatened species that facilitates the movement of those species across their range' in relation to all threatened fauna species and native vegetation but does not discuss the likely impact on the loss of water bodies on the subject land in relation to the movement of the southern Myotis.</p>			
14	<p>Section 1.1.1 'HVO North' of the BDAR does not provide enough information on the likely location of ancillary or temporary construction facilities and infrastructure and the likely amount of clearing associated with them. The BDAR does not identify these areas on any maps, such as Figure 1.3 'Hunter Valley Operations Continuation Project' or Figure 1.4. 'The Development Footprints HVO North and HVO South' This information is required under Section 2 'Stage 1: Biodiversity assessment' (page 5) and also Table 24 'Minimum information requirements for the Biodiversity Development Assessment Report and the Biodiversity Certification Assessment Report – Stage 1: Biodiversity assessment' (page 116) of the BAM 2020.</p>	<p>The BDAR should be amended to provide more information on the location of temporary or ancillary construction facilities that will require additional clearing, and to show these locations on one or more maps.</p>	<p>The proposed location of ancillary or temporary construction facilities is now shown on Figure 1.4 of the BDAR. While these locations are indicative only, the proponent confirms that these will be cited in existing approved disturbance areas or within the proposed Development Footprints. Ancillary or temporary construction facilities will not be constructed outside these boundaries and therefore no additional impacts are proposed.</p>	<p>Adequate.</p>
15	<p>A map showing the location of indirect impacts from the project is required. Table A.1 'Assessment of</p>	<p>The BDAR should be amended to include a map, or maps of likely indirect impacts from the project in</p>	<p>Figure 6.1A and Figure 6.1B shows Wollombi Brook and Hunter River (respectively) alluvium- maximum</p>	<p>Adequate.</p>

	<p>compliance with BDAR minimum information requirements' of the BDAR states, on page A-15, that maps of indirect impact zones for the project are not applicable for this project. However, indirect impacts for the project have been identified in:</p> <p>Section 6.2 'Indirect impacts' and described in Table 6.4 'Assessment of indirect impacts'. A map showing the location of areas of indirect impacts; specifically:</p> <ul style="list-style-type: none"> • where drawdown impacts to groundwater-dependent ecosystems are located • where rubbish dumping on the aligned Lemington Road is a threat to any threatened species of communities • edge effects that may impact threatened species or communities outside of the development footprint • fugitive light, noise and dust impacts to native plant communities and threatened species. <p>A map, or maps, would meet the requirements of Table 25 'Minimum information requirements for the BDAR or BCAR – Stage 2: Impact assessment (biodiversity values)' (page 124) of the BAM 2020.</p>	<p>order to meet requirements of the BAM 2020.</p>	<p>cumulative drawdown during operations. Figure 6.2 shows the maximum predicted incremental drawdown during operations in the Hunter River alluvium.</p> <p>Figure 6.3 now shows edge effects around Lemington Road realignment and indicative habitat connectivity in the locality and region based on the SVTM native vegetation extent.</p>	
<p>16</p>	<p>Section 6.2 'Indirect impacts' of the BDAR does not identify or describe the limitations and assumptions of the assessment of indirect impacts for the project. This is required to</p>	<p>The BDAR should include a discussion on the limitations and assumptions in the assessment of indirect impacts of the project to</p>	<p>Section 6.2 updated with a statement relating to the confidence of the indirect impacts assessed in the BDAR, based on a long history of assessment and monitoring of</p>	<p>Adequate.</p>

	meet Section 8.2.1 (c) of 'Assess indirect impacts on native vegetation, threatened ecological communities, threatened species and their habitat' for the BAM 2020.	meet the requirements of the BAM 2020.	impacts to biodiversity due to mining in the Hunter Valley over the last 20 years.	
17	BCD recommends that additional information is provided to meet the requirements of the BAM 2020 as outlined in this letter of advice.	The BDAR does not include all of the information required by BAM 2020, including: <ul style="list-style-type: none"> • The BAM 2020 assesses the biodiversity values of the 'subject land', however the BDAR does not define the 'subject land' for this project. 	Definition of 'Subject Land' now included in Section 1.2 of revised BDAR.	Adequate.
		<ul style="list-style-type: none"> • Figure 2.1 'Site Map', Figure 2.2A 'Location Map – HVO North' and Figure 2.2B 'Location map - HVO South' do not show dams and mine sites on a Map. 	Figure 2.2A and Figure 2.2B have been updated to show dams and surrounding mining sites.	Adequate.
		<ul style="list-style-type: none"> • Maps of Native Vegetation Extent are not presented at < 1:10,000 scale, as required by Section 4.1 'Map of native vegetation extent on the subject land' of the BAM 2020 (The maps of native vegetation extent in APPENDIX C are presented at a scale of 1:28,000). 	Annexure C figures have been updated to be 1:10,000 scale.	Adequate.
		<ul style="list-style-type: none"> • Threatened Ecological Communities that are dependent on or use habitat features associated with prescribed impacts are not listed. 	Features added to Table 6.6 of the revised BDAR.	Adequate.