

## Dendrobium Mine Independent Environmental Audit 2023 South32 Illawarra Metallurgical Coal (IMC) Action Response Table

DA 60-03-2001

Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
Schedule 2, Condition 1	The Applicant must implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the development.	<p>The audit determined non-compliances in relation to documentation of subsidence performance measures for Swamp 15a in the SIMMCP for LW 19, which are inconsistent with the requirements of Condition 8 of the SMP Approval for LW 19. This has resulted in these performance measures being incorrectly adopted in EOP reporting for LW 19. The incorrect documentation of these performance measures as 'minor' and 'no significant change', instead of 'negligible', has resulted in development and implementation (i.e. triggering) of TARPs for LW 19 that are not correctly considering potential impacts and potential exceedance of performance measures for Swamp 15a.</p> <p>There was no evidence to indicate harm to the environment has occurred due of the incorrect documentation of performance measures, as this was not able to be confirmed during the audit. However, as a consequence of adopting the incorrect performance measures, a non-compliance has been identified in relation to the requirement to implement all reasonable and feasible measures to prevent or minimise harm to the environment due to the incorrect development and implementation (i.e. triggering) of TARPs, and associated reporting. Further discussion is provided at Schedule 3, Conditions 5 and 6, and Section 3.3.3.2.</p>	NC	<p>Corrective Action (CA): Undertake an independent review of the study into the coincidence/causality of vegetation change (ecosystem functionality) and groundwater change at Swamp 15a. The study is to be completed by a suitably qualified expert in coastal upland swamps approved by DPE.</p> <p>Given rehabilitation of upland swamps has been deemed impractical, if the findings of the study and/or review conclude the causes are likely to be related to mining activities, consider the need for additional strategic offsets for upland swamps in consultation with BCS to ideally be located within the impacted catchment or Metropolitan Special Areas (if required).</p>	<p>It is noted that the performance measures in relation to Swamp 15a have been updated in the Longwall 19A Swamp Impact, Monitoring, Management and Contingency Plan (SIMMCP) in consultation with the DPE to be consistent with approved performance measures, since the LW19 SIMMCP was approved.</p> <p>Monitoring and assessment of Upland Swamps is subject to independent review by the Independent Panel as a result of Subsidence Management Plan (SMP) Applications and supporting assessments being referred to the Independent Panel.</p> <p>The commissioning of a study into the coincidence/causality of vegetation change (ecosystem functionality) and groundwater change at Swamp 15a was an outcome of meetings with the Independent Panel in relation to the Longwall 19A SMP and is not a condition of consent or a requirement under a SMP Approval. This study is currently underway and will be provided to agencies upon</p>

Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
					<p>completion. The study would recommend any further investigations required including the need for any additional independent review. IMC will consider in consultation with agencies any recommendations of the study.</p> <p>The study is planned to be completed by 30 June 2024.</p>
Schedule 2, Condition 2	The Applicant must carry out the development in accordance with the conditions of this consent.	Non-compliance with this condition is a consequence of non-compliances identified with conditions DA 60-03-2001 as detailed in this table.	NC	N/A	Refer to responses to other relevant non-compliances.

Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
Schedule 3, Condition 5	<p>The Applicant must ensure that subsidence does not cause erosion of the surface or changes in ecosystem functionality of Swamp 15a and that the structural integrity of its controlling rockbar is maintained or restored, to the satisfaction of the Secretary.</p>	<p>As discussed in Schedule 3, Condition 6, review of the SIMMCP for LW 19 (Area A) indicates performance measures for Swamp 15a (as detailed in Table 6-1 of the SIMMCP), are inconsistent with the requirements of Condition 8 of the SMP Approval for LW 19 as follows:</p> <ul style="list-style-type: none"> <li>- 'minor' change in the size of the swamps, with the performance measure in the SMP Approval for LW 19 being 'negligible';</li> <li>- 'minor' change in the ecosystem functionality of the swamps, with the performance measure in the SMP Approval for LW 19 being 'negligible'; and</li> <li>- 'no significant change' to the composition or distribution of species within the swamps, with the performance measure in the SMP Approval for LW 19 being 'negligible'.</li> </ul> <p>Negligible is defined in the SMP Approval for LW 19 as '<i>Small and unimportant, such as to be not worth considering</i>', while Schedule 3, Condition 5 requires that subsidence '<i>does not cause erosion of the surface or changes in ecosystem functionality at Swamp 15a</i>'.</p> <p>The incorrect documentation of performance measures in the SIMMCP for LW 19 and in EOP reporting for LW 19 has the potential for impacts on Swamp 15a due to mining to go unreported. While the report '<i>Ecological data review: Swamp 15A Stage 2 technical memo</i>' (Niche, 2023) found '<i>overall TSR is primarily being influenced by catchment-scale factors rather than factors at the swamp scale</i>', given that the shallow groundwater and soil moisture TARPs have been triggered at Swamp 15a, it is considered plausible there may be</p>	NC	CA: Duplicate recommendation. Refer to Schedule 2, Condition 1.	<p>IMC disagree this constitutes a non-compliance. Despite incorrect documentation of performance measures in the SIMMCP, there is no evidence to suggest <i>subsidence</i> has caused erosion of the surface or changes in ecosystem functionality of Swamp 15a or that the structural integrity of its controlling rockbar has not been maintained or restored, to the satisfaction of the Secretary.</p> <p>Refer to Schedule 2, Condition 1.</p>

Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
		<p>potentially unreported impacts on ecosystem functionality due to mining activities at Swamp 15a. Furthermore, Attachment H of the LW 19 EOP Report concludes:  <i>'Impacts to swamp communities are apparent in the post-mining period. This is anticipated based upon the proximity of these swamps to the longwalls...'</i>.            The incorrect documentation of these performance measures as 'minor' and 'no significant change', instead of 'negligible' (per the SMP Approval for LW 19) and <i>'does not cause erosion of the surface or changes in ecosystem functionality at Swamp 15a'</i> (per Schedule 3, Condition 5), has resulted in development and implementation (i.e. triggering) of TARPs for LW 19 that are not adequately considering compliance with Schedule 3, Condition 5 and Condition 8 of the SMP Approval for LW 19. Given this discrepancy, there is potential for unreported impacts on Swamp 15a.            Therefore, a non-compliance (low risk) has been identified in relation to adequate detection of change in ecosystem functionality of Swamp 15a due to mining at LW 19, potentially resulting in:            - moderate environmental consequences, considered unlikely to occur; or            - low environmental consequences, considered likely to occur.</p> <p>It was noted during the interview process that IMC are undertaking a study into the coincidence/causality of vegetation change (ecosystem function) and groundwater change at Swamp 15a. Therefore, <b>CA01</b> has been identified in relation to undertaking this study.</p>		<p>Opportunity for Improvement (OFI): Ensure future monitoring reports include LiDAR analysis for relevant swamps, consistent with recent updates to Area 3A TARPs.</p>	<p>TARPs will be implemented in Niche's Terrestrial Ecology Report for the 2023 period (in prep.) by 30 June 2024.</p>
<p>Schedule 3, Condition 6</p>	<p>Prior to carrying out any underground mining operations that could cause subsidence in either Area 3A, Area 3B or Area 3C, the Applicant must prepare a SIMMCP to the satisfaction of the Secretary.</p>	<p>Review of the SIMMCP for LW 19 (Area A) indicates performance measures for Swamp 15a, detailed in Table 6-1 of the SIMMCP are inconsistent with the requirements of the SMP Approval for LW 19 as follows:            - 'minor' changes in the size of the swamps, with the performance measure in the SMP Approval for LW 19 being 'negligible';</p>	<p>ANC</p>	<p>N/A</p>	<p>IMC disagree that this constitutes a non-compliance. The Longwall 19 SIMMCP was approved and therefore prepared to the satisfaction of the Secretary.            No further action is required.</p>

Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
		<p>- 'minor' changes in the ecosystem functionality of the swamps, with the performance measure in the SMP Approval for LW 19 being 'negligible'; and</p> <p>- 'no significant change' to the composition or distribution of species within the swamps, with the performance measure in the SMP Approval for LW 19 being 'negligible'.</p> <p>An ANC has been found with this condition due to Schedule 3, Condition 6(b) requiring the monitoring program and reporting mechanisms to enable close and ongoing review by DPE and the NSW Resources Regulator of the subsidence effects and impacts (individual and cumulative) of each Area 3A longwall on Swamp 15a. The adopting of incorrect performance measures for the SIMMCP for LW 19 did not achieve this requirement.</p> <p>As mining and EOP reporting has been completed for LW 19 and review of the SIMMCP for LW 19A indicates performance measures have been documented correctly, no recommendation is deemed relevant.</p>			
Schedule 3, Condition 10	The Applicant must include a comprehensive summary, analysis and discussion of the results of monitoring of subsidence effects, subsidence impacts and environmental consequences in each Annual Review	Comprehensive summary, analysis and discussion of subsidence effects, subsidence impacts and environmental consequences included in each Annual Review. Subsidence impacts and environmental consequences are summarised with TARP Level in a Table attachment at the end of each Annual review. Details of impact assessments are provided in EOP reports with specialist consultant reports attached. All relevant information is included; however, there is a lack of depth and quantitative summary for some sections (e.g. Section 6.6 Weeds lacks any quantitative reporting, making review of environmental consequences difficult). Therefore, OFI02 has been identified.	Compliant	<p>OFI: Ensure additional detail and quantitative analysis is provided in Section 6.6 (Weeds) of each Annual Review, including:</p> <ul style="list-style-type: none"> <li>- weed management activities;</li> <li>- success of weed control (i.e. % cover);</li> <li>- whether desired outcomes are being achieved;</li> <li>- whether weed criteria are being met; and</li> <li>- whether the weed control program has been:               <ul style="list-style-type: none"> <li>o adequately implemented; and</li> <li>o reviewed as required by the RMP.</li> </ul> </li> </ul>	Noted. To be included in FY24 Annual Review by 30 September 2024.

Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
				– weed management activities planned in next Annual Review period	
Schedule 4, Condition 1	The Applicant must ensure that the noise generated at the surface facilities does not exceed the noise impact assessment criteria in Table 1 at any residence on privately-owned land, or on more than 25% of any privately-owned land. The applicable criteria for any residence not listed in Table 1 shall be the criteria applying at the nearest listed residence.	<p><b>Noise criteria non-compliance</b>            Noise monitoring identified one exceedance that was non-compliant with noise criteria in Schedule 4, Condition 1 during the audit period on 13 May 2023, resulting in a non-compliance (low risk). As this was an unrepeated event, a CA has not been deemed necessary.</p> <p><b>Noise monitoring</b>            In addition, during the audit period it was identified that noise monitoring at R39a was not being undertaken at the correct location (i.e. as documented in the NMP), with an investigation undertaken to determine variance between monitoring locations. Assessment of monitoring locations completed by Spoke Acoustics (dated 29 October 2021) was sighted, including subsequent response by DPE on 4 November 2021.</p> <p>The NMP has since been updated (Version 10.0 and subsequent versions) to include alternative monitoring location for R39a, with all monitoring locations reviewed against approved NMP.</p>	NC	N/A	Noted. No further action is required.
Schedule 4, Condition 7	The Applicant must implement the Noise Monitoring Program as approved by the Secretary.	<p>On 15 May 2021, it was identified that noise monitoring at R39a was not being undertaken at the location as specified in the NMP, which is identified as a non-compliance with Schedule 4, Condition 7. Noise monitoring has been undertaken at the current location for an extended period. The NMP was revised in May 2021 to indicate the current monitoring location.</p> <p>An ANC has been identified and no recommendation is deemed relevant.</p>	ANC	N/A	Noted. No further action is required.
Schedule 4, Condition 9	The Applicant must ensure that dust generated by the development does not cause additional exceedances of the criteria listed in Tables 4 to 6 at any residence on privately-owned land, or on	IMC monitors air quality in accordance with the approved AQGGMP (IMC, 2021). Air quality monitoring has historically included high volume air samplers (HVAS) and deposited dust gauges however the technology was upgraded to real-time monitors in July 2021. The AQGGMP has provision for monitoring using deposited dust gauges and	Compliant	OFI: Ensure commentary on compliance against the TSP and deposited dust criteria in DA 60-03-2001 is provided in each Annual Review	Noted. To be included in FY24 Annual Review by 30 September 2024.

Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
	<p>more than 25 percent of any privately-owned land.</p>	<p>HVAs if required.</p> <p>Concentrations of PM10 are measured directly, in real-time, at two locations using photometers. TSP concentrations and deposited dust levels are estimated from the PM10 concentrations. The monitoring carried out in the audit period (16 Oct 2020 to 16 Oct 2023) has shown:</p> <ul style="list-style-type: none"> <li>– annual average TSP concentrations have not exceeded 90 µg/m3 , based on monitoring and estimates from PM10 levels;</li> <li>– annual average PM10 concentrations have not exceeded 30 µg/m3 ;</li> <li>– 24-hour average PM10 concentrations exceeded 50 µg/m3 on one day (13 Sep 2023). The result was investigated, and the cause was identified as a regional event. Measured PM10 concentrations at the DPE’s Kembla Grange monitor also exceeded 50 µg/m3 around this time; and</li> <li>– annual average deposited dust levels have not exceeded 4 g/m2 /month, based on monitoring and estimates from PM10 levels.</li> </ul> <p>The monitoring has shown that operations at Dendrobium Mine have not caused additional exceedances of the criteria listed in Tables 4 to 6 at locations representative of sensitive places. However, OFI03 has been identified to ensure commentary on compliance with TSP and deposited dust criteria in DA 60-03-2001 is provided.</p>			
<p>Schedule 4, Condition 11</p>	<p>During the development, the Applicant must ensure that it has a suitable meteorological station in the vicinity of the site that is generally in accordance with the requirements in the guideline Approved Methods for Sampling of Air Pollutants in New South Wales.</p>	<p>The meteorological stations were inspected on 9 October 2023 and a sample of meteorological data (August to October 2023) was reviewed. This showed:</p> <ul style="list-style-type: none"> <li>– meteorological stations are not strictly located in accordance with the Approved Methods for the Sampling and Analysis of Air Pollutants in NSW but have been positioned as best as possible given the site constraints, surrounding infrastructure, terrain and vegetation. The Dendrobium Pit Top meteorological station is situated on the top of buildings, approximately 6 to 7 m above ground, with the site inspection completed on 9 October 2023 indicated the meteorological station is</li> </ul>	<p>Compliant</p>	<p>OFI: Assess opportunities to improve the exposure of the meteorological station (e.g. using taller masts to get to approximately 10 m).</p>	<p>A review of meteorological station will be undertaken to assess improvement opportunities by 30 June 2024.</p>

Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
		<p>potentially not of sufficient height to avoid influence of the building in measuring local winds; and – the meteorological stations collect relevant data to assist with evaluating air quality monitoring results. The data include wind speed, wind direction, temperature, rainfall and barometric pressure, collected at 10-minute intervals.</p> <p>IMC operates a suitable meteorological station in the vicinity of the site which is generally in accordance with the requirements of the Approved Methods for the Sampling and Analysis of Air Pollutants in NSW; however, OFI04 has been made to identify opportunities to improve the exposure of the meteorological station.</p>			
Schedule 4, Condition 12	<p>The Applicant must ensure all surface water discharges from the surface facilities: (b) comply with the discharge limits (both volume and quality) set for the development in any EPL.</p>	<p>A minor non-compliance (low risk) was identified regarding discharge water quality limits, in relation to an exceedance of the water quality concentration limit for zinc (of 0.4 mg/L) was detected during investigations at LDP 5 on 13 October 2021. A concentration of 0.6 mg/L was recorded during the discharge of brine from the Appin North water treatment plant, likely due to inadequate mixing with Dendrobium Mine water.</p> <p>Therefore, as this was an unrepeatable event, a CA is not deemed relevant. Furthermore, it is understood from audit interviews that IMC are developing a protocol around limiting brine discharge from Appin North water treatment plant when the Dendrobium Mine is not actively discharge or discharging minimal quantities.</p>	NC	N/A	Noted. No further action is required.
Schedule 4, Conditions 18	<p>Condition 18: For rehabilitation works within the Metropolitan Special Area, the Applicant must ensure that these works are carried out to the satisfaction of WaterNSW.</p>	<p>During conduct of the 2023 IEA, WaterNSW was consulted and identified the following in relation to rehabilitation:</p> <p>The only rehabilitation attempted is remediation trial of two pools in Wongawilli Creek tributary WC21 during 2021-2022 as per the Donalds Castle Creek and WC21 Rehabilitation plan. Very limited success is reported to date.</p> <p>The WC21 and Donalds Castle Creek Rehabilitation Plan is required by Condition 15 of the SMP Approvals for LW 17 and LW 18.</p> <p>Review of documentation during completion of the 2023 IEA indicates rehabilitation trials as part of the</p>	Compliant	<p>OFI: To ensure compliance with the requirement to remediate physical damage to watercourses subject to subsidence impacts as soon as reasonably practicable, commence specific engagement with WaterNSW, BCS and DPE during the period in which continuation of monitoring is being undertaken until 3-6 months of average or above average rainfall occurs (as proposed in WC21 and Donalds Castle Creek Rehabilitation Plan</p>	<p>Consultation with agencies has occurred throughout development of the WC21 and DCC Rehabilitation Plan, however, consideration/inclusion of the recommended focus points will be addressed following feedback to the latest revision of the Rehabilitation Plan, currently awaiting determination.</p>



Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
		<p>WC21 and Donalds Castle Creek Rehabilitation Plan were approved during the FY22 Annual Review period, with the trial rehabilitation program commencing November 2021 in relation to drilling and grouting of the two pools in WC21 (i.e. Pool 24 and Pool 25). However, these works were paused in December 2021 due to restricted access to WaterNSW Special Area during wet weather. Ongoing La Nina conditions restricted access to the Metropolitan Special Areas until September 2022 and lead to track damage requiring repair prior to recommencement of works. Following track repairs the grouting trial resumed and was completed in November/December 2022.</p> <p>The post remediation verification works were undertaken in December 2022 and January 2023 and involved drilling of two post verification holes using a small track mounted drill rig. Geotechnical logging, geophysical logging and packer testing was also undertaken on the post grouting verification holes.</p> <p>An update of the WC21 and Donalds Castle Creek Rehabilitation Plan (Rev 4, 31 January 2023) was completed to report on progress of rehabilitation trials undertaken at Pool 24 and Pool 25, with approval provided 24 May 2023. With completion of these works, post-grouting monitoring of pool water levels commenced and was required to be undertaken for a period of six (6) months prior to undertaking an assessment of the outcome of the trial. This assessment required consideration of the post remediation verification hole logging, piezometer data (S2337/S2338) and pool water level data collected during the monitoring period. Correspondence from DPE approving the revised WC21 and Donalds Castle Creek Rehabilitation Plan (Rev 4, 31 January 2023) noted:</p> <ul style="list-style-type: none"> <li>– a revision to the WC21 and Donalds Castle Creek Rehabilitation Plan is required to report on the results of the trial and needed to be submitted to DPE by 31 August 2023; and</li> <li>– the BCS advice on the broader rehabilitation plan needing to be considered and responded to during revision to the WC21 and Donalds Castle Creek</li> </ul>		<p>[Rev 5, 31 August 2023 – currently waiting for DPE approval]). The specific engagement would focus on:</p> <ul style="list-style-type: none"> <li>– confirming agreement regarding the appropriate path forward should 3-6 months of average or above average rainfall not result in significantly different monitoring results, to establish whether:             <ul style="list-style-type: none"> <li>– more grouting is required; or</li> <li>– modification to grouting/remediation techniques is required.</li> </ul> </li> <li>– whether any remediation is likely to be successful at WC21;</li> <li>– whether separate remediation trials should also commence at Donalds Castle Creek, rather than focusing efforts at WC21 only;</li> <li>– whether the environmental impacts of remediation (e.g. associated with the existing or any modified remediation technique required at WC21 and Donalds Castle Creek) would exceed the environmental benefits; and</li> <li>– whether alternative measures and/or programs required to be implemented in the catchment to offset the impacts to WC21 and Donalds Castle Creek, and at what point the need to offset impacts would be determined necessary.</li> </ul> <p>OFl: To ensure compliance with the requirement to remediate physical damage to watercourses subject to subsidence impacts ‘as soon as reasonably practicable’, a detailed program for completion of remediation to WC21 and Donalds Castle Creek is to be included in a future revision to the WC21 and</p>	<p>Dependent on the timing of feedback and rainfall patterns, it is anticipated that the Rehabilitation Plan will be revised by 30 June 2024.</p> <p>A detailed program was not included in the Rehabilitation Plan as agencies first wanted to undertake the rehabilitation trial at WC21 Pool 24 and 25 site, where results could be reviewed before agreeing to/approving further works. A detailed program will be</p>

Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
		<p>Rehabilitation Plan.</p> <p>The revised WC21 and Donalds Castle Creek Rehabilitation Plan (Rev 5, 31 August 2023) was submitted on 31 August 2023, with the following noted:</p> <ul style="list-style-type: none"> <li>– evidence of receipt by DPE provided on 31 August 2023; and</li> <li>– response from WaterNSW provided 27 September 2023.</li> </ul> <p>The results of post-grouting monitoring of pool water levels at Pool 24 and Pool 25 reported in the WC21 and Donalds Castle Creek Rehabilitation Plan (Rev 5, 31 August 2023) indicate the grouting has potentially not been successful. However, the WC21 and Donalds Castle Creek Rehabilitation Plan (Rev 5, 31 August 2023) proposes continuation of monitoring until sufficient rainfall occurs, with South32 IMC committing to review rainfall data every 6 months to determine if sufficient rainfall (i.e. average, or above average rainfall during the period) has occurred to repeat the assessment. The assessment would then be repeated, and the WC21 and Donalds Castle Creek Rehabilitation Plan (Rev 5, 31 August 2023) would be updated with the results. In addition, results from the trial will be included in relevant EOP reports and the 2023/2024 Annual Review.</p> <p>Correspondence from WaterNSW provided on 27 September 2023 indicates support for the above. Average or above average rainfall is an undefined period and likely to be affected by current El Nino conditions. In addition, the auditor considers it likely a sufficient rainfall event is unlikely to result in significantly different monitoring results to those currently reported WC21 and Donalds Castle Creek Rehabilitation Plan (Rev 5, 31 August 2023). Therefore, OFI05 and OFI06 have been identified, with OFI05 including consideration to commencement of rehabilitation trials at Donalds Castle Creek (i.e. due to potential for different watercourses to respond differently to remediation attempts). These OFIs have been made with consideration to the requirements of Schedule 4, Condition 18A of DA 60-03-2001, which requires</p>		<p>Donalds Castle Creek Rehabilitation Plan</p>	<p>developed following an assessment of results from the trial.</p> <p>Dependent on the timing of feedback and rainfall patterns, it is anticipated that the Rehabilitation Plan will be revised by 30 June 2024.</p>

Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
		IMC to remediate physical damage to watercourses subject to subsidence impacts as soon as reasonably practicable.			
Schedule 4, Condition 18A	The Applicant must rehabilitate the site in accordance with the conditions imposed on the mining lease(s) associated with the development under the Mining Act 1992. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the documents listed in condition 2 of Schedule 2, and comply with the objectives in Table 7.	<p>Review of relevant documentation indicates this condition was introduced due to Modification 9 to DA 60-3-2001, approved on 8 July 2022.</p> <p>The following in relation to rehabilitation during the audit period:</p> <ul style="list-style-type: none"> <li>- FY21: Review of documentation indicates compliance with the requirements of this condition during FY21 is not relevant due to the introduction of Schedule 4, Condition 18A occurring after the FY21 reporting period. However, the following is noted in relation to rehabilitation:                             <ul style="list-style-type: none"> <li>o Rehabilitation cost estimate (RCE): The RCE for the Dendrobium operations was reviewed during the reporting period. This RCE was provided as Appendix B to the FY21 Annual Review.</li> <li>o Progressive rehabilitation: Legacy sites rehabilitated were either not within the CCL 768 boundary or had a very small footprint (i.e. Summit Park Switchyard, Mt Keira [approximately 150 m2 hand-seeded with grass seed], O'Brien's Gap Switchyard [approximately 300 m2 hand-seeded with grass seed], Greenhills Substation [approximately 2,000 m2 hydro-mulched]).</li> <li>o Completion of rehabilitation: Completed rehabilitation areas increased by 0.12 hectares (ha), with 7.97 ha in financial year (FY) and 8.09 ha in FY21.</li> </ul> </li> <li>- FY22: Review of documentation indicates compliance with the requirements of this condition during FY22 is not relevant due to the introduction of Schedule 4, Condition 18A occurring after the FY21 reporting period. However, the following is noted in relation to rehabilitation:                             <ul style="list-style-type: none"> <li>o RCE: The RCE for the Dendrobium operations was reviewed during the reporting period. This RCE was provided as Appendix B to the FY22 Annual Review.</li> </ul> </li> </ul>	Compliant	OFI: Duplicate recommendation. Refer to Schedule 4, Condition 18.	Refer to Schedule 4, Condition 18.

Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
		<ul style="list-style-type: none"> <li>○ Progressive rehabilitation: Investigations and studies were conducted into the removal of redundant infrastructure associated with O'Brien's Drift, particularly at the KVCLF.</li> <li>○ Completion of rehabilitation: Completed rehabilitation areas increased by 32.91 hectares (ha), from 8.09 ha in FY21 to 41 ha in FY22, with completion of a rehabilitation campaign to demolish and rehabilitate redundant powerline circuits that traverse urban and rural residential areas generally located to the East of the Illawarra Escarpment State Conservation Area. To conclude this phase of rehabilitation work, a part lease relinquishment application for CCL 768, which was lodged with the NSW Resources Regulator. The report was accepted in July 2022.</li> </ul> <p>– FY23: Review of documentation indicates compliance with the requirements of this condition during FY23, with the following noted:</p> <ul style="list-style-type: none"> <li>○ Progressive rehabilitation: Vegetation removal and topsoil stripping occurred at the Ventilation No. 2 and 3 Shafts in preparation of gas management and ancillary infrastructure. This rehabilitation was sighted during the site inspection completed for the audit.</li> <li>○ Land preparation works were undertaken for a land slip that occurred on the western boundary of the Dendrobium Pit Top; including soil nails, shotcrete and soil reinforcing mesh as designed by a specialist engineering consultant. Works commenced in FY23 and were completed in FY24.</li> </ul> <p>Investigations and studies continued into the removal of redundant infrastructure associated with O'Brien's Drift. These included a Hazardous Building Materials Survey, engineering for belt removal and</p>			

Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
		<p>design work associated with the Endeavour Energy powerline relocation. A Hazardous Building Materials Survey was undertaken for the Corrimal No. 3 site and Cordeaux Pit Top redundant coal bins, which are planned to be removed in FY24/FY25.</p> <ul style="list-style-type: none"> <li>○ Rehabilitation monitoring: No rehabilitation monitoring was undertaken in the reporting period at surface facilities, with no recent rehabilitation has been undertaken.</li> <li>○ Completion of rehabilitation: Completion of progressive rehabilitation in relation to exploration drilling within CCL 768 focussing on sites drilling in FY22 and FY23, with rehabilitation completed at the cessation of drilling and/or monitoring. Rehabilitated areas are monitored for success over several years.</li> </ul> <p>With consideration to the above and the requirements of DA 60-03-2001 (i.e. Schedule 4, Condition 18A), which requires IMC to remediate physical damage to watercourses subject to subsidence impacts as soon as reasonably practicable, OFI05 and OFI06 have been identified.</p>			
Schedule 8, Condition 2	<p>Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:</p> <p>(a) a summary of relevant background or baseline data;</p> <p>(b) details of:</p> <p>(i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);</p> <p>(ii) any relevant limits or performance measures and criteria; and</p> <p>(iii) the specific performance indicators that are proposed</p>	<p>Status of 2020 IEA Recommendation: The AQGHGMP was reviewed, updated and approved by DPE 8 June 2021, and included a section (7.2.2) on adaptive management. 2023 IEA Findings Review of relevant documentation verifies compliance with the requirements of this condition.</p> <ul style="list-style-type: none"> <li>– TMP addresses (a), (b), (c), (d), (e), (f) and (g);</li> <li>– WMP addresses (a), (b), (c), (d), (e), (f) and (g);</li> <li>– ACHMPs address (a), (b), (c), (d), (e), (f) and (g);</li> <li>– Waste Management Plan addresses (a), (b), (c), (d), (e), (f) and (g);</li> <li>– Bushfire Management Plan addresses (a), (b), (c), (d), (e), (f) and (g);</li> <li>– LVAMP addresses (a), (b), (c), (d), (e), (f) and (g);</li> <li>– AQGHGMP addresses (a), (b), (c), (d), (e), (f) and (g);</li> <li>– NMP addresses (a), (b), (c), (d), (e), (f) and (g).</li> </ul>	Compliant	<p>OFI: Amend the NMP as follows:</p> <ul style="list-style-type: none"> <li>– Section 3.5 Guidelines and Standards to include reference to Approved Methods for the Measurement and Analysis of Environmental Noise in NSW (EPA, 2022); and</li> <li>– Section 7.2.1, Point 3 from 'Residential Background Level (RBL)' to 'Rating Background Level (RBL)'.</li> </ul> <p>OFI: Investigate alternative measures to offsetting impacts on upland swamps, focussing on the avoidance and minimisation of further impacts to upland swamps from mining activities and ensuring</p>	<p>Noted. To be included in next revision of the Noise Management Plan (NMP) by 31 August 2025 (next scheduled review date for NMP).</p> <p>SMP approval conditions require offsets to impacts on upland swamps (where they are not already offset under the SBO).</p>

Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
	<p>to be used to judge the performance of, or guide the implementation of, the development or any management measures;</p> <p>(c) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;</p> <p>(d) a program to monitor and report on the:</p> <p>(i) impacts and environmental performance of the development; and</p> <p>(ii) effectiveness of the management measures set out pursuant to condition 2(c);</p> <p>(e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;</p> <p>(f) a program to investigate and implement ways to improve the environmental performance of the development over time;</p> <p>(g) a protocol for managing and reporting any:</p> <p>(i) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria);</p> <p>(ii) complaint;</p>	<p>This notwithstanding, the OFI07 has been identified.</p> <p>SIMMCPs:          It is the opinion of the audit team technical specialist for Upland Swamps and Biodiversity (i.e. Land Eco) that improvements are required to SIMMCPs to ensure they are adequate to meet the requirements of Schedule 8, Condition 2(b)(iii), (d)(ii), and (g)(i). The audit has identified several issues in relation to the effectiveness of monitoring and management measures including TARPs, including associated measures for measuring exceedance of predictions and subsidence performance criteria in relevant SMP Approvals. While the triggering of TARPs is generally reported in a satisfactory manner and adequately identify whether any minor impacts have occurred (irrespective of causality), the effectiveness of management measures and the adequacy of the TARPs themselves in preventing ongoing and cumulative impacts due to mining are considered by Land Eco to potentially require improvement as described below.</p> <p>In 2022, eight of the ten impact monitoring swamps recorded at least one TARP trigger. Of particular concern, the Composition TARP has been exceeding predictions for eight years at Swamp 1B. CMAs have included conducting ongoing research, trials, establishing offsets, and providing research funding. It is uncertain whether any of these CMAs are reducing the potential for continued triggering of TARPs. Specifically, where links to impacts from mining activities are considered likely, focus of CMAs is on research and offsets rather than avoiding and minimising. Rather than waiting for an exceedance to occur, Land Eco recommends consultation with regulatory agencies consider how CMAs may focus on pro-actively avoiding and minimising mining impacts. Therefore, OFI08 has been made. However, it is acknowledged:</p> <ul style="list-style-type: none"> <li>– causality of impacts cannot be quickly determined, making avoiding and minimising impacts difficult for upland swamps; and</li> <li>– rehabilitation of Upland Swamps is not generally</li> </ul>		<p>timely implementation before more significant impacts eventuate.</p> <p>OFI: If studies indicated that an existing population of Littlejohn's Tree Frog does not, or cannot be confirmed to, exist at the Maddens Plain offset site, investigate additional management actions to ameliorate impacts due to mining on Littlejohn's Tree Frog. This may include obtaining additional offsets (e.g. retiring like-for-like species credits under the NSW Biodiversity Offset Scheme).</p>	<p>A Swamp Rehabilitation and Research Program (SRRP) is in place, which details investigations currently being undertaken.</p> <p>The SRRP includes studies into upland swamps to the value of &gt;\$3.5 million.</p> <p>No further action required.</p> <p>Niche have been engaged to conduct further investigations into the conservation values of the Maddens Plains offset area which include surveys for Littlejohn's Tree Frog. Niche have commenced field surveys, with two sites left requiring survey. This report is expected to be completed by 30 June 2024.</p> <p>IMC are required to provide six monthly reports to DPE on the status and outcome of the surveys and studies detailed in the SRRP as required by the Longwall 19A SMP Approval.</p> <p>This will inform relevant agencies on the adequacy of the offsetting and/or mitigation requirements for any threatened species impacted by mining at Dendrobium.</p> <p>The first six monthly report is due 31 January 2024.</p>

Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
	<p>(iii) failure to comply with statutory requirements; and (h) a protocol for periodic review of the plan.</p>	<p>considered feasible. In this regard, pre-emptive offsetting of the upland swamps via the Strategic Biodiversity Offset is a suitable amelioratory action already undertaken by IMC. Where research undertaken through the SRRP or by any other research institute in NSW identifies methods for the feasible rehabilitation of upland swamps, these must be implemented. In addition, in 2022, TARP levels have been triggered at seven of the fourteen impact transects monitored as part of the Littlejohn's Tree Frog Monitoring Program. Attachment H of the EOP report for LW 19 reports that it is possible some of these impacts pre-date mining. However, Appendix H also reports that despite increased rainfall, a number of impact monitoring transects are indicating reduced habitat conditions or reduced frog detection in the post-mining period. It is Land Eco's view that given the subsidence impacts being experienced across the catchment due to mining activities, there is potential this population of Littlejohn's Tree Frog (<i>Litoria littlejohni</i>) is being impacted by mining activities. Furthermore, the effectiveness of actions being undertaken under the SIMMCPs to avoid and minimise further impacts to this species is unclear. CMAs appear to be predominantly focused on monitoring the decline, rather than employing intervention measures. It is noted, a revised SRRP dated May 2023 has been submitted to DPE and is currently awaiting determination. The May 2023 SRRP includes details of the restoration of Littlejohn's Tree Frog populations within the Dendrobium mine-lease area, which includes seven studies that contribute to and support mitigation and conservation actions tailored to the Littlejohn's Tree Frog. These studies are understood to have commenced and are being undertaken by the University of Newcastle. Therefore, OFI09 has been made. Potential issues with the current structure of ecosystem functionality TARPs for SIMMCPs are noted in relation to the need for consecutive monitoring periods of trending decline to proceed through the three trigger levels before an</p>		<p>OFI: Commence specific engagement with relevant agencies including DPE, BCS and WaterNSW in relation to the TARPs for SIMMCPs. The specific engagement would focus on whether:                      – consecutive monitoring periods of trending decline is an appropriate measure to escalate through the three trigger levels before an exceedance of performance measures is determined; and                      – consecutive monitoring periods without trending decline should be required to deescalate through the TARP levels (i.e. rather than deactivating the TARP following one</p>	<p>Additionally, as part of the SRRP, the University of Newcastle are currently undertaking a 'Restoration project for Littlejohn's Tree Frog populations within the Dendrobium mining lease area' which involves seven studies that each contribute knowledge to support tailored mitigation and conservation actions for Littlejohn's Tree Frog.</p> <p>Details of this study are included in the revised SRRP (May 2023) which is with DPE for determination.</p> <p>Outcomes of this study will be reported in the Annual Review by 30 September 2024, and in subsequent Annual Reviews as the study progresses.</p> <p>Extensive consultation is undertaken with relevant agencies in relation to TARPs for all SIMMCPs. Recently this was undertaken for the Longwall 19A SIMMCP (three rounds of consultation) resulting in the inclusion of hydrological changes in performance indicators for ecosystem functionality.</p> <p>The monitoring approach utilises a suite of control swamps that form the basis of comparison. These allow consideration of ecological responses to environmental/climatic</p>

Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
		<p>exceedance of performance criteria is determined. As an example, the current structure of the TARPs could result in a Level 3 TARP after four consecutive monitoring periods of trending decline, followed by a fifth monitoring period without trending decline. Potential issues with this are:</p> <ul style="list-style-type: none"> <li>– there does not appear to be a consideration to external factors (e.g. seasonal/climatic) that may have influenced a lack of trending decline in the fifth monitoring period; and</li> <li>– if, a trending decline was observed during sixth and seventh monitoring periods, subsequent to the fifth monitoring period, this would only trigger a Level 1 TARP without consideration to four of the last five monitoring periods showing a trending decline.</li> </ul> <p>In this scenario, CMAs required would revert to those required for a Level 1 TARP despite actual impacts being in the order of a Level 3 TARP or greater, potentially resulting in greater cumulative impact. Further rounds of consultation with relevant stakeholders are recommended to consider how TARPs may be redesigned to address the above concerns, perhaps requiring consecutive monitoring periods without trending decline to step back down the TARP levels rather than simply resetting to baseline. Therefore, OF110 has been identified.</p>		<p>period without trending decline). As an example:</p> <ul style="list-style-type: none"> <li>○ Level 3 TARP: three consecutive periods to move down to Level 2;</li> <li>○ Level 2 TARP: four consecutive periods to move down to Level 1; and</li> <li>○ Level 1 TARP: five consecutive periods for TARP to no longer be triggered</li> </ul>	<p>conditions over time, and importantly, benchmarking relative to the season as part of the TARP assessment.</p> <p>In order to trigger a TARP level, a swamp must record a decline in extent and this must exceed that experienced at the control group, providing a basis that suggests a potential impact.</p> <p>The annual monitoring reports document trajectories of change in swamp extents across both impact and control groups over time, and also assesses the three vegetation sub-communities with varying sensitivity to hydrological change that may detect trending declines in one community along with gains in another.</p> <p>The annual ecological monitoring report considers all monitoring periods when applying TARP triggers. It is unclear how a step back down the TARP levels would benefit in regard to Corrective Management Actions (CMAs). It is noted that impacts to many swamps have been offset via protection of lands elsewhere. The SIMMCPs require that in the event monitoring reveals impact greater than performance measures identified in TARPs, modifications to the project</p>



Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
					and mitigation measures including remediation and/or offsets or other appropriate actions determined in consultation with the consent authority will be implemented.  No further action is required.

**Environmental Protection Licence 3241**

Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
L2.4	Water and/or Land Concentration Limits	A minor non-compliance (low risk) was identified regarding discharge water quality limits, in relation to an exceedance of the water quality concentration limit for zinc (of 0.4 mg/L) was detected during investigations at LDP 5 on 13 October 2021. A concentration of 0.6 mg/L was recorded during the discharge of brine from the Appin North water treatment plant, likely due to inadequate mixing with Dendrobium Mine water. Therefore, as this was an unrepeated event, a CA is not deemed relevant. Furthermore, it is understood from audit interviews that IMC are developing a protocol around limiting brine discharge from Appin North water treatment plant when the Dendrobium Mine is not actively discharge or discharging minimal quantities.	NC	N/A	Noted. No further action is required.

### SMP Approvals – Longwall 17

Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
13	The Applicant must ensure that the development does not cause any exceedance of the performance measures in Table 1, to the satisfaction of the Secretary.	<p>The audit identified a non-compliance (low risk) in relation to a minor rockfall at Waterfall WC-WF54 (i.e. Waterfall 54), which represents a non-compliance with the requirement that 'no rock fall occurs at the waterfall or from its overhang'. The rockfall was identified on 2 August 2022. The Waterfall 54 Technical Committee met on 5 August 2022 and determined based on review of photographs of the waterfall that the event likely occurred between 6 and 28 October 2021 in associated with mining of LW 17. The rockfall site had an approximate length of 3 m, depth of 1.5 m and height of 1 m and was also screened from view by dense vegetation as well as the setback from the observation point during previous surveys. The site inspection completed for the audit determined no further rock fall has occurred and the rock fall was barely distinguishable due to vegetative growth since the event occurred. To ensure no further impact to Waterfall 54, IMC made the decision to stop LW 17 short of the approved finish line at cut through 3 on or around 6 September 2022.</p> <p>In addition, a meeting was held between the DPE and IMC to discuss the rockfall, with DPE advising in a letter dated 9 May 2023 that in consultation with WaterNSW and any relevant agency such as the BCS, IMC are required to provide alternative measures and/or programs to be implemented in the catchment to offset the non-compliance. IMC have proposed to investigate fish passage and sediment control along Fire Road 6 as a suitable offset for the rockfall. It is noted this action is subject to engagement with, and approval of, DPE.</p> <p>Therefore, no recommendation is deemed relevant, as:                      - appropriate management/mitigation was undertaken (i.e. stopping further progression of mining in LW 17);</p>	NC	N/A	Noted. No further action is required.

Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
		- alternative measures and/or programs to offset the non-compliance had been discussed in consultation with DPE, the BCS and WaterNSW; and - no exacerbation of impacts was observed during the site inspection.			

### SMP Approvals – Longwall 19

Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
8	The Applicant must ensure that the development does not cause any exceedance of the performance measures in Table 1, to the satisfaction of the Secretary.	The audit determined non-compliances in relation to documentation of subsidence performance measures for Swamp 15a in the SIMMCP for LW 19, which are inconsistent with the requirements of the SMP Approval for LW 19. This has resulted in these performance measures being incorrectly adopted in EOP reporting for LW 19. The incorrect documentation of these performance measures as 'minor' and 'no significant change', instead of 'negligible', has resulted in development and implementation (i.e. triggering) of TARPs for LW 19 that are not correctly considering potential impacts and potential exceedance of performance measures for Swamp 15a. There was no evidence to indicate that any harm to the environment has occurred due to the incorrect documentation of performance measures, as this was not able to be confirmed during the audit. As a result, the SIMMCP for LW 19 was not developed or implemented to ensure exceedance would not occur. Therefore, a non-compliance has been identified in relation to ensuring the development does not cause any exceedance of the performance measures. Further discussion is provided at Schedule 3, Conditions 5 and 6 in Section 3.3.1, with <b>CA01</b> identified.	NC	CA: Duplicate recommendation. Refer to DA 60-03-2001 - Schedule 2, Condition 1.	IMC disagree that this constitutes a non-compliance. There is no evidence to suggest the <i>development</i> has caused any exceedance of the performance measures in Table 1.  It is noted that the basis of approving Longwall 19 was made on the intent of Condition 5 of Schedule 3 of the Consent being to prevent major impacts in relation to erosion of the surface and changes in ecosystem functionality in Swamp 15a as stated in the DPE's Reasons for Approval.  Refer to Schedule 2, Condition 1 for response to Corrective Actions.

Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
16	The Applicant must implement the most recently approved SIMMCP for LW 19 prepared under condition 6 of Schedule 3 of development consent DA 6003-2001 to provide for achievement of the performance measures listed in Table 1 in consultation with WaterNSW and BCS and to the satisfaction of the Secretary.	<p>Review of the SIMMCP for LW 19 (Area A) indicates performance measures for Swamp 15a, as detailed in Table 6-1 of the SIMMCP are inconsistent with the requirements of Condition 8 of the SMP Approval for LW 19 as follows:</p> <ul style="list-style-type: none"> <li>- 'minor' changes in the size of the swamps, with the performance measure in the SMP Approval for LW 19 being 'negligible';</li> <li>- 'minor' changes in the ecosystem functionality of the swamps, with the performance measure in the SMP Approval for LW 19 being 'negligible'; and</li> <li>- 'no significant change' to the composition or distribution of species within the swamps, with the performance measure in the SMP Approval for LW 19 being 'negligible'.</li> </ul> <p>An ANC has been found with this condition as it requires for SIMCCP for LW 19 to provide for achievement of the performance measures listed in Table 1 of Condition 8 of the SMP Approval for LW 19. The adopting of incorrect performance measures for the SIMMCP for LW 19 did not achieve this requirement.</p> <p>As mining and EOP reporting has been completed for LW 19 and review of the SIMMCP for LW 19A indicates performance measures have been documented correctly, no recommendation is deemed relevant.</p>	ANC	N/A	<p>It is noted that the approved Longwall 19 SIMMCP was implemented. Performance measures for Swamp 15a were corrected in the Longwall 19A SIMMCP in consultation with DPE. The Longwall 19A SIMMCP was approved on 25 October 2023.</p> <p>No further action is required.</p>

### Schedule 8A, Part 2 of the Mining Regulation 2016 (NSW)

Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
Clause 4(1) of Schedule 8A, Part 2 of the Mining Regulation 2016.	The holder of a mining lease must take all reasonable measures to prevent, or if that is not reasonably practicable, to minimise, harm to the environment caused by activities under the mining lease.	<p>The audit determined non-compliances in relation to documentation of subsidence performance measures for Swamp 15a in the SIMMCP for LW 19, which are inconsistent with the requirements of the SMP Approval for LW 19 and conditions of DA 60-03-2001.</p> <p>This has resulted in these performance measures being incorrectly adopted in EOP reporting for LW</p>	NC	CA: Duplicate recommendation. Refer to DA 60-03-2001 - Schedule 2, Condition 1.	Refer to Schedule 2, Condition 1.

Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
		<p>19. The incorrect documentation of these performance measures as 'minor' and 'no significant change', instead of 'negligible', has resulted in development and implementation (i.e. triggering) of TARPs for LW 19 that are not correctly considering potential impacts and potential exceedance of performance measures for Swamp 15a.</p> <p>There was no evidence to indicate that any harm to the environment has occurred due to the incorrect documentation of performance measures, as this was not able to be confirmed during the audit. However, a non-compliance has been identified in relation to the requirement to implement all reasonable and feasible measures to prevent or minimise harm to the environment due to the incorrect development and implementation (i.e. triggering) of TARPs, and associated reporting, as a consequence of adopting the incorrect performance measures.</p> <p>Further discussion is provided in Section 3.3.1 and 3.3.3 (i.e. Schedule 3, Conditions 5 and 6), with <b>CA01</b> identified.</p>			
<p>Clause 16(3)(b) of Schedule 8A, Part 2 of the Mining Regulation 2016.</p>	<p>Certain documents to be publicly available.</p>	<p>Clause 16(1)(b) in Schedule 8A, Part 2 of the Mining Regulation 2016 (NSW) requires the lease holder to publish the Forward Program on its website.</p> <p>The NSW Resources Regulator identified on 2 December 2022, during an audit, that the Forward Program was not available in accordance with the requirements of Clause 16(3)(b).</p> <p>It was confirmed the Forward Program is now available on the Dendrobium Mine website. As a result, a recommendation is not deemed relevant.</p>	<p>ANC</p>	<p>N/A</p>	<p>Noted. No further action is required.</p>

## Relevant Leases

Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
4 of CCL 768	<p>4. Assessable Prospecting Operations</p> <p>(a) The lease holder must not carry out any assessable prospecting operation on land over which this lease has been granted unless:</p> <p>(i) it is carried out in accordance with any necessary development consent; or</p> <p>(ii) if development consent is not required, the prior written approval of the Minister has been obtained.</p>	<p>Assessable Prospecting Operations (i.e. exploration drilling) during the FY23 Annual Review period was determined to have been undertaken without Development Consent or valid written approval from the Minister.</p> <p>Shortly after drilling commenced on borehole D-A3C-S17-33 in June 2023, it was identified that whilst the WaterNSW approval is valid to March 2025, the approval from DPE (MAAG0004533/RR19249409) was only valid until 1 July 2022.</p> <p>Once identified, drilling on borehole D-A3C-S17-33 ceased and the non-compliance, identified as an ANC, was reported to the NSW Resources Regulator and reported in the FY23 Annual Review. The NSW Resources Regulator issued an Official Caution on 7 July 2023.</p> <p>Actions identified to prevent reoccurrence included:</p> <ul style="list-style-type: none"> <li>- revising the site set-up form to include activity approval dates and conditions;</li> <li>- developing a process map for pre-disturbance activities; and</li> <li>- uploading activity approvals into LandAssist with a relationship back to the mining lease/exploration licence, including all relevant information.</li> </ul> <p>As a result, a CA or OFI was not deemed relevant.</p>	ANC	N/A	Noted. No further action is required.

**Other**

Item No.	Assessment Requirement	Comment	IEA Classification	Recommendations	IMC Response December 2023
N/A – Agency consultation (Section 2.3 of report)	N/A	<p>Despite of extensive post mining drilling investigations and groundwater monitoring implemented over Areas 3A and 3B LWs, there is still significant uncertainty in estimation of height of connective fracturing. There is still not enough data to support development of the site-specific empirical model. The expert review (Hebblewhite, 2020) of height of depressurisation investigations (HGEO, 2020) commented that “lack of significant differential in height of depressurisation with the reduced panel widths (249 m wide panels in Area 3A vs 305 m panels Area 3B) means that the range of the dataset available to assist with developing an improved prediction model remains inconsistent, and insufficient to enable any further model development based on empirical methods”. WaterNSW hasn’t received any further information or updates on investigations over completed LWs in Area 3B since 2020.</p>	N/A	OFI: Ensure relevant agencies are provided a copy of the latest goaf investigation program report on completion.	<p>The Longwall 18 Height of Fracturing report has been prepared and was provided to relevant agencies including WaterNSW on 7/12/2023 as required under Condition 19 of the Area 3B SMP Approval.</p> <p>No further action is required.</p>