

**Cullen Valley Mine (CVM) - Independent Environmental Audit 2021
Response to Recommendations**

IEA Recommendations								
Condition Reference No #	Condition Detail	Condition Type	Risk Level of Non-compliance	Auditor Comments and Recommendations	CVM Response	Target Due Date	Completion Status	Comments - Status Update
Development Consent DA 200-5-2003 Non-compliance Recommendations								
Sch 3 Cond 1	The Applicant shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the development.	Administrative	Administrative	The applicant has generally implemented practicable measures to minimise harm to the environment. However, several notices have been issued over the audit period. The applicant should implement reasonable and practical measures to investigate anomalies in the readings even if no harm has been done to the environment.	CVM accepts the recommendation. During the audit period 2016 - 2021, there was no dedicated environmental manger onsite to manage the performance and delivery of consultants undertaken monitoring and associated reporting and followup. CVM has directly employed a full time environmental manager onsite to manage these items toward establishing and maintaining compliance.	28-Feb-22	Completed	
Sch 4 Cond 25	The Applicant shall monitor the air quality impacts of the development at representative locations around the site, using the specified averaging period, frequency, and sampling method in Table 12 to the satisfaction of DEC and the Director-General.	Specific environmental conditions	Administrative	2018 AEMR – A power outage of the HVAS unit caused by thunderstorm resulted in a failure to monitor air quality in accordance with this condition. 2019 AEMR - The 30+/- 2 day monitoring period for depositional dust was exceeded on one occasion (dec). 2020 AEMR - A mechanical fault with the HVAS unit resulted in a failure to monitor air quality in on two occasions. This item has no defined recommendation.	Power outages and mechanical failures are generally beyond control of site personnel, nevertheless a dedicated environmental manger is now employed onsite to manage the operation and performance of of monitoring equipment and consultant technicians engaged to conduct monitoring toward establishing and maintaining compliance.	28-Feb-22	Completed	
Sch 4 Cond 27	The Applicant shall not cause or permit the emission of offensive odour beyond the boundary of the site in accordance with section 129 of the Protection of the Environment Operations Act 1997.	Specific environmental conditions	Low	There have been odour complaints in every year of the audit period regarding subsurface heating. 2016- 4 complaints 2017- 2 complaints 2018- 3 complaints 2019- 2 complaints 2020- 2 complaints 2021- 1 complaint Continue to monitor and implement current subsurface management plan. Consult and review if the situation worsens.	CVM accepts the recommendation. During the audit period, CVM addressed the complaints in consultation with the complainants, whilst undertaking physical inspections and remediation activities on areas found to be the source of odours which are associated with sub-surface heatings on the CVM site. CVM are presently in the process of preparing the new Rehabilitation Management Plans which replace the MOP from 2 July 2022. The RMP will address the sub-surface heating at CVM. CVM has since (Feb 2022) consulted closely with the Resources Regulator to add further measures to address the heating issues at CVM, including trial irrigation and compaction methods to help extinguish / manage heatings, and continued treatment as per the approved methods in addition to further capping / sealing of heating areas with overbruden / rehabilitation materials as remnant mining occurs at CVM. These items will also be captured in the RMP.	2-Jul-22	Open	
Sch 4 Cond 31a	describe the immediate and long-term compensatory habitat proposal, and demonstrate how this proposal would be integrated with the proposed rehabilitation of the site and surrounding areas of remnant vegetation;	Specific environmental conditions	Administrative	An explicit plan covering expected short, medium and long-term should be summarised in AEMR.	CVM will provide an account in the AR of the Annual Biodiversity Monitoring Report outcomes which includes assessment of the Compensatory Habitat, and further, consult with its ecologists toward and required revision if necessary of the management plan which are currently undergoing agency consultation. CVM mananement plans are curently undergoing agency consultation, and requiried changes will be adopted in the appropriate plans.	30-Jun-22	Open	
Sch 4 Cond 31f	set completion criteria for the compensatory habitat proposal.	Specific environmental conditions	Administrative	No completion criteria were found for compensatory habitat. The criteria should be developed and reported in AEMR. Criteria should be developed in in tandem with short, medium and long-term goals.	CVM will provide an account in the AR of the Annual Biodiversity Monitoring Report outcomes which includes assessment of the Compensatory Habitat, and further, consult with its ecologists toward and required revision if necessary of the management plan which are currently undergoing agency consultation. CVM mananement plans are curently undergoing agency consultation, and requiried changes will be adopted in the appropriate plans.	30-Jun-22	Open	

Sch 4 Cond 36a	Within 2 years of the date of this consent, and every 5 years thereafter, unless the Director-General directs otherwise, the Applicant shall commission, and pay the full cost of, an Independent Audit of the compensatory habitat proposal. This audit must be conducted by a suitably qualified, experienced, and independent person whose appointment has been approved by the Director-General;	Specific environmental conditions	Administrative	Previous audit was completed on the 25 Nov 2016 by SLR Consulting Australia. An extension date was granted for the this audit to March 2022. CARAS was endorsed on 15 December 2021 to conduct the current audit period. Date of this audit was 2 February 2022. There item has no defined recommendation.	Castlereagh Coal (CVM) wrote to DPIE on the 15th of December 2021 requesting an extension for completion of the Independent Environmental Audit for CVM stating reasons as to the request. A subsequent extension was granted until 18 March 2022.	18-Mar-22	Open	
Sch 4 Cond 42	For each monitoring/discharge point, the Applicant shall monitor (by sampling and obtaining results by analysis) the concentration of each pollutant in Table 15, using the specified units of measure, frequency, and sampling method.	Specific environmental conditions	Administrative	Monthly water quality monitoring is carried out at discharge points. Monitoring in 2019 and 2020 were affected due to bushfires. No discharge events occurred from 2016 to 2020. This item has no defined recommendation.	CVM employs an external organisation to conduct environmental sampling associated with its monitoring program. During the well documented extreme bushfire conditions in late 2019 / early 2020 directly impacted environmental monitoring preventing access to monitoring sites.	NA	Completed	
Sch 4 Cond 43	Within 6 months of the date of this consent, the Applicant shall prepare (and then implement) a Site Water Management Plan for the development, in consultation with DEC and DPI, and to the satisfaction of the Director-General. This plan must include: (a) the predicted site water usage; (b) a Surface Water Monitoring Program; and (c) an Erosion and Sediment Control Plan.	Specific environmental conditions	Administrative	In 2017 a revised WMP has been sent to DPE for approval, however this is still pending. Monitoring and usage is outlined in AEMRs however they are very brief. Surface Water Monitoring program and Erosion and Sediment control plan are in place. This item has no defined recommendation.	CVM submitted an entire suite of new management plans to DPIE (and other agencies) for agency stakeholder consultation in February 2022 including a Site Water Management Plan. Additional plans / information includes predicted site water usage, surface water monitoring program and a standalone erosion and sediment control plan. CVM will work with agencies to finalise approval of these plans toward the restart of mining remnant coal resources at CVM in early 2022.	30-Jun-22	Open	
Sch 4 Cond 44	The Surface Water Monitoring Program shall include: (a) detailed baseline data on surface water flows and quality; (b) surface water impact assessment criteria; (c) a program to monitor surface water flows and quality; and (d) a program to monitor the effectiveness of the Erosion and Sediment Control Plan.	Specific environmental conditions	Administrative	There is a Surface Water Monitoring Program in the EMP. However, it does not provide much detail on a) and b). Additional information is required. In 2017, a standalone water management plan that included a surface water monitoring program was issued to DPE for approval.	CVM accepts this recommendation. CVM submitted an entire suite of new management plans to DPIE (and other agencies) for agency stakeholder consultation in February 2022 including a Site Water Management Plan which includes a detailed surface water monitoring program. CVM will work with agencies to finalise approval of these plans toward the restart of mining remnant coal resources at CVM in early 2022.	30-Jun-22	Open	
Sch 4 Cond 45	The Erosion and Sediment Control Plan shall: (a) comply with the requirements of the Department of Housing's Managing Urban Stormwater: Soils and Construction manual; (b) identify activities that could cause soil erosion or discharge sediment or water pollutants from the site; (c) describe the location, function and capacity of all erosion and sediment control structures, and nominate which, if any, of these structures would be used as water sources for the development; and (d) describe the measures to minimise soil erosion and the potential migration of sediments to downstream waters.	Specific environmental conditions	Administrative	There is no discussion of compliance with requirements set by Department of Housing's Managing Urban Stormwater. b) Activities that cause erosion are identified in Section 5. c) The locations of structures are outlined but not described in detail. d) Measure to minimise soil erosion are covered in Section 5. This item has no defined recommendation.	CVM submitted an entire suite of new management plans to DPIE (and other agencies) for agency stakeholder consultation in February 2022 including an Erosion and Sediment Control Plan which includes reference to the Blue Book (Landcom), 2004 in Sections 2.4 and 2.5, Structures in Section 2.4 and measures to minimise soils erosion in Sections 2.4 and 2.6. CVM will work with agencies to finalise approval of these plans toward the restart of mining remnant coal resources at CVM in early 2022.	30-Jun-22	Open	

Sch 4 Cond 59	The Applicant shall not cause, permit or allow any waste generated outside the mine to be received at the mine for storage, treatment, processing, reprocessing or disposal, or any waste generated at the mine to be disposed of at the mine, except as expressly permitted by a DEC licence. Note: This condition only applies to the storage, treatment, processing, reprocessing, or disposal of waste that requires a licence under the Protection of the Environment Operations Act 1997.	Specific environmental conditions	Administrative	VENM/ENM dirt have been received at CVM in 2018 and 2019 to help with rehabilitation works. DPE requires an approval and modification of current development consent.	CVM accepts the recommendation. A small quantity spoil from a major infrastructure project in the Sydney Metropolitan Region was imported to assist with rehabilitation works. The spoil was characterised as VENM or ENM in accordance with the NSW EPA Waste Guidelines. The import of all materials from offsite was stopped following correspondence / consultation with DPIE and the Resources Regulator. Should the import of VENM or ENM materials be considered in future, CVM will seek the appropriate approvals / modification in consultation with DPIE and other regulatory agencies.	NA	Completed		
Sch 6 Cond 8	The Applicant shall ensure that there is a Community Consultative Committee to oversee the environmental performance of the development. This committee shall: (a) be comprised of: • 2 representatives from the Applicant, including the person responsible for environmental management at the mine; • 1 representative from Council; and • 4 representatives from the local community, whose appointment has been approved by the Director-General in consultation with the Council; (b) be chaired by an independent person whose appointment has been endorsed by the Director-General; (c) meet at least twice a year; and (d) review and provide advice on the environmental performance of the development, including any environmental management plans, monitoring results, audit reports, or complaints.	Environmental Management, Monitoring, Auditing & Reporting	Administrative	Only one CCC meeting were held per year in 2019 and 2020. DPIE noted this is a technical non-compliance. During 2018 CCC, it was agreed that one CCC meeting held annually while on care and maintenance Table 1.3. Intent to start biannual once mine operations commence. This item has no defined recommendation.	It is anticipated that Cullen Valley Mine will be move from care and maintenance to operational status in early 2022. As such, it is the intent to restart the twice yearly CCC meetings covering both CVM and INV. This matter will be raised with the CCC members at the next meeting on the 15 March 2022.	15-Mar-22	Open		
Environment Protection Licence EPL 10341 Recommendations									
L4.4	For the purpose of condition L4.3: a) Data recorded by the meteorological station as EPA Licence Point 5 must be used to determine meteorological conditions; and b) Temperature inversion conditions (stability category) are to be determined by the sigma-theta method referred to in Part E4 of Appendix E to the NSW Industrial Noise Policy.	Limit Conditions	Administrative	Meteorological data was sourced from the Bureau of Meteorology's Bathurst weather station in 2016 and 2017. This station is located 45km away and unlikely to be representative of onsite weather conditions. However, a new monitoring system was installed on site in 2018 and carries out the requirements of this condition.	As described, a new met station was installed at the CVM site in 2018. Monitoring data from that site now informs the CVM Met requirements.	NA	Complete		
L6.1	No condition of this licence identifies a potentially offensive odour for the purposes of section 129 of the Protection of the Environment Operations Act 1997. Note: Section 129 of the Protection of the Environment Operations Act 1997, provides that the licensee must not cause or permit the emission of any offensive odour from the premises but provides a defence if the emission is identified in the relevant environment protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.	Limit Conditions	Low	Complaints regarding odours has been made every year of the auditing period.	CVM accepts the recommendation. During the audit period, CVM addressed the complaints in consultation with the complainants, whilst undertaking physical inspections and remediation activities on areas found to be the source of odours which are associated with sub-surface heatings on the CVM site. Following issue of a 240 Notice by the Resources Regulator regarding heatings (the cause of the odours), CVM responded with an updated MOP and Plan of Works which was approved. CVM has since (Feb 2022) consulted closely with the Resources Regulator to add further measures to address the heating issues at CVM, including trial irrigation and compaction methods to help extinguish / manage heatings, and continued treatment as per the approved methods in addition to further capping / sealing of heating areas with overbruden / rehabilitation materials as remnant mining occurs at CVM.	Ongoing	Open	This item also relates to Sch 4 Cond 27 above.	
Generic Recommendations Section 8 Audit Report									

8.1	Update all mgt plans	CARAS recommend that after a prolonged period of care and maintenance, all management plans should be reviewed and updated prior to recommencement of active mining.	CVM accepts this recommendation. CVM submitted an entire suite of new management plans to DPIE (and other agencies) for agency stakeholder consultation in February 2022. CVM will work with agencies to finalise approval of these plans toward the restart of mining remnant coal resources at CVM in early 2022.	30/06/2022	Open	
8.2	Sub-Surface Heating Response Management Plan	The Sub-Surface Heating Response Management Plan should be included in the updated management plans for the operation of CVM. This will address the concerns in regard to nuisance odour from the Site. Our recommendation is that this plan will be implemented as part of the mine recommencement works	CVM are presently in the process of preparing the new Rehabilitation Management Plans which replace the MOP from 2 July 2022. The RMP will address the sub-surface heating at CVM. CVM has since (Feb 2022) consulted closely with the Resources Regulator to add further measures to address the heating issues at CVM, including trial irrigation and compaction methods to help extinguish / manage heatings, and continued treatment as per the approved methods in addition to further capping / sealing of heating areas with overbruden / rehabilitation materials as remnant mining occurs at CVM. These items will also be captured in the RMP.	2/07/2022	Open	
8.3	Administrative Non-compliance	The Auditor identified nine (9) administrative non-compliance events, where CVM failed to comply with the consent conditions for the reasons as discussed in Section 7 of this report. Our recommendation is that CVM should engage a dedicated Environmental Manager ('EM'), prior to recommencing of extractive mining operations to ensure the implementation of all practicable measures to prevent and/or minimise any harm that may result from the construction, operation, or rehabilitation of the development3	CVM accepts this recommendation. CVM has directly employed a full time environmental manager onsite to manage these items toward establishing and maintaining compliance.	28/02/2022	Closed	
8.4	Compensatory Habitat	Development Consent DA 200-5-2003 Non-compliance Recommendations	Issue addressed in recommendations and response in Development Consent DA 200-5-2003 Non-compliance Recommendations section above.	NA	NA	
8.5	Site Boundaries and Aboriginal Sites	The identification of the boundaries to Compensatory Habitat Areas and the locations of the Aboriginal Archaeology Sites (referenced in DA: Condition 55 and 56) may have become enveloped in regrowth during the care and maintenance period. Our recommendation is that marking, and signage should be installed to clearly identify these nominated locations.	CVM accepts this recommendation. CVM will investigate existing signage and replace and / or refurbish as required.	30/06/2022	Open	