



Clarence Colliery

Response to Independent Environmental Audit Recommendations

October 2023



Clarence Colliery Response to the Independent Environmental Audit Recommendations October 2023

Table 1 shows the Clarence Colliery response to the auditor's Recommendations as listed within Table 11 of the 2023 Independent Environmental Audit (IEA) Report relating to Non-Compliance Recommendations.

Table 1: Non-Compliance Recommendations

Schedule and Condition Number	Condition	Details	IEA- Recommendations	Clarence Colliery Response/ Action Plan	Timeframe for Completion of Action									
Schedule 3 Condition 4	Except as may be expressly provided by an Environment Protection Licence, the Applicant must ensure that the discharges from any licensed discharge points comply with the limits in Table 2: <i>Table 2: Water Discharge Pollution Limits</i> <table><tr><th>Pollutant</th><th>Units of Measure</th><th>100 percentile concentration limit</th></tr><tr><td>pH</td><td>pH</td><td>6.5 ≤ pH ≤ 9.0</td></tr><tr><td>Non-filterable residue</td><td>mg/litre</td><td>NFR ≤ 120</td></tr></table>	Pollutant	Units of Measure	100 percentile concentration limit	pH	pH	6.5 ≤ pH ≤ 9.0	Non-filterable residue	mg/litre	NFR ≤ 120	IEMA interprets any other pollutants as those listed with criteria within Condition L2.4 of the EPL. Therefore, the site has been non - compliant for criteria exceedances. It is noted Centennial has called themselves non - compliant in the Annual Review for Schedule 3 condition 9 (Surface Water Monitoring Program). IEMA believes the site is compliant for that condition, but non - compliant for this condition (Schedule 3 Condition 4) due to criteria exceedances. See Appendix E and Section 4.4 for full details of the non – compliance. In summary there were the following NC's at LDP002: - October 2020 and December 2020. 1 x NC with limited details provided. 2021 – 7 x NC's relating to cobalt, zinc and nickel; 2022 – 6 x NC's relating to zinc, cobalt, nickel, TSS, nitrogen and phosphorus 2023 (until 26 October 2020) – 5 x NC's relating to nitrogen, phosphorus, zinc, cobalt.	NC REC 01: Once the Water treatment infrastructure is upgraded, testing and functional; then the Water MP should be updated. NC REC 02: The discharge incidents should outline details about rainfall in the period prior to the exceedance and discuss whether that may have contributed to an exceedance.	NC REC 01 Action: Clarence Colliery will update the WMP once the new infrastructure is tested and functional. NC REC 02 Action: Clarence Colliery will include details about rainfall in reporting of exceedances.	NC REC 01: Within 3 months of completion of infrastructure upgrade NC REC 02: Ongoing
Pollutant	Units of Measure	100 percentile concentration limit												
pH	pH	6.5 ≤ pH ≤ 9.0												
Non-filterable residue	mg/litre	NFR ≤ 120												
Schedule 3 Condition 5	The Applicant must ensure that the development does not result in any: (a) significant inflows to mine workings;	There is no information in the Annual Review or other documentation regarding surface flows and groundwater baseflow to waterbodies. Without evidence of assessment, we have not been able to	NC REC 03: The Annual Groundwater Assessment should discuss how the site tracked against Schedule 3 Condition 5 of the Project	NC REC 03 Action: Clarence Colliery will include a discussion on surface flow and groundwater baseflows to	NC REC 03: To be included in the Annual Review									

	(b) reduction in pumping yield in privately-owned groundwater bores; (c) reduction in surface flows and groundwater baseflow to upland swamps (Newness Plateau Shrub Swamps) and wetlands; and (d) reduction in surface flows and groundwater baseflow to waterbodies including Marrangaroo Creek, Farmers Creek, Dargans Creek, Wolgan River, Dumbano Creek, Bungleboori Creek, and Wollangambe River (excluding reduction in flows associated with the proposed water transfer scheme), to the satisfaction of the Planning Secretary. Note: Each of these impact assessment criteria must be quantified in the respective sub-plans of the Water Management Plan (see condition 6 below), to the satisfaction of the Planning Secretary	Determine compliance against part d) of this condition. Therefore non - compliant .	Approval - Water Resources Impact Assessment Criteria. In particular there should be a discussion on surface flows and groundwater baseflows to the nominated creeks and whether mining is causing any impacts NC REC 04: The next update to the Water MP should include triggers for groundwater/ surface water baseflows, with these then reported as per the Water Management Plan commitments.	the nominated creeks and whether mining is causing any impacts in the annual groundwater assessment. NC REC 04 Action: Clarence Colliery will include triggers for groundwater/ surface water baseflows in the WMP.	NC REC 04: 24 May 2024
Schedule 3 Condition 9	The Surface Water Monitoring Program must include: (a) detailed baseline data on surface water flows (including ground water baseflows) and quality in waterbodies and wetlands above the mine; (b) surface water impact assessment criteria; (c) a program to monitor surface water flows (including ground water baseflows) and quality; and (d) a protocol for the investigation, notification, and mitigation of identified exceedances of the surface water impact assessment criteria; and (e) a program to monitor the effectiveness of the Erosion and Sediment Control Plan	As the Wollangambe River downstream location data is not reviewed monthly against SSGV's, then we called the site non - compliant .	NC REC 05: Update the Water monitoring spreadsheet to have some automatic triggers set up based on appendix J TARP. This would likely link back to baseline for water flow and SSGVs for water quality for the Wollangambe River. NC REC 06: If reviewing the triggers does not require additional response (i.e. due to mining impacts) then the rationale behind that decision should be Recorded internally i.e. in a memo or within a spreadsheet. This illustrates evidence of checking whether exceedances are caused by site activities.	NC REC 05 Action: Clarence Colliery will implement an automatic trigger on the monthly monitoring spreadsheet to identify triggers for the Wollangambe downstream. NC REC 06 Action: Clarence will implement an internal Recording of reviews of the trigger and the rationale behind decision making.	NC REC 05: 24 May 2024 NC REC 06: 24 May 2024
Schedule 3 Condition 14	Within 6 months of the date of this consent, the Applicant must prepare and subsequently implement an Air Quality Monitoring Program for the development, in consultation with EPA, and to the satisfaction of the Planning Secretary. This program must include an air monitoring protocol for evaluating compliance with the air quality criteria in this consent.	Non - compliant based on missed HVAS sampling data in August 2023 (based on error by sampling contractor). This was an issue with expired filter papers from the contractor.	NC REC 07: Annual Review needs to reflect current air quality monitoring. It incorrectly refers to the HVAS PM10 as a TEOM. NC REC 08: The next update to the AQMP needs to define what "long term" is in regard to when a TEOM will be established at site.	NC REC 07 Action: Clarence Colliery will Rectify this going forward in Annual reviews. NC REC 08 Action: Clarence Colliery will update to the AQMP to dictate in what time frame a TEOM will be established.	NC REC 07: 31 March 2024 NC REC 08: 24 May 2024

Schedule 5 Condition 2	Within 14 days of the Planning Secretary's approval for the strategy, the Applicant must: (a) send copies of the approved strategy to the relevant agencies, Council, and the CCC; and (b) ensure the approved strategy is publicly available during the development.	a) As the plan was reapproved in 2021, technically the site should have sent a copy to the relevant agencies within 14 days. No evidence able to be provided that this happened. Non-compliant.	NC REC 09 : Send a link to the EMS to the required agencies as per Schedule 4 Condition 2 (a).	NC REC 09 Action: Clarence Colliery will send link to EMS to the required agencies within 14 days.	NC REC 09: Complete
Schedule 5 Condition 4	Within 3 months of the completion of each Independent Environmental Audit, the Applicant must review, and if necessary, update, the Environmental Monitoring Program to the satisfaction of the Planning Secretary.	The previous IEA report was completed in January 2021, therefore an update to the EMP was required in April 2021. The current EMS is dated Nov 2021; therefore, this is non-compliant .	NC REC 10: Ensure that within 3 months of the submission of this IEA, the EMP is updated	NC REC 10 Action: EMP to be updated within 3 months of the submission of this IEA	NC REC 10: 24 April 2024
Schedule 5 Condition 5A	The Applicant must immediately notify the Department and any other relevant agencies immediately after it becomes aware of an incident. The notification must be in writing via the Department's Major Projects Website and identify the development (including the development application number and name) and set out the location and nature of the incident.	The consent defines an incident as "A set of circumstances that: • causes or threatens to cause material harm to the environment; and/or • breaches or exceeds the limits or performance measures/criteria in this consent" It appears that this definition may not have been updated to be consistent with the most Recent modification. <u>Non - compliant</u> as the site did not notify 'immediately' after becoming aware of breaches of consent.	NC REC 11: Liaise with DPE about changing the definition of an incident within the Consent. Rather than a modification, see if a letter can be sent that confirms the change of this definition.	NC REC 11 Action: Clarence Colliery will liaise with DPE to change the definition of an incident.	NC REC 11: 31 December 2024
Schedule 5 Condition 8	Within 3 months of commissioning the Independent Environmental Audit, the Applicant must submit a copy of the audit report to the Planning Secretary, with a response to the Recommendations contained in the audit report.	MCW was endorsed on 18/9/2020. Audit report was submitted on 11 Jan 2021. In the absence of any evidence of commissioning, IEMA has to consider the date of endorsement as the date of commissioning. therefore, non-compliant . Response to audit Recommendations was not included in the original submission. This was submitted in February 2021 (also non complaint).	NC REC 12: In future, request that IEA is required to be submitted within 12 weeks of the site inspection, rather than 3 months of commissioning an auditor (note this is more consistent with other sites).	NC REC 12 Action: Clarence Colliery will liaise with DPE to change the requirement that the IEA is submitted 3 months after commissioning to 12 weeks after the site inspection.	NC REC 12: 24 October 2026
Schedule 5 Condition 11	Within 1 month of the approval of any management plan/strategy required under this consent (or any subsequent revision of these management plans/strategies), the completion of the independent audits required under this consent, or the completion of the Annual Review, the Applicant must: (a) provide a copy of the relevant document/s to the Council, relevant agencies and the CCC; (b) ensure that a copy of the relevant documents is made publicly available at the mine; and	Non Complaint. Evidence unable to be provided to confirm that all documents were submitted to the relevant agencies within the required 1 month timeframe	NC REC 13: Send any MPs to the required agencies within 1 month of approval.	NC REC 13: Clarence will send any MPs to the required agencies within 1 month of approval.	NC REC 13: An action has been entered into the Centennial compliance database. Ongoing

	(c) put a copy of the relevant document/s on the Applicant's website, to the satisfaction of the Planning Secretary.				
Subsidence Management Plan (17)	Status Report 700W and 800 The Leaseholder must prepare and maintain a Subsidence Management Status Report which must include but not be limited to: (a) the current face position of the panel being extracted; (b) a summary of any subsidence management actions undertaken by the Leaseholder in the period subsequent to the last regular submission of the Status Report; (c) a summary of any comments, advice and feedback from consultation with stakeholders in relation to the implementation of this Approval (including the preparation, implementation and review of plans, programmes, reports or strategies required by this approval) undertaken or Received in the period subsequent to the last regular submission of the Status Report and a summary of the Leaseholder's response to the comments, advice and feedback given by the stakeholders; (d) a summary of the observed and/or reported subsidence impacts, incidents, service difficulties, community complaints, and any other relevant information reported to the Leaseholder in the period subsequent to the last regular submission of the Status Report and a summary of the Leaseholder's response to these impacts, incidents, service difficulties and complaints; (e) a summary of subsidence development based on monitoring information compared with any defined triggers and/or the predicted subsidence to facilitate early detection of potential subsidence impacts; (f) a summary of the adequacy, quality and effectiveness of the implemented management processes based on the monitoring and consultation information summarised above; and (g) a statement regarding any additional and/or outstanding management actions to be undertaken or the need for	Last subsidence report was from July 2022, therefore non-compliant with condition for 700W and 800 areas conditions to prepare a report every 4 months.	NC REC 14: Clarence to complete subsidence status reports every 4 months to meet these requirements	NC REC 14 Action: Clarence Colliery will complete a subsidence report every 4 months for 700 W and 800 areas.	NC REC 14: An action has been entered into the Centennial compliance database. Ongoing

	early responses or emergency procedures to ensure adequate management of any potential subsidence impacts due to pillar extraction. The Subsidence Management Status Report must be updated at least every 14 days to reflect any changes in the information required to be included in the Report. The Status Report must be regularly submitted to the Principal Subsidence Engineer, NSW Office of Water, EPA, and each operator of infrastructure referred to in condition 14 every four (4) months from the date of this Approval. In addition, the Status Report (as updated from time to time) must be provided, upon request, to the Mine Subsidence Board, the Director of Environmental Sustainability & Land Use, the Principal Subsidence Engineer, owners/operators of any infrastructure within the application area and any other relevant stakeholders.				
SMP (18)	End of Year Report The Leaseholder shall prepare an end of year report. This report shall be submitted to the Director Environmental Sustainability & Land Use, within the first three months of the subsequent year. The end of year report must: a) include a summary of the subsidence and environmental monitoring results for the year; b) include an analysis of these monitoring results against the relevant; • impact assessment criteria; • monitoring results from previous years; and • predictions in the SMP; c) identify any trends in the monitoring results over the life of the activity, including trends in aquifers associated with aquitards and strata above and below them; and d) describe what actions were taken to ensure adequate management of any potential subsidence impacts due to mining.	IEMA was provided the Subsidence Management End of Year reports: • 2020 (dated 31/03/2021) • 2021 (dated 28/03/2022); and • 2022 (dated 29/09/2023) As the 2023 report is dated September (i.e. not within the first 3 months of the year) this is considered a non-compliance.	NC REC 15: Clarence to complete Subsidence Management End of Year reports to meet these requirements. As the 2023 report is dated September (i.e. not within the first 3 months of the year) this is considered a non-compliance.	NC REC 15 Action: Clarence Colliery to complete end of year subsidence reports	NC REC 15: An action has been entered into the Centennial compliance database. Ongoing

Mining Act Condition 13 Part 1	The holder of a mining lease must prepare a program (a forward program) for the mining lease that includes the following— (a) a schedule of mining activities for the mining area for the next 3 years, (b) a summary of the spatial progression of rehabilitation through its various phases for the next 3 years, (c) a requirement that the rehabilitation of land and water disturbed by mining activities under the mining lease must occur as soon as reasonably practicable after the disturbance occurs.	Based on site discussions there was no Forward Program developed for the period 2 July-31 December 2022 due to the confusion over the rehabilitation reforms. The first Forward Program completed by Clarence covered the 2023 - 2025 calendar years. We have called the site non - compliant due to the Forward Program gap of 2 July-31 December 2022.	No further Recommendation required as the issue has been resolved. All reporting is now completed on a calendar year.	Recommendations noted, no further action required.	N/A
Mining Act Sch 13, Cond 2	The holder of a mining lease must prepare a report (an annual rehabilitation report) for the mining lease that includes— (a) a description of the rehabilitation undertaken over the annual reporting period, (b) a report demonstrating the progress made through the phases of rehabilitation provided for in the forward program applying to the reporting period, (c) a report demonstrating progress made towards the achievement of the following— (i) the objectives set out in the rehabilitation objectives statement, (ii) the criteria set out in the rehabilitation completion criteria statement, (iii) for large mines—the final land use as spatially depicted in the final landform and rehabilitation plan.	Centennial provided a copy of 2022 Annual Rehabilitation Report (covering the calendar year Jan-Dec 2022). This is not comparing to the previous forward program, as the first program covered 2023 - 2025 calendar years. We have called this condition non - compliant with part b) due to the Incorrect date of the Annual Rehabilitation Report part. The actual period (i.e. the Forward Program period) they are comparing to did not exist in centennial documentation.	No further recommendation required as the issue has been resolved. All reporting is now completed on a calendar year.	Recommendations noted, no further action required.	N/A
Mining Act Sch 15, Cond 1	The holder of a mining lease must do the following before the end of the initial period— (a) prepare a rehabilitation management plan, and (b) prepare rehabilitation outcome documents and give them, other than the rehabilitation completion criteria statement, to the Secretary for approval, and	End of initial period was 2 July 2022. (a) RMP Prepared and dated 29 July 2022. (b) Objectives and criteria are part of the RMP. Also includes Final Landform Plans. (c) Forward program wasn't developed for the period 2 July-31 Dec 2022. See earlier conditions regarding timings and details. Non-compliant. First Forward Program is dated 31 March 2023 and covers 2023-2025 calendar year. See Condition 13-1 for more details.	No further recommendation required as the issue has been resolved. All reporting is now completed on a calendar year.	Recommendations noted, no further action required.	N/A

	(c) prepare a forward program and give it to the Secretary				
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Table 2 shows the Clarence Colliery Response to the IEA recommendations listed within **Table 10** of the 2023 Clarence IEA Report relating to Additional Recommended Actions.

Table 2: Additional Recommended Actions

DA-504					
Subsidence Impact Assessment Criteria	Sch 3, Condition 1	IMP REC 01	Recommendation: If there are future exceedances within the SMP area but not within the SSD area these should be clearly noted in the Annual Review as currently the approval boundaries are complex between the SSD and SMP approvals. Site to note this comment, however not currently actionable.	IMP REC 01: Improvement noted, no further action required.	N/A
Extraction Plan	Sch 3, Condition 2	IMP REC 02	Recommendation: The Annual Review should include a figure showing the extraction area for that calendar year, as well as the boundaries of the Council consent, the SSD and the SMPs.	IMP REC 02: Clarence Colliery will include a figure displaying the extraction area for the calendar year, as well as the boundaries of the council consent, the SSD and the SMP's	31 March 2024
Water Management Plan	Sch 3, Condition 6	IMP REC 03	Recommendation: Include the author of each management plan update in the next revision of the WMP as well as any other management plans.	IMP REC 03: Clarence Colliery will implement this going forward for the Water Management Plan	24 May 2024
REA's	Sch 3, Condition 6B	IMP REC 04	Recommendation: The REA inspections need to have more information about the specific issue, the severity of the issue, and include recommendations on how to repair the issue. The current inspection reports lack some of these details.	IMP REC 04: Clarence Colliery will revise the REA inspections to be more specific of issues and remediation.	31 December 2024
Erosion and Sediment Control Plan	Sch 3, Condition 8	IMP REC 05 IMP REC 06 IMP REC 07 IMP REC 08	Recommendation: Construct a contour drain at Leachate Dam 1 to ensure all dirty water from this catchment is captured in the dam.	IMP REC 05: Clarence Colliery Construct a contour drain at Leachate Dam 1 to ensure all	IMP REC 05: 31 December 2024

			Recommendation: Install some coir logs at the Main Dam to reduce sediment going into the dam. Recommendation: Install sed fence along the section of road behind the stores/FCT shed. Recommendation: Re-grade access track alongside the stores/FCT shed.	dirty water from this catchment is captured in the dam. IMP REC 06: Clarence Colliery will install coir logs at the Main Dam to reduce sediment run off into the dam IMP REC 7: Clarence Colliery will install a set of sed fences behind the FCT shed IMP REC 8: Clarence Colliery will regrade access track behind the stores area	IMP REC 06: 31 December 2024 IMP REC 07: 31 December 2024 IMP REC 08: 31 December 2024
Reject Management	Sch 3, Condition 24A	IMP REC 09	Recommendation: Update Reject Management Strategy (2014) to reflect current operations.	IMP REC 09: Update Reject Management Strategy (2014) to reflect current operations.	24 May 2024
Spontaneous Combustion	Sch 3, Condition 25	IMP REC 10	Recommendation: Include spontaneous combustion as a line item in the monthly REA inspection form template.	IMP REC 10: Clarence Colliery will revise REA inspection to include	31 March 2024
Dangerous Goods	Sch 3, Condition 26	IMP REC 11 IMP REC 12 IMP REC 13	Recommendation: The Fuchs lubricant drums at the workshop require bunding. Recommendation: The drains at workshop were full and require clean out. Recommendation: The portable bunds stored out in the open need to be emptied after rainfall. Include this on the monthly inspection checklist rainfall. Include this on the monthly inspection checklist	IMP REC 11: Clarence Colliery will install additional bunding at the workshop area IMP REC 12: Clarence Colliery will clean sediment of drains in front of workshop IMP REC 13: Clarence Colliery will include the inspection of bunds stored in the open to be checked for liquid levels and be pumped out.	IMP REC 11: Completed, drums have been removed IMP REC 12: Completed REC 13: 29 February 2024

Mine Closure Strategy	Sch 3, Condition 28	IMP REC 14	Recommendation: Centennial to send a letter to DPE seeking an extension to the Mine Closure Strategy condition (Schedule 3 Condition 28).	Completed	
Heritage Management Plan	Sch 3, Condition 30	IMP REC 15	Recommendation: Site to update the Historic Heritage Management Plan to reflect current Consent Conditions.	IMP REC 15: Clarence Colliery will update the heritage management plan to reflect the current Consent Conditions	24 May 2024
Environmental Monitoring Program	Sch 5, Condition 3	IMP REC 16	Recommendation: IEMA recommends liaising with DPE to remove this condition. Letter to DPE should state where the different monitoring is covered within the different management plans.	IMP REC 16: Centennial to liaise with DPE regarding the Environmental Monitoring Program	24 April 2024
Mining Amendment 2021					
Rehabilitation Risk Assessment	Division 2, Condition 7.3	IMP REC 17	Recommendation: In the next RMP update, provide an update to the further studies/action plan from the risk assessment (Table 11 in the RMP).	IMP REC 17: In the next revision of the RMP, Clarence Colliery will provide an update to the further studies/action plan from the risk assessment (Table 11 in the RMP).	24 October 2026
Rehabilitation Management Plans for Large Mines	Division 3, Condition 10.4	IMP REC 18	Recommendation: Include water management features on the FLRP (e.g. significant final landform drainage features) or update the RMP (domains) to be consistent with the FLRP. Centennial may need to liaise with the RR.	IMP REC 18: Include water management features on the FLRP (e.g. significant final landform drainage features) or update the RMP (domains) to be consistent with the FLRP. Clarence Colliery may need to liaise with the RR.	24 October 2026

