



Cleary Bros Gerroa Sand Quarry

Conditions of Approval Independent
Environmental Audit

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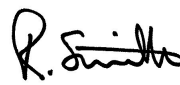
29 October 2019

Cleary Bros Gerroa Sand Quarry

Conditions of Approval Independent Environmental Audit



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EXECUTIVE SUMMARY

Environmental Resources Management Australia Pty Ltd (ERM) was commissioned to perform an Independent Environmental Audit (IEA) of the Gerroa Sand Mine located approximately 3.5 km south west of Gerroa, NSW on behalf of Cleary Bros (Bombo) Pty Ltd (herein referred to as Cleary Bros). The primary purpose of the audit was to satisfy the Department of Planning and Environment (DP&E) Ministers' Conditions of Approval (MCoA) Development Consent number 10801 of 2007 (referred to herein as "Conditions of Consent") which requires completion of an independent audit every three years from the date of the approval. The audit period assessed in this IEA is 15 December 2016 through to 3 September 2019 (the date of the site visit completed as part of the audit).

The audit included a review of:

- DP&E, Ministers Conditions of Approval number 10801 of 2007;
- Environment Protection Licence (EPL) number 4146; and
- Gerroa Sand Resource Quarry Environmental Management Plan (QEMP) 2017, developed as part of the Conditions of Consent.

In general, Cleary Bros has established management procedures required for the operation of the site in accordance with the Conditions of Consent. Staff interviewed demonstrated an understanding of the requirements and a commitment to the application of the requisite management systems and plans.

A qualitative risk assessment was also completed on the findings, consistent with AS/NZS 4360:2004 Risk management and HB 436:2004 Risk Management Guidelines Companion to AS/NZS 4360:2004 and as described in the Department of Planning & Environment publication "Independent Audit Guidelines" issued October 2015. The number of non-conformances with the statutory conditions and implementation of the management plans is summarised in Table E0-1 below.

Table E0-1 Summary of Audit Findings

Review	Non-compliance	Administrative non-compliance	Observation
Statutory Instruments	1	1	2
Implementation of Plans	1	0	0

An action table addressing all findings of the audit has been developed by Cleary Bros and will be issued separately to this report.

1. INTRODUCTION

Environmental Resources Management Australia Pty Ltd (ERM) was commissioned to perform an Independent Environmental Audit (IEA) of the Gerroa Sand Mine. The mine is located 3.5 km south west of Gerroa, NSW on behalf of Cleary Bros (Bombo) Pty Ltd (herein referred to as Cleary Bros). The primary purpose of the audit was to satisfy the Department of Planning and Environment (DP&E) Ministers' Conditions of Approval (MCoA) Development Consent number 10801 of 2007 (referred to herein as "Conditions of Consent") which requires completion of an independent audit every three years from the date of the approval. The period audited was 15 December 2016 through to 3 September 2019 (the date of the site visit completed as part of the audit). The requirements of the audit include the following:

- The audit must be conducted by a suitably qualified, experienced and independent person(s) whose appointment has been approved by the Secretary;
- The audit must include consultation with the relevant agencies;
- The audit must assess the environmental performance of the project and assess its effects on the surrounding environment;
- The audit must assess whether the project is complying with the relevant standards, performance measures and statutory requirements;
- The audit must review the adequacy of any strategy/plan/program required under this approval; and, if necessary; and
- The audit must recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under this approval.

The Proponent shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report. An Independent Audit Certification Form is presented in *Appendix C*.

1.1 Overview of operations and approvals

The Site is a sand mine which utilises dredging, pumping and sorting equipment and earthmoving equipment to move finished product. Since October 2014 the Site has utilised Davidson Dredging (Pty Ltd) to undertake the dredging, pumping and sorting activities. These products are transported from the site via Cleary Bros trucks.

Sand has been extracted from Cleary Bros sand quarry at Gerroa for approximately 50 years. The workings have been authorised by a number of Development Approvals. Extraction had been undertaken in accordance with a development consent granted by the Land and Environment Court in 1990 followed by a further development consent granted by the Minister for Infrastructure and Planning in 2003. These consents have since been surrendered as a condition of the current project approval. On 2 September 2008 the Land and Environment Court granted Project Approval to Cleary Bros (Bombo) Pty Ltd for "Extension and Continuation of Gerroa Sand Quarry".

The site holds an EPL, number 4146 for the fee-based activity of 'Water-based extractive activity' of a scale >50,000 m³ – 100,000 m³.

Ancillary activities include:

- Groundwater monitoring wells;
- Surface water monitoring points;
- A meteorological monitoring station;
- Dust deposition monitoring points;
- Storm water control and collection infrastructure;

- Dust suppression via a water tanker truck;
- Various pumps for discharge of storm water;
- Vehicle and plant maintenance; and
- Analysis of acid sulphate soils.

1.2 Description of primary processes undertaken during the audit period

The site has been undertaking the following activities throughout the audit period:

- Sand dredging – material was extracted from the base and leading edge of the dredge pond using a floating suction dredge with the resulting slurry piped to the shore;
- Product screening – the dredged material was passed through various screens in the wet sorter and cyclone, as required. The wet sorter separates sand from stone and finer particles. Heavier materials may be further screened to grade into saleable size ranges to meet market requirements. Fine particles return directly to the dredge pond with the wash water and other processing returns are moved to the dredge pond using machinery;
- Load-out – a rubber-tyre loader was used to load products to transportation vehicles. All vehicles accessing and leaving the site utilise the sealed access road and report to the site office. Loaded vehicles must have covered loads and be cleaned of material which may fall on the road;
- Rehabilitation – dredge pond foreshores were shaped and rehabilitated progressively as extraction was completed in sections of the pond. Planting of native species and maintenance of existing rehabilitation areas was also undertaken;
- Environmental monitoring – various monitoring programs were undertaken including boundary fence, meteorological, noise, air quality (dust), surface water, groundwater, acid sulfate soils, rehabilitation and vegetation monitoring;
- Aboriginal cultural heritage – salvage works were undertaken in 2016 to excavate and relocate artefacts from six salvage areas across the dredge pond footprint; and
- Waste management – excluding processing returns, the site generated minor quantities of waste such as used drums and general waste.

1.3 Audit objectives

The primary objectives of the audit were as follows:

- Satisfy Condition of Consent (Schedule 5, Condition No. 5) which requires an independent audit of the environmental performance of the development every 3 years;
- Assess the various aspects of the environmental performance of Cleary Bros Gerroa Sand mine and its effects on the surrounding environment;
- Verify compliance with the relevant condition, standards, performance measures and statutory requirements;
- Review the adequacy of site management plans and procedures against the conditions of EPL 4146 and Conditions of Consent; and
- Recommend measures or actions to improve the environmental performance of the sand mine to meet the Conditions of Consent or EPL conditions.

1.4 Audit scope

The audit applies to the sand mine and any other infrastructure specifically referenced in the Conditions of Consent. The EPL applies to the entire site, as such, the review of compliance with the EPL has addressed those areas covered by the Conditions of Consent.

ERM assessed the environmental compliance status for the following subject areas contained within the Development Consent:

Obligation to Minimise Harm to the Environment; Terms of Approval; Limits on Approval; Surrender of Consents; Operation of Plant & Equipment; Section 94 Contributions; General Extraction and Processing Provisions; Noise; Air Quality;	Meteorological Monitoring; Surface and Groundwater; Landscape Management Aboriginal Heritage; Traffic and Transport; Visual; Waste Management; Emergency and Hazards Management; Production Data; Notification of Landowners;	Independent Review; Environmental Management Plan; Environmental Monitoring Programs; Incident Reporting; Annual Reporting; Independent Environmental Audit; Community Consultative Committee conditions; and Access to Information.
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For each Condition of Consent and EPL requirement audited, ERM undertook the following:

- Evaluated relevant data and reports to substantiate whether the condition has been met;
- Identified any data gaps, inconsistencies, errors, uncertainties and non-compliances;
- Assessed the reliability and quality of information provided;
- Conducted interviews with selected Cleary Bros employees;
- Assessed environmental management performance; and
- Completed a summary of findings and recommendations.

Issues relating to health and safety were outside the scope of the audit, except where they are directly related to environmental issues.

Where management plans had not been produced, environmental operations were reviewed in a general manner during a site inspection. The site visit concentrated on assessment of the effectiveness of environmental management and adequacy of performance.

Where actions had been previously assessed by a statutory authority, ERM relied on the findings of the authority and did not reassess the relevant sections of the condition (e.g. if a CoC required approval of a management plan by a statutory authority, ERM relied on the approval letter from the statutory authority that the plan was prepared in accordance with the detailed requirements of the CoC).

The review of environmental monitoring data was generally limited to data collected between July 2016 and July 2019 (the most recent data available at the time of the site audit). The audit covers the period 15 December 2016 to 3 September 2019 and is limited to assessing the activities completed during the audit period.

1.5 Audit criteria

The audit covered the following specifications and standards, with a particular focus on activities associated with the current stages of operation. The documents relevant to this audit included:

- DP&E, MCoA for DA 10801 of 2007, issued on 25 August 2008;
- EPL 4146;

- Management Plans developed as Part of the MCoA including:
 - Quarry Environment Management Plan (QEMP) (Sch. 5 Cond. 1 and several other conditions encompassed) with associated sub-plans and activities, including:
 - Noise Monitoring Program;
 - Air Quality Monitoring Program;
 - Boundary monitoring;
 - Meteorological monitoring;
 - Water Management Plan, including the following;
 - Erosion and Sediment Control Plan;
 - Surface Water Monitoring Program;
 - Groundwater Monitoring Program;
 - Acid Sulfate Soils Management Plan;
 - Landscape and Rehabilitation Management Plan; and
 - Aboriginal Heritage Management Plan;
- Bushfire Management Plan (Sch. 3 Cond 42);
- monitoring results and trends;
- comparison of monitoring results against regulatory limits and MCoA limits (where applicable);
- community complaints with review completed for any trends and identifying the source of an established trend;
- confirmation of any additional monitoring required for identified trends;
- regulatory actions including any letters, penalty notices and prosecutions; and
- review of previous audit report to verify closeout of actions.

1.6 Limitations of this report

This disclaimer, together with any limitations specified in the report, apply to this report and its use.

This report was prepared in accordance with the contracted scope of services for the specific purpose stated and subject to the applicable cost, time and other constraints. In preparing this report, ERM relied on:

- client/third party information which was not verified by ERM except to the extent required by the scope of services, and ERM does not accept responsibility for omissions or inaccuracies in the client/third party information; and
- information taken at or under the particular times and conditions specified, and ERM does not accept responsibility for any subsequent changes.

This report has been prepared solely for use by, and is confidential to, the client and ERM accepts no responsibility for its use by other persons. This report is subject to copyright protection and the copyright owner reserves its rights. This report does not constitute legal or financial advice.

2. AUDIT METHODOLOGY AND PROCESS

The independent audit was conducted against each Condition of Consent (CoC) and the EPL. The independent audit process included:

- off-site planning for the site audit including logistics, audit personnel and health and safety planning;
- collection of relevant background documentation such as the previous independent environmental audit, the EPL, the MCoA and the updated QEMP;
- an opening meeting conducted on 3 September 2019 with Robert Smith (lead auditor, ERM), Dean Kerr (assistant auditor, ERM) and Mark Hammond (Quality and Environment Manager, Cleary Bros);
- collecting audit evidence through information gathering, observations and interviews;
- site inspections;
- evaluating audit documentation;
- a closing meeting conducted on 3 September 2019 with Robert Smith, Dean Kerr, Mark Hammond and Ashley Mathie (Site Manager, Cleary Bros);
- compiling this audit report;
- review of further supporting information; and
- liaison with regulatory authorities.

2.1 Agency and community consultation

ERM contacted the following regulatory bodies as part of this assessment to discuss the performance of the Site and was provided with the feedback identified in Table 2-1 below.

Table 2-1 Summary of Agency and Community Consultation Feedback

Agency	Feedback
Environmental Protection Authority	No response
Shoalhaven City Council	The \$0.30/tonne royalty payment had not been received for 2018 and 2019. A copy of the Annual Report had not been provided since 2017. Council requested improved communication between the mine operators and Council.
Kiama Municipal Council	No response
Department of Planning and Environment	No specific concerns. Requested ERM closely examine surface water and groundwater.
Department of Primary Industry	No response

In relation to the feedback provided by Shoalhaven City Council, CB provided evidence of the royalty payments which were sent on 13 June 2019 and 25 June 2019 for the 2018 and 2019 periods respectively. Email records were observed which show the annual reports were sent to the council's designated email address each year. Shoalhaven Council reportedly withdrew from involvement in the CCC approximately 5 years ago, stating their involvement wasn't warranted. CB management reported that Shoalhaven Council would be welcome to re-join the CCC at any time.

2.2 Classification of audit findings

Findings resulting from an assessment of audit evidence were divided into six categories as follows:

- **Compliant (C):** the intent and all elements of the audit criteria requirements have been complied with within the scope of the audit.
- **Not Verified (NV):** insufficient verifiable evidence to demonstrate that the intent and all elements of the audit criteria have been complied with within the scope of the audit.
- **Non-compliant (NC):** Failure to meet the audit requirements, failure to achieve the field performance outcomes identified in documentation, or ineffective environmental management of the activity.
- **Administrative Non-compliance (ANC):** technical non-conformance with audit requirements that would not impact on performance and is considered minor in nature. This would not apply to performance-related aspects (e.g. exceedance of a noise limit) or where a requirement had not been met at all (e.g. noise management plan not prepared and submitted for approval). ANC is only to be applied where the non-compliance does not result in any risk of environmental harm (e.g. submitting a report to government later than required under approval conditions, failed monitor or late monitoring session).
- **Observation (O):** Observations are recorded where the audit identified issues of concern which do not strictly relate to the scope of the audit or assessment of compliance.
- **Not Triggered (NT):** A regulatory approval requirement has an activation or timing trigger that had not been met at the time of the audit inspection, and therefore a determination of compliance could not be made.
- **Note:** A statement or fact, where no assessment of compliance is required.

A qualitative risk assessment was also completed on the findings, consistent with AS/NZS 4360:2004 Risk management and HB 436:2004 Risk Management Guidelines Companion to AS/NZS 4360:2004 and as described in the DP&E publication "Independent Audit Guidelines" issued October 2015.

The overall level of risk was estimated by combining the likelihood of harm occurring with the estimated level of harm associated with each finding. Risk levels were assigned as follows:

- **High** – Non-compliance with:
 - potential for significant environmental consequences, regardless of the likelihood of occurrence;
- **Medium** – Non-compliance with:
 - potential for serious environmental consequences, but is unlikely to occur; or
 - potential for moderate environmental consequences, but is likely to occur;
- **Low** – Non-compliance with:
 - potential for moderate environmental consequences, but is unlikely to occur; or
 - potential for low environmental consequences, but is likely to occur.

3. AUDIT FINDINGS

3.1 Previous audit follow up

Condition 5 of Schedule 5 of the Approval states:

'Within 12 months of the date of the commencement of the project and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project.'

ERM undertook the previous audit in 2016. The findings of the 2016 report were reviewed and considered during the development of this report. A summary of the 2016 findings with a summary of corrective actions is presented below in Table 3-1.

Table 3-1 Summary of 2016 Audit Findings

Item No	Assessment Requirement	Comments	2016 Audit Classification	Response/Action	2019 Status
SCHEDULE 2 - ADMINISTRATIVE CONDITIONS					
Obligation to Minimise Harm to the Environment					
1	The Proponent shall implement all practicable measures to prevent or minimise any harm to the environment that may result from the construction, operation and rehabilitation of the development.	<p>Based on the site visit, discussions with CB personnel and a review of relevant documentation, no evidence of poor practices that are likely to lead to material environmental harm were observed.</p> <p>A minor leak of diesel fuel was observed adjacent to the diesel above ground storage tank which fuelled the dredged material sorting plant. Staining from the leak extended over <1m² and appeared to relate to disconnecting the hose from the tank to the plant (rather than an ongoing leak). It is noted that this represents a contractor management issue (i.e. CB did not cause the leak). The contractor fuel tank is not banded, but is not required to be under law or the conditions of this consent.</p> <p>ERM notes that the minor spill is not likely to be causing material environmental harm. However, best practice would dictate that the spills should be cleaned up.</p>	O	<p>Excavate contaminated soil and dispose of as per POEO Act and Regulations.</p> <p>Review current practices and infrastructure arrangements to reduce likelihood of future spills.</p> <p>Actions completed by 31/01/2017.</p>	Fuel ASTs have been placed in secondary containment boxes.
SCHEDULE 3 - ENVIRONMENTAL PERFORMANCE					
Landscape Management					
16	<p>Within 3 months of the date of this approval, the Proponent shall:</p> <p>(a) enter into a Planning Agreement with the Minister under section 93F of the EP&A Act. This Agreement must be generally consistent with commitments in the terms of the offer made by the Proponent to the Minister on 1 May 2007, and must specifically provide for the:</p> <p>i) implementation of the Compensatory Planting shown in the plan in Appendix 3;</p> <p>ii) protection of the vegetation in the area shown in Appendix 4 (Conservation Area);</p> <p>iii) identification by survey plan of the Conservation Area shown in the plan titled Vegetation Conservation Area (shown conceptually in Appendix 4);</p> <p>iv) implementation of the Landscape and Rehabilitation Management Plan for the site; and</p> <p>v) insurance of the Conservation Area against the impact of fire or vandalism;</p> <p>register the Planning Agreement on the title of the land in accordance with the Real Property Act 1900.</p>	The Planning Agreement is yet to be finalised; the Company is pursuing this with the Department. CB submitted a copy of the signed Planning Agreement to DoPI on 18 November 2013. CB Are awaiting execution by the Minister before registering the agreement. The Planning Agreement is yet to be finalised; the Company is pursuing this with the Department.	N/A	<p>Follow up discussions with DP&E to attempt to obtain signed Planning Agreement and register on the title of the land.</p> <p>Follow up correspondence undertaken, the Department is yet to sign the agreement.</p>	N/A
Traffic And Transport					
31	The Proponent shall ensure that all truck movements travelling to or originating from areas:	<p>Drivers are inducted when they first visit the site by the Site Manager. The induction materials had recently been updated and did not include details of the correct and legal routes to take for drivers.</p> <p>Instructions are posted in the site office, where trucks are required to sign in, which outline the correct routes for trucks to take.</p>	NC	<p>Updated site induction to include approved truck routes.</p> <p>Action completed by 31/01/2017.</p>	<p>No non-compliances identified.</p> <p>Driver induction material has been amended to include correct and legal routes.</p>

32	The Proponent shall ensure that no trucks associated with the project use Gerroa Road, except where the destination lies along or adjacent to that road.	Drivers are inducted when they first visit the site by the Site Manager. The induction materials had recently been updated and did not include details of the correct and legal routes to take for drivers. Instructions are posted in the gatehouse, where trucks are required to sign in, which outline the correct routes for trucks to take.	NC	Updated site induction to include approved truck routes. Action completed by 31/01/2017.	No non-compliances identified. Driver induction material has been amended to include correct and legal routes.
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Schedule 5 - Environmental management, monitoring, reporting and auditing

Environmental Management Plan

1	The Proponent shall prepare and implement an Environmental Management Plan for the project to the satisfaction of the Director-General. This plan must: (a) be submitted to the Director-General within 6 months of the date of this approval; (b) be prepared in consultation with the Relevant Agencies; (c) provide the strategic context for environmental management of the project; (d) identify the statutory requirements that apply to the project; (e) describe in general how the environmental performance of the project would be monitored and managed; (f) describe the procedures that would be implemented to: i) keep the local community and Relevant Agencies informed about the construction, operation and environmental performance of the project; ii) receive, handle, respond to, and record complaints; iii) resolve any disputes that may arise during the life of the project; iv) respond to any noncompliance; v) manage cumulative impacts; and vi) respond to emergencies; and (g) describe the role, responsibility, authority, and accountability of the key personnel involved in the environmental management of the project.	ERM sighted correspondence from the Department of Planning to Cleary Bros dated 29 May 2009 Re: Gerroa Sand Quarry – Environmental Management Plan, approving the QEMP dated 21 May 2009 (indicating that the QEMP has been developed to the satisfaction of the Director-General as required by the Conditions of Consent). ERM also sighted correspondence from Perram & Partners to the Department of Planning, submitting the QEMP dated 5 February 2009 within 6 months of the date of the approval. ERM observed that the number in QEMP 24hr complaints line does not match number on website. CB informed ERM that the website was currently being redesigned, which will include the realignment of relevant contact numbers. A review of the relevant parts of the QEMP indicates that the remaining requirements of Schedule 5, Condition 1 have been complied with.	ANC	Updated website, signage and QEMP with Cleary Bros switchboard number to ensure call is appropriately directed. Action completed by 28/02/2017.	No non-compliances identified. The complaints hotline number and the contact details on the gate and on the CB website are now consistent.
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Annual Reporting

7	Within 3 months of submitting a copy of the audit report to the Director-General, the Proponent shall review and if necessary revise: a) each of the Environmental management and monitoring strategies/plans/programs in Schedules 3 and 5; and b) the sum of the Landscape and Rehabilitation Bond (see Schedule 3). This review must consider: • the effects of inflation; • any changes to the total area of disturbance; and • the performance of the rehabilitation against the completion criteria of the Landscape and Rehabilitation Management Plan, to the satisfaction of the Director-General	ERM reviewed evidence of a review of audit findings by CB, carried out in January 2014. The review stated: A review of the audit findings and conclusions did not find any necessary changes to the environmental management and monitoring strategies / plans/ programs. As an improvement, Quarry Manager to be issued with a copy of the Environmental Inspection checklist to formalise the monthly enviro inspections. CB provided the basis of the bond calculations. This appeared to be in compliance with the requirements of the development consent. However, it is noted that correspondence from the DP&E stated the following regarding the bond: "For Gerroa, although the calculation accounts for the entire disturbance area, inflation has not been accounted for since this time. We request that at the time of the Albion Park bond recalculation in Oct 2017; that a review of the Gerroa bond is also undertaken to account for the effects of inflation."	NC	Reviewed Gerroa bond calculation in October 2017 as per DP&E request.	Bond calculation information reviewed indicates consideration of inflation was undertaken.
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3.2 Compliance with Conditions of Consent

The Conditions Consent granted to Cleary Bros by the DoPI were reviewed as part of the audit. There were no High or Medium non-compliances with the site's EPL or Conditions of Consent identified during the audit.

3.3 Compliance with Environment Protection Licence

The Conditions of Consent did not specifically reference any compliance requirements relating to the EPL; however the EPL conditions were reviewed as part of this assessment and no non-compliances were identified. A table summarising compliance with the EPL is available in Appendix A.

3.4 Complaints summary

Complaints are reported in the Annual Environmental Management Reports (AEMRs) available online. No complaints were received during the auditing period.

3.5 Incident summary

Interview with the environmental officer and understanding of activities that have taken place on-site during the audit period identified that no incidents have occurred during the audit period.

3.6 Compliance with regulatory instruments

A compliance check of the MCoA, EPL and the QEMP has been completed and is provided in *Appendix A*. Non-compliances and observations for each component are summarised in Table 3.3. The findings relate to production limit exceedances, management of waste and monitoring plans as well as a number of observations and administrative issues.

As discussed in *Section 2.2*, a qualitative risk assessment was also completed on the findings as follows:

- non-compliance assessed as 'high' have been colour coded red;
- non-compliance assessed as 'moderate' have been colour coded orange;
- non-compliance assessed as 'low' have been colour coded yellow; and
- administrative non-compliance have been colour coded blue.

Table 3.3 Summary of 2019 Audit Findings

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
<i>Minister's Conditions of Approval DA 8-1-2005</i>				
1	The Proponent shall implement all practicable measures to prevent or minimise any harm to the environment that may result from the construction, operation and rehabilitation of the development.	Site management advised ERM that waste drums are being squashed with a front-end loader and recycled with scrap metal. Crushing used drums which have not been triple rinsed may result in minor quantities of waste oil products being released to ground.	O	The practice of crushing drums on un-sealed ground should be ceased.
6	The Proponent shall not transport more than 80,000 tonnes of products from the site in a year. <i>Note: This condition applies to the combined production of quarry products from the existing quarry and the quarry extension, and does not include the ancillary extractive material that would be imported onto the site and dispatched with the quarry's products</i>	Total site production is reported to the Department of Resources and Geoscience. The annual production volumes records presented by management are summarised below: <ul style="list-style-type: none"> ■ FY2017 – 80,020 t ■ FY 2018 – 49,128 t ■ FY 2019 – 55,790 t The exceedance for the FY2017 period was reported to the Department and a caution was issued in relation to this matter. ERM understands that the weight of product transported from the site is measured using calibrated scales on the site's loader. This weight is recorded on written consignment documentation and the weights are confirmed at the weigh bridges of the onwards CB distribution locations e.g. Albion Park.	NC	ERM reviewed the letter from CB to the Department in relation to the production exceedance which outlined plans for the Environmental Officer to undertake monthly cumulative production quantity monitoring.
8	Operation of Plant and Equipment The Proponent shall ensure that all plant and equipment used at the site is: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient condition.	During the site visit, ERM observed a drum suspended above a pump which appeared to be in use for oil storage. The drum appeared to be corroded, which suggests there is an increased likelihood of failure.	O	ERM recommends that this drum be replaced.
11	The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Director-General. This plan must: (a) be submitted to the Director-General within 3 months of the date of this approval; (b) be prepared in consultation with the DWE and DECC; (c) include a: Erosion and Sediment Control Plan; Surface Water Monitoring Plan; Ground Water Monitoring Plan; Acid Sulphate Soils Management Plan and; (d) include a strategy for the placement of high hydraulic conductivity material progressively during the works.	In relation to part (d), the process is discussed in the OEMP in Section 6.5. This section details plans to conduct hydraulic conductivity testing in 20 m intervals. ERM understands that CB are not currently undertaking any hydraulic conductivity testing required by Section 6.5 of the QEMP. Site management advised ERM that the original objective of this design feature was to prevent low hydraulic conductivity material from being imported and placed on site, altering the conditions which were present prior to dredging. The site is currently only emplacing processing returns from the wash-plant screening process which has a high hydraulic conductivity. Given that no imported material is being emplaced at the site and the hydraulic conductivity would be expected to be similar to the surrounding material, this non-conformance is considered minor in nature.	NC	ERM recommends CB review the QEMP and revise the plan in consultation with the Department to allow emplacement of processing returns without hydraulic conductivity testing.

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action
16	<p>Within 3 months of the date of this approval, the Proponent shall:</p> <ul style="list-style-type: none"> (a) Enter into a Planning Agreement with the Minister under section 93F of the EP&A Act. This Agreement must be generally consistent with commitments in the terms of the offer made by the Proponent to the Minister on 1 May 2007 and must specifically provide for the: <ul style="list-style-type: none"> a. Implementation of the Compensatory Planting shown in Appendix 3 [of the MCoA]; b. Protection of the vegetation in the area shown in Appendix 4 [of the MCoA] (Conservation Area) c. Identification by survey plan of the Conservation Area shown in the plan titled Vegetation Conservation Area (shown conceptually in Appendix 4 [of the MCoA]); d. Implementation of the Landscape and Rehabilitation Management Plan for the site; and e. Insurance of the Conservation Area against the impact of fire or vandalism; (b) Register the Planning Agreement on the title of the land in accordance with the Real Property Act 1900. 	<p>ERM has reviewed correspondence from CB to the Department and the proposed Planning Agreement document. Management advised that the Department have not yet responded and therefore no agreement has been formally entered into, therefore this requirement has not been formally met.</p>	ANC	<p>No action required while awaiting response from the Department.</p>

4. CONCLUSION

An audit of MCoA, EPL and QEMP has been completed for the Cleary Bros Gerroa sand quarry.

Overall, compliance was generally achieved with the audit documents that were reviewed. The number of non-compliances with the statutory conditions and implementation of the management plans is summarised in Table 4-1 below.

Table 4-1 Summary of Audit Findings

Review	Non-compliances	Administrative non-compliance	Observations
Statutory Instruments	1	1	2
Implementation of Plans	1	0	0

An action response table has been developed by Cleary Bros addressing all audit findings and will be submitted separately to this report.

**APPENDIX A CONDITIONS OF CONSENT AND ENVIRONMENT
PROTECTION LICENCE COMPLIANCE TABLES**

Appendix A – Summary of Minister’s Conditions of Approval Findings

No	Assessment Requirement	Reference/Evidence	Compliance Status	Recommendation
SCHEDULE 2 - ADMINISTRATIVE CONDITIONS				
Obligation to Minimise Harm to the Environment				
1	The Proponent shall implement all practicable measures to prevent or minimise any harm to the environment that may result from the construction, operation and rehabilitation of the development.	<p>Based on the site visit, discussions with CB personnel and a review of relevant documentation, no evidence of poor practices that are likely to lead to material environmental harm were observed.</p> <p>There are opportunities to improve housekeeping by providing bunded storage for all drums and containers on site. One drum of oil was observed not bunded, adjacent to the wash-plant. Bulk fuel storage for the dredge pumps was observed to be bunded.</p> <p>An odour of hydrocarbons was observed in sand adjacent to the bund drain point of the booster pump. One 10 L drum of corrosion inhibitor was observed beside a roadway which appeared to have been present for some time. A second drum of corrosion inhibitor was observed adjacent to the water cart fill point, also not bunded.</p> <p>Site management reported that waste oil drums are disposed of by crushing the drum and disposing with recycled steel. Crushing used drums which have not been properly rinsed may result in waste oil products spilling on to the ground.</p>	O (C)	The practice of crushing drums on un-sealed ground should be ceased.
Terms of Approval				
2	The Proponent shall carry out the development generally in accordance with the: (a) EA; (b) Statement of Commitments; and (c) conditions of this approval.	The site is being operated predominately in accordance with the EA, the Statement of Commitments and the conditions of approval.	Not Applicable	Not Applicable
3	If there is any inconsistency between the EA, Statement of Commitments and conditions of this approval, the conditions shall prevail to the extent of the inconsistency.	No inconsistencies were identified.	Not Applicable	Not Applicable
4	The Proponent shall comply with any reasonable requirement/s of the Director-General arising from the Department’s assessment of: (a) any reports, plans, programs or correspondence that are submitted in accordance with this approval; and (b) the implementation of any actions or measures contained in these reports, plans, programs or correspondence.	<p>ERM reviewed several items of correspondence between the Site and the Department related to the following:</p> <ul style="list-style-type: none"> Correspondence with the Department of Planning and Environment regarding permission to decommission MW5 due to being predominantly dry over the last five years and displaying similar results to a nearby bore, MW01(07); and An official caution from the Department for breaching Schedule 2 condition 6 of the Planning Approval MP 05_0099. CB exceeded the 80,000 t transport limit in the 1 July 2016 to 30 June 2017 reporting period by 20 t. <p>No evidence that CB has not complied with requirements of the Director-General were identified during the course of the assessment.</p>	Not Applicable	Not Applicable
Limits of Consent				
5	Extraction and processing operations may take place until 31 July 2023	A review of planned extraction activities and observations made during the site visit indicated that CB is undertaking operations from within the approved extraction area. Management reported that the economic life of the mine will likely be exhausted by 2021, which is two years prior to the planned mine closure date from the previous audit.	Not Applicable	Not Applicable
5A	Under this approval, the Proponent is required to rehabilitate the site to the satisfaction of the Director-General. Consequently this	Based on the information and correspondence reviewed, ERM understands that the rehabilitation to date has met the requirements of the Department.	Not Applicable	Not Applicable

	approval will continue to apply in all other respects other than the right to conduct extraction and processing operations until the site has been rehabilitated to a satisfactory standard unless Conditions 16 and 17 of this approval have been complied with.			
6	<p>The Proponent shall not transport more than 80,000 tonnes of products from the site in a year.</p> <p><i>Note: This condition applies to the combined production of quarry products from the existing quarry and the quarry extension, and does not include the ancillary extractive material that would be imported onto the site and dispatched with the quarry's products</i></p>	<p>Total site production is reported to the Department of Resources and Geoscience. The annual production volumes records presented by management are summarised below:</p> <ul style="list-style-type: none"> FY2017 – 80,020 t FY 2018 – 49,128 t FY 2019 – 55,790 t <p>The exceedance for the FY2017 period was reported to the Department and a caution was issued in relation to this matter.</p> <p>ERM understands that the weight of product transported from the site is measured using calibrated scales on the site's loader.</p> <p>This weight is recorded on written consignment documentation and the weights are confirmed at the weigh bridges of the onwads CB distribution locations e.g. Albion Park.</p>	NC	CB advised that the cumulative production totals will be reviewed periodically by the Environmental Manager.
Surrender of Consents				
7	<p>Within 3 months of the date of this approval, the Proponent shall surrender all existing development consents associated with the Gerroa Sand Quarry, in accordance with clause 97 of the EP&A Regulation.</p> <p><i>Note: This approval will apply to all phases and components of the quarry from the date of this approval.</i></p>	<p>The Proponent did not surrender the existing development consents within 3 months of the date of the approval.</p> <p>This was historically identified in the Independent Environmental Audit conducted by GHD, dated 2010 and ERM dated 2013, and therefore has not been raised as a new finding in this report.</p>	Not Applicable	Not Applicable
8	<p>Operation of Plant and Equipment</p> <p>The Proponent shall ensure that all plant and equipment used at the site is:</p> <p>(a) maintained in a proper and efficient condition; and</p> <p>(b) operated in a proper and efficient condition.</p>	<p>CB utilises a pre-start checklist for all CB owned and operated mechanised plant on-site to ensure it is operational prior to beginning work. ERM reviewed an example pre-start checklist. CB provided evidence of the preventative maintenance schedule for CB operated plant based on hours in operation or time in service. The equipment included the front-end loader, bulldozer and water cart No evidence that plant is not being serviced in accordance with the schedule was observed.</p> <p>CB utilises Davidson Dredging to undertake dredging and dredge material separation activities. CB provided a copy of preventative maintenance documentation for the contractor plant on-site including the dredge, the wash-plant and the booster pump.</p> <p>No evidence of poorly maintained plant was observed during the site visit.</p> <p>ERM considers that the controls and observations are generally sufficient to demonstrate compliance with this condition.</p>	O (C)	One drum suspended above a pump which appeared to be in use for oil storage appeared corroded and it is recommended that this be replaced.
Section 94 Contribution				
9	<p>The Proponent shall pay a contribution of:</p> <p>(a) 30 cents per tonne of material hauled from the site to Shoalhaven City Council; and</p> <p>(b) 20 cents per tonne of material hauled from the site to Kiama Council,</p>	<p>CB provided records of payment to Kiama and Shoalhaven City Council for the last three years.</p> <p>Records of the amounts paid to Council compared to calculations based on tonnages in annual returns to DP&E are summarised below:</p> <ul style="list-style-type: none"> Section 94 Contribution payment Shoalhaven: <ul style="list-style-type: none"> 2016 = 87,456.10 x 0.364 = \$31,834.02 (amount paid - \$31,834.02) 2017 = 40,496.07 x 0.371 = \$15,024.04 (amount paid - \$15,024.04) 2018 = 55,011.20 x 0.376 = \$20,684.21 (amount paid - \$20,684.21) Section 94 Contribution payment Kiama: 	C	Not Applicable

	For the maintenance/repair of public roads in accordance with Shoalhaven City Council's <i>Section 94 Contributions Plan 1993 – Amendment No.71 Berry</i> , to the satisfaction of the Director-General.	<ul style="list-style-type: none"> 2016 = 87,456.10 x 0.257 = \$27,476.22 (amount paid - \$22,476.22) 2017 = 40,496.07 x 0.262 = \$10,609.97 (amount paid - \$10,609.97) 2018 = 55,011.20 x 0.265 = \$14,577.97 (amount paid - \$14,577.97) <p>ERM calculated the cents per tonne paid to the Councils based on the production values. No significant variations in the payments per tonne were noted.</p>																
SCHEDULE 3 – ENVIRONMENTAL PROCEDURES																		
General Extraction and Processing Process																		
Identification of Boundaries																		
1	<p>Within 3 months of the date of this approval, or as otherwise agreed by the Director-General, the Proponent shall</p> <p>(a) engage an independent registered surveyor to survey the boundaries of the approved limit of extraction;</p> <p>(b) submit a survey plan of these boundaries to the Director-General; and</p> <p>(c) ensure that these boundaries are clearly marked at all times in a permanent manner that allows operating staff and inspecting officers to clearly identify those limits.</p>	<p>The survey plan from K.F Williams & Associates Pty Ltd Consulting Surveyors, Civil and Structural Engineers & Planners was provided, with the final revision to the plan dated 25 August 2008.</p> <p>The survey plan was not submitted within 3 months of the date of the conditions of approval. Correspondence was provided from Perram & Partners to the Department of Planning dated 5 February 2009 Re: submitting the survey plan. This finding was raised historically during the Independent Environmental Audit conducted by GHD, dated 2010, and ERM Audit in 2013, therefore has not been raised as a new finding in this report.</p> <p>In relation to (c), boundary checks are conducted quarterly to ensure the boundaries are clearly marked. ERM reviewed four example boundary monitoring records which demonstrated that the approved limit of extraction boundary markers were inspected and confirmed as intact. ERM also observed some of the boundary markers during the site walkover. No evidence of extraction outside of the approved extraction limit was observed.</p>	C	Not Applicable														
Noise																		
Impact Assessment Criteria																		
2	<p>The Proponent shall ensure that the noise generated by the project does not exceed the noise impact assessment criteria in the Table 1 below:</p> <p><i>Table 1: Noise Impact Assessment Criteria</i></p> <table border="1"> <thead> <tr> <th>Location</th> <th>L_{Aeq} (15min) dB(A)</th> </tr> </thead> <tbody> <tr> <td>670 Beach Rd</td> <td>41</td> </tr> <tr> <td>11 Bangarra St</td> <td>40</td> </tr> <tr> <td>Seven Mile Beach Holiday Park</td> <td>36</td> </tr> <tr> <td>Coralea Property</td> <td>43</td> </tr> <tr> <td>Picnic Area 1</td> <td>46</td> </tr> <tr> <td>Picnic Area 2</td> <td>43</td> </tr> </tbody> </table>	Location	L _{Aeq} (15min) dB(A)	670 Beach Rd	41	11 Bangarra St	40	Seven Mile Beach Holiday Park	36	Coralea Property	43	Picnic Area 1	46	Picnic Area 2	43	<p>The sand mine has received no complaints regarding noise in the last three years.</p> <p>Renzo Tonin & Associates undertook a noise compliance, monitoring and modelling assessment of the CB sand mine in April 2009. The report stated that "Noise impact from the site activities upon the potentially most affected noise sensitive residential and recreational receivers, is expected to comply with Conditions 2 and 4 of Schedule 3 of the Conditions of Approval". Additionally, the report stated that "No noise mitigation measures for on-site activities were deemed necessary for the proposed expansion."</p> <p>A review of the scope and methodology of the Renzo Tonin & Associates report referenced above indicates compliance with the Notes of Schedule 3, Condition 2 (i.e. the computer modelling process used is approved by the regulator, the weather conditions were within acceptable tolerances and no agreements with relevant land owners are in place).</p> <p>Based on the lack of complaints during the last three years and the conclusions of the report referenced above, ERM considers Schedule 3, Condition 2 to be complied with.</p>	C	Not Applicable
Location	L _{Aeq} (15min) dB(A)																	
670 Beach Rd	41																	
11 Bangarra St	40																	
Seven Mile Beach Holiday Park	36																	
Coralea Property	43																	
Picnic Area 1	46																	
Picnic Area 2	43																	
Hours of Operation																		

3	<p>The project shall only operate:</p> <p>(a) between 7:00am and 6:00pm Monday to Friday;</p> <p>(b) between 7:00am and 1:00pm on Saturday; and</p> <p>(c) at no time on Sundays and Public Holidays.</p>	<p>Section 6.2.3 of QEMP identifies management procedures related to hours of operation, which aligns with this condition of consent. Work instructions reviewed; signage at the gate and on a sign in 'shed' near the entrance to the sand mine also all include the same business hours in the condition of consent.</p> <p>Employees may arrive on-site between 6.00 am and 6:30 am, however, plant and equipment does not start until 7:00 am. The site sign on register reviewed confirmed that work does not start until 7:00 am.</p> <p>No evidence of work being undertaken on-site outside of permissible hours was observed during the site visit or documentation review.</p> <p>No complaints regarding vehicle movements or noise outside of operating hours have been received by the site in the last three years.</p>	C	Not Applicable								
Noise Monitoring												
4	<p>The Proponent shall prepare and implement a Noise Monitoring Program for the project to the satisfaction of the Director-General. This program must:</p> <p>(a) be submitted to the Director-General within 3 months of the date of this approval;</p> <p>(b) be prepared in consultation with the DECC; and</p> <p>(c) include details of how the noise performance of the project would be monitored, and include a noise monitoring protocol for evaluating compliance with the relevant noise limits in this approval.</p>	<p>Correspondence regarding submission of the noise monitoring program for the project was observed, dated 12 June 2009 (i.e. beyond the three month limit outlined in the condition). This finding was raised historically during the Independent Environmental Audit conducted by GHD, dated 2010, and has not been raised as a new finding in this report.</p> <p>DECC (now the EPA) has confirmed that it does not review management plans as required by (b).</p> <p>In relation to (c), the noise performance of the project is monitored as part of the QEMP; The procedure is outlined in Section 8.3.</p>	C	Not Applicable								
Air Quality												
Impact Assessment Criteria												
5	<p>The Proponent shall ensure that dust generated by the project does not cause additional exceedances of the criteria listed in Table 2 (below) at any residence on privately owned land, or on more than 25 percent of any privately owned land.</p> <p><i>Table 2: Long term impact assessment criteria for deposited dust</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Maximum increase in deposited dust level</th> <th>Maximum total deposited dust level</th> </tr> </thead> <tbody> <tr> <td>Deposited dust</td> <td>Annual</td> <td>2 g/m²/month</td> <td>4 g/m²/ month</td> </tr> </tbody> </table>	Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level	Deposited dust	Annual	2 g/m ² /month	4 g/m ² / month	<p>Three dust deposition gauges are present across the site. Dust mitigation measures included in the QEMP include:</p> <ul style="list-style-type: none"> Keep to a minimum the area of land disturbed for operational purposes at any one time. When a disturbed area is no longer to be used, revegetate it as soon as practicable. Restrict the speed of vehicles operating within the site, particularly on unsealed areas. Cover the loads of all loaded vehicles carrying materials to or from the site. Keep unsealed internal roads and loading areas moist when in use to minimise vehicle-generated dust. Regulate sand production to avoid excessive product stockpiling. Continually watch for any visible air pollution and if necessary, minimise dust generated by modifying operations, such as closing the site for loading and transport in extreme weather conditions. <p>ERM reviewed dust deposition data for the last three years. One exceedance of the criteria outlined in the condition was identified at location 1A in the 2016 – 2017 reporting period which exceeded the 4.1 g/m²/month limit with a result of 4.1 g/m²/month. The cause of the exceedance was not attributed to systemic dusty conditions generated by site activities. One very high reading of 20.1 g/m² was observed for March 2017. At this time, sand was observed in the dust monitor, indicating that the instrument had been sabotaged. With this point excluded, the average result for the 2016 – 2017 reporting period for location 1A would 2.6 g/m²/month which is below the limit. The spurious data were identified and discussed as part of the 2016 – 2017 AEMR.</p> <p>The two full time staff members who work at the quarry have been familiarised with the content of the QEMP through training, as evidence of implementation of the dust management processes.</p>	C	Not Applicable
Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level									
Deposited dust	Annual	2 g/m ² /month	4 g/m ² / month									
Operating Conditions												

6	The Proponent shall ensure any visible air pollution generate by the project is assessed regularly, and that quarrying operations are relocated, modified and/or stopped as required to minimise air quality impacts on privately owned land.	<p>Section 6.3.3 of the QEMP states “Continually watch for any visible air pollution and if necessary, minimise dust generated by modifying operations, such as closing the site for loading and transport in extreme weather conditions.”</p> <p>No complaints have been received by the site relating to visual air pollution.</p> <p>Regular workplace inspections are undertaken by Mr. Ashley Mathie, the scope of which includes water quality, sediment, dust, turbidity, noise.</p>	C	Not Applicable
Air Quality Monitoring				
7	<p>The Proponent shall prepare and implement an Air Quality Monitoring Program for the project to the satisfaction of the Director-General. This program must:</p> <p>(a) be submitted to the Director-General within 3 months of this approval;</p> <p>(b) be prepared in consultation with DECC; and</p> <p>(c) include details on how the air quality performance of the project would be monitored, and include a protocol for evaluating compliance with the relevant air quality criteria in this approval</p>	<p>The Air Quality Monitoring Program was not submitted within 3 months of the date of the conditions of approval. This finding was raised historically during the Independent Environmental Audit conducted by GHD, dated 2010, and the ERM Audit (2013), therefore this has not been raised as a new finding in this report.</p> <p>In relation to item (c), the noise performance of the project is monitored as part of the QEMP. Section 6.3 details the management procedure and Section 8.4 details the dust monitoring protocol.</p>	C	Not Applicable
Meteorological Monitoring				
8	During the project, the Proponent shall maintain a suitable meteorological station on (or in close proximity to) the site to the satisfaction of the DECC and the Director-General. This station must satisfy the requirements in the <i>Approved Methods for Sampling of Air Pollutants in New South Wales</i> publication.	<p>As part of a previous audit, ERM reviewed the correspondence from the DP&E confirming satisfaction of the department regarding movement and installation of a new weather station (dated 22 June 2016).</p> <p>ERM observed the meteorological monitoring station at the site. CB provided a summary of the data and the raw data produced by the station for review. This raw data has historically also been provided as an Annex to the Annual Environmental Monitoring Report (AEMR). The QEMP states that the station must satisfy the requirements in the <i>Approved Methods for Sampling of Air Pollutants in New South Wales</i> publication.</p>	C	Not Applicable
Surface and Groundwater				
Discharges				
9	The Proponent shall not discharge any water from the quarry or its associated operations except for the purpose of restoring normal pond level after significant rainfall. Any such damage shall be in accordance with the EPL.	Site management reported that the mine has had zero overflow events in the previous three years.	C	Not Applicable
Water Quality Objectives				
10	Unless otherwise approved by the Director-General, the Applicant shall aim to meet the water quality objectives in Table 3 for water in the dredge pond and in ground water adjacent the dredge pond.	<p>A review of monitoring records indicates that the site is undertaking monitoring at a frequency that is in accordance with the Conditions of Consent.</p> <p>Section 4.3.3 of the 2018 – 2019 AEMR describes the surface water monitoring and results. Surface water results were generally consistent with historical patterns with the exception of a turbidity, nutrients, bicarbonate and sulphate spike in 2017 followed by a drop in dissolved oxygen. These parameters stabilised in the results from the round of monitoring which followed this event.</p>	C	Not Applicable

Table 3: Water Quality Objectives

Pollutant	Unit of Measure	Water Quality Objective
Turbidity	NTU	5-20
pH	pH	6-8.5
Salinity	µS/cm	<1,500
Dissolved oxygen	mg/L saturation	>6 (>80-90%)
Total phosphorous	µg/L	<30
Total nitrogen	µg/L	<350
Chlorophyll-a	µg/L	<5
Faecal coliforms	Median No/ 100mL	<1000
Enterococci	Median No/ 100ml	<230
Algae and blue-green algae	No. cells/mL	<15,000
Sodium	mg/L	<400
Potassium ion	mg/L	<50
Magnesium ion	mg/L	<50
Chloride ion	mg/L	<300
Sulphate ion	mg/L	<250
Bicarbonate ion	mg/L	<750
Soluble Iron ion	mg/L	<5
Ammonium ion	mg/L	<20

Notes:

The objectives for dissolved oxygen, turbidity and algae are relevant to surface water only.

The Department acknowledges that short term exceedances of these objectives may occur during natural events such as heavy rainfall or tidal saline water inflow.

Groundwater monitoring results indicate that groundwater quality remained relatively stable during the current reporting period. Key observation include the continued presence of saline water in a groundwater monitoring bore (MW1). According to a Douglas Partners report titled Updated Report on Modification 1 (MP 05_0099) Environmental Assessment – Groundwater Issues, the localised distribution of the saline water in MW01 is reportedly due to the influence of the Berry Siltstone. A review of EC from this bore including results dating back to 1993 indicates significant fluctuations in EC over time. The absence of evidence of saline water in the dredge pond suggest that the saline water incursion was due to natural factors and not that of the dredging operations at Gerroa.

A number of water quality parameter exceedances were noted throughout the reporting period for analytes including pH, soluble iron, sulphate, nitrogen, phosphorous, and chlorophyll-a. These exceedances were not attributed to the activities of the mine. A review of historical pH levels within the boreholes suggests that short-term fluctuations of pH are common and most likely due to natural phenomena. Low pH was identified at three locations in 2018 – 2019. MW02(07) pH varied over the reporting period, ranging from 6.6 to 4.4, however this is consistent with the historical fluctuations at this location.

High levels of nutrients identified in groundwater are assumed to be a result of the surrounding agricultural land use. Other occasional and systematic exceedances which were noted do not appear to be attributable to the activities on site.

There were no non-compliances with conditions of the Development Consent or Environmental Protection Licence 4146 related to surface water and groundwater in the audit reporting period.

ERM notes that beyond undertaking good practices relating to housekeeping, chemical management, acid sulfate soil management etc., the Site does not have significant control of the quality of water in the dredge pond. Therefore, the Site reported that they aim to meet the water quality objectives contained in this condition of consent through implementing good management practice relating to site run-off into the pond.

In conclusion, whilst exceedances of the water quality objectives have occurred, these exceedances (with the exception of salinity in MW01) have generally been consistent with historical background levels and may therefore be considered representative of the local natural groundwater. ERM additionally notes that the information contained in Table 3 of the condition are objectives, rather than compliance limits.

Management and Monitoring

11

The Proponent shall prepare and implement a **Water Management Plan** for the project to the satisfaction of the Director-General. This plan must:

- (a) be submitted to the Director-General within 3 months of the date of this approval;
- (b) be prepared in consultation with the DWE and DECC; and
- (c) include a:

A summary of compliance with each part of Schedule 3, Condition 11 is provided below:

- (a) The Water Management Plan was not submitted within 3 months of the date of the conditions of approval. This finding was raised historically during the Independent Environmental Audit conducted by GHD, dated 2010, and ERM audit (2013) and has therefore not been raised as a new finding in this report.
- (b) The EPA has confirmed that it does not review management plans as part of development applications, therefore point (b) is not applicable.
- (c) The QEMP provides an Erosion and Sediment Control Plan in Appendix C, describes Surface Water Management in Section 6.4, Groundwater Management in Section 6.5 and Acid Sulfate Soils Management Plan in Appendix F.
- (d) The process is discussed in the OEMP in Section 6.5. This section details plans to conduct hydraulic conductivity extraction zones in 20 m intervals. The original objective of this design feature was to prevent low hydraulic

Low

The requirement for conducting hydraulic conductivity testing should be reviewed in consultation with the Department.

	<ul style="list-style-type: none"> Erosion and Sediment Control Plan; Surface Water Monitoring Plan; Ground Water Monitoring Plan; Acid Sulphate Soils Management Plan; <p>(d) include a strategy for the placement of high hydraulic conductivity material progressively during the works.</p>	<p>conductivity material from being imported and placed on site, altering the conditions which were present prior to dredging. The site is currently only emplacing processing returns from the wash-plant screening process which is high hydraulic conductivity. ERM understands that CB is not currently undertaking the hydraulic conductivity testing required by Section 6.5 of the QEMP.</p> <p>Three additional monitoring bores which were scheduled to be installed in the QEMP have been commissioned by CB.</p>		
12	<p>The Erosion and Sediment Control Plan shall:</p> <p>(a) be consistent with the requirements of <i>Managing Urban Stormwater: Soils and Construction, Volume 1, 4th Edition, 2004 (Landcom)</i>;</p> <p>(b) identify activities that could cause soil erosion and generate sediment;</p> <p>(c) describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters;</p> <p>(d) describe the location, function, and capacity of erosion and sediment control structures; and</p> <p>(e) describe what measures would be implemented to maintain (and if necessary decommission) the structures over time.</p>	<p>The Erosion and Sediment Control Plan was noted to not specifically reference the <i>Managing Urban Stormwater: Soils and Construction, Volume 1, 4th Edition, 2004 (Landcom)</i> but to be broadly in accordance with this document.</p> <p>A review of the Erosion and Sediment Control Plan indicates that conditions (b) to (e) have been complied with. The scope of the Erosion and Sediment Control Plan is considered by ERM to be appropriate based on the operations observed.</p> <p>Sediment controls observed during the site walkover included silt stop fencing in selected areas, wetting down roadways and the mining area using a water cart during dry conditions to prevent dust migrating off-site and revegetation and mulching of disturbed areas. These activities were observed to be competently undertaken during the site inspection</p>	C	Not Applicable
13	<p>The Surface Water Monitoring Program shall include:</p> <p>(a) detailed baseline data on surface water quality in the main channel in Foys Swamp;</p> <p>(b) surface water impact assessment criteria;</p> <p>(c) a program to monitor surface water quality;</p> <p>(d) a program to monitor bank and bed stability of the dredge pond;</p> <p>(e) a protocol for the investigation, notification and mitigation of identified exceedances of the surface water impact assessment criteria; and</p> <p>(f) a program to monitor the effectiveness of the Erosion and Sediment Control Plan.</p>	<p>(a) Baseline data on surface water quality located Appendix E of the QEMP;</p> <p>(b) Surface water impact assessment criteria are discussed in Section 6.4.1 of the QEMP (water quality objectives);</p> <p>(c) Surface water monitoring is described in Section 8.4 of the QEMP;</p> <p>(d) A report by Kevin Mills and Associates (3rd quarter 2013) was reviewed as part of a previous audit. Bank stability management is discussed as Section 8.5 of the QEMP;</p> <p>(e) A protocol for the investigation, notification and mitigation of identified exceedances of the surface water impact assessment criteria is discussed in Section 8.5 of the QEMP;</p> <p>(f) Quarterly erosion monitoring is undertaken at the Site. Additionally, controls are discussed in the Erosion Sediment Control Plan located at Annex C of the QEMP.</p>	C	Not Applicable
14	<p>The Ground Water Monitoring Program shall include:</p> <p>(a) a statistical analysis of baseline ground water level and water quality data;</p> <p>(b) ground water impact assessment criteria, including criteria for assessing any impacts on ground water dependent ecosystems and vegetation;</p>	<p>(a) baseline water study located within Appendix E of the QEMP;</p> <p>(b) Assessment criteria (objectives) outlines within Section 6.4.1 and Section 8.6 of the QEMP;</p> <p>(c) Outlined in Section 8.6 of the QEMP;</p> <p>(d) The Environmental Officer reviews all environmental monitoring, reports and any other documentation relating to compliance on a continuous basis. The QEMP includes Table 3.1 which outlines roles and responsibilities for the Environmental Officer. The roles and responsibilities include review requirements. Monthly review of the various data is stated in the management procedures throughout the report. Evidence of review was sighted in the Environmental Officer's email account, and by updates to various tracking spreadsheets utilised by the Environmental Officer (section 3.2 of QEMP);</p>	C	Not Applicable

<p>(c) a program to monitor:</p> <ul style="list-style-type: none"> • hydraulic conductivity upon the completion of the landscaping of each 20 metre wide extraction zone, tests shall be conducted to ensure that the hydraulic conductivity following the placement of material is similar to the conditions prevailing prior to excavation commencing; • impacts on ground water dependent ecosystems and vegetation (from at least 6 boreholes at the edge of the dredge pond); and • water levels (at no less than monthly intervals and taken on the same day) in the dredge pond, the drain at the flood gates, monitoring bores WM1, WM1A, WM2A, WM3A, WM4, WM5, 1/Aug07, 2/Aug07, 3/Aug07, 4/Aug07, 5/Aug07 and 6/Aug07 (locations shown on Drawing 6198/208bh Revision A prepared by KF Williams & Associates, 15/2/08), and any additional bores installed at the edge of the dredge pond; • the in situ strata at the perimeter of the edge of the dredge pond for its current hydraulic conductivity; and • groundwater levels under the SSF. <p>(d) monthly review of the results of ground water monitoring by the Proponent's Environmental Officer</p> <p>(e) include measures to mitigate, remediate and/or compensate any identified ground water impacts.</p>	<p>(e) This is provided in Section 8.6 of the QEMP.</p> <p>One monitoring well, MW5, has been decommissioned since the previous site audit. ERM reviewed the Department approval of the decommissioning of the monitoring well.</p>		
<p>15 The Acid Sulfate Soils Management Plan shall:</p> <p>(a) be prepared in accordance with the Acid Sulphate Soils Assessment and Management Guidelines;</p> <p>(b) describe the measures to manage acid sulfate soils;</p> <p>(c) include an acid sulfate soils sampling and monitoring program.</p>	<p>(a) Appendix F of the QEMP includes an Acid Sulfate Soils Management Plan which has been developed in accordance with the Acid Sulfate Soils Assessment and Management Guidelines.</p> <p>(b) The measures to manage acid sulfate soils are included in the management procedures throughout the QEMP (predominately in Section 6.6 and Section 8.7).</p> <p>(c) The monitoring programme is outlined in Section 8.7 of the QEMP.</p> <p>Weekly stockpile leachate testing is undertaken for acid sulfate soils. Acid sulfate soils testing requirements are included in the monthly reports prepared for the site with results reviewed to confirm compliance.</p>	C	Not Applicable
<p>16 Within 3 months of the date of this approval, the Proponent shall:</p> <p>(a) enter into a Planning Agreement with the Minister under section 93F of the EP&A Act. This Agreement must be generally consistent with commitments in the terms of the offer made by the Proponent to the Minister on 1 May 2007, and must specifically provide for the:</p> <ol style="list-style-type: none"> i. implementation of the Compensatory Planting shown in the plan in Appendix 3; ii. protection of the vegetation in the area shown in Appendix 4 (Conservation Area); iii. identification by survey plan of the Conservation Area shown in the plan titled Vegetation Conservation Area (shown conceptually in Appendix 4); 	<p>CB submitted a draft planning agreement on 1 December 2008, which was agreed by the Department in principle. A final agreement was never executed with the department, despite CB raising the issue in 2009 and 2013.</p> <p>ERM has reviewed correspondence from CB to the Department and the proposed Planning Agreement document. Management advised that the Department have not yet responded and therefore no agreement has been formally entered into, therefore this requirement has not been formally met.</p> <p>ERM reviewed a letter to the Department from November 2013 requesting the agreement be formally executed. CB advised that no response has been forthcoming from the Department in relation to this matter.</p> <p>In relation to point (a) (v) ERM has reviewed the insurance certificates for 2017, 2018 and 2019 which provides insurance against fire and malicious acts and impacts.</p>	ANC	No action required while awaiting response from the Department.

	<ul style="list-style-type: none"> iv. implementation of the Landscape and Rehabilitation Management Plan for the site; and v. insurance of the Conservation Area against the impact of fire or vandalism; <p>(b) register the Planning Agreement on the title of the land in accordance with the Real Property Act 1900.</p>			
Landscaping and Rehabilitation				
17	<p>The Proponent shall:</p> <ul style="list-style-type: none"> (a) progressively rehabilitate the site in a manner that is generally consistent with the rehabilitation objectives in Chapter 3.8 of the EA (see Appendix 5); (b) ensure that within 4 years of the date of this approval, the additional plantings in the Northern Corridor and Southern Rehabilitation Area are comprised of at least 60% of the plant species recorded for the representative plant communities in the quarry extension area, such as Bangalay Sand Forest and Littoral Rainforest; (c) implement the Compensatory Planting in a manner that is consistent with the Landscape and Rehabilitation Management Plan referred to in Condition 21, including the: <ul style="list-style-type: none"> • establishment, conservation and maintenance of approximately 23.99 hectares of native vegetation; • enhance 5.25 hectares of the vegetation in Areas 4 and 5; and • conservation and maintenance of approximately 46.25 hectares of the remnant vegetation on the site (shown conceptually in Appendix 3); and the best practice guidelines set out in: <ul style="list-style-type: none"> a. Bringing the bush back to Western Sydney: Best practice guidelines for bush b. regeneration on the Cumberland Plain Department of Infrastructure, Planning and Natural Resources (2003) ("DIPNR (2003)"); and c. Recovering bushland on the Cumberland Plains: Best practice guidelines for the management and restoration of bushland Department of Environment and Conservation (2005) ("DEC (2005)"); to the satisfaction of the Director-General. 	<p>Monitoring on the Nothern Corridor up to 2012 found that over 60 percent of the number of species found in the forest to be removed in the East-West Link are found in the Northern Corridor. This is acknowledged in the letter from the then Department of Planning and Infrastructure in 28 November 2012.</p> <p>The Compensatory Planting program for all rehabilitation zones is completed and is now in a maintenance phase. The planting is in accordance with the Landscape and Rehabilitation Management Plan and there have been regular inspections and reports on each zone since project inception.</p> <p>In relation to item (c) The annual vegetation management plan review included as an appendix to the AEMR reports for the audit period confirm that the planting has been completed in the conservation management zones and that the program is now in a maintenance phase. Weed management is on-going in all zones as per the consultant's recommendations.</p>	Not Applicable	Not Applicable
18	<p>Within 12 months of the date of this approval, the Proponent shall densely plant Banksia Integrifolia along the 5 metre setback zones to the Littoral Rainforest vegetation and these areas shall thereafter be planted with species as may be specified in the Landscape and Rehabilitation Management Plan.</p>	<p>The above plantings were carried out in the manner indicated and in the time frame required. Other plantings and self-colonisation has occurred on the adjacent pond foreshore.</p>	Not Applicable	Not Applicable

19	<p>The Proponent shall:</p> <ul style="list-style-type: none"> (a) clearly identify the boundary of the extension area in consultation with a suitably qualified ecologist prior to the commencement of any construction works to ensure that an adequate buffer distance is maintained from the dredging activities/quarry operations to the Conservation Area and SSF; (b) ensure that all dredging activities and associated quarry operations remain within the defined boundary of the Project Area (shown on the plan in Appendix 1); (c) develop a monitoring program and document it in the EMP to demonstrate that the defined boundary of the quarry extension area is maintained and not compromised during operations; and (d) revegetate the buffer area with appropriate native species and be subject to the Landscape and Rehabilitation Management Plan for inclusion in the EMP for its long term restoration and management and be not less than 5 metres wide. 	<p>The rehabilitation zones were identified and fenced where necessary within 12 months of the date of approval (2008). The quarry- rehabilitation zone boundary was pegged, from which a five metre set back from the habitat edge could be established. Regular inspections have ensured that the dredging activities are kept within the defined quarry boundary.</p> <p>Colonisation by native plants in the buffer areas has progressed well in most areas. Mostly, self colonisation is found to be more successful than plantings and control of Lantana in these areas is most important.</p> <p>ERM observed the dredging activities to be within the defined dredging boundaries and reviewed the June 2019 boundary inspection report which confirmed the boundaries are in place.</p>	C	Not Applicable
20	<p>The Proponent shall:</p> <ul style="list-style-type: none"> (a) commence the Compensatory Planting and the vegetation screen along the Crooked River Road frontage north of the east-west link (as shown conceptually in Appendix 3, within 12 months of the date of this approval or when sufficient propagation material has been collected; and (b) not sever the east-west link until it can be demonstrated to the satisfaction of the Director General that the established communities represented in the Northern Corridor comprise at least 60% of the native flora species as set out in Appendix 6 and the Northern Corridor is successful according to the criteria in Condition 25; <p>to the satisfaction of the Director-General.</p> <p>In this Condition, "not sever" means that no works of clearing, tree removal or other habitat removal shall take place which will reduce or impede the function of the East-West Corridor to provide connectivity to the National Park from Zone 1.1 as measured by Condition 25(b).</p>	<p>Items (a) and (b) has been completed and addressed as part of previous reports. The plantings in all rehabilitation zones were completed by mid-2014.</p> <p>The screen planting was planted early in the project. Problems with trees growing and surviving due to site conditions led to approval from the DoP in 2014 to construct a bund wall of local sand along the edge of the site. Almost all existing trees were retained during the construction of the bund and vegetation has now covered and stabilised this bund. The resulting screen is now successful in screening the quarry works from the road.</p> <p>The matter of severing the east-west link is also dealt with in detail under Condition 25, below. Note that the letter from the DoP and dated 28 November 2012 approved the severing of the East-West Link.</p>	Not Applicable	Not Applicable
Restriction on clearing of certain land				
20A	<p>Within the area marked "X" on Appendix 1, a person shall not clear any of the land of vegetation or trees without the consent of the Director-General.</p>	<p>ERM inspected this area during the site visit and confirmed that no clearing has taken place in the Area marked X.</p>	C	Not Applicable

Landscape and Rehabilitation Management Plan				
21	<p>The Proponent shall prepare and implement a Landscape and Rehabilitation Management Plan for the project to the satisfaction of the Director-General.</p> <p>This plan must:</p> <ul style="list-style-type: none"> (a) be submitted to the Director-General for approval within 3 months of the date of this approval; (b) be generally in accordance with the draft Landscape and Rehabilitation Management Plan, dated 20 August 2008 prepared by Kevin Mills & Associates and accepted by the Land and Environment Court as appropriate; (c) be prepared in consultation with the DECC by suitably qualified expert/s approved by the Director-General; (d) clearly identify the biological purpose of the linkage and describe how its design, dimensions and management will achieve this purpose; (e) collect baseline data for the Project Area including flora species, fauna species and ecological function parameters; (f) include a figure showing the location, extent and size of areas to be planted/regenerated for each community to be impacted; (g) identify strategies to use the natural resources of the impacted areas to their full potential, including: <ul style="list-style-type: none"> • all plant material to be used as a primary source for restoration and rehabilitation should be collected and propagated from relevant communities prior to clearing; • all areas proposed for replanting should be assessed initially for their regeneration potential appropriate restoration strategies should follow best practice guidelines as described in DIPNR (2003) and DEC (2005); (h) describe in general the short, medium and long-term measures that would be implemented to: <ul style="list-style-type: none"> • rehabilitate the site; • implement the Compensatory Planting shown in Appendix 3; • manage the remnant vegetation and habitat on the site, including the areas of Bangalay Sand Forest to be retained (shown conceptually in Appendix 3); • landscape the site (including the bunds) to mitigate visual impacts of the project; and • Upgrade and protect the remaining area of Littoral Rainforest on the eastern side of the pond extension (i) describe in detail the measures that would be implemented over the first 5 years and every subsequent 5 year period, to rehabilitate and manage the landscape and vegetation on the site, including: 	<p>No non-conformances have been identified in relation to this item.</p> <p>The Landscape and Rehabilitation Management Plan was completed and approved by the then Department of Planning in their letter dated May 2009 and incorporated into the QEMP.</p> <p>The matter of a Long Term Management Plan is dealt with under Condition 26, below.</p> <ul style="list-style-type: none"> (a) Submitted as part of QEMP, Perram & Partners letter dated 5 Feb. 2009. It is acknowledge that this condition wasn't strictly complied with at the time, however no action is recommended as the LRMP was submitted no long after the due date and approved. The QEMP (incorporating the LRMP) has since been updated and approved by the Department (2016). (b) Plan in accordance with LRMP draft and approved by the Court. (c) The LRMP was approved by DoP on 29 May 2009. The letter to DoP dated 5 Feb. 2009 nominated Dr Kevin Mills of Kevin Mills and Associates as the expert nominated to prepare the LRMP. The QEMP was submitted to DECC for approval. (d) The biological measures for the link are set out in the LRMP and in the Site Work Instruction for Landscape, Rehabilitation and Conservation Management WIGSR12 Section 3.4. (e) Baseline data included in Clause 2.2 & 2.3 of the LRMP. (f) KFW Plan 106198/308 Revision K is the figure approved for this use and is included in the Conditions of Consent. (g) Plant material collection is included in the LRMP in Clause 6.6. Rehabilitation strategies are in accordance with best practice guidelines, referenced in LRMP, Section 10. (h) Included in LRMP Table 7. (i) Monitoring has occurred since 2009. The targets for each area are included in LRMP Table 7. Work Instruction 12 Clause 3.1.5 states that the areas are to be inspected every 3 months. (j) Included in LRMP Table 7. (k) Work Instruction 12 Clause 3.1.5 states that the areas are to be inspected every 3 months. The QEMP Clause 8.8 also states a qualified ecologist will monitor the entire area annually. (l) Included in LRMP Table 7. 	C	Not Applicable

	<ul style="list-style-type: none"> • setting clear targets to the satisfaction of the Director-General to determine the level of success and make timely changes to management strategies, as necessary; • monitoring each vegetation type separately; <p>(j) set completion criteria for the rehabilitation of the site (i.e. when plantings are self-sustaining);</p> <p>(k) describe how the performance of these measures would be monitored over time; and</p> <p>(l) include a Long Term Management Plan.</p>			
21A	<p>The Proponent shall engage a qualified ecologist, bush regeneration or providence nursery group who will develop a program consistent with the objectives and procedures set out in the draft Landscape and Rehabilitation Management Plan and this program will address the following issues:</p> <p>(a) soil testing;</p> <p>(b) on site collection of seed and other propagation material;</p> <p>(c) an assessment of the need to develop plants on the site;</p> <p>(d) a program of successional plantings and management that will achieve the agreed purposes of the planting;</p> <p>(e) targets for short term, medium term and long term planting and management;</p> <p>(f) monitoring requirements;</p> <p>(g) reporting frequency and methodology;</p> <p>(h) consultation with the relevant government agencies;</p> <p>(i) water quality monitoring; and</p> <p>(j) quantitative vegetation monitoring;</p> <p>unless otherwise incorporated in the draft Landscape and Rehabilitation Management Plan.</p>	<p>The program has been developed to meet the requirements of this item. The landscape rehabilitation program has been largely completed and is now in a maintenance and monitoring phase, with occasional infill planting in accordance with the annual vegetation review recommendations.</p> <p>Items (a), (b), (c), (d) are therefore considered to have been addressed.</p> <p>In relation to the other items:</p> <p>e) QEMP and Table 7;</p> <p>f) LRMP page 32, Monitoring Regime;</p> <p>g) LRMP Clause 6.20 refers to day to day monitoring by Cleary Bros staff and annual reporting by an ecologist;</p> <p>h) LRMP notes where consultation with DECC (now OE&H) is required e.g. trial plots (reference Monitoring Regime, page 32);</p> <p>i) LRMP Clause 5.4 addresses the requirement to maintain the existing level of groundwater flow to the Swamp Sclerophyll Forest. This is addressed in the QEMP Clause 8.6; and</p> <p>j) LRMP Clause 6.20 refers to day to day monitoring by Cleary Bros staff and annual reporting by an ecologist. In addition, Work Instruction 12 Clause 3.1.5 states that the areas are to be inspected every 3 months.</p>	C	Not Applicable
22	<p>The Landscape and Rehabilitation Management Plan must include:</p> <p>(a) the objectives for the rehabilitation of the site and implementation of the Compensatory Planting and the vegetation screen along the Crooked River Road frontage north of the east-west link;</p> <p>(b) a description of how the rehabilitation of the site and implementation of the Compensatory Planting and how the vegetation screen along the Crooked River Road frontage would be integrated with the surrounding vegetation to provide a comprehensive strategic framework for the restoration and enhancement of the landscape over time;</p> <p>(c) a description of the short, medium, and long-term measures that would be implemented to:</p> <ul style="list-style-type: none"> • rehabilitate the site; • implement the Compensatory Planting; • manage the remnant vegetation and habitat on the site; and • landscape the site (including the bunds) to mitigate visual impacts of the project; 	<p>The LRMP has not been updated since the previous audit and therefore still meets the requirements of this item.</p> <p>The above matters are included in the approved Landscape and Rehabilitation Management Plan.</p> <p>(a) LRMP approval by DoP on 5 Feb. 2009. Objectives addressed in Clauses 3 and 4 of LRMP;</p> <p>(b) Addressed in Clause 6 of LRMP;</p> <p>(c) Addressed in LRMP, Table 7;</p> <p>(d) Addressed in LRMP, Table 7 and Clause 8.3;</p> <p>(e) Addressed in LRMP</p> <ul style="list-style-type: none"> • Clause 6.14; • QEMP 5.1.2 and LRMP page 22; • LRMP Cause 6.6; • QEMP 5.1.1 & LRMP 6.11; • LRMP 6.7, 6.16 and page 30; • LRMP page 22 and Clause 6.10; • LRMP page 22; • QEMP & Aboriginal Management Plan, LRMP Clause 8.5; • LRMP, page 29, Zone 6; • LRMP, Section 7; • LRMP, page 8 Zone 3; • pg 22 and 6.10 of LRMP 	C	Not Applicable

	<p>(d) a detailed description of the performance and completion criteria for the rehabilitation of the site and implementation of the Compensatory Planting and the vegetation screen along the Crooked River Road frontage;</p> <p>(e) a detailed description of what measures would be implemented over the next 5 years to rehabilitate the site, and implement both the Compensatory Planting and the vegetation screen along the Crooked River Road frontage, including the procedures for:</p> <ul style="list-style-type: none"> • undertaking pre-clearance surveys; • conserving and reusing topsoil; • collecting and propagating seed for rehabilitation works; • salvaging and reusing material from the site for habitat enhancement, particularly tree hollows; • controlling weeds and feral pests; • controlling access; • bushfire management; • managing any potential conflicts between the proposed rehabilitation of the site and implementation of the Compensatory Planting and any Aboriginal cultural heritage values in those areas; • progressively rehabilitate the areas disturbed by sand extraction; • implementing revegetation and regeneration within the disturbed and compensatory planting areas, including the establishment of canopy, sub-canopy (if relevant), understorey and ground cover vegetation; • reducing the visual impacts of the project; and • protecting areas outside the disturbance areas; <p>(i) a detailed program to monitor the performance of the rehabilitation of the site and implementation of the Compensatory Planting and the vegetation screen along the Crooked River Road frontage against the relevant objectives and performance and completion criteria (see above);</p> <p>(j) a description of the potential risks to successful rehabilitation and/or revegetation, and a description of the contingency measures that would be implemented to mitigate these risks; and</p> <p>(k) details of who is responsible for monitoring, reviewing, and implementing the plan.</p>	<p>(i) Clause 8 of LRMP; (j) Clause 8.1 of LRMP; Clause 1.3 of LRMP.</p>		
23	<p>Successful establishment of the Northern Corridor shall be measured by the following criteria:</p> <p>(a) presence of native flora species;</p> <p>(b) a majority of the flora species recorded from the removed forest occur in the area; (e.g. 60% of flora species recorded in removed forest are present);</p>	<p>The above criteria were achieved for the Northern Corridor in 2012; this was accepted by the then Department of Planning and Infrastructure by letter dated 28 November 2012. Detailed flora and fauna surveys within the Northern Corridor were abandoned in 2013, although regular inspections and reporting have been maintained after that date as part of the wider monitoring of the rehabilitation zones.</p>	Not Applicable	Not Applicable

	<ul style="list-style-type: none"> (c) species from all four layers have been planted and at least 50% of the projected cover has been achieved for each of the shrub and ground cover layers; (d) self-sustaining native plant populations (e.g regeneration of a second generation); (e) no dominance by single flora species (e.g Bracken); (f) weeds are not significantly impacting on the native vegetation; (g) weeds do not represent a majority of the flora species or a higher percentage cover than the native flora species; and (h) impacts such as grazing are excluded from the area. 			
24	<p>Successful establishment of fauna habitat in the Northern Corridor would be measured by:</p> <ul style="list-style-type: none"> (a) presence of species; (b) a majority of the resident species recorded from the removed forest occur in the area; (c) fauna populations are resident in the area; (d) pest animals are controlled and not impacting upon the fauna or its habitat; and (e) impacts such as grazing are excluded from the area. 	<p>The above criteria were reported upon in the quarterly reports, the annual reports of survey results from 2008 to 2013 and in previous environmental audit reports. As noted above, the criteria were achieved for the Northern Corridor in 2012 and accepted by the Department in November 2012.</p>	Not Applicable	Not Applicable
25	<p>Prior to the severance of the East-West Link the Proponent shall:</p> <ul style="list-style-type: none"> (a) determine the presence of species in both the east-west link and northern corridor by conducting standard animal survey techniques at least twice in the first year (eg. Eliot trapping for small mammals, pitfall trapping for reptiles, observational surveys for frogs and birds, and spotlighting transects for arboreal animals); (b) determine whether a majority of animal species (particularly those determined to be likely to be impacted by fragmentation) utilising the corridor in the east-west link are present in the conservation area and the northern corridor and the re-created link at the northern boundary; and (c) conduct genetic analysis for a number of key species for whom genetic markers have already been developed (e.g. Brown Antechinus, Bush Rat and at least two skink species) to establish that genetic relatedness exists between individuals within the two corridors, the Conservation Area and National Park). <p>If no genetic relatedness exists between individuals in the Conservation Area, northern corridor, east-west link and the National Park, then this demonstrates that neither the east-west link nor the northern corridor is functional and therefore the east-west link can be severed without creating additional fragmentation to animal populations.</p> <p>If genetic relatedness exists between individuals in the northern corridor, Conservation Area and the National Park, but not in the east-west link, then this demonstrates that the east-west link is not functional, but the northern corridor is and therefore, the east-west</p>	<p>These items were complete prior to the Department granting permission to sever the east-west link in November 2012.</p> <p>Animal surveys were carried out in the East-West Link and Northern Corridor up to 2013. These surveys employed all of the above methods.</p>	C	Not Applicable

	<p>link can be severed without creating additional fragmentation to animal populations.</p> <p>If genetic relatedness exists between individuals in the Conservation Area, the east-west link and the National Park, but not the northern corridor, then this demonstrates that the northern corridor is not functional and the east-west link cannot be severed until there is compliance with Conditions 23 and 24.</p>			
26	<p>The Long Term Management Strategy must be prepared in consultation with Shoalhaven Council, Kiama Council, DECC, DP I- Fisheries and the CCC, and must:</p> <ul style="list-style-type: none"> (a) define the objectives and criteria for quarry closure and post-extraction management; (b) investigate options for the future use of the site; (c) describe the measures that would be implemented to minimise or manage the ongoing environmental effects of the development; and (d) describe how the performance of these measures would be monitored over time. <p>Note: The Department accepts that the initial Long Term Management Strategy may not contain detailed information on post-extraction management.</p>	<p>The Long Term Management Strategy for the Gerroa site is contained in the approved QEMP, Section 6.10. Table 1.1 identifies that EPA, Shoalhaven and Kiama Councils, DPI-W and the CCC were consulted as part of the preparation of this strategy.</p>	C	Not Applicable
Landscape and Rehabilitation Bond				
27	<p>Within 6 months of the date of this approval, the Proponent shall lodge a rehabilitation bond for the project with the Director-General. The sum of the bond shall be calculated at:</p> <ul style="list-style-type: none"> (a) \$2.50/m² for the total area to be disturbed by the proposed dredge pond as shown in Appendix 1; and (b) \$1.00/m² for the total area of land to be rehabilitated consisting of Zones 2A.1, 2A.2, 2A.3, 2B.1, 2B.2, 2C.1, 2C.2, 2D and 2E of Appendix 3; <p>or as otherwise directed by the Director-General.</p>	<p>A rehabilitation bond was lodged with DoP on 5 March 2009 and approved on 15 May 2009 by letter from the Department.</p>	C	Not Applicable
28A	<p>The rehabilitation bond shall continue to be retained after completion of the Compensatory Planting to ensure that there shall be a continuation of the Planning Agreement; and</p>	<p>ERM reviewed correspondence from the Department dated 20/01/2017 confirming the bond recalculation. The correspondence stated that the proposed rate for rehabilitated areas of \$0.10/m² was considered insufficient by the Department and a rate of \$0.50/m² was identified as an appropriate rate.</p>	C	Not Applicable
28B	<p>The Director-General may at his or her discretion and on advice from an independent environmental auditor release or vary the rehabilitation bond where conditions permit. If the rehabilitation is not completed to the satisfaction of the Director General, the Director General will call in all or part of the rehabilitation bond, and arrange for the satisfactory completion of the relevant works.</p>	<p>A rehabilitation bond was lodged with DoP on 5 March 2009 and approved on 15 May 2009 by letter from the Department.</p>	C	Not Applicable
28C	<p>The bond may be in the form of a Bank Guarantee or as directed by the Director-General.</p>	<p>ERM reviewed correspondence from the Department dated 20/01/2017 confirming the bond recalculation. The correspondence stated that the proposed rate for rehabilitated areas of \$0.10/m² was considered insufficient by the Department and a rate of \$0.50/m² was identified as an appropriate rate.</p>	C	Not Applicable

Aboriginal Heritage				
Aboriginal Site Conservation				
29	The Proponent shall protect and conserve Area A, as described in the EA (as shown on the plan in Appendix 8, to the satisfaction of the Director-General.	No report has been submitted to the department in relation to the conservation of Area A. QEMP states that Area A will not be disturbed during the operation of the mine and therefore Area A will remain protected. The plan requires Area A to be adequately demarcated. Area A was inspected and ERM observed the boundary demarcation of Area A. QEMP has been approved by the department, therefore satisfying the Director-General. ERM reviewed historical aerials and did not observe any evidence that the area is not being protected and conserved.	Not Applicable	Not Applicable
Aboriginal Heritage Management Plan				
30	<p>The Proponent shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Director-General. This plan must:</p> <p>(a) be submitted to the Director-General within 3 months of the date of this approval and prior to disturbance of any identified Aboriginal object;</p> <p>(b) be prepared in consultation with the DECC and relevant Aboriginal communities; and</p> <p>(c) include a:</p> <ul style="list-style-type: none"> • description of the measures that would be implemented to protect Area A and that part of Area B proposed to be conserved, as described in the EA (as shown on the plan in Appendix 8); • description of the measures that would be implemented for the mapping and salvage or relocation of the archaeological relics in the site including the shell midden deposit situated at the South Western corner of the Extraction Area (as shown on the plan in Appendix 8); • description of the measures that would be implemented if any new Aboriginal objects or relics are discovered during the project; and • protocol for the ongoing consultation and involvement of the Aboriginal communities in the conservation and management of Aboriginal cultural heritage on site. 	<p>Aboriginal Cultural Heritage Management Plan is provided in Appendix G of the QEMP.</p> <p>(a) The AHMP was not submitted within 3 months of the Court ordered Approval on 2 September 2008. This was identified as a finding in the GHD 2010 Independent Environmental Audit and has not been raised as a new finding in this report;</p> <p>(b) Consultation with DECC (now the Office of Environment and heritage (OEH)) and relevant Aboriginal communities is addressed in Section 4 and Annex 1 of the AHMP (AHMP provided as Annex G of the QEMP). ERM consulted with the Jerringa Local Aboriginal Land Council and the OEH as part of this assessment. Both groups confirmed that they had been consulted with as required by the Condition of Consent;</p> <p>In relation to item (c), compliance with each bullet point in the condition of consent is discussed below:</p> <ul style="list-style-type: none"> • Broadly addressed within Sections 6 and 7 of the AHMP and Section 6.11 of the QEMP (AHMP provided as Annex G of the QEMP); • An Aboriginal Archaeological Salvage Report prepared by Biosis in July 2016 was reviewed by ERM. The report detailed the salvage operations undertaken at the site and made the following recommendations: <ul style="list-style-type: none"> ○ Salvage excavations have been completed and no further Aboriginal archaeological assessments are required. ○ The identified Conservation Area B that is located within the study area should remain undisturbed and be avoided by the sand mining operations. ○ All the artefacts recovered from salvage excavations should be reburied at a safe location on-site and as close as possible to the original location. This task should be undertaken in consultation with the Jerrinja Local Aboriginal Land Council. ○ Aboriginal ancestral remains may be found in a variety of landscapes in NSW, including middens and sandy or soft sedimentary soils. If any suspected human remains are discovered during any activity you must: <ul style="list-style-type: none"> ▪ Immediately cease all work at that location and not further move or disturb the remains ▪ Notify the NSW Police and OEH's Environmental Line on 131 555 as soon as practicable and ▪ provide details of the remains and their location ▪ Not recommence work at that location unless authorised in writing by OEH. ○ As per the Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW 2010), it is recommended that the proponent provides a copy of this draft report to the Aboriginal stakeholders and considers all comments received. The proponent should continue to inform these groups about the management of Aboriginal cultural heritage sites within the project area throughout the life of the project. ○ A copy of the final report should be sent to Jerrinja LALC and the AHIMS register. • Addressed in Section 6.11.3 of the QEMP and Section 7.1.3 of the AHMP: The Aboriginal objects collected during salvage and monitoring works to date have been collected by Aboriginal representatives and/or Biosis archaeologists according to the methodology outlined in Section 7.1.3 of the AHMP. 	Not Applicable	Not Applicable

		<ul style="list-style-type: none"> Addressed in Sections 6.11.1 and 6.11.3 of the QEMP and Section 7.1.4 of the AHMP: Section 6.11.3 of the QEMP states that Aboriginal representatives will be present for topsoil stripping and that an archaeologist will also be present for stripping in areas identified as archaeologically sensitive. Ongoing monitoring by Aboriginal representatives has been undertaken by the proponent. ERM examined records for this process including invoices from Jerrinja LALC. The procedure for the discovery of previously unidentified Aboriginal objects during works is outlined in Section 6.11.3 of the QEMP. 		
Traffic and Transport				
Transport Rules				
31	The Proponent shall ensure that all truck movements travelling to or originating from areas: (a) south of the site use the Princes Highway, via Beach Road (except as provided for by condition 32 below); and (b) north of the site use the Princes Highway, via Beach Road, Crooked River Road, Fern Street and Belinda Street.	ERM reviewed the induction material for all new employees, which includes the approved truck routes. Additionally, the truck routes are provided on a sign in the site sign in office.	C	Not Applicable
32	The Proponent shall ensure that no trucks associated with the project use Gerroa Road, except where the destination lies along or adjacent to that road.	ERM reviewed the induction material for all new employees, which includes the approved truck routes. Additionally, the truck routes are provided on a sign in the site sign in office.	C	Not Applicable
Haul Road				
33	Within 3 months of the date of this approval, the Proponent shall upgrade the internal haul road and Beach Road intersection to a sealed Type BAL left turn and sealed Type BAR right turn configuration, in accordance with the RTA's Road Design Guide	These works have been completed. A report was reviewed by KF Williams (dated 02/03/09) which confirms works were completed in accordance with the requirements of the RTA.	Not Applicable	Not Applicable
Road Haulage				
34	The Proponent shall ensure that: (a) all loaded vehicles entering or leaving the site are covered; and (b) all loaded vehicles leaving the site are cleaned of materials that may fall on the road, before they leave the site.	Section 6.12 of the QEMP details the requirements for loads to be covered and material that may fall on the road to be cleaned from the truck prior to departing site.	C	Not Applicable
Visual				
Visual Amenity				
35	The Proponent shall minimise the visual impacts of the project to the satisfaction of the Director-General.	The Site has constructed a soil bund along the public roadway facing the mine and has planted native trees along the road way to minimise the visual impact of the mine. The active mine face is not easily observable from the road. No complaints have been received regarding visual amenity.	C	Not Applicable
Light Emissions				
36	The Proponent shall: (a) take all practicable measures to mitigate offsite lighting impacts from the project; and	The Site only operated during daylight and does not create light impacts which would impact any nearby sensitive receptors. No complaints regarding light pollution have been received.	C	Not Applicable

	The Proponent shall: (b) ensure that all external lighting associated with the project complies with Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting, to the satisfaction of the Director-General.			
Advertising				
37	The Proponent shall not erect or display any advertising structure(s) or signs on the site without the written approval of the Director-General. Note: This does not include traffic management and safety or environmental signs	No advertising structures were visible at the mine at the time of the audit.	C	Not Applicable
Waste Management				
Waste Minimisation				
38	The Proponent shall minimise the amount of waste generated by the project to the satisfaction of the Director-General.	Waste generated at the site is minimal e.g. minor amounts of domestic/office waste and waste drums. Any by-products from production (shells, pebbles etc.) are returned to the excavation.	C	Not Applicable
Emergency and Hazard Management				
Dangerous Goods				
39	The Proponent shall ensure that the storage, handling, and transport of dangerous goods are conducted in accordance with the relevant Australian Standards, particularly AS1940 and AS1596, and the Dangerous Goods Code.	Section 6.14 of the QEMP outlines a performance objective relating to fuels and chemicals, in particular, the storage, handling and transport of dangerous goods, which is to be in accordance with the relevant Australian Standards, particularly AS1940 and AS1596, along with the <i>Dangerous Goods Code</i> . Storage volumes of fuels on-site do not exceed the thresholds contained in Table 2.1 of AS1940 (i.e. storage comprises 'minor storage' under the Standard). No non-compliances with Section 2.3 (Precautions applying to minor storage) were observed during the site visit.	C	Not Applicable
Safety				
40	The Proponent shall secure the project to ensure public safety to the satisfaction of the Director-General.	There is no public access to the site. The Site is completely surrounded by chain link fence and both gates to the site required security access code or keys when accessed out of hours.	C	Not Applicable
Bushfire Management				
41	The Proponent shall: (a) ensure that the project is suitably equipped to respond to any fires on-site; and (b) assist the rural fire service and emergency services as much as possible if there is a fire on-site.	QEMP states that a weekly visual check and quarterly testing of bushfire equipment is undertaken. Equipment on site for fighting fires includes a water cart which undergoes daily pre-start checks and regular maintenance and fire extinguishers on site. ERM reviewed the fire extinguisher service report, which indicates that the on-site fire extinguishers have been tested in accordance with the Emergency Management Plan. The Work Instruction for Emergency Procedures was reviewed during the audit which covered response to bushfires. The instruction included the requirement for CB staff to "assist the rural fire service and emergency services as much as possible".	C	Not Applicable
Production Data				
42	The Proponent shall: (a) provide annual production data to the DPI using the standard form for that purpose; and (b) include a copy of this data in the AEMR.	Documentation associated with this condition was reviewed and one non-compliances was identified due to exceeding the production limit in one year. This item was raised against No 6.	C	Not Applicable

Schedule 4 – Additional Procedures				
Notification of Landholders				
1	If the results of monitoring required in Schedule 3 identify that impacts generated by the project are greater than the relevant impact assessment criteria, then the Proponent shall notify the Director- General and the affected landowners and/or existing or future tenants (including tenants of quarry owned properties) accordingly, and provide quarterly monitoring results to each of these parties until the results show that the project is complying with the relevant criteria.	Events which constituted exceedances were investigated and determined not to be attributed to the quarry operations and therefore notification of surrounding land owners and tenants was deemed not required as there were no impacts to landowners. ERM notes that the tenants which reside on site are CB employees and therefore should be aware of any exceedances. Exceedances have been reported to the Department as part of the AEMR.	C	Not Applicable
Independent Review				
2	If a landowner of privately owned land considers that the operations of the quarry are exceeding the impact assessment criteria in Schedule 3, then he/she may ask the Proponent in writing for an independent review of the impacts of the project on his/her land. If the Director-General is satisfied that an independent review is warranted, the Proponent shall within 3 months of the Director - General advising that an independent review is warranted: (a) consult with the landowner to determine his/her concerns; (b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to conduct monitoring on the land, to determine whether the project is complying with the relevant criteria in Schedule 3, and identify the source(s) and scale of any impact on the land, and the project's contribution to this impact; and (c) give the Director- General and landowner a copy of the independent review.	No independent review has been requested (verbally or in writing) by the Department which relates to the scope of this assessment.	Not Applicable	Not Applicable
3	If the independent review determines that the quarrying operations are complying with the relevant criteria in Schedule 3, then the Proponent may discontinue the independent review with the approval of the Director-General.	No independent review has been requested (verbally or in writing) by the Department which relates to the scope of this assessment.	Not Applicable	Not Applicable
4	If the independent review determines that the quarrying operations are not complying with the relevant criteria in Schedule 3, and that the quarry is primarily responsible for this noncompliance, then the Proponent shall: (a) implement all reasonable and feasible measures, in consultation with the landowner, to ensure that the project complies with the relevant criteria; and (b) conduct further monitoring to determine whether these measures ensure compliance; or (c) secure a written agreement with the landowner to allow exceedances of the relevant criteria in Schedule 3, to the satisfaction of the Director-General.	No independent review has been requested (verbally or in writing) by the Department which relates to the scope of this assessment.	Not Applicable	Not Applicable

5	<p>If the landowner disputes the results of the independent review, either the Proponent or the landowner may refer the matter to the Director-General for resolution.</p> <p>If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process (see Appendix 9).</p>	<p>No independent review has been requested (verbally or in writing) by the Department which relates to the scope of this assessment.</p>	<p>Not Applicable</p>	<p>Not Applicable</p>
<p>Schedule 5 - Environmental management, monitoring, reporting and auditing</p>				
<p>Environmental Management Plan</p>				
1	<p>The Proponent shall prepare and implement an Environmental Management Plan for the project to the satisfaction of the Director-General. This plan must:</p> <p>(a) be submitted to the Director-General within 6 months of the date of this approval;</p> <p>(b) be prepared in consultation with the Relevant Agencies;</p> <p>(c) provide the strategic context for environmental management of the project;</p> <p>(d) identify the statutory requirements that apply to the project;</p> <p>(e) describe in general how the environmental performance of the project would be monitored and managed;</p> <p>(f) describe the procedures that would be implemented to:</p> <ul style="list-style-type: none"> • keep the local community and Relevant Agencies informed about the construction, operation and environmental performance of the project; • receive, handle, respond to, and record complaints; • resolve any disputes that may arise during the life of the project; • respond to any noncompliance; • manage cumulative impacts; and • respond to emergencies; and <p>(g) describe the role, responsibility, authority, and accountability of the key personnel involved in the environmental management of the project.</p>	<p>ERM sighted correspondence from the Department of Planning to Cleary Bros dated 29 May 2009 Re: Gerroa Sand Quarry – Environmental Management Plan, approving the QEMP dated 21 May 2009 (indicating that the QEMP has been developed to the satisfaction of the Director-General as required by the Conditions of Consent). ERM also sighted correspondence from Perram & Partners to the Department of Planning, submitting the QEMP dated 5 February 2009 within 6 months of the date of the approval.</p> <p>Items (c), (d) and (e) are addressed in the QEMP.</p> <p>In relation to item (f), the QEMP outlines procedures for community relations, complaints management, non-compliance contingencies, managing cumulative impacts and emergency response.</p> <p>Previous audit findings have indicated that the phone number in the QEMP was different to the website. During the site inspection, ERM observed the phone numbers on the website and QEMP were the same and tested the number, confirming that the numbers reaches relevant CB staff.</p>	<p>C</p>	<p>Not Applicable</p>
<p>Environmental Monitoring Program</p>				
2	<p>The Proponent shall prepare an Environmental Monitoring Program for the project to the satisfaction of the Director-General. This program must be submitted to the Director-General within 6 months of the date of this approval, and consolidate the various monitoring requirements in Schedule 3 of this approval into a single document.</p>	<p>This program is included in the QEMP. ERM sighted correspondence from CB dated 25 January 2017 to Department of Planning and Environment submitting the QEMP. The statement that this is required within 6 months of the date of the approval is no longer valid in the context of the updated QEMP.</p> <p>Correspondence from the Department of Planning and Environment to Cleary Bros dated 29 May 2009 Re: Gerroa Sand Quarry – Environmental Management Plan, approving the QEMP dated 21 May 2009 following revision of the QEMP in May 2009 (Department of Planning ref: W92/00173) was sighted by ERM.</p>	<p>C</p>	<p>Not Applicable</p>
2A	<p>Within 3 months of the date of this approval, the Proponent shall nominate a suitably qualified and experienced Environmental</p>	<p>CB did not nominate an Environmental Officer within 3 months of the date of the conditions of approval. The Court ordered Approval on 2 September 2008. However, this was identified in a previous GHD Independent Environmental Audit in 2010 and ERM Audits (2013 and 2016) and therefore this has not been raised as a new finding in this report.</p>	<p>C</p>	<p>Not Applicable</p>

	<p>Officer(s) to perform environmental management duties. The Environmental Officer(s) shall be:</p> <p>(a) responsible for reviewing the monitoring programs required under this consent; and</p> <p>(b) responsible for considering and advising on matters specified in the conditions of this consent, and all other licences and approvals related to the environmental performance and impacts of the development.</p> <p>The Proponent shall notify the Director- General, and Relevant Agencies of the name and contact details of the Environmental Officer, and any changes to that appointment that may occur from time to time.</p>	ERM reviewed a letter from CB to the Department dated 22/06/2016 nominating Mark Hammond as Environmental Officer.		
Incident Reporting				
3	<p>Within 7 days of detecting an exceedance of the goals/limits/performance criteria in this approval or an incident causing (or threatening to cause) material harm to the environment, the Proponent shall report the exceedance/incident to the Department and any Relevant Agencies.</p> <p>This report must:</p> <p>(a) describe the date, time, and nature of the exceedance/incident;</p> <p>(b) identify the cause (or likely cause) of the exceedance/incident;</p> <p>(c) describe what action has been taken to date; and</p> <p>(d) describe the proposed measures to address the exceedance/incident.</p>	<p>ERM reviewed notification letters for two exceedance events, the deposition of dust in excess of the allowable criteria and the overrun of production in excess of the limit.</p> <p>The letter related to the deposition of dust in excess of allowable criteria was dated 29/03/2017 which is within seven days of the laboratory results being received. The remaining requirements were also satisfied as follows:</p> <p>(a) the nature of the dust monitoring exceedance was explained and identified as occurring on 15/03/2017exceedance.</p> <p>(b) the cause was attributed to monitoring equipment sabotage.</p> <p>(c) No action was taken at the time the letter was written.</p> <p>(d) CB outlined plans to relocate the monitoring equipment out of view of the road.</p> <p>The letter related to the production exceedances was dated 19/07/2017 which is 19 days after the close of the previous reporting period. CB management advised ERM that the overrun was identified during preparation of the AEMR. While the date the overrun was initially identified is uncertain, ERM considers it likely that the timing of the letter was within seven days of the overrun being identified.</p> <p>The remaining requirements were also satisfied as follows:</p> <p>(a) the nature of the production overrun was explained and identified as occurring in the 2016 – 2017 reporting period.</p> <p>(b) the cause was attributed to a miscalculation by the production manager.</p> <p>(c) No action was taken at the time the letter was written.</p> <p>(d) CB outlined plans for the Environmental Officer to undertake monthly cumulative production quantity monitoring.</p>	C	Not Applicable
Annual Reporting				
4	<p>Within 12 months of the date of this approval, and annually thereafter, the Proponent shall submit an AEMR to the Director-General, Relevant Agencies and CCC.</p> <p>This report must:</p> <p>(a) identify the standards and performance measures that apply to the project;</p> <p>(b) describe the works carried out in the last 12 months;</p>	<p>The AEMR has been provided to the relevant stakeholders (the CCC, the DoP and the local Councils) for each year included in the scope of this assessment (2016 to 2019) and copies are provided on the CB website.</p> <p>A summary of compliance with each element that the report must comply with is provided below:</p> <p>(a) Performance measures are summarised in Section 3.3 of the AEMR;</p> <p>(b) Provided in Section 3.4 of the AEMR;</p> <p>(c) Provided in Section 3.5 of the AEMR;</p>	C	Not Applicable

	<p>(c) describe the works that will be carried out in the next 12 months;</p> <p>(d) include a summary of the complaints received during the past year, and compare this to the complaints received in previous years;</p> <p>(e) include a summary of the monitoring results for the project during the past year;</p> <p>(f) include an analysis of these monitoring results against the relevant:</p> <ul style="list-style-type: none"> • impact assessment criteria/limits; • monitoring results from previous years; and predictions in the EA; <p>(g) include an evaluation of the effectiveness of the environmental protection requirements and procedures in the AEMR;</p> <p>(h) identify any trends in the monitoring results over the life of the project;</p> <p>(i) identify any noncompliance during the previous year; and</p> <p>(j) describe what actions were, or are being, taken to ensure compliance.</p>	<p>(d) Provided in Section 4.5 of the 2016-2017 AEMR and Section 4.6 of the 2017-2018 and 2018-2019 AEMRs;</p> <p>(e) Provided in Sections 4 and 5 of the AEMR;</p> <p>(f) Provided in Section 4 of the AEMR;</p> <p>(g) Provided in Section 4 of the AEMR;</p> <p>(h) Provided in Section 4 of the AEMR;</p> <p>(i) Provided in Sections 4 and 5 of the AEMR; and</p> <p>(j) Provided in Sections 4 and 5 of the AEMR.</p>		
5	<p>Within 12 months of the date of the commencement of the project, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project.</p> <p>This audit must:</p> <p>(a) be conducted by a suitably qualified, experienced, and independent person(s) whose appointment has been approved by the Director-General;</p> <p>(b) include consultation with the Relevant Agencies;</p> <p>(c) assess the Environmental performance of the project, and its effects on the surrounding environment;</p> <p>(d) assess whether the project is complying with the relevant standards, performance measures and statutory requirements;</p> <p>(e) review the adequacy of any strategy/plan/program required under this approval; and, if necessary,</p> <p>(f) recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under this approval.</p> <p>Note: The person(s) conducting the audit must have expertise in flora and fauna assessment as well as quarry rehabilitation.</p>	<p>The previous Independent Environmental Audit was undertaken by ERM in 2016, within three calendar years from the previous audit, which was undertaken in 2013 by ERM.</p> <p>ERM undertook an Independent Environmental Audit within three calendar years from the previous audit (2019).</p> <p>All the criteria below was sufficiently met within the AEMR's and no non-compliances were identified</p> <p>(a) Approval of Mr Robert Smith is provided as Appendix C to this report;</p> <p>(b) Included through-out this report;</p> <p>(c) Included through-out this report;</p> <p>(d) Included through-out this report;</p> <p>(e) Included through-out this report; and</p> <p>(f) Included through-out this report.</p>	C	Not Applicable
6	<p>Within 1 month of completion of each Independent Environmental Audit, the Proponent shall submit a copy of the audit report to the Director-General, Relevant Agencies and CCC, with a response to any of the recommendations in the audit report.</p>	<p>The previous audit's site visit was conducted on 23 November 2016. The Final report was submitted on 20 December 2016. The audit report was finalised and submitted to the department on 21 December 2016.</p>	Not Applicable	Not Applicable

7	<p>Within 3 months of submitting a copy of the audit report to the Director-General, the Proponent shall review and if necessary revise:</p> <p>(a) each of the Environmental management and monitoring strategies/plans/programs in Schedules 3 and 5; and</p> <p>(b) the sum of the Landscape and Rehabilitation Bond (see Schedule 3). This review must consider:</p> <ul style="list-style-type: none"> • the effects of inflation; • any changes to the total area of disturbance; and • the performance of the rehabilitation against the completion criteria of the Landscape and Rehabilitation Management Plan, to the satisfaction of the Director-General 	<p>ERM reviewed the letter from CB to the Department dated 25/01/2017 providing a revised QEMP following the Independent Environmental Audit, which is within 3 months of the audit report being finalised.</p> <p>CB provided the basis of the bond calculations. This appeared to be in compliance with the requirements of the development consent.</p> <p>ERM reviewed correspondence from the Department dated 20/01/2017 confirming the bond recalculation. The correspondence stated that the proposed rate for rehabilitated areas of \$0.10/m² was considered insufficient by the Department and a rate of \$0.50/m² was identified as an appropriate rate.</p>	C	Not Applicable
Community Consultative Committee				
8	<p>Within 3 months of the date of this approval, the Proponent shall establish a Community Consultative Committee (CCC) for the project. The CCC shall:</p> <p>(a) be comprised of:</p> <ul style="list-style-type: none"> • 2 representatives from the Proponent, one of which will be the Environmental Officer nominated under Condition 2A of Schedule 5; • representatives of both Kiama Council and Shoalhaven Council (if available); • 1 representative of the Gerroa Environment Protection Society (if available); and • at least 2 representatives from the local community, whose appointment has been approved by the Director- General <p>b) be chaired by an independent chairperson, whose appointment has been approved by the Director-General;</p> <p>(c) meet at least twice a year including one meeting shortly after submission of the AEMR under Condition 4 of Schedule 5;</p> <p>(d) review the Proponent's performance with respect to environmental management and community relations;</p> <p>(e) undertake regular inspections of the quarry operations;</p> <p>(f) review community concerns or complaints about the quarry operations, and the Proponent's complaints handling procedures; and</p> <p>(g) provide advice to:</p> <ul style="list-style-type: none"> • the Proponent on improved environmental management and community relations, including the provision of information to the community and the identification of community initiatives to which the Proponent could contribute; • the Department regarding the conditions of this approval; and • the general community on the performance of the quarry with respect to environmental management and community 	<p>CB did not establish a CCC within 3 months of the date of the conditions of approval. Correspondence was sighted from Cleary Bros to the Department dated 6 February 2009 nominating a list of persons for approval for the CCC. This was raised as a finding in the 2010 GHD Independent Environmental Audit and ERM Audits (2013 and 2016) and therefore has not been raised separately as a finding in this report.</p> <p>In relation to the other items:</p> <p>(a) ERM reviewed the minutes for the CCC meeting held on 13 December 2018 which satisfies the requirements of part (a) with the exception of the representative from the Gerroa Environment Protection Society. The following were in attendance:</p> <ol style="list-style-type: none"> a. Chairperson - Brian Weir b. Community Representative - Kel Sekulic c. Community Representative - Stephen Brazier d. Kiama Council Representative – Andrew Sloan e. CB – Mark Hmmond (Environmental Officer) f. CB – Ashley Mathie g. Shoalhaven Council has stated that they will not be participating in the CCC. <p>ERM reviewed correspondence from the Department approving Mr Warren Holder as a member of the CCC, representing the Gerroa Environment Protection Society (GEPS). CB management reported that GEPS representation at the CCC meetings had been poor for the two years prior to the end of 2018. Mr Warren Holder's attended the CCC meeting in July 2019 following his appointment to the CCC.</p> <p>ERM reviewed correspondence from the Department confirming Mr Stephen Brazier's appointment to the CCC. The status of the other members of the CCC has been established as part of previous audits.</p> <p>The minutes from the December 2017 meeting indicate that an additional Kiama councillor has been accepted by the Department as an alternate to Cr Sloan.</p> <p>(b) Minutes from CCC meetings during each year included in the scope of this audit have been published on the CB website at the frequency required by the condition of consent. The minutes indicate compliance with parts c) d), f) and g).</p> <p>Gerroa CCC minutes from 14 December 2016 describes the CCC undertaking a site inspection of the mine.</p>	C	Not Applicable

9	<p>At its own expense, the Proponent shall:</p> <p>(a) ensure that 2 of its representatives attend CCC meetings;</p> <p>(b) provide the CCC with regular information on the environmental performance of the project, including a copy of the AEMR;</p> <p>(c) provide meeting facilities for the CCC</p> <p>(d) arrange site inspections for the CCC, if necessary;</p> <p>(e) respond to any advice or recommendations the CCC may have in relation to the environmental management or community relations; take minutes of the CCC meetings; and</p> <p>(f) forward a copy of these minutes to the Director-General, and put a copy of these minutes on its website.</p>	<p>Previous inspection was conducted in July 2019 following an item raised in the December 2018 CCC meeting.</p> <p>Summary of Schedule 5, Condition 9 compliance by CB provided below:</p> <p>(a) Cleary Bros representatives were noted as attendees in the minutes of all CCC meetings held during the period included in the scope of this audit;</p> <p>(b) Meeting minutes confirm that the CCC has been provided copies of monitoring data and the AEMR;</p> <p>(c) CB provides the venue for each meeting;</p> <p>(d) Site inspection details reported in CCC minutes 14 Dec 2016;</p> <p>(e) CB provides responses to recommendations, advice, questions etc. raised at the CCC as part of the minutes posted online;</p> <p>(f) ERM reviewed the email from CB providing CCC meeting minutes to a representative of the Department.</p>	C	Not Applicable
Access Information				
10	<p>Within 1 month of the approval of any plan/strategy/program required under this approval (or any subsequent revision of these plans/strategies/programs), or the completion of the audits or AEMR required under this approval, the Proponent shall:</p> <p>(a) provide a copy of the relevant document/s to the Relevant Agencies and the CCC; and</p> <p>(b) ensure that a copy of the relevant document/s is made publicly available on its website and at the quarry.</p>	<p>ERM viewed the CB correspondence register which included representatives from the EPA, DPI, CCC Members, Kiama and Shoalhaven councils on 08/02/2017 for the updated QEMP which was revised on 19/01/2017.</p>	C	Not Applicable
11	<p>During the project, the Proponent shall:</p> <p>(a) make a summary of monitoring results required under this approval publicly available on its website and at the quarry; and</p> <p>(b) update these results on a regular basis (at least every 3 months).</p>	<p>An up to date summary of the monitoring results was available on the CB website. New records are provided every 3 months.</p>	C	Not Applicable

Appendix A – Summary of EPL Findings

No	Assessment Requirement	Reference/Evidence	Compliance Status	Recommendation						
1	Administrative Conditions									
A1	What the licence authorises and regulates									
A1.1	<p>This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.</p> <p>Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.</p> <table border="1"> <thead> <tr> <th>Scheduled Activity</th> <th>Fee Based Activity</th> <th>Scale</th> </tr> </thead> <tbody> <tr> <td>Extractive Activities</td> <td>Water-based extractive activity</td> <td>> 50,000 – 100,000 m³</td> </tr> </tbody> </table>	Scheduled Activity	Fee Based Activity	Scale	Extractive Activities	Water-based extractive activity	> 50,000 – 100,000 m ³	<p>No non-compliances with this condition were identified.</p> <p>Total site production is reported to the Department of Resources and Geoscience. The annual production volumes records presented by management are summarised below:</p> <ul style="list-style-type: none"> FY2017 – 80,020 t (approximately 40,000 m³) FY 2018 – 49,128 t (approximately 25,000 m³) FY 2019 – 55,790 t (approximately 28,000 m³) <p>Annual production quantities did not exceed the maximum scale specified in this condition.</p>	Compliant	Not Applicable.
Scheduled Activity	Fee Based Activity	Scale								
Extractive Activities	Water-based extractive activity	> 50,000 – 100,000 m ³								
A2	Premises or plant to which this licence applies									
A2.1	<p>The licence applies to the following premises:</p> <p>Premises Details:</p> <p>SOUTHERN EXTRACTION AREA</p> <p>BERRY BEACH ROAD</p> <p>GERROA</p> <p>NSW 2534</p> <p>THE AREA BORDERED IN BROWN ON THE MAP TITLED "GERROA SAND RESOURCE" DATED 7/12/11 AND HELD ON EPA FILE 281283A8.</p>	<p>No non-compliances with this condition were identified.</p>	Not Applicable.	Not Applicable.						
A3	Information supplied to the EPA									
A3.1	<p>Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.</p> <p>In this condition the reference to "the licence application" includes a reference to:</p> <ol style="list-style-type: none"> the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence. 	<p>No non-compliances with this condition were identified.</p>	Not Applicable.	Not Applicable.						

No	Assessment Requirement	Reference/Evidence	Compliance Status	Recommendation								
2	Discharges to Air and Water and Applications to Land											
P1	Location of monitoring/discharge points and areas											
P1.1	The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.	No non-compliances with this condition were identified.	Not Applicable.	Not Applicable.								
P1.2	The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.	No non-compliances with this condition were identified.	Not Applicable.	Not Applicable.								
	<table border="1"> <thead> <tr> <th>EPA Identification no.</th> <th>Type of Monitoring Point</th> <th>Type of Discharge Point</th> <th>Location Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td>Discharge to waters</td> <td>The end of the "Overflow Pipe" from the dredge pond as labelled on the map titled "Gerroa Sand Resource" dated 7/12/11 and held on EPA file 281283A8.</td> </tr> </tbody> </table>	EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description	1		Discharge to waters	The end of the "Overflow Pipe" from the dredge pond as labelled on the map titled "Gerroa Sand Resource" dated 7/12/11 and held on EPA file 281283A8.			
EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description									
1		Discharge to waters	The end of the "Overflow Pipe" from the dredge pond as labelled on the map titled "Gerroa Sand Resource" dated 7/12/11 and held on EPA file 281283A8.									
3	Limit Conditions											
L1	Pollution of waters											
L1.1	Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.	<p>There were no non-compliances with conditions of the Development Consent or Environmental Protection Licence 4146 related to surface water and groundwater in the audit reporting period.</p> <p>ERM notes that beyond undertaking good practices relating to housekeeping, chemical management, acid sulfate soil management etc., the Site does not have significant control of the quality of water in the dredge pond. Therefore, the Site reported that they aim to meet the water quality objectives contained in this condition of consent through implementing good management practice relating to site run-off into the pond.</p> <p>Whilst exceedances of the water quality objectives have occurred during the audit period, these exceedances have generally been consistent with historical background levels and may therefore be considered representative of the local natural groundwater. ERM additionally notes that the water quality objectives are not strict compliance limits.</p> <p>Surface water and groundwater monitoring results are discussed further in the review of the Conditions of Consent.</p>	Compliant	Not Applicable.								
4	Operating Conditions											
O1	Activities must be carried out in a competent manner											
O1.1	Licensed activities must be carried out in a competent manner. This includes: <ul style="list-style-type: none"> a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity. 	No non-compliances with this condition were identified.	Not Applicable.	Not Applicable.								
O2	Maintenance of plant and equipment											

No	Assessment Requirement	Reference/Evidence	Compliance Status	Recommendation
O2.1	All plant and equipment installed at the premises or used in connection with the licensed activity: <ul style="list-style-type: none"> a) must be maintained in a proper and efficient condition; and b) must be operated in a proper and efficient manner. 	<p>No non-compliances with this condition were identified.</p> <p>CB utilises a pre-start checklist for all CB owned and operated mechanised plant on-site to ensure it is operational prior to beginning work. ERM reviewed an example pre-start checklist. CB provided evidence of the preventative maintenance schedule for CB operated plant based on hours in operation or time in service. The equipment included the front-end loader, bulldozer and water cart. No evidence that plant is not being serviced in accordance with the schedule was observed.</p> <p>CB utilises Davidson Dredging to undertake dredging and dredge material separation activities. CB provided a copy of preventative maintenance documentation for the contractor plant on-site including the dredge, the wash-plant and the booster pump.</p> <p>No evidence of poorly maintained plant was observed during the site visit.</p> <p>ERM considers that the controls and observations are generally sufficient to demonstrate compliance with this condition.</p>	Compliant	Not Applicable.
5	Monitoring and Recording Conditions			
M1	Monitoring Records			
M1.1	The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.	No non-compliances with this condition were identified. The EPL does not require any monitoring to be undertaken.	Not Applicable.	Not Applicable.
M1.2	All records required to be kept by this licence must be: <ul style="list-style-type: none"> a) in a legible form, or in a form that can readily be reduced to a legible form; b) kept for at least 4 years after the monitoring or event to which they relate took place; and c) produced in a legible form to any authorised officer of the EPA who asks to see them. 	No non-compliances with this condition were identified. The EPL does not require any monitoring to be undertaken.	Not Applicable.	Not Applicable.
M1.3	The following records must be kept in respect of any samples required to be collected for the purposes of this licence: <ul style="list-style-type: none"> a) the date(s) on which the sample was taken; b) the time(s) at which the sample was collected; c) the point at which the sample was taken; and d) the name of the person who collected the sample. 	No non-compliances with this condition were identified. The EPL does not require any monitoring to be undertaken.	Not Applicable.	Not Applicable.
M2	Recording of pollution complaints			
M2.1	The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	Site management reported that no complaints have been received during the audit period.	Not Applicable.	Not Applicable.
M2.2	The record must include details of the following: <ul style="list-style-type: none"> a) the date and time of the complaint; b) the method by which the complaint was made; c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; d) the nature of the complaint; e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and f) if no action was taken by the licensee, the reasons why no action was taken. 	Site management reported that no complaints have been received during the audit period.	Not Applicable.	Not Applicable.

No	Assessment Requirement	Reference/Evidence	Compliance Status	Recommendation
M2.3	The record of a complaint must be kept for at least 4 years after the complaint was made.	Site management reported that no complaints have been received during the audit period.	Not Applicable.	Not Applicable.
M2.4	The record must be produced to any authorised officer of the EPA who asks to see them.	Site management reported that no complaints have been received during the audit period and no request to review the complaints records has been received from the EPA.	Not Applicable.	Not Applicable.
M3	Telephone complaints line			
M3.1	The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	The QEMP outlines procedures for community relations, complaints management, non-compliance contingencies, managing cumulative impacts and emergency response. During the site inspection, ERM observed the phone numbers on the website and QEMP were the same and tested the number, confirming that the numbers reach relevant CB staff.	Compliant	Not Applicable.
M3.2	The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.	ERM observed the complaints line on the front gate and the CB website.	Compliant	Not Applicable.
M3.3	The preceding two conditions do not apply until 3 months after: a) the date of the issue of this licence or b) if this licence is a replacement licence within the meaning of the Protection of the Environment Operations (Savings and Transitional) Regulation 1998, the date on which a copy of the licence was served on the licensee under clause 10 of that regulation.	No non-compliances with this condition were identified.	Not Applicable.	Not Applicable.
6	Reporting Conditions			
R1	Annual return documents			
R1.1	The licensee must complete and supply to the EPA an Annual Return in the approved form comprising: a) a Statement of Compliance; and b) a Monitoring and Complaints Summary. At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.	ERM reviewed the Annual Returns for the three years spanning the audit period and information available on EPA Public Registers. Information reviewed by ERM indicated that the three Annual Returns for the audit period had been submitted and no non-compliances were reported. CB management reported that no complaints have been received during the audit period. ERM notes that no routine monitoring is required under the EPL.	Compliant	Not Applicable.
R1.2	An Annual Return must be prepared in respect of each reporting period, except as provided below.	ERM reviewed emails from 09/02/2017, 01/04/2018 and 12/03/2019 from the EPA confirming successful submission of the Annual Return for that year.	Compliant	Not Applicable.
R1.3	Where this licence is transferred from the licensee to a new licensee: a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.	No non-compliances with this condition were identified. The CB EPL has not been transferred during the audit period.	Not Applicable.	Not Applicable.

No	Assessment Requirement	Reference/Evidence	Compliance Status	Recommendation
R1.4	Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on: a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.	No non-compliances with this condition were identified. The CB EPL has not been surrendered or revoked during the audit period.	Not Applicable.	Not Applicable.
R1.5	The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').	ERM reviewed emails from 09/02/2017, 01/04/2018 and 12/03/2019 from the EPA confirming successful submission of the Annual Return for that year. In each case, the Annual Returns were submitted within 60 days of the end of the reporting period.	Compliant	Not Applicable.
R1.6	The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.	ERM observed records retained on Site of Annual Returns from 2015, 2016, 2017, 2018 and 2019 during the Site visit.	Compliant	Not Applicable.
R1.7	Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by: a) the licence holder; or b) by a person approved in writing by the EPA to sign on behalf of the licence holder.	No non-compliances with this condition were identified. ERM reviewed the three annual returns submitted during the audit period. The Signature and Certification section was completed and signed by CB Directors who are the EPL licence holders.	Compliant	Not Applicable.
R1.8	A person who has been given written approval to certify a certificate of compliance under a licence issued under the Pollution Control Act 1970 is taken to be approved for the purpose of this condition until the date of first review of this licence.	No non-compliances with this condition were identified.	Not Applicable.	Not Applicable.
R2	Notification of environmental harm			
R2.1	Notifications must be made by telephoning the Environment Line service on 131 555.	No environmental harm incidents were reported to the EPA during the audit period. No requirement to report environmental harm was identified by ERM.	Not Applicable.	Not Applicable.
R2.2	The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.	No environmental harm incidents were reported to the EPA during the audit period. No requirement to report environmental harm was identified by ERM.	Not Applicable.	Not Applicable.
note	The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.	No environmental harm incidents were reported to the EPA during the audit period. No requirement to report environmental harm was identified by ERM.	Not Applicable.	Not Applicable.
R3	Written report			
R3.1	Where an authorised officer of the EPA suspects on reasonable grounds that: a) where this licence applies to premises, an event has occurred at the premises; or b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.	No requests for written reports have been made by the EPA during the audit period.	Not Applicable.	Not Applicable.
R3.2	The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.	No requests for written reports have been made by the EPA during the audit period.	Not Applicable.	Not Applicable.

No	Assessment Requirement	Reference/Evidence	Compliance Status	Recommendation
R3.3	The request may require a report which includes any or all of the following information: a) the cause, time and duration of the event; b) the type, volume and concentration of every pollutant discharged as a result of the event; c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort; e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants; f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and g) any other relevant matters.	No requests for written reports have been made by the EPA during the audit period.	Not Applicable.	Not Applicable.
R3.4	The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.	No requests for written reports have been made by the EPA during the audit period.	Not Applicable.	Not Applicable.
7	General Conditions			
G1	Copy of licence kept at the premises or plant			
G1.1	A copy of this licence must be kept at the premises to which the licence applies.	ERM observed a copy of the EPL on Site during the Site visit.	Compliant	Not Applicable.
G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.	CB management reported that no requests to view the EPL have been received from the EPA during the audit period.	Not Applicable.	Not Applicable.
G1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.	ERM observed a copy of the EPL on Site during the Site visit, available for inspection by any employee of CB.	Compliant	Not Applicable.

APPENDIX B AUDITOR APPROVAL FROM THE DEPARTMENT



Mr Mark Hammond
Environment Officer
Cleary Bros (Bombo) Pty Ltd
PO BOX 210
PORT KEMBLA NSW 2505

Dear Mr Hammond

**Gerroa Sand Quarry (MP 05_0099)
Appointment of Independent Environmental Auditors**

I refer to your letter dated 30 April 2019, seeking the Secretary's approval of suitably qualified people to undertake the Independent Environmental Audit for Gerroa Sand Quarry, as required by condition 5 of Schedule 5 of MP 05_0099.

The Department has reviewed the qualifications of Mr Robert Smith and Mr Dean Kerr and considers that they are suitably qualified and experienced to undertake the audit. Therefore, the Secretary has approved the appointment of Mr Robert Smith and Mr Dean Kerr.

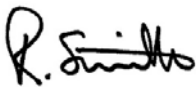
Should you have any enquiries in relation to this matter, please contact Anthony Barnes at the details listed above.

Yours sincerely

Howard Reed 2.5.19
Director
Resource Assessments
as the Secretary's nominee

APPENDIX C INDEPENDENT AUDIT CERTIFICATION FORM

Independent Audit Certification Form

Independent Audit Certification Form	
Development Name	Cleary Bros Gerroa Sand Quarry
Development Consent No.	DA 10801 of 2007
Description of Development	Dredging and processing operations as part of a sand mine.
Development Address	Lot A DP 185785 and part of the land in Certificate of Title Vol 5841 Folio 139.
Operator	Cleary Bros (Bombo) Pty Ltd
Operator Address	39 Five Islands Rd, Port Kembla NSW 2505
Independent Audit	
Title of Audit	Cleary Bros Gerroa Sand Quarry, Conditions of Approval Independent Environmental Audit
<p><i>I certify that I have undertaken the independent audit and prepared the contents of the attached independent audit report and to the best of my knowledge:</i></p> <ul style="list-style-type: none"> <i>The audit has been undertaken in accordance with relevant approval condition(s) and in accordance with the auditing standard AS/NZS ISO 19011:2014 and Post Approval Guidelines – Independent Audits</i> <i>The findings of the audit are reported truthfully, accurately and completely;</i> <i>I have exercised due diligence and professional judgement in conducting the audit;</i> <i>I have acted professionally, in an unbiased manner and did not allow undue influence to limit or over-ride objectivity in conducting the audit;</i> <i>I am not related to any owner or operator of the development as an employer, business partner, employee, sharing a common employer, having a contractual arrangement outside the audit, spouse, partner, sibling, parent, or child;</i> <i>I do not have any pecuniary interest in the audited development, including where there is a reasonable likelihood or expectation of financial gain or loss to me or to a person to whom I am closely related (i.e. immediate family);</i> <i>Neither I nor my employer have provided consultancy services for the audited development that were subject to this audit except as otherwise declared to the lead regulator prior to the audit; and</i> <i>I have not accepted, nor intend to accept any inducement, commission, gift or any other benefit (apart from fair payment) from any owner or operator of the development, their employees or any interested party. I have not knowingly allowed, nor intend to allow my colleagues to do so.</i> <p><i>Note.</i></p> <p><i>a) The Independent Audit is an 'environmental audit' for the purposes of section 122B(2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000.</i></p> <p><i>b) The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (Intention to defraud by false or misleading statement—maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/documents—maximum penalty 2 years imprisonment or \$22,000, or both).</i></p>	
Signature	
Name of Lead / Principal Auditor	Robert Smith
Address	Level 15, 309 Kent Street, Sydney NSW 2000
Email Address	Robert.Smith@erm.com
Auditor Certification (if relevant)	N/A
Date	28 October 2019

ERM has over 160 offices across the following countries and territories worldwide

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