



CABBAGE TREE ROAD SAND QUARRY

Independent Environmental Audit 2021

Prepared for:
Newcastle Sand
398 Cabbage Tree Road
Williamtown, NSW
2318

October 2021

Version No: 1

PREPARED BY:



Integrated Environmental Management Australia Pty Ltd

ABN 32 622 237 870
PO Box 404, WARNERS BAY NSW 2282 AUSTRALIA
E: admin@iema.com.au
T: 0409 288 909 | W: www.iema.com.au

BASIS OF REPORT

This report has been prepared by Integrated Environmental Management Australia (IEMA) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement the Client. Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from IEMA.

IEMA disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

DOCUMENT CONTROL

Reference	Date	Prepared	Authorised
Version 1.0	14 October 2021	Jessica Coffey	Chris Jones

CONTENTS

1. INTRODUCTION	5
1.1. BACKGROUND	5
1.2. IEA SCOPE	8
1.3. KEY SITE CONTACTS	8
1.4. IEA METHODOLOGY	9
1.4.1. <i>Key Meetings and Attendees</i>	10
1.5. CONSULTATION REQUIREMENTS.....	11
1.6. STATEMENT OF INDEPENDENCE.....	14
2. DOCUMENTS REVIEWED AND REFERENCED	15
3. ASSESSMENT OF COMPLIANCE	16
4. APPROVALS AND DOCUMENTATION	17
4.1. PREVIOUS IEA RECOMMENDATIONS	17
4.2. PROJECT APPROVAL	17
4.3. ENVIRONMENT PROTECTION LICENCE	17
4.4. MANAGEMENT PLANS AND PROGRAMS	17
4.5. COMPLAINTS	19
4.6. REPORTABLE ENVIRONMENTAL INCIDENTS.....	20
4.7. EIS STATEMENT OF COMMITMENTS.....	20
5. ENVIRONMENTAL MANAGEMENT – SPECIALIST ASSESSMENTS	21
5.1. GROUNDWATER.....	21
5.2. ECOLOGY.....	21
6. IEA FINDINGS – SUMMARY OF NON-COMPLIANCES	23
7. ADDITIONAL RECOMMENDED ACTIONS	54
8. CONCLUSION	56

TABLES

TABLE 1 – MEETING ATTENDEES	10
TABLE 2 – STAKEHOLDER CONSULTATION FOR THE IEA	11
TABLE 3 – COMPLIANCE ASSESSMENT CRITERIA	16
TABLE 4 – MANAGEMENT PLANS	18
TABLE 5 – NUMBER OF COMPLAINTS SINCE COMMENCEMENT	19
TABLE 6 – SUMMARY OF INCIDENTS FROM ANNUAL REVIEWS AND ANNUAL RETURNS	20
TABLE 7 – SUMMARY OF NON-COMPLIANCES	23
TABLE 8 – ADDITIONAL RECOMMENDATIONS	54

FIGURES

FIGURE 1 – LOCALITY PLAN (SOURCE: UMWELT, 2015)	6
FIGURE 2 - RESOURCE AND SEQUENCE PLAN (SOURCE: KLEINFELDER, 2016)	7

APPENDICES

Appendix A – Photographs

Appendix B – Compliance Spreadsheet

Appendix C – IEA Certification

Appendix D – Endorsement of the IEA Team

EXECUTIVE SUMMARY

This Independent Environmental Audit (IEA) covers the Cabbage Tree Road Sand Quarry (the Quarry) which is operated by Williamtown Sand Syndicate (WSS) under the proponent Newcastle Sand. On 9 May 2018, Newcastle Sand was granted Project Approval SSD 6125 to construct and operate a sand quarry. Construction commenced at the site on 14 August 2019 and sand extraction commenced in May 2020. Under Schedule 5 Condition 12 of SSD 6125, an IEA must be completed within a year of commencing operations. This is the first IEA for the Quarry with the audit period being 8 August 2018 to 22 July 2021. The Department of Planning, Industry and Environment (DPIE) endorsed the following IEA team in a letter dated 10 June 2021.

- Chris Jones – (Integrated Environmental Management Australia - IEMA) - Lead Auditor;
- Jessica Coffey – (IEMA) – Assistant Auditor;
- Katarina David – (Independent Consultant) - Groundwater Specialist; and
- John Whyte – (Independent Consultant) – Ecology Specialist.

The IEA covered the requirements of Schedule 5 Condition 12 of the Project Approval (SSD 6125).

The IEA generally identified a high level of compliance with no high risks identified during the IEA. A summary of non-compliances is provided below:

- There were 11 administrative non – compliances identified;
- There were 12 low risk non – compliances identified; and
- There were 8 medium risk non – compliances identified.

Key findings and recommendations are outlined in **Section 6 and 7**.

The site visit concluded that the Quarry is generally compliant and well maintained, with highlights including:

- Site water management;
 - Good regrowth on the disturbed soils;
 - Minimal weeds observed on site;
 - Frog fence has been maintained well;
 - Noise management and compliance was good.
-

Completed IEA Details	
IEA Organisation	Project
Newcastle Sand	Cabbage Tree Road Sand Quarry IEA
Location of IEA	Date of Site IEA and Document Review
Cabbage Tree Road Sand Quarry 398 Cabbage Tree Road Williamtown, NSW 2318	Audit Period: 8 May 2018 to 22 July 2021 Site visit: 22 July 2021
Depth of IEA	Scope of IEA
Environmental	Compliance with: <ul style="list-style-type: none"> • Project Approval (SSD 6125) • Statement of Commitments (SoC) • EPL 21264
IEA Criteria and Period	
<ul style="list-style-type: none"> • SSD 6125 including MOD 1 and 2; • EPL 21264 • This IEA covers the period from 8 May 2018 – 22 July 2021 	
Project Representatives	IEA Team
<p>Murray Towndrow Newcastle Sand - Director</p> <p>Jonathan Berry Wedgetail Project Consulting – Principal Advisor</p>	<p>Chris Jones IEMA – Lead Auditor</p> <p>Jessica Coffey IEMA – Assistant Auditor</p> <p>Katarina David Independent Consultant – Groundwater Specialist</p> <p>John Whyte Independent Consultant – Ecology Specialist*</p>
Previous IEA Date	Previous IEA Reference
No previous IEA	No previous IEA

* Note that IEMA also had involvement in assessing compliance for biodiversity components. Although IEMA received inputs from specialists, ultimately the final wording relating to findings and recommendations are from the lead auditor.

1. INTRODUCTION

1.1. Background

Williamtown Sand Syndicate Pty Ltd (WSS) trading under the proponent Newcastle Sand, was granted Project Approval SSD 6125 on 9 May 2018 to construct and operate a sand quarry in Williamtown, approximately 30 kilometres (km) north of Newcastle, New South Wales (NSW). The Quarry is located on the northern side of Cabbage Tree Road at Williamtown and is approximately mid-way between Nelson Bay Road and Masonite Road (**Figure 1**). The Quarry is built on approximately 176.2 ha of Port Stephens Council (PSC) owned land with the extraction of sand taken under a lease agreement between PSC and WSS. This includes the following allotments:

- Lot 1 DP 224587;
- Lot 121 DP 556403;
- Lot 11 DP 629503; and
- Lot 1012 DP 814078.

The Quarry was constructed to meet the demand for fill sand for building and construction projects in the Sydney, Central Coast, Newcastle and Maitland markets. The approval allows for the extraction of up to 530,000 tonnes per annum (tpa) of sand products over a period of up to 15 years (refer **Figure 2**). Along with the Project Approval, the Quarry operates under Environment Protection Licence (EPL) 21264 issued by the Environment Protection Authority (EPA).

Construction works on site commenced on 14 August 2019 and focused on the construction of access roads and infrastructure. Delays to the construction of the intersection resulted in delayed commencement of extraction operations. Sand extraction commenced in May 2020.

SSD 6125 has been modified on two occasions under section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act):

- Modification Report 1 (Mod 1) was approved in March 2020 and provided conditions relating to the Glass Sand Trial.
- Modification Report 2 (Mod 2) was approved March 2021 and allowed for the addition of wash plant and ancillary equipment.

Under Schedule 5 Condition 12 of SSD 6125, Newcastle Sand is required to complete an IEA within a year of commencing operations. As extraction started in May 2020, this is the first IEA to be completed for the Quarry. The IEA will cover both construction and operational phases with the audit period being 8 May 2018 to 22 July 2021.

Key findings and recommendations from this IEA are outlined in **Section 6 and 7** of this report. **Section 8** summarises the overall performance of the site.



Image Source: Google Earth (2014)
Data Source: Williamtown Sand Syndicate (2015), LPI (2009)

Legend
Project Area

FIGURE 1.1
Locality Plan

Figure 1 – Locality Plan (Source: Umwelt, 2015)

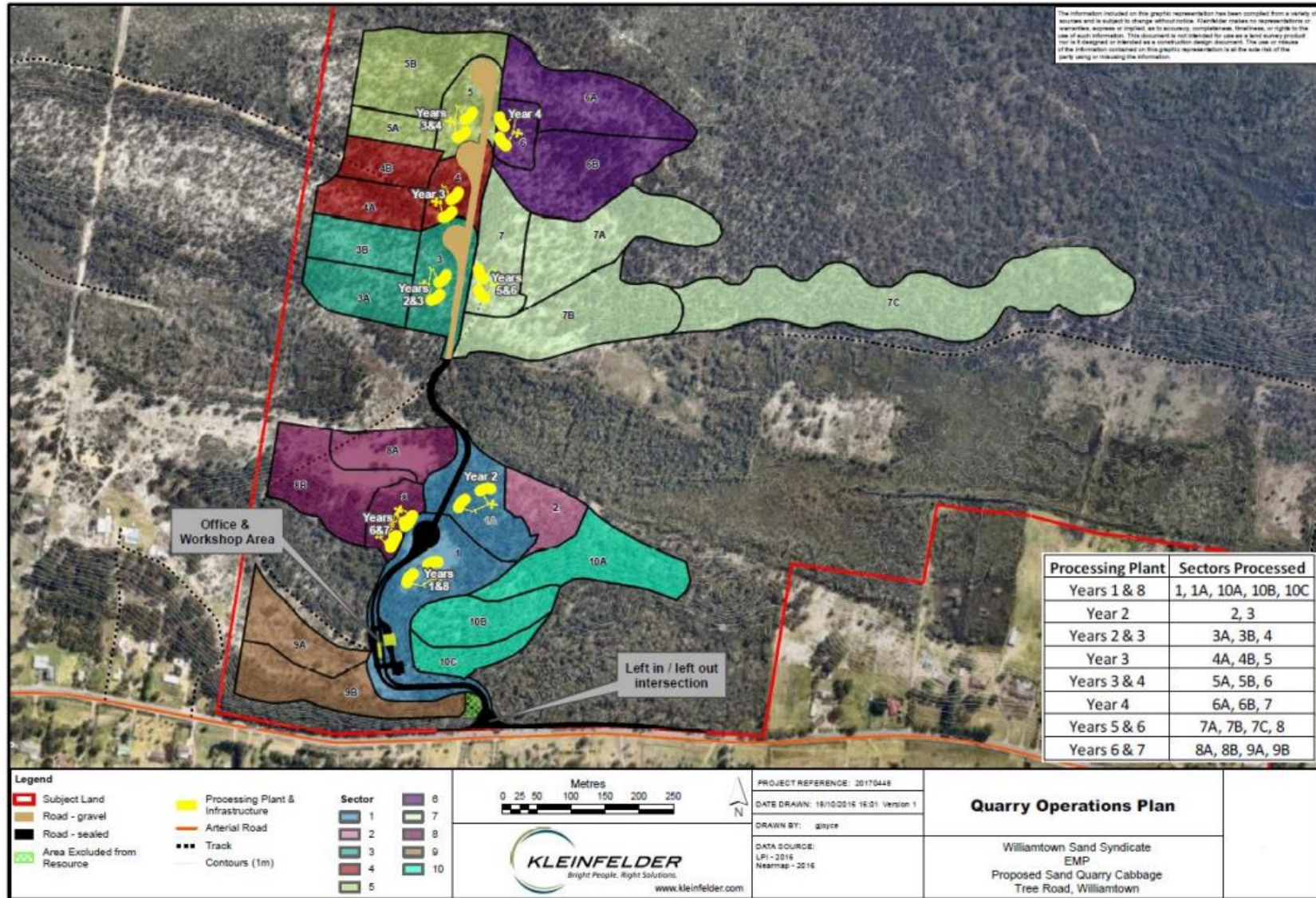


Figure 2: Resource and sequence plan (as per EIS)

Figure 2 - Resource and Sequence Plan (Source: Kleinfelder, 2016)

1.2. IEA Scope

The IEA covered the following requirements of Schedule 5 Condition 12 of the Project Approval (SSD 6125):

- a) *Be led and conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;*
- b) *Include consultation with the relevant agencies and the CCC;*
- c) *Assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent and any relevant EPL or necessary water licences for the development (including any assessment, strategy, plan or program required under these approvals);*
- d) *Review the adequacy of strategies, plans or programs required under the abovementioned approvals;*
- e) *Recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, strategy, plan or program required under the abovementioned approvals; and*
- f) *Be conducted and reported to the satisfaction of the Secretary.*

The IEA period is 8 May 2018 to 22 July 2021. This is the initial IEA following the approval of SSD 6125 on 9 May 2018. DPIE endorsed the following IEA team in the letter dated 10 June 2021:

- Chris Jones – (IEMA) - Lead Auditor;
- Jessica Coffey – (IEMA) - Assistant Auditor;
- Katarina David – (Independent Consultant) – Groundwater Specialist; and
- John Whyte – (Independent Consultant) – Ecology Specialist.

The IEA assessed the following approvals and documentation:

- Project Approval SSD 6125 (including management plans);
- Statement of Commitments (Appendix 2 of SSD 6125); and
- EPL 21264.

1.3. Key Site Contacts

The main IEA contacts for the Quarry are Murray Towndrow and Jonathan Berry. See contact details below.

Murray Towndrow

Director - Newcastle Sand

0429 875 355

murray@newcastlesand.com.au

Jonathan Berry

Principal Advisor - Wedgetail Project Consulting

0421 440 139

jberry@wedgetail.com.au

There were several other personnel that contributed to the IEA with these included in **Section 1.4.**

1.4. IEA Methodology

A series of environmental consultants were involved with this IEA and endorsed by DPIE, including:

- Chris Jones – (IEMA) – Lead Auditor;
- Jessica Coffey – (IEMA) – Assistant Auditor;
- Katarina David – (Independent Consultant) – Groundwater Specialist; and
- John Whyte – (Independent Consultant) – Ecology Specialist.

The site component of the IEA occurred on 22 July 2021. Chris Jones and Jessica Coffey were present on site for one day. Specialists assessed with a review of desktop information. The IEA team are independent of the Quarry as defined under Section 3.1.2 of the *DPIE Audit Guidelines (2015)*. Information was provided by the Quarry personnel during and following the IEA. IEMA also sourced a large amount of information from the Newcastle Sand website.

The methodology for the IEA consisted of the following key steps:

- Introductory and close-out meetings;
 - Reviewing key documents provided by Newcastle Sand prior to the IEA;
 - Consultation with relevant government agencies per the IEA Guideline requirements prior to the site component;
 - Site component of the IEA included inspections and discussions with key Newcastle Sand and quarry personnel;
 - Review of additional relevant documentation obtained while onsite during the inspection or provided by Newcastle Sand after the site inspection;
 - Client review and comment on the draft IEA report;
 - Photographs taken during the site inspection are included in **Appendix A**. A large amount of evidence was viewed and collected as part of the IEA, including monitoring records, reports, and correspondence. While this key evidence has been referenced in Section 2, it has not been attached to this IEA report;
 - The IEA has been completed as per the DPIE Audit Guidelines (2015); and
 - The IEA team assessed the approvals and documentation outlined in **Section 4**.
 - The Compliance spreadsheet has been included as **Appendix B**.
-

1.4.1. Key Meetings and Attendees

Introductory and close out meetings were held for the IEA. At the opening meeting (held on site at the Newcastle Sands site office) on 22 July 2021, introductions were made by each of the meeting attendees, and Newcastle Sand personnel provided background details regarding the site to the IEA team. **Table 1** lists those present at these meetings.

Table 1 – Meeting Attendees

Name	Role and Company
Opening Meeting	
Chris Jones	IEMA – Lead Auditor
Jessica Coffey	IEMA – Assistant Auditor
Jonathan Berry	Principal Advisor – Wedgetail Project Consulting
Shane Burton	Quarry Manager – Newcastle Sands

1.5. Consultation Requirements

Table 2 outlines the stakeholder consultation completed for the IEA, undertaken in accordance with the IEA Guidelines (May 2020).

Table 2 – Stakeholder Consultation for the IEA

Regulatory Authority	Contact Details	Comment from IEA Team / Stakeholder	Audit Team Response
Department of Planning, Industry and Environment (DPIE) – Compliance	Ann Hagerthy Ann.Hagerthy@planning.nsw.gov.au	No formal response	Nil
Department of Planning, Industry and Environment (DPIE) – Resource Assessment	Emily Pemberton Environmental Assessment Officer emily.pemberton@dpienew.gov.au	No formal response	Nil
DPIE - Division of Environment, Energy, and Science	Compliance Department Division of Environment, Energy, and Science info@environment.nsw.gov.au	Letter dated 9 August 2021 confirming no inputs for the audit.	Nil
DPIE - Water	Compliance Department DPIE Water water.enquiries@dpienew.gov.au	No formal response	Nil
Natural Resources Access Regulator	Natural Resources Access Regulator Officer nrar.enquiries@nrar.nsw.gov.au	Automated response dated 20 July 2021. No further response.	Nil
Port Stephens Council	Environmental Planning Department Port Stephens Council council@portstephens.nsw.gov.au	Automated response dated 20 July 2021. No further response.	Nil

Regulatory Authority	Contact Details	Comment from IEA Team / Stakeholder	Audit Team Response
Community Consultative Committee (CCC) Chairperson	John Turner CCC Chairperson harcourt2204@hotmail.com	Email dated 26 July 2021 confirming no inputs for the audit.	Nil
Anonymous agency feedback	Anonymous	<p>Phone Call 26 July 2021 from an agency wishing to remain anonymous, requesting the audit to focus on the following:</p> <p>Wet Processing:</p> <ol style="list-style-type: none"> 1. Mod 2 was for transitioning the quarry from a dry processing operation to a wet processing operation. When did the site start wet processing, was this before Mod 2 was approved? (12 March 2021). 2. Confirm the proportion of dry vs wet processing. Mod 2 EA estimated 60% of quarry output would be washed. 3. Review the commitments made as part of Mod 2 EA (e.g. re-use of water from wet processing) to assess compliance. <p>Hunter Water Conservation Area</p> <ol style="list-style-type: none"> 4. Review the use of equipment in the Hunter Water Conservation Area against the Mod 2 EA commitments. 5. Confirm if all equipment is removed from the Hunter Water Conservation Area at the end of each day and stored in bunded areas. 6. Review where refuelling is undertaken and confirm its not within the Hunter Water Conservation Area. <p>Biodiversity</p> <ol style="list-style-type: none"> 7. Confirm that any recent areas cleared have been done in accordance with all the requirements (e.g. having an ecologist on site) – note the breaches from DPIE Compliance Dept. in June 2021. <p>PFAS Sampling</p> <ol style="list-style-type: none"> 8. Confirm if PFAS sampling is undertaken by a contractor or by site staff. If site staff, confirm that they have been trained in taking PFAS water samples. 	<ol style="list-style-type: none"> 1. Wet processing commenced in July 2021. 2. At this stage, wet processing is averaging at approximately 45% of maximum output, but with less than three months operations is only an early indication. 3. The Mod 2 commitments have been assessed as part of the audit, in the Statement of Commitments sheet. 4. The Mod 2 commitments have been assessed as part of the audit, in the Statement of Commitments sheet. 5. Site confirmed that all equipment is removed from the Tomago Sandbeds at the end of each day. 6. Site advised that the refuelling equipment is located outside the Tomago Sandbeds. 7. Site advised that PFAS Sampling is completed by a contractor.

Regulatory Authority	Contact Details	Comment from IEA Team / Stakeholder	Audit Team Response
Anonymous agency feedback	Anonymous	Phone Call 26 July 2021 from an agency wishing to remain anonymous, requesting the audit to focus on the following: <ol style="list-style-type: none">1. Assess all environmental aspects of the site, however focus on the ecology and groundwater aspects.2. Review the commitments made in the Landscape Management Plan and Soil and Water Management Plan, and assess compliance.	<ol style="list-style-type: none">1. These aspects have been reviewed in detail by the groundwater and ecology specialists.2. These Management Plans have been reviewed in terms of preparation and implementation, in the relevant conditions of SSD-6125.

1.6. Statement of Independence

We can confirm independence based on the following:

- No one from the IEA team is related to any proponent, owner, operator or other entity involved in the delivery of the project. Such a relationship includes that of employer/employee, a business partnership, sharing a common employer, a contractual arrangement outside an Independent Audit, or that of a spouse, partner, sibling, parent, or child;
 - No one from the IEA team has any pecuniary interest in the project, proponent or related entities. Such an interest includes where there is a reasonable likelihood or expectation of financial gain (other than being reimbursed for performing the Audit) or loss to the auditor, or their spouse, partner, sibling, parent, or child;
 - No one from the IEA team have provided services (not including independent reviews or auditing) to the current project with the result that the audit work performed by themselves or their company, except as otherwise declared to, and agreed by, the Planning Secretary, prior to the audit;
 - No one from the IEA team is an Environmental Representative for the Project; and
 - No one from the proposed IEA team can or has accepted any inducement, commission, gift or any other benefit from auditee organisations, their employees or any interested party, or knowingly allow colleagues to do so.
-

2. DOCUMENTS REVIEWED AND REFERENCED

Key documentation reviewed as part of the IEA includes:

- Project Approval SSD 6125 (including Management Plans);
 - EPL 21264;
 - Training and inductions;
 - Annual Reviews (2019 and 2020);
 - Monitoring results for meteorological, noise, air, water, ecology – including real time results;
 - Transport Summary Spreadsheet;
 - Environmental Management Plans and consultation – as per approval conditions;
 - EPL Annual Returns (2019-20);
 - Complaints log;
 - Incident reports and investigations;
 - Evidence of maintenance and calibration;
 - Specialist Assessments and Investigations;
 - CCC Meeting Minutes – across the IEA period; and
 - Key consultation with government – including consultation and approval letters.
-

3. ASSESSMENT OF COMPLIANCE

The terms used in the IEA to describe the level of compliance of the site with the relevant approval documentation are outlined in **Table 3**. These are requirements of Section 3.8 of the DPIE Audit Guidelines (2015).

Table 3 – Compliance Assessment Criteria

Assessment	Criteria
Compliant	Where the auditor has collected sufficient verifiable evidence to demonstrate that the intent and all elements of the requirement of the regulatory approval have been complied with within the scope of the audit.
Not verified	Where the auditor has not been able to collect sufficient verifiable evidence to demonstrate that the intent and all elements of the requirement of the regulatory approval have been complied with within the scope of the audit. In the absence of sufficient verification the auditor may in some instances be able to verify by other means (visual inspection, personal communication, etc.) that a requirement has been met. In such a situation, the requirement should still be assessed as not verified. However, the auditor could note in the report that they have no reasons to believe that the operation is non-compliant with that requirement.
Non-compliant	Where the auditor has collected sufficient verifiable evidence to demonstrate that the intent of one or more specific elements of the regulatory approval have not been complied with within the scope of the audit.
Administrative non-compliance	A technical non-compliance with a regulatory approval that would not impact on performance and that is considered minor in nature (e.g. report submitted but not on the due date, failed monitor or late monitoring session). 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).
Not triggered	A regulatory approval requirement has an activation or timing trigger that had not been met at the time of the audit inspection, therefore a determination of compliance could not be made.
Observation	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. Further observations are considered to be indicators of potential non-compliances or areas where performance may be improved.
Note	A statement or fact, where no assessment of compliance is required.

4. APPROVALS AND DOCUMENTATION

4.1. Previous IEA Recommendations

This is the first IEA to be completed for the Quarry and therefore there are no prior recommendations.

4.2. Project Approval

The IEA assessed Project Approval SSD 6125 – *Cabbage Tree Road Sand Quarry* which was approved by DPIE on 9 May 2018 and has been modified on two occasions:

- Mod 1 –Glass Sand Trial, approved 26 March 2020; and
- Mod 2 – Sand Wash Plant, approved 12 March 2021.

Under Schedule 2 Condition 5, quarry operations can be carried out until 31 December 2033. Recommendations relating to the Project Approval are outlined in **Section 6** and **7** of this report.

Overall, there was a high level of compliance with the Project Approval.

4.3. Environment Protection Licence

The Quarry operates in accordance with EPL 21264. The EPL has an annual renewal date of 31 July. IEA findings and recommendations relating to the EPL are in **Section 6** and **7**.

Overall there was a high level of compliance with EPL 21264.

4.4. Management Plans and Programs

Each environmental management plan required under SSD 6125 has been assessed as part of the IEA, with all the management plans listed in **Table 4**. In summary:

- Aboriginal Cultural Heritage and Historic Heritage Management Plan;
 - Air Quality Management Plan;
 - Biodiversity and Rehabilitation Management Plan;
 - Construction Environmental Management Plan;
 - Maximum Extraction Depth Management Plan;
 - Noise Management Plan;
 - Pollution Incident Response Management Plan;
 - Soil and Water Management Plan; and
 - Traffic Management Plan.
-

Recommendations relating to management plans are outlined in **Section 6** and **7** of the IEA. The overarching recommendation is that all management plans should be reviewed and resubmitted in accordance with Schedule 5 Condition 4 of SSD 6125 which states:

Within 3 months of:

- a) *The submission of an annual review under condition 3 above;*
- b) *The submission of an incident report under condition 6 below;*
- c) *The submission of an audit report under condition 8 below; and*
- d) *Any modifications to this approval;*

The proponent shall review, and if necessary revise, the strategies, plans and programs required under this approval to the satisfaction of the Secretary.

Table 4 – Management Plans

Development Consent Condition	Management Plan	Current Approved Management Plan Date	Summary of Management Plan
Schedule 3 Condition 6	Noise Management Plan	26 March 2019	Noise monitoring and management at the site.
Schedule 3 Condition 9	Air Quality Management Plan	26 March 2019	Air quality monitoring and management at the site.
Schedule 3 Condition 15	Soil and Water Management Plan	7 July 2021 (version dated May 2019 in place for the majority of the audit period)	Soil and water monitoring and management at the site.
Schedule 3 Condition 15 (d.iii)	Construction Environmental Management Plan	30 August 2019	Environmental management during construction.
Schedule 3 Condition 24	Traffic Management Plan	10 March 2021 (version dated March 2019 in place for the majority of the audit period)	Traffic management for operations.
Schedule 3 Condition 32	Aboriginal Cultural Heritage and Historic Heritage Management Plan	5 June 2019	Heritage management at the site (Aboriginal and historic heritage)
Schedule 3 Condition 34	Biodiversity Offset Strategy	No Offset Strategy	Not required until May 2022.
Schedule 3 Condition 37	Biodiversity and Rehabilitation Management Plan	1 April 2019	Biodiversity management and monitoring, and rehabilitation at the site.
Schedule 5 Condition 1	Environmental Management Strategy	No EMS	Not triggered, has not been requested by DPIE..

4.5. Complaints

Table 5 – Number of Complaints since Commencement

Year	Total Complaints	Breakdown of Complaints	
2019	6	Operations	1
		Dust	1
		Traffic	3
		Noise	1
2020	23	Construction	1
		Traffic	7
		Noise	7
		Operations	1
		Vibration	3
		Covid-19	1
		Lighting	1
		Privacy	1
Correspondence	1		
2021 (to June)	6	Traffic	6

4.6. Reportable Environmental Incidents

Table 6 – Summary of Incidents from Annual Reviews and Annual Returns

Date	Aspect	Condition Number	Summary of Incident from Annual Reviews	Auditor Notes
2019 Annual Review				
2019	Biodiversity and Rehabilitation Bond	SSD_6125 Condition 38	Administrative error and delays resulted in the rehabilitation bond not being submitted within 6 months of the management plan approval.	This has now been addressed. No further recommendations.
2020 Annual Review				
2020	Trucks for Sand Trial limited to 9am to 2pm	SSD_6125 Sch 3, Condition 31	Trucks arrived early on 4 of 5 days of trial. Loading and dispatch of trucks was correct.	This has now been addressed. No further recommendations.
2020	Revision of plans and strategies	SSD_6125 Sch 5, Condition 4	Administrative non-compliance for failure to submit revised management plans consistent with consent.	This has now been addressed. No further recommendations.
2019-2020 EPL Annual Return				
2019-2020	Air Quality Monitoring	M2.2	Failure to collect four HVAS samples from both Point 15 and Point 16 due to availability of calibration equipment for the monitoring units.	This has now been addressed. No further recommendations.
2019-2020	Water Monitoring	M2.3	Could not collect sample at EPA Pt5 (BH9) due to bore being dry or having insufficient water to sample.	Not considered a non-compliance.
2019-2020	Noise Monitoring	M8.1 (d)	Noise monitoring completed quarterly, 4 days were single days only during construction, one event was for three consecutive days.	This has now been addressed. No further recommendations.
2020-2021 EPL Annual Return				
Not submitted at the time of completion of the audit.				

4.7. EIS Statement of Commitments

The IEA included an assessment against the Statement of Commitments made in the original EIS, as well as the 2021 Mod 2 Commitments.

Due to the nature of the commitments, evidence was often unable to be produced to verify compliance. In this instance, IEMA has relied on communications with site personnel and the site inspection, to determine compliance.

Overall, there was a high level of compliance with the Statement of Commitments.

5. ENVIRONMENTAL MANAGEMENT – SPECIALIST ASSESSMENTS

The below sections summarise the specialist inputs for the audit. Although the specialist have provided input, ultimately the final wording relating to findings and recommendations are from the lead auditor.

5.1. Groundwater

A specialist groundwater assessment was required as part of the audit. This assessment was undertaken by Dr Katarina David, who was endorsed by DPIE in a letter dated 10 June 2021. Conditions assessed included:

- SSD-6125 Schedule 3 Conditions 13, 15(d)(iii), and 16;
- Statement of Commitments 8.3.8 (f-i); and
- EPL21264 Conditions P1.3, M2.3, and R1.8

The groundwater assessment determined that groundwater management is part of the Soil and Water Management Plan and is covered in Sections 3, 7 and 8 and Appendix 5 of this Plan. The plan includes all monitoring requirements, specifies trigger levels and contingency measures and monitoring and reporting requirements. Groundwater monitoring is included in the SWMP and is implemented based on the monthly and quarterly reports as specified in SWMP. Where exceedances were noted they were explained and reported.

Groundwater management was deemed to be generally compliant with the requirements of the Project Approval, Statement of Commitments and the EPL. The groundwater assessment made a number of recommendations that have been included in **Section 6** and **Section 7**.

5.2. Ecology

A specialist ecologist was endorsed by DPIE in a letter dated 10 June 2021, however IEMA also had involvement in assessing compliance for biodiversity components. Conditions assessed included:

- SSD-6125 Schedule 3 Condition 37; and
- Statement of Commitments 8.3.5, 8.3.6, and 8.3.18.

Email from DPIE dated 22 June 2021 in which DPIE determined that WSS failed to implement the Biodiversity and Rehabilitation Management Plan (BRMP) as described by the following breaches on multiple dates as outlined below:

- Clearing without ecologist on 14, 15 and 27 August 2019, 1 and 2 September 2019, and 8 January 2020.
 - Habitat tree felling without an ecologist present on 3 September 2019.
 - Fail to undertake pre-clearance surveys prior to clearing on 14, 15 and 27 August 2019, 1, 2 and 3 September 2019, 14 October 2019 and 8 January 2020.
 - Fail to undertake nocturnal surveys prior to clearing on 13, 25 and 31 August 2019, 13 October 2019, 7 January 2020 and 26 July 2020.
 - Fail to undertake diurnal surveys prior to clearing on 14 and 26 August 2019, 1 September 2019, 14 October 2019 and 8 January 2020.
 - Fail to install nest boxes up to 12 months prior to clearing. Nest boxes were installed 15 months after clearing commenced in August 2019. Further, two feathertail gliders were identified in a hollow during clearing activities.
 - Fail to install Koala exclusion fence: Clearing occurred for eight (8) months before the koala exclusion fence was installed in April 2020.
-

- Fail to install Frog exclusion fence: WSS failed to install the fence along the entrance haul road and infrastructure area until 27 November 2020, approximately 15 months after clearing and construction first commenced.
- Koala monitoring: Koala fence monitoring should have occurred between September 2019 and February 2020 to observe the presence and the effectiveness of preventing koalas from moving towards Cabbage Tree Road and driveways. The Department also notes that koala fence monitoring only occurred at three (3) locations, not four (4), between September 2020 and February 2021 and video footage was not reviewed for at least 60 days.
- Frog monitoring: Only one of the required two monitoring events occurred (March 2020) during the breeding season of 2019/2020.
- Between 13 August 2019 and 24 June 2020, disturbance activities occurred in a small area of the offset area to the west of the weighbridge, which was not adequately defined and delineated.

IEMA notes that there were initial issues relating to biodiversity management, in particular with timing requirements. This has improved since 2019.

Weed treatment reports were provided, dated 12 July 2021, outlining weed treatment undertaken by consultant on 15 June 2021 within the southern resource area, targeting *Lantana camara*, (*Lantana*), *Chrysanthemoides monilifera* subsp. *rotundata* (*Bitou bush*) and *Melinis repens* (*Red Natal Grass*).

Site inspections noted area about to be stripped for topsoil/sub soil. Weed management was generally performed well with limited weeds in the field inspection. Nest boxes were noted as part of the field inspection. The installed frog exclusion fencing was noted, with only a very small area to be repaired. There was no recommendation as this was noted and there was already a plan in place to repair the frog exclusion fence.

The ecology assessment made a number of recommendations that have been included in **Section 6** and **Section 7**.

6. IEA FINDINGS – SUMMARY OF NON-COMPLIANCES

A summary of non-compliances has been provided in **Table 7**. The Compliance spreadsheet has been included as **Appendix B**.

Table 7 – Summary of Non-Compliances

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
Project Approval (SSD 6125)				
Sch 2 Cond 12	The Applicant must review and update the Maximum Extraction Depth Report, in consultation with Hunter Water and DPIE - Water: (a) every two years from the date of approval of the Maximum Extraction Depth Report; and (b) if any groundwater is encountered during quarrying operations or if directed by the Secretary.	Admin Non Compliance	(a) Date of document approval - 31/5/19. Therefore date of document due for an update was May 2021. <u>Administrative non-compliance</u> . Site has noted that Andrew Fulton of Groundwater Exploration Services has now been endorsed by the Director and has been engaged to complete the review, however this is outside the audit period. (b) Based on site discussions, no groundwater has been encountered. No evidence in any reporting documents such as Annual Review.	NC REC 1: Site to update the Maximum Extraction Depth Report for currency as it is more than two years old.
Sch 2 Cond 18	The Applicant must: (a) from the commencement of quarrying operations provide calendar year annual quarry production data to DRG using the standard form for that purpose; and (b) include a copy of this data in the Annual Review.	Admin Non Compliance	(a) RR form sighted. Noted that the current RR form covers the financial year, whereas this condition requires calendar year. (b) Production data has been included in Section 2 of the Annual Reviews. However the required form has not been appended to the Annual Review. <u>Therefore admin non-compliance</u> . Site noted that some aspects of this form are commercially sensitive, the quantity of "Natural Sand" as specified in the form was reported within the Annual Review.	NC REC 2: Ensure that the production data reporting covers the RR requirement and Annual Review requirements.

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
Sch 2 Cond 19	<p>One month prior to commencing quarrying operations, unless otherwise agreed with the Secretary, the Applicant must:</p> <p>(a) engage a registered surveyor to mark out the boundaries of the approved limits of extraction within the site; and</p> <p>(b) submit a survey plan of these boundaries with applicable GPS coordinates to the Secretary.</p>	Admin Non Compliance	<p>a) Letter from DPIE provided, dated 5/7/2019, approving that the Survey Plan may be submitted in three stages.</p> <p>1. Approved boundaries of the Cabbage Tree Rd intersection works and construction of site facilities.</p> <p>2. Quarry is operating in the Southern Sand Resource. Site advised that Stage 2 Survey plans exist (as noted in JB email 9/9/21) however these were not able to be provided at the time of finalising the audit. <u>Therefore admin non-compliance.</u> No further recommendation as it is understood that the information is available, just not provided to auditors.</p> <p>3. Quarry is operating in the Northern Sand Resource (prior to quarrying in that resource). Site advised that Stage 3 Survey plans exist (as noted in JB email 9/9/21) however these were not able to be provided at the time of finalising the audit. Therefore admin non-compliance. No further recommendation as it is understood that the information is available, just not provided to auditors.</p> <p>(b) Stage 1 Survey Plans provided and email showing evidence of submission.</p>	No further recommendation required.
Sch 3 Cond 7	<p>Air Quality Impact Assessment Criteria</p> <p>The Applicant must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not cause exceedances of the criteria in Table 3 at any residence on privately-owned land.</p>	Low Non Compliance	Noting works commenced onsite on 14 August 2019 and focused on construction of the access road and office and workshop compound. IEMA has focussed on dust management from this time onwards (not when site had consent, but there were no construction or operations).	NC REC 3: Site to include information about how 'incremental impact' is determined in the AQMP. Reporting is required if the site has gone above the criteria (noting the notes below the criteria) in relation to cumulative

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
			<p>Monitoring data provided. Significant monitoring errors and missing data, <u>therefore low non-compliance.</u></p> <p><u>Short term results and data quality</u></p> <p>A copy of the June 2021 air quality data monitoring report covered results from July 2019 to July 2021 for the BAM monitors. For every month until February 2021 there were errors, with regular comments such as 'Machine Error RT2'. There appeared to be no data issues between February 2021 to July 2021.</p> <p>There were also some errors associated with HVAS 1 and 2, however these appear less common.</p> <p>Section 5.1.6 of the Annual Review outlines the response to these outages and site believes these have now been addressed. Therefore no addition recommendation required.</p> <p>There have been times when the site was above the PM10 short term criteria. An investigation by Newcastle Sand in the Annual Review 2020 illustrates when the site has been above criteria for PM10. The 2020 Annual Review states: For 2020 On one occasion (Sunday 30 August) results from the PM10 showed 51.6 µg/m3, no production or haulage occurred at the quarry on this day, as such this level must be related to other local factors. In addition, given the criteria of 50 µg/m3 for the project is based on an incremental impact, an effective upwind sampling site is the Beresfield DPIE monitoring station which showed daily average levels of 14.4 µg/m3 for the same day showing the</p>	<p>impacts, extraordinary events and incremental impacts).</p>

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
			<p>negligible potential for contributions from the site alone exceeding 50 µg/m³.</p> <p><u>Annual Averages</u></p> <p>The 2019 and 2020 Annual Reviews outlines the annual results for PM10 and TSP. The site was within the annual average criteria. 2021 results are not for the annual period (not yet 12 months), but are below annual average criteria.</p> <p>One Chain of Custody (COC) form provided dated 29/06/2021.</p> <p>Site noted that the AQMP will be updated to better illustrate how incremental impacts are determined.</p>	
Sch 3 Cond 8	<p>Operating Conditions</p> <p>The Applicant must:</p> <p>(a) implement best practice management to minimise the dust emissions of the development;</p> <p>(b) regularly assess meteorological and air quality monitoring data and relocate, modify and/or stop operations on site to ensure compliance with the air quality criteria in this consent;</p> <p>(c) minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note c under Table 3);</p> <p>(d) monitor and report on compliance with the relevant air quality conditions in this consent; and</p> <p>(e) minimise the area of surface disturbance and undertake progressive rehabilitation of the site, to the satisfaction of the Secretary.</p>	Low Non Compliance	<p>Site inspection did not identify any issues with dust on site. Watercarts are available at site.</p> <p>No dust issues noted in any documentation relating to clearing.</p> <p>Some progressive rehabilitation has recently commenced.</p> <p><u>The audit team has called the site non - compliant for Part b of this condition - <i>regularly assess meteorological and air quality monitoring data and relocate, modify and/or stop operations on site to ensure compliance with the air quality criteria in this consent.</i></u></p> <p>Although dust issues have not been determined there is little written evidence assessing dust management once the site hit the triggers in Section 8 of the AQMP. This had proposed actions for when the PM10 rolling average 24 hour criteria hit 22, 35, 40, 42.5, 45 and 50 µg/m³.</p>	NC REC 4: Site to record changed operations based on real time air quality triggers (as per the Air Quality Management Plan).

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
			<p>The audit team has noted - Emails provided between Environmental Consultant and Quarry Manager that document modifications to operations during adverse weather conditions (dated 19-20 August 2020) titled "Cabbage Wind and Sand".</p> <p><u>No evidence was provided about how the site reacted to when the PM10 rolling average 24 hour criteria was above 22 µg/m3 from October 2019 to May 2020. Therefore non - compliant.</u></p>	
Sch 3 Cond 9	<p>Air Quality Management Plan</p> <p>The Applicant must prepare an Air Quality Management Plan for the development to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with the EPA;</p> <p>(b) be submitted to the Secretary for approval prior to commencing ground disturbing activities on the site, unless otherwise agree by the Secretary;</p> <p>(c) describe the measures to be implemented to ensure:</p> <ul style="list-style-type: none"> • compliance with the air quality criteria and operating conditions of this consent; • best practice management is being employed; and • the air quality impacts of the development are minimised during adverse meteorological conditions and extraordinary events; <p>(d) describe the proposed air quality management system;</p> <p>(e) include an air quality monitoring program that:</p> <ul style="list-style-type: none"> • is capable of evaluating the performance of the development; 	Low Non Compliance	<p><u>Preparation:</u></p> <p>Air Quality Management Plan dated 26 March 2019. Approved by DPIE in a letter dated 16/4/19.</p> <p>a) Section 1.4 and Appendix 1</p> <p>b) Appendix 1</p> <p>c) Section 6</p> <p>d) Sections 5, 6, 7, 8 and 9</p> <p>e) Sections 7, 8 and 9</p> <p><u>Implementation:</u></p> <ul style="list-style-type: none"> • No air quality issues observed while on site. • <u>See non - compliance issues in schedule 3 Condition 7 and 8 relating to data errors in PM10 and TSP monitors and the lack of evidence in terms of the response to elevated short term PM10 criteria as per Section 8 of the AQMP.</u> • Water sprays at the transfer points. • Sprinklers along batters. • Exposed areas will be stabilised as soon as possible following disturbance. 	<p>NC REC 5: Improve air quality action recording when there has been a trigger based on short term PM10 criteria.</p> <p>NC REC 6: Look at including a figure in Annual Reviews showing two different monitors and potential contributions depending on wind direction.</p>

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
	<ul style="list-style-type: none"> • includes at least two real-time particulate monitors; • includes risk-based monitoring to demonstrate compliance with the criteria in Table 3; • includes a Trigger Action Response Plan (TARP), including appropriate trigger levels, and a protocol to be implemented when trigger levels are exceeded; • includes a protocol for determining any exceedances of the relevant conditions of consent; • effectively supports the air quality management system; and • evaluates and reports on the adequacy of the air quality management system. <p>The Applicant must not commence ground disturbing activities until the Air Quality Management Plan is approved by the Secretary.</p> <p>The Applicant must implement the Air Quality Management Plan as approved from time to time by the Secretary.</p>		<ul style="list-style-type: none"> • Daily/ongoing inspections for dust by quarry manager. • Silica monitoring undertaken (for health reasons). <p><u>Site comments:</u> Site noted that the response framework developed within the AQMP was intended to be a flexible iterative process for responding to real-time dust monitoring observations. They noted that the system appears to have been inadvertently fixed within a more static framework. Site have noted that the AQMP will be adjusted to enable more flexible response to air quality consistent with operational needs. Site noted that a log is to be developed that notes any operational response intended to reduce dust levels.</p>	
Sch 3 Cond 30A	<p>Glass Sand Trial</p> <p>For the purposes and duration of the Glass Sand Trial described in MR (Mod 1):</p> <p>(f) the requirement of condition 26 of Schedule 3 to utilise an on-site weighbridge may be alternatively satisfied by the use of Sibelco's weighbridge at its Salt Ash sand processing facility;</p> <p>(g) records identifying of each truck used in the Trial, its time of arrival and dispatch from the site and the weight of each load must be recorded and retained by the Applicant and published on its website within one week of the completion of the Trial;</p> <p>(h) the requirements of condition 29 (b) of Schedule 3 do not apply in relation to quarry operations</p>	Low Non Compliance	<p>(f) Site operates a weighbridge.</p> <p>(g) Glass Sand trial data available on website (for March/April 2020). Data includes the required detail for this condition (e.g. time of arrival, dispatch, load weight, etc).</p> <p>(h) Noted</p> <p>(i) During the Glass Sand Trial, the arrival and dispatch of trucks was limited to 9am-2pm. However trucks arrived prior to the 9am timeframe on four days in April 2020, consistent with the permitted construction hours applicable to the site at the time but not consistent with the approval. This was reported in the Annual Review. <u>Therefore - Low level non-compliance.</u></p>	No further recommendation required.

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
	<p>undertaken for the purpose of the Trial, and the Applicant may utilise the quarry entry intersection, prior to its completion, for the movement of trucks associated with the Trial;</p> <p>(i) all truck movements associated with the Trial, either entering or exiting the site, must occur between 9 am and 2 pm, Monday to Friday;</p> <p>(j) all trucks associated with the Trial must utilise the quarry entry intersection using left-in and left-out movements;</p> <p>(k) no more than 30 laden trucks may be dispatched from the site on any day of the Trial;</p> <p>(l) the dispatch of laden trucks during the Trial may occur for a maximum of five days;</p> <p>(m) the Applicant must ensure that the surface of Cabbage Tree Road is regularly cleaned of any material that is tracked onto the road surface during the Trial;</p> <p>(n) the dispatch of laden trucks from the site to Cabbage Tree Road may only occur under the direction and control of accredited road traffic controllers;</p> <p>(o) the Trial may only commence following the installation of advance warning signs on Cabbage Tree Road, in accordance with Roads and Maritime Services Traffic Control at Worksites, July 2018, Australian Standard AS1742.4, on both the northbound and southbound approaches to the quarry entry intersection, and</p> <p>(p) the Applicant must provide a minimum of 48-hours' notice of the planned commencement of the Trial to all residents with a land frontage to the 80</p>		<p>Glass sand trial now completed therefore no further recommendations.</p> <p>(j) Included in Traffic MP and discussed with site.</p> <p>(k) Trucking records for the trial show no more than 30 trucks per day.</p> <p>(l) Dispatch of laden trucks occurred over five days.</p> <p>(m) Included in Traffic MP and discussed with site.</p> <p>(n) and (o) Site advised that the glass sand haulage trail was occurring at the same time as the construction activities for the intersection, there was limited additional control required.</p> <p>(p) Notification to residents in Newsletter dated 27 March 2020.</p>	

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
	kph or 60 kph construction zone on Cabbage Tree Road.			
Sch 3 Cond 37	<p>Biodiversity and Rehabilitation Management Plan</p> <p>The Applicant must prepare a Biodiversity and Rehabilitation Management Plan for the development to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared by a suitably qualified expert;</p> <p>(b) be prepared in consultation with BCD and Council;</p> <p>(c) be submitted to the Secretary for approval prior to commencing quarrying operations, unless the Secretary agrees otherwise;</p> <p>(d) provide details of the conceptual final landform and associated land uses for the site;</p> <p>(e) describe how the implementation of the on-site Biodiversity Offset Strategy will be integrated with the overall rehabilitation of the site;</p> <p>(f) include detailed performance and completion criteria for evaluating the performance of the progressive and final rehabilitation of the site, including triggers for any necessary remedial action;</p> <p>(g) describe the short, medium and long-term measures to be implemented to:</p> <ul style="list-style-type: none"> • manage remnant vegetation and habitat on site, including within the on-site Biodiversity Offset Strategy area; and • ensure compliance with the rehabilitation objectives and progressive rehabilitation obligations in this consent; 	Medium Non Compliance	<p><u>Preparation:</u></p> <p>The Biodiversity and Rehabilitation Management Plan is dated 1 April 2019</p> <p>Approved by DPIE in a letter dated 16/4/19.</p> <p>a) Appendix 1 (CVs of authors) and Section 1.4 (author names and qualifications).</p> <p>b) Section 1.4 (Plan Preparation and Consultation) and Appendix 2 (Agency consultation responses). Document was prepared in consultation with OEH and Port Stephens Council.</p> <p>c) Approved by DPIE in a letter dated 16/4/19. Quarrying operations commenced on 18/5/2020.</p> <p>d) Section 5.3 (Final Landform and Vegetation)</p> <p>e) Section 3.4 (Biodiversity Offset Strategy)</p> <p>f) Section 9 (Performance and Completion Criteria)</p> <p>g) Section 5 (Rehabilitation), 6 (Management Controls) and 8 (Monitoring)</p> <p>h) Section 5 (Rehabilitation), 6 (Management Controls) and 8.4 (Post 3-Yearly Monitoring)</p> <p>i) Section 8 (Monitoring) and 9 (Performance and Completion Criteria)</p> <p>j) Section 4 (Roles and Responsibilities) and 8 (Monitoring)</p> <p><u>Implementation:</u></p> <ul style="list-style-type: none"> • Weed treatment report provided, dated 12 July 2021, outlining weed treatment undertaken by consultant on 15 June 2021 within the southern 	<p>NC REC 7: Ensure practices are in place to be compliant with clearing and ecological requirements for the site. Site to track and report against these key biodiversity requirements in the Annual Review and/or ecological monitoring reports.</p>

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
	<p>(h) include a detailed description of the measures described in paragraph (g) to be implemented over the next 3 years (to be later updated for each 3-year period following initial approval of the plan) including the procedures to be implemented for:</p> <ul style="list-style-type: none"> • maximising the salvage of environmental resources within the approved disturbance area, including tree hollows, vegetative and soil resources, for beneficial reuse in the enhancement of the offset area or site rehabilitation; • restoring and enhancing the quality of native vegetation and fauna habitat in the rehabilitation areas through assisted natural regeneration, targeted vegetation establishment and the introduction of fauna habitat features; protecting vegetation and fauna habitat outside the approved disturbance area on-site; • minimising the impacts on native fauna, including undertaking pre-clearance surveys; • minimising the potential for Koalas to come into contact with development-related vehicles on the site and on public roads: • establishing and/or retaining vegetation screening to minimise the visual impacts of the site on surrounding receivers; • minimising impacts on threatened species, populations and their habitats, particularly Koalas; • providing relevant biosecurity control measures, including measures to prevent and/or control the establishment or spread of Myrtle Rust, Root Rot Fungus and Chytrid Fungus on the site; • collecting and propagating native seed; • controlling weeds and feral pests; 		<p>resource area, targeting <i>Lantana camara</i>, (<i>Lantana</i>), <i>Chrysanthemoides monilifera</i> subsp. <i>rotundata</i> (Bitou bush) and <i>Melinis repens</i> (Red Natal Grass).</p> <ul style="list-style-type: none"> • Site inspections noted area about to be stripped for topsoil/sub soil. Weed management was generally performed well with limited weeds in the field inspection. Nest boxes were noted as part of the field inspection. The installed frog exclusion fencing was noted, with only a very small area to be repaired. There was no recommendation as this was noted and there was already a plan in place to repair the frog exclusion fence. <p><u>AGENCY CORRESPONDANCE:</u> "NOTICE TO FURNISH INFORMATION AND RECORDS" letter received from DPIE dated 30 October 2020 for additional information regarding vegetation clearing records. This data was provided to DPIE on 27 November 2020, along with a cover letter outlining the responses. Email from DPIE dated 22 June 2021 in which DPIE determined that WSS failed to implement the Biodiversity and Rehabilitation Management Plan (BRMP) (therefore non-compliance) as described by the following breaches on multiple dates as outlined below:</p> <ul style="list-style-type: none"> • Clearing without ecologist on 14, 15 and 27 August 2019, 1 and 2 September 2019, and 8 January 2020. • Habitat tree felling without an ecologist present on 3 September 2019. 	

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
	<ul style="list-style-type: none"> • controlling erosion; and • managing bushfire risk; <p>(i) include a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria; and</p> <p>(j) include details of who is responsible for monitoring, reviewing, and implementing the plan.</p> <p>The Applicant must not commence quarrying operations until the Biodiversity and Rehabilitation Management Plan is approved by the Secretary.</p> <p>The Applicant must implement the Biodiversity and Rehabilitation Management Plan as approved from time to time by the Secretary.</p>		<ul style="list-style-type: none"> • Fail to undertake pre-clearance surveys prior to clearing on 14, 15 and 27 August 2019, 1, 2 and 3 September 2019, 14 October 2019 and 8 January 2020. • Fail to undertake nocturnal surveys prior to clearing on 13, 25 and 31 August 2019, 13 October 2019, 7 January 2020 and 26 July 2020. • Fail to undertake diurnal surveys prior to clearing on 14 and 26 August 2019, 1 September 2019, 14 October 2019 and 8 January 2020. • Fail to install nest boxes up to 12 months prior to clearing. Nest boxes were installed 15 months after clearing commenced in August 2019. Further, two feathertail gliders were identified in a hollow during clearing activities. • Fail to install Koala exclusion fence: Clearing occurred for eight (8) months before the koala exclusion fence was installed in April 2020. • Fail to install Frog exclusion fence: WSS failed to install the fence along the entrance haul road and infrastructure area until 27 November 2020, approximately 15 months after clearing and construction first commenced. • Koala monitoring: Koala fence monitoring should have occurred between September 2019 and February 2020 to observe the presence and the effectiveness of preventing koalas from moving towards Cabbage Tree Road and driveways. The Department also notes that koala fence monitoring only occurred at three (3) locations, not four (4), between September 2020 and February 2021 and video footage was not reviewed for at least 60 days. 	

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
			<ul style="list-style-type: none"> • Frog monitoring: Only one of the required two monitoring events occurred (March 2020) during the breeding season of 2019/2020. • Between 13 August 2019 and 24 June 2020, disturbance activities occurred in a small area of the offset area to the west of the weighbridge, which was not adequately defined and delineated. <p>IEMA notes - It has been noted there were initial issues relating to biodiversity management, in particular with timing requirements. This has improved since 2019.</p>	
Sch 3 Cond 38	<p>Biodiversity and Rehabilitation Bond</p> <p>Within 6 months of the approval of the Biodiversity and Rehabilitation Management Plan, the Applicant must lodge a Biodiversity and Rehabilitation Bond with the Department to ensure that the measures contained in the Biodiversity and Rehabilitation Management Plan are implemented in accordance with the performance and completion criteria set out in the plan and the relevant conditions of this consent. The sum of the bond must be determined by:</p> <p>(a) calculating the cost of implementing the measures contained in the Biodiversity and Rehabilitation Management Plan;</p> <p>(b) calculating the cost of rehabilitating all disturbed areas of the site, taking into account the likely surface disturbance over the next 3 years of quarrying operations; and</p> <p>(c) employing a suitably qualified quantity surveyor or other expert to verify the calculated costs, to the satisfaction of the Secretary.</p>	Admin Non Compliance	<p><u>Preparation:</u></p> <p>Biodiversity and Rehabilitation Bond is dated 20 January 2020 and approved in a letter from DPIER dated 29/01/2020. The BRMP was approved on 16/4/19 therefore the Bond was required to be lodged by 14 October 2019. <u>Therefore - admin non-compliance.</u> No additional recommendation required.</p> <p>(a) Compliant</p> <p>(b) Compliant - the bond relates to three years of operations.</p> <p>(c) Compliant</p>	No further recommendation required.

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
	<p>Notes:</p> <ul style="list-style-type: none"> • If capital and other expenditure required by the Biodiversity and Rehabilitation Management Plan is largely complete, the Secretary may waive the requirement for lodgement of a bond in respect of the remaining expenditure. • If the rehabilitation of the site area is completed (or partially completed) to the satisfaction of the Secretary, then the Secretary will release the bond (or relevant part of the bond). If the rehabilitation of the site is not completed to the satisfaction of the Secretary, then the Secretary will call in all or part of the bond, and arrange for the completion of the relevant works. 			
Sch 5 Cond 4	<p>Revision of Strategies, Plans & Programs</p> <p>Within 3 months of the submission of an:</p> <p>(a) incident report under condition 9 below;</p> <p>(b) Annual Review under condition 11 below;</p> <p>(c) audit report under condition 12 below; and</p> <p>(d) any modifications to this consent,</p> <p>the Applicant must review the strategies, plans and programs required under this consent, to the satisfaction of the Secretary. The applicant must notify the Department in writing of any such review being undertaken. Where this review leads to revisions in any such document, then within 6 weeks of the review the revised document must be submitted for the approval of the Secretary.</p> <p>Note: The purpose of this condition is to ensure that strategies, plans and programs are regularly updated to incorporate any measures recommended</p>	Admin Non Compliance	<p>Management Plans available on the website are all from 2019 (with the exception of the SWMP and the Traffic MP) and have not been updated following the approval of Mod 1 (March 2020) or Mod 2 (March 2021). <u>Therefore non-compliance.</u> Site noted that Management Plans will be updated within 3 months of the completion of this audit.</p> <p>Noting the Water Management Plan was recently updated - dated July 2021.</p>	NC REC 8: Update the management plans to reflect current approvals.

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
	to improve environmental performance of the development.			
Sch 5 Cond 11	<p>Annual Review</p> <p>By the end of March each year, or other timing as may be agreed by the Secretary, the Applicant must submit a review to the Department reviewing the environmental performance of the development to the satisfaction of the Secretary. This review must:</p> <p>(a) describe the development (including any progressive rehabilitation) that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current calendar year;</p> <p>(b) include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, which includes a comparison of these results against the:</p> <ul style="list-style-type: none"> • relevant statutory requirements, limits or performance measures/criteria; • requirements of any plan or program required under this consent; • monitoring results of previous years; and • relevant predictions in the documents listed in condition 2(d) of Schedule 2; <p>(c) identify any non-compliance over the past calendar year, and describe what actions were (or are being) taken to ensure compliance;</p> <p>(d) identify any trends in the monitoring data over the life of the development;</p> <p>(e) identify any discrepancies between the predicted and actual impacts of the development, and analyse</p>	Admin Non Compliance	<p>Two Annual Reviews were submitted during the Audit period (2019 and 2020). The 2019 Annual Review was submitted 27 March 2020 (re-submitted 15 September 2020) and the 2020 Annual Review was submitted 31 March 2021.</p> <p>a) Section 2</p> <p>b) Section 5</p> <p>c) Section 9. The 2019-20 EPL Annual Return noted non-compliances with Condition M2.2 (air quality monitoring) and Condition M8.1(d) (noise monitoring). These weren't reported in either the 2019 or 2020 Annual Review. <u>Therefore admin non-compliance.</u></p> <p>d) Section 5</p> <p>e) Section 10</p> <p>f) Section 11</p> <p>To comply with the 2015 Annual Review Guidelines, the document should also include a section on "Actions required from previous Annual Review". See earlier recommendations about additional information required in the Annual Review.</p>	<p>NC REC 9: To comply with the 2015 Annual Review Guidelines, the document should also include a section on "Actions required from previous Annual Review".</p> <p>NC REC 10: Ensure that future EPL non-compliances are reported as non-compliances in the Annual Review.</p>

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
	the potential cause of any significant discrepancies; and (f) describe what measures will be implemented over the current calendar year to improve the environmental performance of the development. The Applicant must ensure that copies of the Annual Review are submitted to Council and are available to the Community Consultative Committee (see condition 7 above) and any interested person upon request.			
Statement of Commitments				
SoC 8.3.2 (h)	Website to include: <ul style="list-style-type: none"> • Contact numbers. • Copies of community newsletters. • Details of annual open days. • Copies of minutes from Community Consultative Committee. • Copies of approvals. • Copies of licences. 	Admin Non Compliance	Website was reviewed and confirmed to contain all of the required components, with the exception of the details of the annual open days. <u>Therefore Admin Non-Compliance.</u> Site noted that given the current COVID environment, organising an annual open day has not been feasible, and that site are seeking to amend this commitment.	NC REC 11: Include information on the Community Open Days on the website, or seek to have this commitment removed via consultation with DPIE.
SoC 8.3.3 (c)	Construct a Koala exclusion fence on the Subject Land boundary adjoining Cabbage Tree Road for Lot 1 DP 224587 to limit movement of Koalas from the site onto Cabbage Tree Road. <ul style="list-style-type: none"> • Construct a Koala exclusion fence from the site entry to the weighbridge. • The exclusion fence is to be installed with regard to the design specifications outlined in the Koala Sensitive Design Guideline (DEHP 2012). • One-way fauna gate installed along the fence for circumstances where fauna is trapped on the road side of the fence. Total of four gates; two along 	Medium Non Compliance	Koala exclusion fencing was erected in April 2019. Biodiversity MP notes that the Koala exclusion fence is located on the boundary adjoining Cabbage Tree Road, and from the site entry to the weigh bridge (where speed limit is 40 km/h). The fencing design was amended in consultation with DPIE (Anthony Barnes, email dated 15/1/20) and koala specialists to be barrier fencing that would slow the movement of koalas, but not preclude koala movement, aiming to minimising koala travel along and around fencing. The fencing has crossing fixtures at 200	No further recommendation required.

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
	Cabbage Tree Road (one on either side of the site entrance) and two along the internal access road (one on either side of the road).		<p>m intervals. Fauna cameras have been placed along the koala exclusion fencing, no koalas have been identified in those cameras adjacent to the fencing.</p> <p>Letter from DPIE (dated 30/10/20) notes that the koala exclusion fence was required to be installed during construction however clearing occurred for eight (8) months before the koala exclusion fence was installed in April 2020. Site response was that the timing of installation was not feasible prior to commencing construction. Email from DPIE dated 22/6/21 "Investigation of biodiversity breaches - CTR Quarry" <u>confirmed that this was a non-compliance with the BRMP.</u> Although this commitment does not have a timing requirement, the 8 month period to install the exclusion fencing is too long. No further recommendation.</p>	
SoC 8.3.3 (f)	Progressively delineate the perimeter of the active resource area that will prevent incidental access into Offset Lands and not impede the movement of, or be a danger to, native fauna (e.g., rope barricade, or equivalent).	Medium Non-Compliance	<p>DPIE noted (in a letter dated 30/10/20) that between 13 August 2019 and 24 June 2020, disturbance activities occurred in a small area of the on-site offset area to the west of the weighbridge, and that at the time of the disturbance, the offset area boundary was not adequately defined and delineated. Site advised that disturbance in this area was not related to excavation of the sand resource.</p> <p>Delineation was observed while on site. No further recommendation as this is covered by the general; biodiversity recommendation included previously.</p>	No further recommendation required.
SoC 8.3.8 (f)	WSS will consult with DPI Water with regards to the locations of and construction of proposed	Admin Non-Compliance	The Maximum Extraction Depth Management Plan (2019) indicates that Section 3.2 and 3.3 discuss the consultation with DPI. While these	NC REC 12: Consultation is required with DPI Water with regards to the locations of and

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
	groundwater monitoring points, installation of loggers and selection of sampling points.		<p>sections do discuss the location and frequency of monitoring, they do not indicate that the consultation with DPI was undertaken during the development of the monitoring network and sampling points.</p> <p>Site noted that DPI Water was provided a copy of the SWMP on 15 February 2019, and 15 October 2020 - no response was received from either correspondence (refer to page 102/103 of the SMWP), it is assumed that the location shown in the management plan were considered adequate. No evidence provided.</p>	<p>construction of proposed groundwater monitoring points. The evidence of this consultation was not sighted. It is recommended that this information be included in the Annual Review for 2021.</p>
SoC 8.3.8 (i)	Trigger levels for monitoring will be developed in consultation with DPI Water to ensure the groundwater table is not intersected.	Admin Non Compliance	<p>Triggers were detailed in Sections 7 and 9 of the 2019 Soil and Water Management Plan. Plan was sent to the Natural Resources Regulator (formerly DPI Water) on 15 February 2019 for review. No comments received.</p> <p>Section 3.3 of the Maximum Depth Extraction Level Report presents the set of water level triggers. Monthly monitoring until June 2020 have all water quality data compared to trigger levels as defined in SWMP, however after July 2020 and up to May 2021 (the latest available monitoring report) the Site had adopted the trigger values setup in KLF (2020) although the trigger values were not approved by DPI Water at the time. The comparison should have been made with the trigger levels setup in SWMP (2019) which was valid document at the time of reporting.</p> <p>The SWMP was updated and approved in July 2021 to include site-specific trigger levels (Section 8.5) which were developed in consultation with DPI Water. While this approved</p>	No further recommendation required.

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
			criteria is not applicable for data collected during the current audit period, it will be applicable for future monitoring. <u>Therefore no further recommendations.</u>	
SoC 8.3.9 (m)	The tracked plant will be refuelled on a fully bunded and lined hardstand. The following plant that are permitted to be refuelled on the fully bunded and lined hardstand area within the Tomago Sandbeds Special area include: <ul style="list-style-type: none"> • 1 x Dozer (Maximum of 3 campaigns of 2 weeks each, 42 days per year). • 1x Excavator (Maximum of 3 campaigns of 2 weeks each, 42 days per year). 	Low Non-Compliance	Site advised that operations within the Tomago Sand Beds have not been able to operate consistent with these requirements. The EIS was based on the recovery of sand in a sequential manner using front-end loaders, with bull dozers and excavators only considered necessary for clearing operations. The variability in the resource and market demands have required the use of bull dozers and excavators and four wheel drive dump trucks. In addition to the above circumstance relating to the resource, wheeled loaders have been identified during operations to have increased safety risks when operating on unconsolidated surfaces. Tyre pressures must be reduced substantially to avoid loss of traction, this then compromises stability when buckets are loaded at capacity of approximately 12 tonnes. The reduced stability has potential to increase risks of damaging trucks when loading and the loader. Site have noted that this commitment will require amendment via a modification to be submitted in the last quarter of 2021. <u>As site is planning to submit a modification for this commitment, there is no further recommendation.</u>	No further recommendation required.
SoC 8.3.12 (b)	Bitumen seal access road through to the boundary for the southern boundary of the northern resource area.	Low Non-Compliance	Site inspection observed that the site entrance road has been sealed, however the road has not been sealed all the way to the Northern Resource Area	NC REC 13: Ensure the bitumen seal access road is constructed through to the boundary for the southern

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
				boundary of the northern resource area.
SoC 8.3.12 (g)	<p>Quarry operations will be subject to a staged shutdown of equipment based on rolling 24 hour average PM10 concentrations, PM10 concentration spikes and adverse background air quality and meteorological conditions. Indicative completion criteria are set out below, it important to note that these triggers will be adapted and refined as the project progresses based on actual monitoring data. The proposed draft triggers include:</p> <p>Where the wind is directed toward surrounding residences, that is the weather station indicates winds are blowing from the quadrants west (270 degrees), through North (0 degrees) to East (90 degrees) the quarry should review dust controls (e.g. stockpile sprays and need for dust suppression on trafficked areas). In addition, based on the real-time air quality monitoring network, the following controls should be implemented:</p> <p>1. No topsoil stripping or dozer push to occur where:</p> <p>a) Wind is directed toward surrounding residences; AND</p> <p>b) Rolling PM10 24-hour average exceeds 35 µg/m3 OR</p> <p>c) Rolling PM10 1-hour average exceeds 50 µg/m3.</p> <p>2. If levels continue to increase after two hours, suspend sand extraction and processing (loading trucks only) where:</p> <p>a) Wind is directed toward surrounding residences; AND</p>	Low Non-Compliance	<p>1. There were a number of instances where 24h PM10 exceeded 35 µg/m3. Site was unable to provide evidence that topsoil stripping/dozer operations ceased on each occasion. Email chain provided for ceasing operations on 19-20 August 2020. <u>Therefore, low non-compliance.</u></p> <p>2. Not triggered - no exceedances of 24h 42.5µg/m3 criteria or 50µg/m3 rolling avg.</p> <p>3. Not triggered - no exceedances of 24h 45µg/m3 criteria or 50µg/m3 rolling avg.</p> <p>See previous comments about recording response and actions to the air quality TARP.</p> <p>Site noted that the Air Quality TARP was developed to be an indicative response framework to manage dust levels onsite as noted within the AQMP "it is important to note that these triggers will be adapted and refined as the project progresses to ensure compliance with criteria and suitable actions are undertaken". Site advised that it is proposed to amend this SOC in the next Consent modification, in addition to an amendment to the EPL and the AQMP.</p>	NC REC 14: Until Newcastle Sands consults with DPIE and EPA, they need to implement and record the real time triggers for air quality.

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
	b) Rolling PM10 24 hour average exceeds 42.5 µg/m3 OR c) Rolling PM10 1-hour average exceeds 50 µg/m3. 3. If levels continue to increase after two hours, suspend loading trucks (no machinery operating) where: a) Wind is directed toward surrounding residences; AND b) Rolling PM10 24 hour average exceeds 45 µg/m3. OR c) Rolling PM10 1-hour average exceeds 50 µg/m3.			
SoC 8.3.18 (a)	Seed Collection • Seed will be collected by appropriately qualified contractor in advance of clearing activities for species determined likely to require direct seeding or propagation, and determined to be required for direct seeding and propagation based on monitoring results.	Medium Non-Compliance	<ul style="list-style-type: none"> Based on the 2019 Annual Review, the development commenced construction on 14 August 2019 and remained in the construction phase for the duration of the reporting period. Notice to Furnish response noted that formal seed collection occurred on 3 September 2019 (Kleinfelder). The timing of this condition requires seed collection by appropriately qualified contractor in advance of clearing activities for species determined likely to require direct seeding or propagation. <u>Therefore non-compliant for timing.</u> Sector 1a and Sector 2 Nocturnal and Diurnal Fauna Surveys and Tree Removal (Kleinfelder, 28/07/20). Nocturnal Fauna Survey completed on 22/07/20 in Sector 1a and 2 prior to tree removal. During the tree removal process, fruit from <i>Angophora costata</i> (Smooth-bark Apple) and <i>Corymbia gummifera</i> (Red Bloodwood) was able to be collected from 	No further recommendation required.

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
			<p>multiple felled individuals within the resource area.</p> <ul style="list-style-type: none"> • Sector 3, 3A, 3B, 4, 4A, 4B Pre-clearance, Nocturnal, Diurnal Fauna Surveys and Tree Removal (Kleinfelder, 12/12/20). During the tree removal process, fruit from <i>Angophora costata</i> (Smooth-bark Apple), <i>Corymbia gummifera</i> (Red Bloodwood) and <i>Eucalyptus pilularis</i> (Blackbutt) was available to be collected from multiple felled individuals within the resource area. • Area 7 clearing works undertaken on 30 March & 1 April, 2021 (Wedgetail, 11/6/21) noted that an abundance of seed was present on a number of <i>Corymbia gummifera</i> (Bloodwood) and <i>Eucalyptus camfieldii</i> (Stringybark) species that were felled throughout clearing of Area 7. It was recommended that this seed be utilised by storing all plant material and topsoil from this area so as to preserve seed both attached to vegetation, as well as that which is present in the soil seed bank. <p>See recommendation in Schedule 3 Condition 37. It is noted that seed collection has improved since the initial issues in 2019. Site advised that practical and operational preference is to ensure the seed is collected only as needed and where possible, practical removal of seed, this SOC was not intended to apply to all clearing at all times. Seed collection has occurred during clearing since operations have commenced.</p>	
SoC 8.3.18 (c)	<p>Pre-clearing surveys</p> <ul style="list-style-type: none"> • Confirmation of resource boundaries and extent of clearing. 	Medium Non-Compliance	<p><u>Correspondence:</u></p> <ul style="list-style-type: none"> • Letter from DPIE dated 30/10/2020 noted that pre-clearance surveys were not undertaken prior to clearing on 14, 15 and 27 August 2019, 1, 2 	No further recommendation required.

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
	<ul style="list-style-type: none"> • Habitat trees (containing hollows or nests) within the clearing area will be clearly marked using flagging tape or spray paint. Habitat trees are to be felled using the procedure outlined in Rehabilitation Plan. • Habitat trees (containing hollows or nests) within 3 m of the resource boundary will be marked for avoidance, including the delineation of the tree drip line to limit compaction and excavation that may affect the tree. • Areas of noxious weeds or environmental weeds will be marked to avoid mixing of weed containing soil with weed-free topsoil (refer to 8.3.5 Weed Control). • The following surveys will be conducted within the area proposed for removal within a one day period: <ul style="list-style-type: none"> o Nocturnal surveys will be conducted the night before clearing, and diurnal surveys will be conducted the morning of clearing, prior to commencement; and o The procedure for when a Koala is identified within the clearing area is outlined below. o All clearing will be supervised by a suitable qualified ecologist. • Any occupied trees will be clearly marked and will be left during clearing and managed according to the habitat tree removal protocol. Where a Koala is identified in a tree, the procedure outlined below will be followed. 		<p>and 3 September 2019, 14 October 2019 and 8 January 2020, and that nocturnal surveys were not undertaken on 13, 25 and 31 August 2019, 13 October 2019, 7 January 2020 and 26 July 2020, and that diurnal surveys were not undertaken on 14 and 26 August 2019, 1 September 2019, 14 October 2019 and 8 January 2020.</p> <ul style="list-style-type: none"> • Email from DPIE dated 22/6/21 ""Investigation of biodiversity breaches - CTR Quarry"" confirmed that this was a non-compliance with the BRMP. <u>Therefore non-compliance.</u> <p><u>Ecology Reports:</u></p> <ul style="list-style-type: none"> • Preclearance survey of Sector 1a and 2 (Kleinfelder, 22/06/20). On June 12, 2020 a Kleinfelder ecologist conducted a pre-clearance assessment within sector 1a and sector 2. A total of 25 hollow-bearing trees, 21 dead stag trees containing hollows and one hollowed log were recorded during the assessment. • Sector 3, 3A, 3B, 4, 4A, 4B Pre-clearance Survey (Kleinfelder, 30/10/20). On 29/10/20 a Kleinfelder ecologist conducted a pre-clearance assessment within sectors 3, 3A, 3B, 4, 4A and 4B. A total of 12 hollow-bearing trees and 2 dead stags containing hollows were recorded (total of 14 hollows). 3 fauna species noted during the pre-clearance these included Varanus varius (Lace Monitor), Pogona barbata (Eastern Bearded Dragon) and a Eurostopodus mystacalis (White-throated Nightjar). The nesting area was flagged off with wooden stakes and pink flagging tape to delineate the area to prevent any harm. 	

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
			<ul style="list-style-type: none"> • Sector 3, 3A, 3B, 4, 4A, 4B Pre-clearance, Nocturnal, Diurnal Fauna Surveys and Tree Removal (Kleinfelder 12/12/20). Pre-clearance survey of Sector 3 completed on 20/11/20. On 2/12/2020, a Kleinfelder Ecologist conducted a nocturnal fauna survey within Sector 3, 3A, 3B, 4, 4A, 4B prior to tree removal. One fauna species the Brown Quail (<i>Coturnix ypsilophora</i>) was detected and relocated. On 4/12/2020, diurnal fauna surveys were conducted prior to tree removal. One White-throated Nightjar (<i>Eurostopodus mystacalis</i>) was detected and was dispersed. • Preclearance survey of Area 7 (Wedgetail, 11/06/21). Pre-clearance survey completed on 25 March to 1 April 2021. Ecologist was present at the site. Inspection targeted native fauna, specifically koala, and confirming presence of hollows. Hollow bearing trees were identified and marked. Night survey completed on 29/3/21 targeting koala and squirrel gliders. No target threatened species were detected during the survey. <p>See recommendation in Schedule 3 Condition 37. It appears pre clearance work has improved since the initial issues in 2019.</p>	
SoC 8.3.18 (e)	<p>Vegetation Clearing</p> <ul style="list-style-type: none"> • A fully qualified, experienced and licenced ecologist will supervise clearing and encourage movement of any displaced animals into adjoining vegetation. 	Medium Non Compliance	Letter from DPIE (dated 30/10/20) notes that an ecologist was not present on site during all clearing that occurred on 14, 15 and 27 August 2019, 1 and 2 September 2019, and 8 January 2020. And that an ecologist was not present on site during the felling of habitat tree number 242 on 3 September 2019.	No further recommendation required.

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
			<p>Site response in Notice to Furnish was that an ecologist was not present for mulching/under scrubbing works, however was present for all hollow-bearing tree clearing. Site advised that tree 242 was felled on 3 Sept 2019 prior to an ecologist arriving on site.</p> <p>DPIE concluded in an email dated 22/6/21 that this was a breach of the BRMP. <u>Therefore non-compliance.</u></p>	
SoC 8.3.18 (f)	<p>Clearing will be undertaken predominantly by bulldozer and may be conducted in conjunction with topsoil removal.</p> <ul style="list-style-type: none"> • Vegetation should be cleared in a way that maintains habitat linkages and allows fauna living in or near the clearing site to move safely from the site to adjacent areas: <ul style="list-style-type: none"> o Clearing should occur towards connecting vegetation. o The direction of clearing should also ensure that fauna are directed away from Cabbage Tree Road and the quarry spine road. o Sequential clearing should not create an 'island' of habitat that is isolated from adjoining habitat by roads or cleared and disturbed areas. • Habitat trees will be left to stand for a period of two nights (also refer to Koala Protocol). • Habitat trees will be left to stand for a period of two nights (also refer to Koala Protocol and Habitat Tree Removal) and "soft-felled" under supervision of a suitably experienced fauna ecologist. 	Medium Non Compliance	<p>As per above line item, <u>low non-compliance</u> due to an ecologist not always present for clearing.</p> <p><u>Ecology Reports provided:</u></p> <ul style="list-style-type: none"> • Habitat Tree Removal At the Cabbage Tree Road Sand Quarry (Kleinfelder, 31/10/2019). Habitat tree removal occurred on 3 September and 14 October 2019. Ecologists attended the site on these dates. Hollow bearing trees were inspected prior to felling. No fauna was present in the 4 x hollow bearing trees removed. 6 x nest boxes were identified for installation to compensate for the loss of habitat. • Sector 1a and Sector 2 Nocturnal and Diurnal Fauna Surveys and Tree Removal (Kleinfelder, 28/07/20) Nocturnal fauna survey on 22/7/20 in Sector 1a and 2 prior to tree removal. No fauna were detected. On 23, 24 and 27 of July 2020, diurnal fauna surveys were conducted prior to tree removal. No fauna were detected during the diurnal surveys. On 23, 24 and 27 of July 2020, a Kleinfelder Ecologist supervised the clearing of non-habitat and habitat trees. One pair of Feathertail Gliders (<i>Acrobates pygmaeus</i>) were identified. The 	No further recommendation required.

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
	<ul style="list-style-type: none"> • No clearing should occur during the early evening or at night (when fauna species are most likely to be on the move and are more vulnerable to injury). • Plants that are suitable for brush matting (and may be vulnerable to dropping seed during clearing) will be cut ahead of the quarry face and stockpiled on weed-matting or similar to ensure seed is not “lost” during clearing and can then be spread over topsoiled areas. • Large organic debris, and where possible, other vegetation cleared from the operational area will be stockpiled and spread on rehabilitated areas immediately after re-distribution of topsoil. • Vegetation stockpiling should maintain a minimum 10 m cleared asset protection zone around the stockpile to minimise fire risk in adjoining vegetation. 		<p>hollow containing the gliders was relocated outside of the resource area. No other fauna were identified during the felling of the habitat trees.</p> <ul style="list-style-type: none"> • Sector 3, 3A, 3B, 4, 4A, 4B Pre-clearance, Nocturnal, Diurnal Fauna Surveys and Tree Removal (Kleinfelder 12/12/20). On 2/12/2020, a Kleinfelder Ecologist conducted a nocturnal fauna survey within Sector 3, 3A, 3B, 4, 4A, 4B prior to tree removal. One fauna species the Brown Quail (<i>Coturnix ypsilophora</i>) was detected and relocated. On 4/12/2020, diurnal fauna surveys were conducted prior to tree removal. One White-throated Nightjar (<i>Eurostopodus mystacalis</i>) was detected and was dispersed. On 4/12/2020, a Kleinfelder Ecologist supervised the clearing of non-habitat and habitat trees within sectors 3, 3A and 3B. One Koala (<i>Phascolarctos cinereus</i>) was found during the clearing operations within sector 3 in a Blackbutt (<i>Eucalyptus pilularis</i>) tree (refer above line item). <p>Area 7 clearing works undertaken on 30 March & 1 April, 2021 (Wedgetail, 11/6/21). Clearing works undertaken across Area 7 on 30 March, and 1 April 2021 and were supervised by Wedgetail ecologists. All HBT were inspected upon being soft felled by excavator on April 1, 2021. 5 hollows were considered suitable habitat for fauna to occupy. Therefore 5 nest boxes will need to be installed (1 Large, 3 Medium and 1 Small), to offset the hollows that were felled. One Eastern Bearded Dragon (<i>Pogonia barbata</i>) was captured and relocated.</p>	

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
SoC 8.3.18 (h)	<p>Habitat Tree Removal</p> <p>Habitat trees will be removed according to the following protocol:</p> <ul style="list-style-type: none"> • Hollow bearing trees will be left standing for two nights after the surrounding vegetation has been cleared to encourage any native fauna species utilising the habitat hollows to self-relocate. The actual felling of any habitat trees will be attended by a suitably experienced fauna ecologist in order to ensure the safety of any fauna found to be in the hollows. • On all occasions, trees having potential habitat hollows will be 'soft felled' by an experienced machine operator. The recommended soft felling procedure is as follows: <ul style="list-style-type: none"> o The hollow-bearing tree is given several moderate nudges with an excavator to give a warning to any occupying native fauna. o The hollow-bearing tree is then surveyed and native fauna given an opportunity to self-relocate before the tree is actually felled. o The hollow-bearing tree is soft felled with the rate of the tree's fall controlled by the machinery operator to minimise impact. o All hollows will be inspected for fauna and if any are found, the animal should be relocated at an appropriate time of day (i.e. dusk for nocturnal species). If the animal is injured, it will be taken to a local veterinarian. o Suitable medium and large hollows should be cut from the tree at least one metre beyond the deepest point of the hollow and then stored in a dry safe 	Medium Non Compliance	<p><u>Correspondence:</u></p> <ul style="list-style-type: none"> • An ecologist was not present on site during the felling of habitat tree number 242 on 3 September 2019. DPIE concluded in an email dated 22/6/21 that this was a breach of the BRMP. <u>Therefore non-compliance.</u> <p><u>Ecology Reports provided:</u></p> <ul style="list-style-type: none"> • Habitat Tree Removal At the Cabbage Tree Road Sand Quarry (Kleinfelder, 31/10/2019). Habitat tree removal occurred on 3 September and 14 October 2019. Ecologists attended the site on these dates. Hollow bearing trees were inspected prior to felling. No fauna was present in the 4 x hollow bearing trees removed. 6 x nest boxes were identified for installation to compensate for the loss of habitat. • Sector 1a and Sector 2 Nocturnal and Diurnal Fauna Surveys and Tree Removal (Kleinfelder, 28/07/20) Nocturnal fauna survey on 22/7/20 in Sector 1a and 2 prior to tree removal. No fauna were detected. On 23, 24 and 27 of July 2020, diurnal fauna surveys were conducted prior to tree removal. No fauna were detected during the diurnal surveys. On 23, 24 and 27 of July 2020, a Kleinfelder Ecologist supervised the clearing of non-habitat and habitat trees. One pair of Feathertail Gliders (<i>Acrobates pygmaeus</i>) were identified. The hollow containing the gliders was relocated outside of the resource area. No other fauna were identified during the felling of the habitat trees. 	No further recommendation required.

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
	<p>place in size related categories for replacement in rehabilitated areas.</p> <ul style="list-style-type: none"> The number and size of hollows within each habitat tree will be recorded after each habitat is felled. This information will inform the nest box installation works that will occur post extraction. 		<ul style="list-style-type: none"> Sector 3, 3A, 3B, 4, 4A, 4B Pre-clearance, Nocturnal, Diurnal Fauna Surveys and Tree Removal (Kleinfelder 12/12/20). On 2/12/2020, a Kleinfelder Ecologist conducted a nocturnal fauna survey within Sector 3, 3A, 3B, 4, 4A, 4B prior to tree removal. One fauna species the Brown Quail (<i>Coturnix ypsilophora</i>) was detected and relocated. On 4/12/2020, diurnal fauna surveys were conducted prior to tree removal. One White-throated Nightjar (<i>Eurostopodus mystacalis</i>) was detected and was dispersed. On 4/12/2020, a Kleinfelder Ecologist supervised the clearing of non-habitat and habitat trees within sectors 3, 3A and 3B. One Koala (<i>Phascolarctos cinereus</i>) was found during the clearing operations within sector 3 in a Blackbutt (<i>Eucalyptus pilularis</i>) tree (refer above line item). <p>Area 7 clearing works undertaken on 30 March & 1 April, 2021 (Wedgetail, 11/6/21). Clearing works undertaken across Area 7 on 30 March, and 1 April 2021 and were supervised by Wedgetail ecologists. All HBT were inspected upon being soft felled by excavator on April 1, 2021. 5 hollows were considered suitable habitat for fauna to occupy. Therefore 5 nest boxes will need to be installed (1 Large, 3 Medium and 1 Small), to offset the hollows that were felled. One Eastern Bearded Dragon (<i>Pogonia barbata</i>) was captured and relocated.</p>	
SoC 8.3.18 (s)	Independent registered surveyor to undertake audit	Admin Non Compliance	Site advised that Centurion Survey Pty Ltd undertakes routine survey and review of onsite survey equipment. However unable to provide evidence of this. It is understood that site has	No further recommendation required.

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
			these records, however they were unable to be provided prior to the completion of the audit. <u>Therefore no further recommendation.</u>	
SoC 8.3.18 (v)	<p>Nest Box Installations</p> <ul style="list-style-type: none"> Hollows will be replaced with nest boxes at a ratio of 1:1 within the rehabilitation area. Nest box design will be selected to replace the natural size of removed hollows. The number and type of next boxes to be installed will be determined for surveys of hollow-bearing trees felled during clearing. Nest boxes will be installed on wooden poles at an approximate height of 3 m within the rehabilitation area. 	Low Non Compliance	<p><u>Correspondence:</u></p> <ul style="list-style-type: none"> DPIE letter dated 30/10/20 noted that nest boxes are required to be installed up to 12 months prior to clearing where feasible, however nest boxes were not installed until November 2020, which is 15 months after clearing commenced in August 2019. In the Notice to furnish response, Newcastle Sands noted that it was not possible to install nest boxes 12 months prior to construction. Email from DPIE dated 22/6/21 ""Investigation of biodiversity breaches - CTR Quarry"" concluded that this was considered a non-compliance with the BRMP. Therefore low non-compliance. However no further recommendation included as these have now been installed. <p>Below ecology reports confirm nest boxes have now been installed.</p> <p><u>Ecology reports:</u></p> <ul style="list-style-type: none"> Nest Box Monitoring Report (Wedgetail, April 2021). Monitoring of 94 nest boxes within on-site BOAs completed on 20, 21, 23 April 2021. Species identified included Common brushtail possums (<i>Trichosurus vulpecula</i>), Squirrel gliders (<i>Petaurus norfolcensis</i>) and Sugar gliders (<i>Petaurus breviceps</i>). Newcastle Sand Nest Box Pre-installation Survey (Kleinfelder, 10/07/20). On July 10, 2020, a Kleinfelder ecologist conducted a nest box pre- 	No further recommendation required.

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
			<p>installation survey within two retained vegetation areas adjacent to the resource areas 1a and 2. 25 nest box locations were chosen within the retained vegetation outside of resource areas.</p> <ul style="list-style-type: none"> • Newcastle Sand Nest box Pre-installation Survey (Kleinfelder, 17/11/20). On 11/11/20, a Kleinfelder ecologist conducted a nest box pre-installation survey within 3 retained vegetation areas adjacent to resource areas. 60 nest box locations were chosen within retained vegetation outside the resource area. • Nestbox Installation – March 2021 (Wedgetail, 13/5/21). On 29-30/3/2021, an Ecologist from Wedgetail installed 100 nest boxes within the Onsite Biodiversity Offset Area. Currently, a total of 75 hollows have been removed due to clearing the impact area, and a total of 184 nest boxes have been installed within Onsite Biodiversity Offset Area. 	
EPL 21264				
O3.8	<p>The Licensee must cease all topsoil stripping and dozer operations when the following occurs:</p> <p>a) Wind is directed towards surrounding residences, and</p> <p>b) Rolling PM10 24 hr average exceeds 35 micrograms per cubic metre.</p>	Low Non-Compliance	<ul style="list-style-type: none"> • Construction period (commencing 14 August 2019). • Operational period (commencing 1 May 2020 – to day of site inspection 22 July 2021). Note, the first truck left site via the completed intersection on 18 May 2020. <p>It is assumed that topsoil stripping and dozer operations occurred through most days of construction and operations. There were a number of instances where 24h PM10 exceeded 35 µg/m3. Site was unable to provide evidence that topsoil stripping/dozer operations ceased on each occasion. Email chain provided for ceasing</p>	NC REC 14: Until Newcastle Sands consults with DPIE and EPA, they need to implement and record the real time triggers for air quality.

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
			<p>operations on 19-20 August 2020. There fore, low non-compliance.</p> <p>Site noted that the Air Quality TARP was developed to be an indicative response framework to manage dust levels onsite. Site propose to amend this SOC in the next Consent modification, in addition to an amendment to the EPL and the AQMP.</p>	
M1.3	<p>The following records must be kept in respect of any samples required to be collected for the purposes of this licence:</p> <p>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.</p>	Admin Non Compliance	<p>Monitoring data sheets provided and reviewed.</p> <ul style="list-style-type: none"> • Water - Appended to Kleinfelder monthly water monitoring reports. Date, time, monitoring location and name of sampler recorded. • Air - Chain of Custody sheet provided from ALS for air quality sampling. Date, time and monitoring location recorded, but not name of person who collected sample. Therefore admin non compliance. • Noise - Spectrum acoustics noise monitoring reports. Noise monitoring reports do not specify who completed the noise monitoring. <u>Therefore admin non compliance.</u> Site advised that this has now been rectified and further training of the sampler completed, forms now include Sampler name. 	NC REC 15: Future noise and air quality monitoring reports to note the name of the person collecting the sample in accordance with EPL requirements.
M2.2	Air Monitoring Requirements	Low Non-Compliance	<p>Monitoring undertaken as per these frequencies however there were numerous times throughout the audit period where there was a loss of data/unable to get a sample (7% downtime at RT1 and 13% downtime at RT2). Site provided evidence that the monitoring equipment has been serviced and is no longer experiencing the loss of data. <u>Therefore low non-compliance.</u></p>	NC REC 10: Ensure that future EPL non-compliances are reported as non-compliances in the Annual Review.

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
			This was noted as a non-compliance in the 2019-20 EPL Annual Return (specifically for failure to collect four HVAS samples from both Point 15 and Point 16 due to availability of calibration equipment for the monitoring units). However wasn't noted as a non-compliance in the 2019 or 2020 Annual Review.	
M8.1	<p>To assess compliance with the noise limits section of this licence, attended noise monitoring must be undertaken in accordance with the noise conditions and:</p> <p>a) at a location representative of the most affected residences in the noise limit conditions and;</p> <p>b) occur quarterly in a reporting period;</p> <p>c) occur each day and shoulder period as defined in the NSW Industrial Noise Policy for a minimum of:</p> <ul style="list-style-type: none"> • 1.5 hours during the day; and • 30 minutes during the shoulder period. <p>d) occur for three consecutive operating days.</p> <p>Note: It is the intention of the EPA to review the noise monitoring results required under this condition after a period of (3) years to assess the suitability of the required monitoring. "</p>	Low Non-Compliance	<p>Noise monitoring is undertaken quarterly by Spectrum Acoustics.</p> <p>(a) Monitoring undertaken at receiver 42 which is representative of receivers south of the site.</p> <p>(b) Monitoring occurs quarterly (reports provided)</p> <p>(c) and (d) Section 1.2 of the Noise Monitoring Reports note that each quarterly survey consists of 30 minute morning-shoulder measurements and 1.5 hour day measurements at a location representative of the most affected residences in the noise limit conditions, and is done over a minimum of three consecutive 24 hour periods.</p> <p>(d) Noise monitoring completed quarterly, 4 days were single days only during construction, one event was for three consecutive days. <u>Therefore low non-compliance.</u> Reported in 2019-20 EPL Annual Return however not reported as a non-compliance in either the 2019 or 2020 Annual Reviews.</p>	NC REC 10: Ensure that future EPL non-compliances are reported as non-compliances in the Annual Review.
R4	<p>Noise Monitoring Report</p> <p>A noise compliance assessment report must be submitted to the EPA within 30 days of the completion of the quarterly monitoring. The</p>	Low Non-Compliance	Not completed. Site advised that noise reports now provided to EPA following completion consistent with requirement.	NC REC 16: Site to complete a noise compliance assessment and submit within 30 days of the completion of quarterly monitoring as per EPL Condition R4 requirements.

Schedule and Condition Number	Condition	Compliance Status	Finding	Recommendations
	assessment must be prepared by a suitably qualified and experienced acoustical consultant and include: a) an assessment of compliance with the noise limits as detailed in this licence; and b) an outline of any management actions taken within the monitoring period to address any exceedances of the limits detailed in this licence.			

7. ADDITIONAL RECOMMENDED ACTIONS

Additional recommended actions for improvement (not associated with non-compliances) have been provided in **Table 8**.

Table 8 – Additional Recommendations

Aspect	Condition Reference	Improvement REC Number	Recommendation
Surface Water	SSD-6125 Sch 3 Cond 15	IMP REC 1	Additional detail should be included in the next Annual Review about water quality results rather than referring to the appendix. This should also include details about if triggers have been reached any action/reporting requirements.
Surface Water	SSD-6125 Sch 3 Cond 15	IMP REC 2	Additional detail should be put in the next Annual Review regarding the surface water management system, including the rubber liner below the haul road, tables drains, water storage and the recycling of surface water.
Groundwater	SSD-6125 Sch 3 Cond 16	IMP REC 3	A neutral or beneficial effect on the water quality of the Tomago Sandbeds Special Area is required from the Applicant. While this is described in the Soil and Water Management Plan there is no evidence of the implementation. It is recommended that this be documented in the Annual Review.
Groundwater	SSD-6125 Sch 3 Cond 20	IMP REC 4	Additional detail should be included in the next Annual Review regarding the location of moved infrastructure at the site (infrastructure area is proposed to move north). The new infrastructure area should include long-term design for maintenance of machinery and vehicles and storage of hydrocarbons. All works need to be consistent with the EIS, modifications and the Project Approval.
Administrative	SSD-6125 Sch 5 Cond 3	IMP REC 5	Separate out the individual requirements of the "all management plans" condition and include section references in all management plans.
Groundwater	SoC 8.3.8 (h)	IMP REC 6	There is a requirement that data loggers will be installed in monitoring wells to continuously monitor and provide additional data for input to the groundwater model. While the Maximum Extraction Depth Management Plan (2019) recommends that 5 bores have dataloggers installed, there is no reporting of this data. The datalogger data needs to be included in the quarterly monitoring and annual review as a confirmation of monitoring during the year.
Groundwater	SoC 8.3.8 (k)	IMP REC 7	A groundwater model and quarry floor height will be reviewed every two years following the commencement of activities. The activities commenced in August 2019; therefore, these updates are due in August 2021.
Lighting	SoC 8.3.16 (b)	IMP REC 8	When the site office and infrastructure move further north ensure lighting has been installed and managed as per the Australian Standards.
Rehabilitation	SoC 8.3.18 (l) and (n)	IMP REC 9	Records of topsoil stripping and depth (including stripping in two paths) should be kept on site.
Hydrocarbon management	EPL 21264 Cond O5.2	IMP REC 10	Recommendation for long term concrete bunding in the workshop in the fuel area.

Aspect	Condition Reference	Improvement REC Number	Recommendation
Complaints	EPL 21264 Cond M5.1	IMP REC 11	Don't include residents names in the complaints register in the Annual Review. Best practice to just refer to them as resident A, resident B, etc.

8. CONCLUSION

The IEA covered the requirements of Schedule 5 Condition 12 of the Project Approval (SSD 6125).

The IEA period is 8 August 2018 to 22 July 2021. This is the initial audit following the approval of SSD 6125 on 9 May 2018. The IEA included specialists for groundwater and ecology.

The IEA generally identified a high level of compliance with no high risks identified during the IEA. A summary of non-compliances is provided below:

- There were 11 administrative non – compliances identified;
- There were 12 low risk non – compliances identified; and
- There were 8 medium risk non – compliances identified.

Key findings and recommendations are outlined in **Section 6 and 7**.

The site visit concluded that the Quarry is generally compliant and well maintained, with highlights including:

- Site water management;
 - Good regrowth on the disturbed soils;
 - Minimal weeds observed on site;
 - Frog fence has been maintained well;
 - Noise management and compliance was good.
-



APPENDIX A

Photographs





Photo 1 – Portable Bund for Maintenance Activities



Photo 2 – Defined Hydrocarbon Storage Area



Photo 3 – Sump located behind processing area



Photo 4 – Installed Frog Fence



Photo 5 - Loaded Truck heading towards process area



Photo 6 – Survey Markers



Photo 7 – Dog or fox footprint



Photo 8 – Natural regrowth on dunes



Photo 9 – Topsoil area to be stripped for future rehabilitation



Photo 10 – Coffee rock formation



Photo 11 – Nest box installed in adjacent bushland



Photo 12 – Stockpiled timber for future rehabilitation

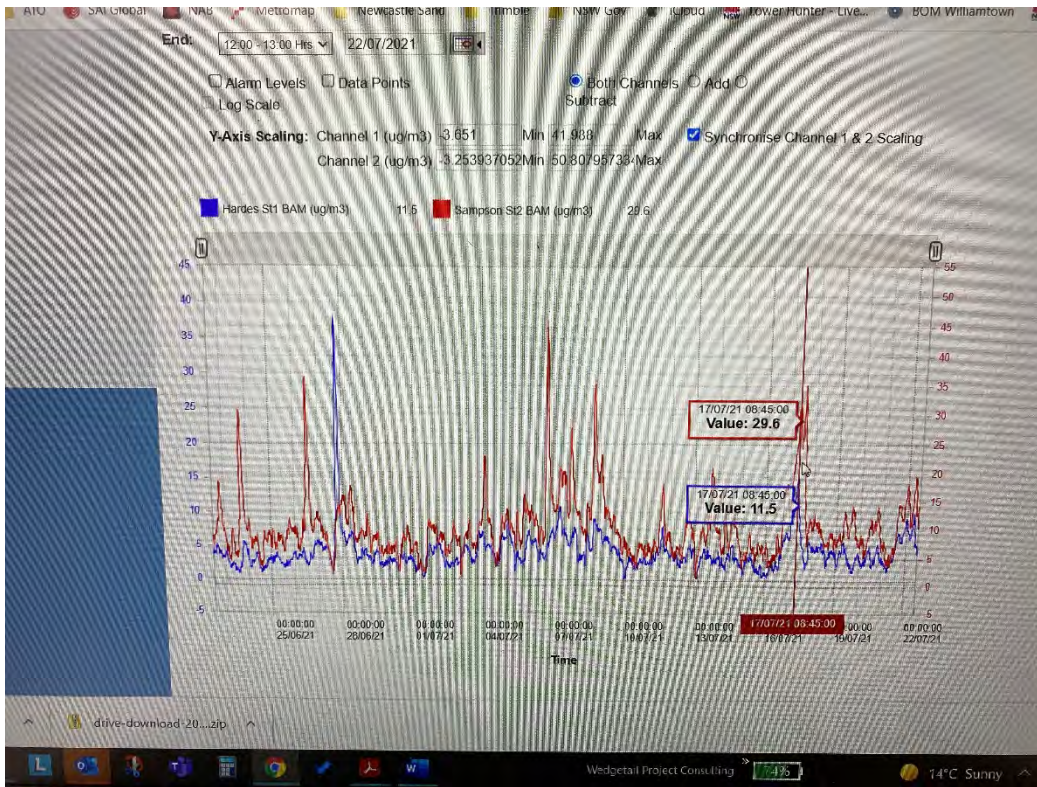


Photo 13 – Real time air monitoring system



Photo 14 – Sediment fencing is down in a couple of small areas



APPENDIX B

Compliance Spreadsheet



SSD-6125

Condition Number	Condition	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action
SCHEDULE 2 - ADMINISTRATIVE CONDITIONS						
Obligation to Minimise Harm to the Environment						
1	In addition to meeting the specific performance measures and criteria established under this consent, the Applicant must implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or rehabilitation of the development.	See below line items	Compliant		Considered as per other line items. No material harm to the environment during the audit period was noted based on evidence and site discussions.	
Terms of Consent						
2	The development may only be carried out: (a) in compliance with the conditions of this consent; (b) in accordance with the Statement of Commitments in Appendix 2; (c) in accordance with all written directions of the Secretary; (d) generally in accordance with the EIS, MR (Mod 1) and MR (Mod 2); and (e) generally in accordance with the Development Layout Plans in Appendix 1.		Compliant	Approval documents	The development was considered to be carried out generally in accordance with the listed documents.	
3	If there is any inconsistency between the documents listed in condition 2(d), the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this consent shall prevail to the extent of any inconsistency.		Note		Noted	
4	The Applicant must comply with any written requirement/s of the Secretary arising from the Department's assessment of: (a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this consent (including any stages of these documents); (b) any reviews, reports or audits undertaken or commissioned by the Department regarding compliance with this consent; and (c) the implementation of any actions or measures contained in these documents.	Any written requests from the Department of other government agencies? Any fines or PINS?	Compliant	Notice to Furnish letter from DPIE and responses.	• Notice to Furnish letter from DPIE, regarding ecological breaches. Request to provide information by 13 November 2020. Site provided data on 27 November 2020. Enforceable undertaking email from DPIE dated 22 June 2021. • Site response to the Notice to Furnish and EO is considered compliant with this condition as actions are being implemented.	
Limits on Consent						
5	Quarrying Operations The Applicant may carry out quarrying operations on the site until 31 December 2033. Note: Under this consent, the Applicant is required to rehabilitate the site and carry out additional requirements and undertakings to the satisfaction of the Secretary. Consequently, this consent will continue to apply in all respects other than the right to conduct quarrying operations until the rehabilitation of the site and those requirements and undertakings have been carried out to the standard required by the applicable conditions.		Compliant		Quarrying operations were carried out during the approved timeframe.	
6	The Applicant must not undertake quarrying operations within 0.7 metres of the predicted maximum groundwater level. Note: Construction of facilities may occur below this level in accordance with a Construction Environmental Management Plan approved by the Secretary under condition 15(d)(iii) of Schedule 3.	Evidence of survey records illustrating sand mining depth. Any markers sighted in the field?	Compliant	• Evidence of plots. • Marked up survey points sighted in the field. • Centurion survey reports. • Maximum Extraction Depth Management Plan (Watershed HydroGeo, 2019) • CEMP approval letter (dated 26/8/19)	Evidence as per previous column. CEMP approval letter provided (dated 26/8/19).	
7	The Applicant must not extract more than 530,000 tonnes of quarry products from the site in any calendar year.	Production data (spreadsheet) from commencement of quarrying. Annual Reviews	Compliant	Vehicle movement (tonnes) spreadsheet provided.	• April 2020: 5,000 tonnes (as part of a trial) • 1 May to 31 Dec 2020: 124,310.7 tonnes (Operations commenced) • 1 Jan to 30 June 2021: 170,279.7 tonnes	
8	The Applicant shall ensure that a minimum 20 metre buffer of undisturbed land is maintained between the extraction areas and the boundary of the site, unless a written agreement exists with a neighbouring landowner to reduce the buffer adjacent to his/her property and a copy of this agreement is provided to the Department.	Evidence of survey reports/figure illustrating 20m buffer between extraction area and site boundary. Evidence of any written agreement (if triggered) with landowner?	Compliant	• Survey Plan shows a 20m buffer around undisturbed lands. • Fig 2 of Annual Review. • Pre clearance reports provided.	See evidence collected/source column. No issues determined in the field.	
9	The Applicant shall ensure that a minimum 50 metre buffer of undisturbed land is maintained between the extraction areas and any boundary of the site that is shared with Tilligerry State Conservation Area.	Evidence of survey reports/figure illustrating 50m buffer between extraction area and site boundary that is shared with the Tilligerry State Conservation Area..	Compliant	Survey Plan	Survey Plan shows a 50m buffer around SCA	
10	Quarry Product Transport The Applicant must not transport more than 530,000 tonnes of quarry products from the site during any calendar year.	Monthly transport data from commencement of quarrying (to May 2020)	Compliant	Vehicle movement (tonnes) spreadsheet	• April 2020: 5,000 tonnes (as part of a trial) • 1 May to 31 Dec 2020: 124,310.7 tonnes (Operations commenced) • 1 Jan to 30 June 2021: 170,279.7 tonnes • Vehicle movement (tonnes) spreadsheet provided.	
11	Maximum Extraction Depth Report The Applicant must commission a Maximum Extraction Depth Report for the site. This report must: (a) be prepared by a suitably qualified and experienced expert/s whose appointment has been endorsed by the Secretary; (b) be prepared in consultation with Hunter Water and DPIE - Water; (c) be approved by the Secretary prior to the commencement of any ground disturbing activities; (d) establish the predicted maximum groundwater levels for the site based on: • all available HWC groundwater monitoring data; • all available site-specific monitoring data, including all data collected from on-site boreholes; and • modelling software and parameters agreed to by Hunter Water, DPIE - Water and the Secretary. (e) provide details of how the predicted maximum groundwater level was determined, including justification for the chosen modelling software and parameters; (f) establish the maximum extraction depths to which extraction can be undertaken on site, to comply with condition 6 of Schedule 2; and (g) provide a Maximum Extraction Depth contour map for the project; and (h) provide recommended management measures as to how compliance with the extraction depths specified in the report can be achieved, including consideration of the use of continuous GPS tracking of sand extraction machinery. The Applicant must consider any assessment of the Report by Hunter Water and/or DPIE - Water and implement the findings and recommendations of the Maximum Extraction Depth Report, to the satisfaction of the Secretary.	Evidence of the site implementing the Maximum Extraction Depth Report e.g. Survey records, reporting, mitigation measures.	Compliant	Maximum Extraction Depth Management Plan dated May 2019. Endorsement letter for Watershed HydroGeo (dated 14/6/18). Field survey markers	<u>Preparation:</u> Maximum Extraction Depth Management Plan dated May 2019. a) DPE letter dated 14 June 2018. Watershed HydroGeo endorsed by DPIE in a letter dated 14/6/18. b) Appendix C c) Approval letter from DPIE provided, dated 31/05/2019 d) Section 2 e) Section 2 and Appendix B f) Section 2 g) Section 2 h) Section 3 <u>Implementation:</u> • Evidence of survey monitoring and field markers. Evidence of groundwater trigger in table 3.3 of management plans, however this has not been triggered (depth not reached). • Some machinery has GPS tracking.	
12	The Applicant must review and update the Maximum Extraction Depth Report, in consultation with Hunter Water and DPIE - Water: (a) every two years from the date of approval of the Maximum Extraction Depth Report; and (b) if any groundwater is encountered during quarrying operations or if directed by the Secretary.	Has the requirement to update the Maximum Extraction Depth Report been triggered? If so provide evidence.	Admin Non Compliance	Maximum Extraction Depth Management Plan dated May 2019. Groundwater results	(a) Date of document approval - 31/5/19. Therefore date of document due for an update was May 2021. <u>Administrative non-compliance.</u> Site has noted that Andrew Fulton of Groundwater Exploration Services has now been endorsed by the Director and has been engaged to complete the review, however this is outside the audit period. (b) Based on site discussions, no groundwater has been encountered. No evidence in any reporting documents such as Annual Review.	NC REC 1: Site to update the Maximum Extraction Depth Report for currency as it is more than two years old.
Notification of Commencement						
13	At least one month prior to physically commencing development permitted under this consent, the Applicant must notify the Department in writing of the date on which it will commence the development.	Evidence of "At least one month prior to physically commencing development permitted under this consent, the Applicant must notify the Department in writing of the date on which it will commence the development".	Compliant	Email titled "Cabbage Tree Road Quarry - Notification and Request for Variation"	Email titled "Cabbage Tree Road Quarry - Notification and Request for Variation" provided dated 28/6/19 notifying intended start at end of July/ start of August	
Structural Adequacy						
14	The Applicant must ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA. Notes: • Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works; and • Part 8 of the EP&A Regulation sets out the requirements for the certification of the development or project.	Email from BuildCert (dated 7 May 2021)	Not triggered	Email from BuildCert (dated 7 May 2021)	No buildings have been constructed on site. Only temporary portable structures. Email from BuildCert (dated 7 May 2021) confirming that the temporary structures and portable buildings at the site do not require a Construction Certificate.	

Condition Number	Condition	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action								
Demolition														
15	The Applicant must ensure that all demolition work is carried out in accordance with Australian Standard AS 2601-2001: The Demolition of Structures, or its latest version.	Any demolition? - Unlikely.	Not triggered	Site communications	No demolition undertaken.									
Protection of Public Infrastructure														
16	Unless the Applicant and the applicable authority agree otherwise the Applicant must: (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development. Note: This condition does not apply to damage to roads caused as a result of general road usage or otherwise addressed by contributions required by condition 21 of Schedule 2.	Has any public infrastructure been damaged? Yes/No Trigger. Has any public infrastructure needed to be relocated?	Compliant	Site communications	(a) Not triggered (b) costs were covered by Newcastle Sands in terms of relocating a water main and telecommunications line that ran along the front of the site.									
Operation of Plant and Equipment														
17	The Applicant must ensure that all the plant and equipment used at the site, or to monitor the performance of the development is: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner.	Evidence of equipment maintenance. E.g. Truck service, servicing of plant, servicing of air quality monitoring equipment (HVAS)	Compliant	Service records	(a) Service records provided for multiple pieces of equipment - sighted hard copies while on site. (b) site was determined to be operating efficiently during the site inspection.									
Production Data														
18	The Applicant must: (a) from the commencement of quarrying operations provide calendar year annual quarry production data to DRG using the standard form for that purpose; and (b) include a copy of this data in the Annual Review.	Evidence of production volumes being provided to Resources Regulator (in specified format) as part of the Annual Review.	Admin Non Compliance	RR production form	(a) RR form sighted. Noted that the current RR form covers the financial year, whereas this condition requires calendar year. (b) Production data has been included in Section 2 of the Annual Reviews. However the required form has not been appended to the Annual Review. <u>Therefore admin non-compliance.</u> Site noted that some aspects of this form are commercially sensitive, the quantity of "Natural Sand" as specified in the form was reported within the Annual Review.	NC REC 2: Ensure that the production data reporting covers the RR requirement and Annual Review requirements.								
Identification of Approved Extraction Limits														
19	One month prior to commencing quarrying operations, unless otherwise agreed with the Secretary, the Applicant must: (a) engage a registered surveyor to mark out the boundaries of the approved limits of extraction within the site; and (b) submit a survey plan of these boundaries with applicable GPS coordinates to the Secretary.	Evidence of surveying to meet Schedule 2 Condition 19.	Admin Non Compliance	Stage 1 Survey Plans provided and email showing evidence of submission.	(a) Letter from DPIE provided, dated 5/7/2019, approving that the Survey Plan may be submitted in three stages. 1. Approved boundaries of the Cabbage Tree Rd intersection works and construction of site facilities. 2. Quarry is operating in the Southern Sand Resource. Site advised that Stage 2 Survey plans exist (as noted in JB email 9/9/21) however these were not able to be provided at the time of finalising the audit. <u>Therefore admin non-compliance.</u> No further recommendation as it is understood that the information is available, just not provided to auditors. 3. Quarry is operating in the Northern Sand Resource (prior to quarrying in that resource). Site advised that Stage 3 Survey plans exist (as noted in JB email 9/9/21) however these were not able to be provided at the time of finalising the audit. <u>Therefore admin non-compliance.</u> No further recommendation as it is understood that the information is available, just not provided to auditors. (b) Stage 1 Survey Plans provided and email showing evidence of submission.									
20	While quarrying operations are being carried out, the Applicant must ensure that these boundaries are clearly marked at all times in a manner that allows operating staff to clearly identify the approved limits of extraction.	Evidence of survey records illustrating sand mining depth. Any survey markers sighted in the field?	Compliant	Field markers Frog fence	Boundaries were observed while out in the field. Evidence of frog fence.									
Contributions to Council														
21	The Applicant must pay to Council an annual financial contribution toward provision of local infrastructure. The contribution must be determined in accordance with the Port Stephens S.94A Development Contribution Plan, or any subsequent relevant contributions plan adopted by Council. This contribution must be paid to Council prior to the issue of any construction certificate for the development. Any annual contributions must be paid to Council within one month of the anniversary date of this consent and reported in the Annual Review.	Evidence of annual council contribution.	Not triggered	Service records	No construction certificates required, therefore site believes that this condition has not been triggered. Advice from BuildCert confirming this to be the case in their opinion (dated 7 May 2020).									
Compliance														
22	The Applicant must ensure that all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this consent relevant to their respective activities.	Evidence of induction. Training and awareness programs. Evidence of recording those inducted.	Compliant	Online induction	• Online induction viewed. • Induction records sighted while on site. • Driver Code of Conduct includes requirements for driver compliance (appended to the TMP).									
SCHEDULE 3 - SPECIFIC ENVIRONMENTAL CONDITIONS														
Noise														
1	Hours of Operation The Applicant must comply with the operating hours set out in Table 1. <table border="1"> <caption>Table 1: Operating Hours</caption> <thead> <tr> <th>Activity</th> <th>Permissible Hours</th> </tr> </thead> <tbody> <tr> <td>Quarrying operations</td> <td> <ul style="list-style-type: none"> 7 am to 5 pm Monday to Friday 7 am to 4 pm Saturday At no time on Sundays or public holidays </td> </tr> <tr> <td>Loading and dispatch of laden trucks</td> <td> <ul style="list-style-type: none"> 6 am to 6 pm Monday to Friday 7 am to 4 pm Saturday At no time on Sundays or public holidays May be conducted at any time, provided that these activities are not audible at any privately-owned residence </td> </tr> <tr> <td>Maintenance</td> <td> <ul style="list-style-type: none"> At no time on Sundays or public holidays May be conducted at any time, provided that these activities are not audible at any privately-owned residence </td> </tr> </tbody> </table> However, if the Applicant reaches agreement to extend the hours of transportation with all owners of privately-owned land fronting Cabbage Tree Road immediately opposite the deceleration and acceleration lanes forming part of the quarry access intersection and has advised the Department in writing of the terms of these agreements, then the Applicant may also undertake loading and dispatch of laden trucks between 5 am and 6 am Monday to Friday.	Activity	Permissible Hours	Quarrying operations	<ul style="list-style-type: none"> 7 am to 5 pm Monday to Friday 7 am to 4 pm Saturday At no time on Sundays or public holidays 	Loading and dispatch of laden trucks	<ul style="list-style-type: none"> 6 am to 6 pm Monday to Friday 7 am to 4 pm Saturday At no time on Sundays or public holidays May be conducted at any time, provided that these activities are not audible at any privately-owned residence 	Maintenance	<ul style="list-style-type: none"> At no time on Sundays or public holidays May be conducted at any time, provided that these activities are not audible at any privately-owned residence 	Evidence of operating hours. E.g. Employees, contractors, transport times.	Compliant	Weighbridge information Email from DPIE dated 9 June 2021 regarding complaints of trucks accessing the site outside of the approved hours for loading and dispatch	Weighbridge is automated, trucks cannot be loaded outside of hours Truck movements (time in and out) and recorded. This is a simple means for managing compliance. Email from DPIE dated 9 June 2021 regarding complaints of trucks accessing the site outside of the approved hours for loading and dispatch. 1. <u>Sunday 28 March 2021.</u> Weighbridge maintenance undertaken by Newcastle Weighing Services (NWS) with a Newcastle Sand representative. No quarrying operations or loading and dispatch of laden trucks occurred on this day. Request from DPIE to make every attempt to remain inaudible if conducting maintenance operations at the site outside regular operating hours. 2. <u>Tuesday 13 April 2021.</u> Complaint that one truck entered the quarry before 6am. Internal investigation shows it was unsubstantiated. Site records note that first truck commenced loading at 6:01am. No evidence of any non - compliances relating to operation hours.	
Activity	Permissible Hours													
Quarrying operations	<ul style="list-style-type: none"> 7 am to 5 pm Monday to Friday 7 am to 4 pm Saturday At no time on Sundays or public holidays 													
Loading and dispatch of laden trucks	<ul style="list-style-type: none"> 6 am to 6 pm Monday to Friday 7 am to 4 pm Saturday At no time on Sundays or public holidays May be conducted at any time, provided that these activities are not audible at any privately-owned residence 													
Maintenance	<ul style="list-style-type: none"> At no time on Sundays or public holidays May be conducted at any time, provided that these activities are not audible at any privately-owned residence 													
2	The following activities may be carried out outside the hours specified in Table 1: (a) delivery or dispatch of materials as requested by Police or other public authorities; and (b) emergency work to avoid the loss of lives, property or to prevent environmental harm. In such circumstances, the Applicant must notify the Secretary and affected residents prior to undertaking the activities, or as soon as is practical thereafter.	Evidence of any additional out of hour requests to DPIE as per Schedule 3 Condition 2.	Note		Noted									
3	Noise Impact Assessment Criteria The Applicant must ensure that the noise generated by the development does not exceed the criteria in Table 2 at any residence on privately-owned land. <table border="1"> <caption>Table 2: Noise criteria dB(A)</caption> <thead> <tr> <th>Receiver</th> <th>Day LAeq (15 minute)</th> <th>Shoulder LAeq (15 minute)</th> <th>Shoulder LAmax (1 minute)</th> </tr> </thead> <tbody> <tr> <td>Any residence on privately owned land</td> <td>43</td> <td>39</td> <td>45</td> </tr> </tbody> </table> In this condition, 'the development' excludes road construction activities associated with the intersection of the quarry access road and Cabbage Tree Road and vegetation clearing operations within the Southern Resource Area (see condition 4 below). Noise generated by the development is to be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the NPI. Appendix 5 sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria. The criteria in Table 2 do not apply if the Applicant has an agreement with relevant landowner/s to exceed the noise criteria, and the Applicant has advised the Department in writing of the terms of this agreement.	Receiver	Day LAeq (15 minute)	Shoulder LAeq (15 minute)	Shoulder LAmax (1 minute)	Any residence on privately owned land	43	39	45	Evidence of noise monitoring reports.	Compliant	Noise monitoring reports	Noise monitoring is undertaken by Spectrum Acoustics. Provided: • Construction Noise monitoring results from November 2019 to April 2020; and • Quarterly noise monitoring results for Q2, Q3 & Q4 2020 and Q1 & Q2 2021. Noise monitoring reports reviewed, all results were compliant with the relevant criteria.	
Receiver	Day LAeq (15 minute)	Shoulder LAeq (15 minute)	Shoulder LAmax (1 minute)											
Any residence on privately owned land	43	39	45											

Condition Number	Condition	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action												
4	<p>Operating Conditions</p> <p>The Applicant must only undertake vegetation clearing operations within the Southern Resource Area under the following circumstances:</p> <p>(a) noise generated by the development does not exceed 47 dB(A)_{L_{Aeq}} (15 minute);</p> <p>(b) bulldozer(s) or equipment with a sound power level greater than 104 dB(A) are not permitted to be used in Sectors 9B, 10A, 10B and 10C, as shown in Figure 2 of Appendix 1;</p> <p>(c) clearing operations are limited to:</p> <ul style="list-style-type: none"> the Day period, Monday to Friday; campaigns not exceeding 5 consecutive working days; and no more than four campaigns in any calendar year. 	<p>Evidence of construction noise monitoring.</p> <p>Evidence of sound power level testing. Noting we have proposed levels in the Noise Management Plan, but any actual testing when construction and operations commenced.</p> <p>Evidence of clearing times (dates and times).</p>	Compliant		<p>Vegetation clearing is undertaken on an ongoing basis as required for extraction areas.</p> <p>Section 5.3 of the Noise MP outlines the requirements for vegetation clearing.</p> <p>(a) Noise monitoring results have not recorded any exceedances of the criteria.</p> <p>(b) Not triggered - site has not entered these areas.</p> <p>(c) Clearing records are provided in the Annual Reviews.</p>													
5	<p>The Applicant must:</p> <p>(a) implement best practice management to minimise the construction, operational and road transport noise of the development;</p> <p>(b) minimise the noise impacts of the development during meteorological conditions when the noise criteria in this consent do not apply (see Appendix 5);</p> <p>(c) carry out noise monitoring (at least every 3 months or as otherwise determined by the Secretary) to determine whether the development is complying with the relevant conditions of this consent; and</p> <p>(d) regularly assess noise monitoring data and modify and/or stop operations on site to ensure compliance with the relevant conditions of this consent.</p> <p><i>To the satisfaction of the Secretary.</i></p>		Compliant	Noise monitoring reports Noise Management Plan Annual Review	<p>(a) Implementation of Noise controls is outlined in Section 7 of the Noise MP and noise monitoring results are discussed in Section 5.3 of the Annual Reviews.</p> <p>(b) This is outlined in Section 5.4 and Section 7 of the Noise MP</p> <p>(c) Noise monitoring carried out quarterly during the reporting period, reports provided.</p> <p>(d) Site advised that activities were completed during construction to reduce potential noise impacts. Site advised that no operations have been required to have been stopped due to noise.</p> <p>No noise complaints or non-compliances during operations. Noise appears to be managed well.</p>													
6	<p>The Applicant must prepare a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with the EPA;</p> <p>(b) be submitted to the Secretary at least one month prior to commencing ground disturbing activities, unless otherwise agreed by the Secretary;</p> <p>(c) describe the measures to be implemented to ensure:</p> <ul style="list-style-type: none"> compliance with the noise criteria and operating conditions in this consent; best practice management is being employed; and the noise impacts of the development are minimised during meteorological conditions under which the noise criteria in this consent do not apply (see Appendix 5); <p>(d) describe the proposed noise management system; and</p> <p>(e) include a monitoring program to be implemented to measure noise generated by the development against the noise criteria in conditions 3 and 4 of this Schedule, and which evaluates and reports on the effectiveness of the noise management system on site.</p> <p>The Applicant must not commence ground disturbing activities until the Noise Management Plan is approved by the Secretary.</p> <p><i>The Applicant must implement the Noise Management Plan as approved from time to time by the Secretary.</i></p>	<p>REQUIRED: Evidence of approval</p> <p>Evidence of noise monitoring reports.</p> <p>Implementation of Noise Management Plan - e.g. Section 7 of the Noise MP commitments.</p> <p>We will check general implementation in field inspection.</p>	Compliant	Noise monitoring reports Noise Management Plan Annual Review	<p><u>Preparation:</u></p> <p>Noise Management Plan dated 26 March 2019. Approved by DPIE in a letter dated 16/4/19.</p> <p>a) Section 1.4 and Appendix 1</p> <p>b) Appendix 1</p> <p>c) Section 5</p> <p>d) Section 7</p> <p>e) Section 8</p> <p><u>Implementation:</u></p> <ul style="list-style-type: none"> Evidence of noise monitoring. No noise complaints or non-compliances during operations. No real time noise monitoring required. Operations are not required to be modified due to noise. 													
Air Quality																		
7	<p>Air Quality Impact Assessment Criteria</p> <p>The Applicant must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not cause exceedances of the criteria in Table 3 at any residence on privately-owned land.</p> <p><i>Table 3: Air quality criteria</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th>Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>Annual</td> <td>a. c 25 µg/m³</td> </tr> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>24 hour</td> <td>b 50 µg/m³</td> </tr> <tr> <td>Total suspended particulates (TSP)</td> <td>Annual</td> <td>a. c 90 µg/m³</td> </tr> </tbody> </table> <p><i>Notes to Table 4:</i></p> <p>a Cumulative impact (ie increase in concentrations due to the development plus background concentrations due to all other sources).</p> <p>b Incremental impact (ie increase in concentrations due to the development alone, with zero allowable exceedances of the criteria over the life of the development).</p> <p>c Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents or any other activity agreed by the Secretary.</p> <p>d "Reasonable and feasible avoidance measures" includes, but is not limited to, the operational requirements in conditions 8 and 9 to develop and implement an air quality management system that ensures operational responses to the risks of exceedance of the criteria.</p>	Pollutant	Averaging Period	Criterion	Particulate matter < 10 µm (PM ₁₀)	Annual	a. c 25 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	24 hour	b 50 µg/m ³	Total suspended particulates (TSP)	Annual	a. c 90 µg/m ³	<p>Air quality monitoring results. Including a spreadsheet.</p> <p>Evidence of notification to DPIE if they site has gone above criteria for short term PM10 (based on sites impact alone).</p>	Low Non-Compliance	Monitoring data and monthly reports. Annual Review	<p>Noting works commenced onsite on 14 August 2019 and focused on construction of the access road and office and workshop compound. IEMA has focussed on dust management from this time onwards (not when site had consent, but there were no construction or operations).</p> <p>Monitoring data provided. Significant monitoring errors and missing data, <u>therefore low non-compliance.</u></p> <p>Short term results and data quality</p> <p>A copy of the June 2021 air quality data monitoring report covered results from July 2019 to July 2021 for the BAM monitors. For every month until February 2021 there were errors, with regular comments such as 'Machine Error RT2'. There appeared to be no data issues between February 2021 to July 2021.</p> <p>There were also some errors associated with HVAS 1 and 2, however these appear less common.</p> <p>Section 5.1.6 of the Annual Review outlines the response to these outages and site believes these have now been addressed. Therefore no addition recommendation required.</p> <p>There have been times when the site was above the PM10 short term criteria. An investigation by Newcastle Sand in the Annual Review 2020 illustrates when the site has been above criteria for PM10. The 2020 Annual Review states: <i>For 2020 On one occasion (Sunday 30 August) results from the PM10 showed 51.6 µg/m3, no production or haulage occurred at the quarry on this day, as such this level must be related to other local factors. In addition, given the criteria of 50 µg/m3 for the project is based on an incremental impact, an effective upwind sampling site is the Beresfield DPIE monitoring station which showed daily average levels of 14.4 µg/m3 for the same day showing the negligible potential for contributions from the site alone exceeding 50 µg/m3.</i></p> <p>Annual Averages</p> <p>The 2019 and 2020 Annual Reviews outlines the annual results for PM10 and TSP. The site was within the annual average criteria. 2021 results are not for the annual period (not yet 12 months), but are below annual average criteria.</p> <p>One Chain of Custody (COC) form provided dated 29/06/2021.</p> <p>Site noted that the AQMP will be updated to better illustrate how incremental impacts are determined.</p>	NC REC 3: Site to include information about how 'incremental impact' is determined in the AQMP. Reporting is required if the site has gone above the criteria (noting the notes below the criteria) in relation to cumulative impacts, extraordinary events and incremental impacts).
Pollutant	Averaging Period	Criterion																
Particulate matter < 10 µm (PM ₁₀)	Annual	a. c 25 µg/m ³																
Particulate matter < 10 µm (PM ₁₀)	24 hour	b 50 µg/m ³																
Total suspended particulates (TSP)	Annual	a. c 90 µg/m ³																
8	<p>Operating Conditions</p> <p>The Applicant must:</p> <p>(a) implement best practice management to minimise the dust emissions of the development;</p> <p>(b) regularly assess meteorological and air quality monitoring data and relocate, modify and/or stop operations on site to ensure compliance with the air quality criteria in this consent;</p> <p>(c) minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note c under Table 3);</p> <p>(d) monitor and report on compliance with the relevant air quality conditions in this consent; and</p> <p>(e) minimise the area of surface disturbance and undertake progressive rehabilitation of the site, to the satisfaction of the Secretary.</p>	<p>Implementation of air quality management plan - including Section 6 of AQMP.</p> <p>Emails provided between Environmental Consultant and Quarry Manager (dated 19-20 August 2020) titled "Cabbage Wind and Sand"</p>	Low Non-Compliance	Monitoring data and monthly reports. Annual Review	<p>Site inspection did not identify any issues with dust on site. Watercarts are available at site.</p> <p>No dust issues noted in any documentation relating to clearing.</p> <p>Some progressive rehabilitation has recently commenced.</p> <p>The audit team has called the site non-compliant for Part b of this condition - <i>regularly assess meteorological and air quality monitoring data and relocate, modify and/or stop operations on site to ensure compliance with the air quality criteria in this consent.</i></p> <p>Although dust issues have not been determined there is little written evidence assessing dust management once the site hit the triggers in Section 8 of the AQMP. This had proposed actions for when the PM10 rolling average 24 hour criteria hit 22, 35, 40, 42.5, 45 and 50 µg/m3.</p> <p>The audit team has noted - Emails provided between Environmental Consultant and Quarry Manager that document modifications to operations during adverse weather conditions (dated 19-20 August 2020) titled "Cabbage Wind and Sand".</p> <p>No evidence was provided about how the site reacted to when the PM10 rolling average 24 hour criteria was above 22 µg/m3 from October 2019 to May 2020. Therefore <u>non-compliant.</u></p>	NC REC 4: Site to record changed operations based on real time air quality triggers (as per the Air Quality Management Plan).												

Condition Number	Condition	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action
9	<p>Air Quality Management Plan</p> <p>The Applicant must prepare an Air Quality Management Plan for the development to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with the EPA;</p> <p>(b) be submitted to the Secretary for approval prior to commencing ground disturbing activities on the site, unless otherwise agreed by the Secretary;</p> <p>(c) describe the measures to be implemented to ensure:</p> <ul style="list-style-type: none"> • compliance with the air quality criteria and operating conditions of this consent; • best practice management is being employed; and • the air quality impacts of the development are minimised during adverse meteorological conditions and extraordinary events; <p>(d) describe the proposed air quality management system;</p> <p>(e) include an air quality monitoring program that:</p> <ul style="list-style-type: none"> • is capable of evaluating the performance of the development; • includes at least two real-time particulate monitors; • includes risk-based monitoring to demonstrate compliance with the criteria in Table 3; • includes a Trigger Action Response Plan (TARP), including appropriate trigger levels, and a protocol to be implemented when trigger levels are exceeded; • includes a protocol for determining any exceedances of the relevant conditions of consent; • effectively supports the air quality management system; and • evaluates and reports on the adequacy of the air quality management system. <p>The Applicant must not commence ground disturbing activities until the Air Quality Management Plan is approved by the Secretary.</p> <p>The Applicant must implement the Air Quality Management Plan as approved from time to time by the Secretary.</p>	Implementation of air quality management plan - including Section 6 of AQMP.	Low Non-Compliance	Monitoring data and monthly reports. Annual Review	<p><u>Preparation:</u> Air Quality Management Plan dated 26 March 2019. Approved by DPIE in a letter dated 16/4/19.</p> <p>a) Section 1.4 and Appendix 1 b) Appendix 1 c) Section 6 d) Sections 5, 6, 7, 8 and 9 e) Sections 7, 8 and 9</p> <p><u>Implementation:</u></p> <ul style="list-style-type: none"> • No air quality issues observed while on site. • See <u>non-compliance</u> issues in schedule 3 Condition 7 and 8 relating to data errors in PM10 and TSP monitors and the lack of evidence in terms of the response to elevated short term PM10 criteria as per Section 8 of the AQMP. • Water sprays at the transfer points. • Sprinklers along batters. • Exposed areas will be stabilised as soon as possible following disturbance. • Daily/ongoing inspections for dust by quarry manager. • Silica monitoring undertaken (for health reasons). <p><u>Site comments:</u> Site noted that the response framework developed within the AQMP was intended to be a flexible iterative process for responding to real-time dust monitoring observations. They noted that the system appears to have been inadvertently fixed within a more static framework. Site have noted that the AQMP will be adjusted to enable more flexible response to air quality consistent with operational needs. Site noted that a log is to be developed that notes any operational response intended to reduce dust levels.</p>	<p>NC REC 5: Improve air quality action recording when there has been a trigger based on short term PM10 criteria.</p> <p>NC REC 6: Look at including a figure in Annual Reviews showing two different monitors and potential contributions depending on wind direction.</p>
10	<p>Meteorological Monitoring</p> <p>For the life of the development, the Applicant must ensure that it has access to data from a suitable meteorological station operating in the vicinity of the site that complies with the requirements in the Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales guideline.</p>	Evidence of meteorological monitoring - spreadsheet. Maintenance and calibration.	Compliant		Site utilises the BoM met station at Williamtown. Updates ever half hour (public BoM website). Also the BAMs monitor wind speed and direction.	
11	<p>Greenhouse Gas Emissions</p> <p>The Applicant must implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site.</p>	Records of fuel and electricity usage.	Compliant		Section 6.4 of the AQMP outlines the greenhouse gas management measures implemented.	
Soil and Water						
12	<p>Water Supply</p> <p>The Applicant must ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of operations under the consent to match its available water supply, to the satisfaction of the Secretary.</p>	Records of any water extraction licences. Records of water usage and tracking against licences.	Compliant		Hunter Water supply.	
13	The Applicant must not utilise, or otherwise interfere with, groundwater on the site, unless unavoidably associated with the construction and use of groundwater monitoring bores and the construction of quarry-related infrastructure.	Groundwater monitoring results.	Compliant	Water Management Plan Annual Review	There is no evidence in any of the reviewed documents that groundwater was utilised or interfered with the exception of incidental take resulting from construction. Annual review 2020 and groundwater monitoring data 2019 to 2021 support this along with SWMP Section 7.2 and CEMP 5.4.1.3. Site noted that during construction, while there was some expectation of the potential to encounter groundwater, the low levels of groundwater at that time meant no groundwater was intercepted.	
14	<p>Water Discharges</p> <p>The Applicant must comply with the discharge limits in any EPL, or with section 120 of the POEO Act.</p>	Any discharge occurred?	Not triggered	Water Management Plan	No LDPs	
15	<p>Soil and Water Management Plan</p> <p>The Applicant must prepare a Soil and Water Management Plan for the development to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared by suitably qualified and experienced person/s approved by the Secretary;</p> <p>(b) be prepared in consultation with the EPA, Hunter Water and DPIE - Water;</p> <p>(c) be submitted to the Secretary for approval prior to commencing ground disturbing activities on the site, unless otherwise agreed by the Secretary; and</p> <p>(d) include a:</p> <p>(i) Site Water Balance that includes:</p> <ul style="list-style-type: none"> • details of: <ul style="list-style-type: none"> o sources and security of water supply; o water use and management on site, including wash plant process water use and management; o any off-site water transfers; and o reporting procedures; and • measures to be implemented to minimise clean water use on site; <p>(ii) Surface Water Management Plan, that includes:</p> <ul style="list-style-type: none"> • a program for obtaining baseline data on surface water flows and quality in water bodies that could potentially be affected by the development; • a detailed description of the surface water management system on site including the: <ul style="list-style-type: none"> o clean water diversion system; o erosion and sediment controls; o dirty and process water management systems, including details of the type and dosing rate(s) of flocculants and coagulants; o water storages; o contingency measures for PFAS-containing or contaminated water and sediments; and • a program to monitor and report on: <ul style="list-style-type: none"> o any surface water discharges, o the effectiveness of the water and sediment management system, including the effectiveness of water recovery during processing; o the quantity and type of flocculants and or coagulants used in the sand washing process; o potential PFAS detections in wash water and settlement products; o the quality of water discharged from the site to the environment; and o surface water flows and quality in water bodies that could potentially be affected by the development. <p>(iii) Groundwater Management Plan that includes:</p> <ul style="list-style-type: none"> • a monitoring program to manage potential impacts, if any, on groundwater and any associated surface water source near the proposed extraction area that includes: <ul style="list-style-type: none"> o identification of methodologies for determining threshold water quality criteria; o regular testing of groundwater bores for the presence of PFAS; o contingency measures in the event of a breach of thresholds; and o a program to regularly report on monitoring; and • a Construction Environmental Management Plan to manage any interaction with groundwater encountered during provision of services to the site (such as water supply pipelines) and construction of quarry-related facilities (such as weighbridges, offices and workshop buildings). This Plan must include sampling of any groundwater encountered during such activities and testing for the presence of PFAS and include contingency protocols should any groundwater be found to be contain PFAS. The Applicant must implement the Soil and Water Management Plan as approved from time to time by the Secretary. The Applicant must provide an updated Soil and Water Management Plan, inclusive of the wash plant and water and sediment management system, to the Secretary for approval. Construction of the water and sediment management system described in the MR (Mod 2) must not commence prior to the updated Soil and Water Management Plan being approved by the Secretary. 	<p>Water monitoring results.</p> <p>Evidence of implementation of Soil and Water Management Plan.</p> <p>Any contingency plans implemented?</p> <p>Letter of SWMP approval from DPIE dated 31/05/2019</p>	Compliant	Soil and Water Management Plan 2020. Letter of approval from DPIE dated 13/7/21. 2020 Water Monitoring Review Report by Kleinfelder	<p><u>Preparation:</u> This plan is dated 7 July 2021 a) Appendix 1. Watershed HydroGeo and Kleinfelder endorsed by DPIE in a letter dated 14/6/18. b) Section 1.4 and Appendix 1 c) Letter of approval of original SWMP provided, dated 31 May 2019. Noted that construction started 14 August 2019. Latest version dated 7 July 2021. Approved 13/7/21. d.i) Section 4 includes the Site Water Balance ii) Sections 3, 5, 7 and 8 iii) Sections 3, 7 and 8</p> <ul style="list-style-type: none"> • Construction Environmental Management Plan dated 30 August 2019 • PFAS contamination and management included in Section 3 and 6 <p><u>Implementation:</u></p> <ul style="list-style-type: none"> • Check dams are located at the site entrance. • It is noted that the plant area will be relocated in the future further north to be closer to the extraction areas. <p><u>Results and Criteria</u></p> <ul style="list-style-type: none"> • Surface water Triggers are now outlined in Table 20 of the July 2021 Soil and Water Management Plan. These will need to be assessed in the future with reporting required if triggers are met. This has fallen outside the audit period. Evidence was provided in the 2020 Water Monitoring Review Report by Kleinfelder about the process to obtain baseline water quality and develop triggers. See Baseline Report. • Little surface water is retained on site due to sandy nature of the soils. Some water reports to swale drains. The 2020 Water Monitoring Review Report by Kleinfelder indicated that <i>The high permeability of the Tomago Sandbeds results in little or no defined surface runoff, noting no defined natural drainage lines are on the Site. Drainage is therefore predominantly via vertical infiltration into the sand, with any ephemeral surface drainage generally expected to be in the direction of the existing surface slopes.</i> <p>Site noted that the next Annual Review will include additional detail within the document body text, noting it will be important to maintain some balance so as not to overwhelm the main text with one attribute of the monitoring program.</p>	<p>IMP REC 1: Additional detail should be included in the next Annual Review about water quality results rather than referring to the appendix. This should also include details about if triggers have been reached any action/reporting requirements.</p> <p>IMP REC 2: Additional detail should be put in the next Annual Review regarding the surface water management system, including the rubber liner below the haul road, tables drains, water storage and the recycling of surface water.</p>
16	<p>Tomago Sandbeds Special Area</p> <p>The Applicant must operate the development so that it has a neutral or beneficial effect on the water quality of the Tomago Sandbeds Special Area.</p>		Compliant	Soil and Water Management Plan 2020 Water Monitoring Review Report by Kleinfelder	<p>The management of the Tomago Sandbeds Special Area is described in Section 7 of the Soil and Water Management Plan (2021). The implementation of the plan is not documented and this area is not discussed further in the Baseline report or Annual review (Water Quality Report, 2021).</p> <p>Site noted that the Annual Review will include a statement with respect to neutral or beneficial effects. The process of reporting water quality monitoring data from across the site, in the context of adopted trigger values and meeting the Consent requirements for other aspects inherently provide evidence of a neutral or beneficial effect on the sand beds. Any further evidence is considered unnecessary.</p>	IMP REC 3: A neutral or beneficial effect on the water quality of the Tomago Sandbeds Special Area is required from the Applicant. While this is described in the Soil and Water Management Plan there is no evidence of the implementation. It is recommended that this be documented in the Annual Review.

Condition Number	Condition	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action
17	The Applicant must not construct quarry infrastructure within the Tomago Sandbeds Special Area.		Compliant	Assessment in field	There is no construction of quarry infrastructure (excluding roads, power lines and potable water pipelines required for servicing the quarry) within the Tomago Sandbeds Special Area.	
18	The Applicant must establish and use an on-site sewage pump-out system, incorporating a holding tank, located outside of the Tomago Sandbeds Special Area.	Evidence of sewage management system, including maintenance.	Compliant	Assessment in field	Section 5.1.2, part 3(a)(iv) of the SWMP states the use of septic tanks and removal by licenced contractors. Discussed with site during inspection.	
19	The Applicant must not store liquids other than water within the Tomago Sandbeds Special Area. Any liquids (other than water) kept on the site must be stored within a bunded and roofed area constructed in accordance with the relevant Australian Standards.	Evidence of storage of hydrocarbons (to be sighted in the field).	Compliant	Assessment in field	Tomago sand bed area has been marked up. Inspections have not shown any hydrocarbons stored within the Special Area. All hydrocarbons stored in bunded area.	
20	The Applicant must construct and use a fully bunded and undercover re-fuelling facility located outside of the Tomago Sandbeds Special Area for all mobile equipment re-fuelling operations, with the exception of tracked equipment. Re-fuelling of any tracked equipment within the Tomago Sandbeds Special Area must be conducted within a fully bunded and lined hardstand that is capable of holding both the tracked equipment and the fuel truck.	Evidence of fully bunded re-fuelling location.	Compliant	Field Inspection - portable bund sighted	Note this condition does not state a timing. This is still a work in progress. Currently there is a temporary storage area for hydrocarbons and re-fuelling near the sites office. No evidence of any re-fuelling or chemical storage within the Tomago Sands. Site noted that the intention will be the construction of a permanent bunding under cover outside the Tomago Sand Beds by June 2022. Site noted that within the sand beds area, bunded areas will be available for refuelling and overnight parking of tracked equipment.	IMP REC 4: Additional detail should be included in the next Annual Review regarding the location of moved infrastructure at the site (infrastructure area is proposed to move north). The new infrastructure area should include long-term design for maintenance of machinery and vehicles and storage of hydrocarbons. All works need to be consistent with the EIS, modifications and the Project Approval.
21	The Applicant must ensure that, outside of the operating hours during which quarrying operations are permitted, all fuel-powered equipment is removed from the Tomago Sandbeds Special Area to a secure storage, except for equipment being used in vegetation clearing operations, which may be stored within a fully-bunded and lined hardstand area outside of operating hours. <i>Note: Operating hours for quarrying operations are shown in Table 1.</i>		Compliant	Field Inspection and site communications	Trailer which contains fuel is moved every night. Vehicles are moved into fenced workshop, office compound. Trucks and equipment park in temporary underground area with portable bunds underneath that area.	
Transport						
22	Operating Conditions The Applicant must: (a) ensure that all laden trucks entering or exiting the site have their loads covered; (b) ensure that all laden trucks exiting the site are cleaned before leaving the site of material that may fall from vehicles; and (c) use its best endeavours to ensure that appropriate signage is displayed on all trucks used to transport product from the development so they can be easily identified by road users.	Evidence of truck logs. Arriving and leaving site. Evidence of truck/wheel wash Evidence of truck signage.	Compliant	Site inspection Code of conduct	(a) All trucks leaving site have loads covered, evidenced by video footage. Note empty trucks entering the site can have an uncovered load. (b) Trucks are swept/hosed before leaving site. Shaker grid before entering the weighbridge. (c) Truck signage sighted on site.	
23 & 23A	The Applicant must ensure that: (a) speed limits of 40 km/hour for vehicles entering the site on sealed roads; 60 km/hr for vehicles exiting the site; and 20 km/hour for vehicles using all other roads and areas on site are applied and enforced; (b) trucks slowing to use the intersection of the quarry access road and Cabbage Tree Road do not use engine or compression braking systems; (c) laden truck movements exiting the site do not exceed 6 per hour during the period from 6 am to 7 am, Monday to Friday; (d) laden truck movements exiting the site do not exceed 10 per hour during the period from 7 am to 6 pm, Monday to Friday; and (e) laden truck movements exiting the site do not exceed 10 per hour during the period from 7 am to 4 pm, Saturdays. Note: In this condition, "per hour" means within any period of 60 minutes following the change of hour. 23A. The Applicant must ensure that if agreement is reached with adjoining residents under condition 1 of this Schedule, laden truck movements exiting the site do not exceed 6 per hour during the period from 5 am to 6 am, Monday to Friday.	Evidence of truck logs. Arriving and leaving site.	Compliant	Site inspection Code of conduct	(a) Speed signs observed around the site, and on entry and exit. (b) This is captured in the Driver Code of Conduct which all drivers sign. (c) Truck movement data sheet provided which records truck entry and exit times. IEMA has reviewed a number of truck movement record sheets, and the site appears to comply with the required timeframes. (d) As above (e) As above	
24	Traffic Management Plan The Applicant must prepare a Traffic Management Plan for the development to the satisfaction of the Secretary. This plan must: (a) be prepared in consultation with TNSW and Council; (b) be submitted to the Secretary for approval prior to commencing quarrying operations, unless otherwise agreed by the Secretary; (c) describe the processes in place for the control of truck movements entering and exiting the site; (d) describe measures to ensure that trucks do not park on the verge of Cabbage Tree Road prior to the opening time of the quarry, including the use of security guards at least twice per week for at least six months from the commencement of trucking operations; (e) include a Drivers' Code of Conduct that details the safe and quiet driving practices that must be used by drivers travelling to and from the quarry; (f) include a compliance monitoring program for the requirements of the Drivers' Code of Conduct of condition 25 of this Schedule; and (g) propose measures to minimise the transmission of dust and tracking of material onto the surface of public roads from vehicles leaving the quarry. The Applicant must not commence quarrying operations until the Traffic Management Plan is approved by the Secretary. The Applicant must implement the Traffic Management Plan as approved from time to time by the Secretary.	Implementation of Traffic MP.	Compliant	Traffic Management Plan (28 March 2019 and 10 March 2021 versions) TMP approval letters (dated 16 April 2019 and 31 March 2021). Site inspection Code of conduct	<u>Preparation:</u> Original plan was dated 28 March 2019. Approval letter provided, dated 16 April 2019. Latest version dated 10 March 2021. Letter of approval provided, dated 31 March 2021. a) Section 1.4 and Appendix 3 b) Approved by DPIE in a letter dated 16/4/19. c) Section 5 d) Section 5 and Appendix 1 e) Appendix 1 f) Section 5 g) Section 5 <u>Implementation:</u> Site advised trucks are not permitted to enter the site until the approved operating hours, the weighbridge will stop loading after the max no of trucks is reached. No traffic related incidents/exceedances since operating. Noting some liaison with DPIE (see Schedule 3 Condition 1).	
25	Drivers Code of Conduct The Applicant must prepare a Drivers' Code of Conduct applicable to drivers of all development-related vehicles, including all trucks that haul sand from the site. This Code of Conduct must: (a) be prepared in consultation with Council and TNSW and be submitted to the Secretary for approval; (b) address the requirements of conditions 22 and 23 of this schedule; (c) describe the measures that would be implemented to ensure that drivers of all development-related vehicles, including sand haulage trucks: • comply with this Drivers' Code of Conduct; • are made aware of potential safety issues both on site and on the public road haulage routes; • are made aware of the requirement to pre-book loading slots for trucks arriving prior to 7am; • are informed of when heavy traffic volumes are likely to be encountered on Cabbage Tree Road, including the AM and PM peaks; • are informed of usual school bus travel times on Tomago Road and Cabbage Tree Road as well as the location of all bus stops on these roads; • are made aware of potential interactions with general traffic on Cabbage Tree Road whilst merging from the acceleration lane of the quarry access intersection; • are informed that Masonite, Williamtown and Old Punt Roads are not to be used for the haulage of sand, except for deliveries to properties in the immediate vicinity of those roads; • are provided with contact details in case of emergencies or accidents; • are provided with details of potential environmental hazards, such as potential for fauna (e.g. Koalas) to cross the quarry access road, particularly at dawn and dusk; • are provided with a detailed protocol that sets out what drivers are required to do to arrange for the care of injured fauna and that they must immediately report all fauna strikes on the site to the Applicant; • provided with updates on local road conditions; • minimise truck noise impacts at residences on Cabbage Tree Road; and • minimise travel to the site prior to commencing product loading operations.	Evidence of implementing code of conduct, including training, incident management.	Compliant	Traffic Management Plan Site inspection Code of conduct	<u>Preparation:</u> The Driver Code of Conduct is dated 28 March 2019. This was appended to the TMP which was approved by DPIE in a letter dated 16/4/19. a) Appendix 2. b) Appendix 1. c) Appendix 1. Covers requirement of this condition. <u>Implementation:</u> Site advised trucks are not permitted to enter the site until the approved operating hours, the weighbridge will stop loading after the maximum number of trucks is reached. No traffic related incidents/exceedances since operating.	
26	Vehicle Monitoring The Applicant must, by the use of its weighbridge, make, and retain for 12 months, records of the time of arrival, time of dispatch, weight of load and vehicle identification for each laden truck dispatched from the site. The Applicant must publish a summary of these records on its website each month. These records must be made available to the Department on request.	Evidence of weighbridge records and website publishing.	Compliant	Weighbridge records	Weighbridge records provided and available on website. Records available since site commenced.	
27	The Applicant must install and operate video cameras adjacent to the weighbridge to monitor the time and direction of travel of vehicles as they enter and leave the quarry, to the satisfaction of the Secretary. These cameras must be located in fixed positions with a field of view that excludes land not owned by the Applicant. Recordings from these cameras must be securely stored for at least 30 days and made available to the Department on request.	Evidence of operating cameras and records (to be sighted in field).	Compliant	Site inspection Code of conduct	Video cameras have been installed and are operational.	
28	The Applicant must provide a report in each Annual Review which includes details of all fauna injured or killed by development-related vehicles, time and date of any such fauna strike, species involved, action taken following the strike and any consequent measures put in place to prevent or minimise a recurrence.	Evidence of fauna kill info in Annual Review.	Not triggered		Not triggered	

Condition Number	Condition	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action
29	<p>Intersection Treatment</p> <p>Prior to commencing quarrying operations, the Applicant must:</p> <p>(a) prepare, in consultation with any affected landowners, a Road Construction Management Plan for construction of the intersection of the quarry access road with Cabbage Tree Road. This Plan must consider noise, vibration, dust and property access impacts of the construction works and set out ways to avoid, minimise or offset impacts or provide respite for affected residents from extended periods of construction activities; to the satisfaction of the Secretary; and</p> <p>(b) construct the intersection of the quarry access road and Cabbage Tree Road as a left in, left out only intersection, in accordance with Austroads Guidelines, Australian Standards and TNSW Technical Directions and to the satisfaction of TNSW.</p> <p>The Applicant must not commence to construct the intersection until the Road Construction Management Plan is approved by the Secretary.</p> <p>The Applicant must implement the Road Construction Management Plan as approved from time to time by the Secretary.</p>	<p>Evidence of preparation and implementation of the Road Construction Management Plan</p> <p>Evidence of sign off of the intersection construction.</p>	Compliant	<p>14 May 2020, from RMS</p> <p>• Letter provided, dated 25 June 2021, from RMS</p>	<p>Site advised intersection upgrade has been completed and handed back to RMS.</p> <p>• Letter provided, dated 14 May 2020, from RMS, confirming Practical Completion in relation to the intersection with Cabbage Tree Road.</p> <p>• Letter provided, dated 25 June 2021, from RMS, confirming Final Completion in relation to the intersection with Cabbage Tree Road.</p>	
30	<p>Prior to the use of the quarry access road intersection with Cabbage Tree Road prior to 7 am, the Applicant must provide street lighting adjacent to the intersection to the satisfaction of TNSW.</p>	<p>Any information about street lighting and approval by Transport for NSW.</p>	Compliant	<p>Works Authorisation Deed (WAD) and associated plans, stamped by RMS 29/10/19.</p> <p>Email from RMS (dated 6/11/19) confirming acceptance of lighting.</p>	<p>This was signed off with acceptance of the Works Authorisation Deed (WAD) and associated plans.</p>	
30A	<p>Glass Sand Trial</p> <p>For the purposes and duration of the Glass Sand Trial described in MR (Mod 1):</p> <p>(f) the requirement of condition 26 of Schedule 3 to utilise an on-site weighbridge may be alternatively satisfied by the use of Sibelco's weighbridge at its Salt Ash sand processing facility;</p> <p>(g) records identifying of each truck used in the Trial, its time of arrival and dispatch from the site and the weight of each load must be recorded and retained by the Applicant and published on its website within one week of the completion of the Trial;</p> <p>(h) the requirements of condition 29 (b) of Schedule 3 do not apply in relation to quarry operations undertaken for the purpose of the Trial, and the Applicant may utilise the quarry entry intersection, prior to its completion, for the movement of trucks associated with the Trial;</p> <p>(i) all truck movements associated with the Trial, either entering or exiting the site, must occur between 9 am and 2 pm, Monday to Friday;</p> <p>(j) all trucks associated with the Trial must utilise the quarry entry intersection using left-in and left-out movements;</p> <p>(k) no more than 30 laden trucks may be dispatched from the site on any day of the Trial;</p> <p>(l) the dispatch of laden trucks during the Trial may occur for a maximum of five days;</p> <p>(m) the Applicant must ensure that the surface of Cabbage Tree Road is regularly cleaned of any material that is tracked onto the road surface during the Trial;</p> <p>(n) the dispatch of laden trucks from the site to Cabbage Tree Road may only occur under the direction and control of accredited road traffic controllers;</p> <p>(o) the Trial may only commence following the installation of advance warning signs on Cabbage Tree Road, in accordance with Roads and Maritime Services Traffic Control at Worksites, July 2018, Australian Standard AS1742.4, on both the northbound and southbound approaches to the quarry entry intersection, and</p> <p>(p) the Applicant must provide a minimum of 48-hours' notice of the planned commencement of the Trial to all residents with a land frontage to the 80 kph or 60 kph construction zone on Cabbage Tree Road.</p>	<p>Evidence of Glass Sand Trial?</p> <p>Evidence of implementation of the detailed conditions.</p>	Low Non-Compliance	<p>Newsletter to residents dated 27/3/20.</p> <p>Glass sand trial truck movement summary.</p>	<p>(f) Site operates a weighbridge.</p> <p>(g) Glass Sand trial data available on website (for March/April 2020). Data includes the required detail for this condition (e.g. time of arrival, dispatch, load weight, etc).</p> <p>(h) Noted</p> <p>(i) During the Glass Sand Trial, the arrival and dispatch of trucks was limited to 9am-2pm. However trucks arrived prior to the 9am timeframe on four days in April 2020, consistent with the permitted construction hours applicable to the site at the time but not consistent with the approval. This was reported in the Annual Review. <u>Therefore - Low level non-compliance.</u> Glass sand trial now completed therefore no further recommendations.</p> <p>(j) Included in Traffic MP and discussed with site.</p> <p>(k) Trucking records for the trial show no more than 30 trucks per day.</p> <p>(l) Dispatch of laden trucks occurred over five days.</p> <p>(m) Included in Traffic MP and discussed with site.</p> <p>(n) and (o) Site advised that the glass sand haulage trail was occurring at the same time as the construction activities for the intersection, there was limited additional control required.</p> <p>(p) Notification to residents in Newsletter dated 27 March 2020.</p>	
Heritage						
31	<p>If findings and/or other physical evidence are discovered or a world war II radar station reputed to have been located on the site, then the Applicant must undertake, using a qualified archaeologist or heritage specialist endorsed by the Secretary, an assessment of the significance of the item in conjunction with a photographic archival recording of the item and/or other evidence relevant to its use. A report documenting these findings must be prepared and submitted within six months of the identification of the find for the information of the Secretary, the Heritage Council of NSW and the relevant local historical society.</p>	<p>Any historic heritage triggers?</p>	Not triggered		<p>Not triggered. This has been considered in the HMP.</p>	
32	<p>Aboriginal Heritage Management Plan</p> <p>The Applicant must prepare an Aboriginal Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;</p> <p>(b) be prepared in consultation with BCD and Registered Aboriginal Parties and be submitted to the Secretary for approval prior to commencing ground disturbing activities on the site, unless the Secretary agrees otherwise; and</p> <p>(c) include a description of the measures that would be implemented to:</p> <p>(i) protect, monitor and manage known sites of archaeological significance;</p> <p>(ii) salvage and manage all identified Aboriginal sites within the quarry's disturbance area, including surface collection of AHIMS site #38-4-1381;</p> <p>(iii) monitor vegetation clearing operations to identify any previously unknown Aboriginal sites;</p> <p>(iv) regularly monitor screened oversize material from the sand processing plant for Aboriginal objects or relics;</p> <p>(v) manage any new Aboriginal sites, objects or relics that are discovered;</p> <p>(vi) implement an Aboriginal cultural heritage awareness and induction program for all persons working on the site, not including drivers of sand haulage trucks;</p> <p>(vii) store Aboriginal heritage items that are salvaged on the site; and</p> <p>(viii) ensure ongoing consultation and involvement of the Registered Aboriginal Parties in the conservation and management of Aboriginal cultural heritage on the site.</p> <p>The Applicant must not commence ground disturbing activities until the Aboriginal Heritage Management Plan is approved by the Secretary.</p> <p>The Applicant must implement the Aboriginal Heritage Management Plan as approved from time to time by the Secretary.</p>	<p>Evidence of Aboriginal Heritage Management Plan approval.</p> <p>Evidence of implementation - including consultation, pre clearance permit, salvage and storage.</p>	Compliant	<p>Aboriginal Heritage Management Plan</p> <p>Annual Reviews</p>	<p><u>Preparation:</u></p> <p>The Aboriginal Heritage Management Plan is dated 5 June 2019. Plan approved on 17 June 2019</p> <p>a) Executive Summary and Appendix 1. Endorsement letter for Kleinfelder, Maxim Multicon, and McCordle Cultural Heritage provided, dated 14/6/18.</p> <p>b) Section 3 and Appendix 1</p> <p>c.i) Section 6.7</p> <p>c.ii) Section 6.9</p> <p>c.iii) Section 6.7</p> <p>c.iv) Section 6.9</p> <p>c.v) Section 7</p> <p>c.vi) Section 6.1</p> <p>c.vii) Section 6.10</p> <p>c.viii) Section 3 and 6.6</p> <p><u>Implementation:</u></p> <p>Site has undertaken pre-clearance surveys. One known site (unsalvaged). No heritage related incidents or complaints. Evidence of consultation in the Annual Review. Consultation with the RAPs was undertaken during the period and has included the following inspections prior to clearing and topsoil stripping since the commencement of construction:</p> <p>• Construction area (Sector 1) on 23 August 2019.</p> <p>• Sectors 1A and 2 on 30 July 2020.</p> <p>• Screened material inspection on 13 October 2020.</p> <p><u>See Appendix 8 of 2020 Annual Review.</u></p>	
33	<p>If any item or object of Aboriginal heritage significance is identified on site, the Applicant must ensure that:</p> <p>(a) all work in the immediate vicinity of the suspected Aboriginal item or object ceases immediately;</p> <p>(b) a 10 m buffer area around the suspected item or object is cordoned off; and</p> <p>(c) the BCD is contacted immediately.</p> <p>Work in the immediate vicinity of the Aboriginal item or object may only recommence in accordance with the provisions of Part 6 of the National Parks and Wildlife Act 1974.</p>	<p>Evidence of finding Aboriginal heritage item?</p>	Not triggered	<p>Site records and discussions</p>	<p>No records of heritage items found since operations.</p>	

Condition Number	Condition	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action																																										
34	<p>Biodiversity Offset Strategy</p> <p>The Applicant must implement the Biodiversity Offset Strategy as shown in Appendix 6 and described in the EIS, and acquire and retire biodiversity credits (within the meaning of the Biodiversity Conservation Act 2016) as set out in Tables 4 and 5 in accordance with the NSW Biodiversity Offsets Policy for Major Projects, to the satisfaction of the Secretary and BCD. The Applicant must identify the source of these biodiversity credits prior to commencing quarrying operations and retire these credits within 12 months of commencing quarrying operations, unless otherwise agreed with the Secretary.</p> <table border="1"> <caption>Table 4: Biodiversity credits to be retired from the 131 ha offset area on the development site</caption> <thead> <tr> <th>Credit type</th> <th>Number of Credits</th> </tr> </thead> <tbody> <tr> <td colspan="2">Ecosystem Credits</td> </tr> <tr> <td>HU851</td> <td>311</td> </tr> <tr> <td>HU860</td> <td>273</td> </tr> <tr> <td>HU917</td> <td>80</td> </tr> <tr> <td>HU938</td> <td>388</td> </tr> <tr> <td>HU948</td> <td>115</td> </tr> <tr> <td>HU965</td> <td>22</td> </tr> <tr> <td>Total On-site Ecosystem Credits</td> <td>1,189</td> </tr> <tr> <td colspan="2">Species Credits</td> </tr> <tr> <td>Camfield's Stringybark (Eucalyptus camfieldii)</td> <td>11,651</td> </tr> <tr> <td>Earp's Gum (Eucalyptus parramattensis subsp. Decadens)</td> <td>4,501</td> </tr> <tr> <td>Small-flowered Grevillea (Grevillia parviflora Parviflora)</td> <td>724</td> </tr> <tr> <td>Eastern Osprey</td> <td>717</td> </tr> <tr> <td>Koala</td> <td>744</td> </tr> <tr> <td>Wallum Froglet</td> <td>606</td> </tr> </tbody> </table> <table border="1"> <caption>Table 5: Biodiversity credits to be retired from off-site offset area</caption> <thead> <tr> <th>Credit type</th> <th>Number of Credits</th> </tr> </thead> <tbody> <tr> <td colspan="2">Ecosystem Credits</td> </tr> <tr> <td>Preferably HU860, and including other ecosystem credits generated by the application of variation criterion (f) for mitigated net loss (Tier 3) under the Interim Policy</td> <td>A minimum of 687 ecosystem credits. All the ecosystem credits concurrently available in securing 306 Koala species credits, up to 1,018 ecosystem credits</td> </tr> <tr> <td colspan="2">Species Credits</td> </tr> <tr> <td>Koala</td> <td>306</td> </tr> </tbody> </table>	Credit type	Number of Credits	Ecosystem Credits		HU851	311	HU860	273	HU917	80	HU938	388	HU948	115	HU965	22	Total On-site Ecosystem Credits	1,189	Species Credits		Camfield's Stringybark (Eucalyptus camfieldii)	11,651	Earp's Gum (Eucalyptus parramattensis subsp. Decadens)	4,501	Small-flowered Grevillea (Grevillia parviflora Parviflora)	724	Eastern Osprey	717	Koala	744	Wallum Froglet	606	Credit type	Number of Credits	Ecosystem Credits		Preferably HU860, and including other ecosystem credits generated by the application of variation criterion (f) for mitigated net loss (Tier 3) under the Interim Policy	A minimum of 687 ecosystem credits. All the ecosystem credits concurrently available in securing 306 Koala species credits, up to 1,018 ecosystem credits	Species Credits		Koala	306	<p>Evidence of Biodiversity Offset Strategy in place.</p> <p>The Applicant must identify the source of these biodiversity credits prior to commencing quarrying operations and retire these credits within 12 months of commencing quarrying operations, unless otherwise agreed with the Secretary.</p>	Not triggered	<p>Correspondence with DPIE</p> <p>Letter from DPIE dated 5/7/19</p> <p>Letter from DPIE dated 26/5/2021</p>	<p>Letter from DPIE dated 5/7/19 noting that the Biodiversity Conservation Fund may be used as an alternative to retiring biodiversity credits by the purchase of offsite biobanking sites.</p> <p>Letter from DPIE dated 26/5/2021 "Extension of time to implement biodiversity offset strategy" confirming a 12 month extension for this condition, with the offset strategy now required by 18 May 2022.</p> <p>Site advised that the offset sites have been secured, however have not been finalised as formal offsets. Site has received an extension on the timing for this condition. Consequently, no monitoring offset areas as yet. As the timing has been extended there is no specific recommendation at this point.</p>	
Credit type	Number of Credits																																															
Ecosystem Credits																																																
HU851	311																																															
HU860	273																																															
HU917	80																																															
HU938	388																																															
HU948	115																																															
HU965	22																																															
Total On-site Ecosystem Credits	1,189																																															
Species Credits																																																
Camfield's Stringybark (Eucalyptus camfieldii)	11,651																																															
Earp's Gum (Eucalyptus parramattensis subsp. Decadens)	4,501																																															
Small-flowered Grevillea (Grevillia parviflora Parviflora)	724																																															
Eastern Osprey	717																																															
Koala	744																																															
Wallum Froglet	606																																															
Credit type	Number of Credits																																															
Ecosystem Credits																																																
Preferably HU860, and including other ecosystem credits generated by the application of variation criterion (f) for mitigated net loss (Tier 3) under the Interim Policy	A minimum of 687 ecosystem credits. All the ecosystem credits concurrently available in securing 306 Koala species credits, up to 1,018 ecosystem credits																																															
Species Credits																																																
Koala	306																																															
35	<p>Rehabilitation Objectives</p> <p>The Applicant must rehabilitate the site to the satisfaction of the Secretary. Rehabilitation must be generally consistent with the rehabilitation strategy in the EIS and the conceptual rehabilitation plan shown in Appendix 3 and must comply with the objectives in Table 6.</p> <table border="1"> <caption>Table 6: Rehabilitation Objectives</caption> <thead> <tr> <th>Feature</th> <th>Objective</th> </tr> </thead> <tbody> <tr> <td>All areas of the site affected by the development</td> <td> <ul style="list-style-type: none"> Safe Hydraulically and geotechnically stable Non-polluting Fit for the intended post-mining land use(s) Final landform integrated with surrounding natural landforms as far as is reasonable and feasible Minimise visual impacts when viewed from surrounding land Facilitate regional movement of Koalas and their occupation of the site </td> </tr> <tr> <td>Surface Infrastructure</td> <td> <ul style="list-style-type: none"> Decommissioned and removed, unless otherwise agreed by the Secretary </td> </tr> <tr> <td>Quarry extraction area</td> <td> <ul style="list-style-type: none"> Landform rehabilitated to 1.0 metres above the predicted maximum groundwater level Landscaped and vegetated using native tree and understorey species Tree species to include Koala feed species </td> </tr> <tr> <td>Final Void</td> <td> <ul style="list-style-type: none"> No final void permitted </td> </tr> </tbody> </table>	Feature	Objective	All areas of the site affected by the development	<ul style="list-style-type: none"> Safe Hydraulically and geotechnically stable Non-polluting Fit for the intended post-mining land use(s) Final landform integrated with surrounding natural landforms as far as is reasonable and feasible Minimise visual impacts when viewed from surrounding land Facilitate regional movement of Koalas and their occupation of the site 	Surface Infrastructure	<ul style="list-style-type: none"> Decommissioned and removed, unless otherwise agreed by the Secretary 	Quarry extraction area	<ul style="list-style-type: none"> Landform rehabilitated to 1.0 metres above the predicted maximum groundwater level Landscaped and vegetated using native tree and understorey species Tree species to include Koala feed species 	Final Void	<ul style="list-style-type: none"> No final void permitted 	<p>Has there been any rehabilitation yet? Any temporary stabilisation.</p>	Not triggered	Site Discussions	Site discussions and site inspection confirmed no final rehabilitation completed yet. Condition Not triggered.																																	
Feature	Objective																																															
All areas of the site affected by the development	<ul style="list-style-type: none"> Safe Hydraulically and geotechnically stable Non-polluting Fit for the intended post-mining land use(s) Final landform integrated with surrounding natural landforms as far as is reasonable and feasible Minimise visual impacts when viewed from surrounding land Facilitate regional movement of Koalas and their occupation of the site 																																															
Surface Infrastructure	<ul style="list-style-type: none"> Decommissioned and removed, unless otherwise agreed by the Secretary 																																															
Quarry extraction area	<ul style="list-style-type: none"> Landform rehabilitated to 1.0 metres above the predicted maximum groundwater level Landscaped and vegetated using native tree and understorey species Tree species to include Koala feed species 																																															
Final Void	<ul style="list-style-type: none"> No final void permitted 																																															
36	<p>Progressive Rehabilitation</p> <p>The Applicant must rehabilitate the site progressively, that is, as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim stabilisation measures must be implemented where reasonable and feasible to control dust emissions in disturbed areas that are not active and which are not ready for final rehabilitation.</p> <p>Note: It is accepted that parts of the site that are progressively rehabilitated may be subject to future re-disturbance.</p>	<p>Has there been any rehabilitation yet? Any temporary stabilisation.</p>	Compliant	Site inspection	As the site has only been operating since May 2020 there are minimal areas available for rehabilitation. Site inspection identified evidence of area of topsoil that has natural seed regeneration. Evidence of proposed future rehabilitation areas being adequately prepared during site inspection.																																											

Condition Number	Condition	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action
37	<p>Biodiversity and Rehabilitation Management Plan</p> <p>The Applicant must prepare a Biodiversity and Rehabilitation Management Plan for the development to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared by a suitably qualified expert;</p> <p>(b) be prepared in consultation with BCD and Council;</p> <p>(c) be submitted to the Secretary for approval prior to commencing quarrying operations, unless the Secretary agrees otherwise;</p> <p>(d) provide details of the conceptual final landform and associated land uses for the site;</p> <p>(e) describe how the implementation of the on-site Biodiversity Offset Strategy will be integrated with the overall rehabilitation of the site;</p> <p>(f) include detailed performance and completion criteria for evaluating the performance of the progressive and final rehabilitation of the site, including triggers for any necessary remedial action;</p> <p>(g) describe the short, medium and long-term measures to be implemented to:</p> <ul style="list-style-type: none"> manage remnant vegetation and habitat on site, including within the on-site Biodiversity Offset Strategy area; and ensure compliance with the rehabilitation objectives and progressive rehabilitation obligations in this consent; <p>(h) include a detailed description of the measures described in paragraph (g) to be implemented over the next 3 years (to be later updated for each 3-year period following initial approval of the plan) including the procedures to be implemented for:</p> <ul style="list-style-type: none"> maximising the salvage of environmental resources within the approved disturbance area, including tree hollows, vegetative and soil resources, for beneficial reuse in the enhancement of the offset area or site rehabilitation; restoring and enhancing the quality of native vegetation and fauna habitat in the rehabilitation areas through assisted natural regeneration, targeted vegetation establishment and the introduction of fauna habitat features; 	<p>REQUIRED: Evidence of submission and approval from DPE / DPIE.</p> <p>* The plan states Appendix 2 provides evidence for part c - however consultation was only with OEH and Council.</p> <p>Evidence of implementation of Biodiversity Management Plan including clearing permits, ecology advice, monitoring, weed management.</p> <p>Weed treatment report provided, dated 12 July 2021</p>	Medium Non-Compliance	<p>Biodiversity Management Plan</p> <p>"NOTICE TO FURNISH INFORMATION AND RECORDS" letter received from DPIE dated 30 October 2021</p> <p>Pre Clearance records</p>	<p><u>Preparation:</u></p> <p>The Biodiversity and Rehabilitation Management Plan is dated 1 April 2019 Approved by DPIE in a letter dated 16/4/19.</p> <p>a) Appendix 1 (CVs of authors) and Section 1.4 (author names and qualifications).</p> <p>b) Section 1.4 (Plan Preparation and Consultation) and Appendix 2 (Agency consultation responses). Document was prepared in consultation with OEH and Port Stephens Council.</p> <p>c) Approved by DPIE in a letter dated 16/4/19. Quarrying operations commenced on 18/5/2020.</p> <p>d) Section 5.3 (Final Landform and Vegetation)</p> <p>e) Section 3.4 (Biodiversity Offset Strategy)</p> <p>f) Section 9 (Performance and Completion Criteria)</p> <p>g) Section 5 (Rehabilitation), 6 (Management Controls) and 8 (Monitoring)</p> <p>h) Section 5 (Rehabilitation), 6 (Management Controls) and 8.4 (Post 3-Yearly Monitoring)</p> <p>i) Section 8 (Monitoring) and 9 (Performance and Completion Criteria)</p> <p>j) Section 4 (Roles and Responsibilities) and 8 (Monitoring)</p> <p><u>Implementation:</u></p> <ul style="list-style-type: none"> Weed treatment report provided, dated 12 July 2021, outlining weed treatment undertaken by consultant on 15 June 2021 within the southern resource area, targeting Lantana camara, (Lantana), Chrysanthemoides monilifera subsp. rotundata (Bitou bush) and Melinis repens (Red Natal Grass). Site inspections noted area about to be stripped for topsoil/sub soil. Weed management was generally performed well with limited weeds in the field inspection. Nest boxes were noted as part of the field inspection. The installed frog exclusion fencing was noted, with only a very small area to be repaired. There was no recommendation as this was noted and there was already a plan in place to repair the frog exclusion fence. <p><u>AGENCY CORRESPONDANCE:</u></p> <p>"NOTICE TO FURNISH INFORMATION AND RECORDS" letter received from DPIE dated 30 October 2020 for additional information regarding vegetation clearing records. This data was provided to DPIE on 27 November 2020, along with a cover letter outlining the responses.</p> <p>Email from DPIE dated 22 June 2021 in which DPIE determined that WSS failed to implement the Biodiversity and Rehabilitation Management Plan (BRMP) (therefore non-compliance) as described by the following breaches on multiple dates as outlined below:</p> <ul style="list-style-type: none"> Clearing without ecologist on 14, 15 and 27 August 2019, 1 and 2 September 2019, and 8 January 2020. Habitat tree felling without an ecologist present on 3 September 2019. Fail to undertake pre-clearance surveys prior to clearing on 14, 15 and 27 August 2019, 1, 2 and 3 September 2019, 14 October 2019 and 8 January 2020. Fail to undertake nocturnal surveys prior to clearing on 13, 25 and 31 August 2019, 13 October 2019, 7 January 2020 and 26 July 2020. Fail to undertake diurnal surveys prior to clearing on 14 and 26 August 2019, 1 September 2019, 14 October 2019 and 8 January 2020. Fail to install nest boxes up to 12 months prior to clearing. Nest boxes were installed 15 months after clearing commenced in August 2019. Further, two feathered gliders were identified in a hollow during clearing activities. Fail to install Koala exclusion fence: Clearing occurred for eight (8) months before the koala exclusion fence was installed in April 2020. Fail to install Frog exclusion fence: WSS failed to install the fence along the entrance haul road and infrastructure area until 27 November 2020, approximately 15 months after clearing and construction first commenced. Koala monitoring: Koala fence monitoring should have occurred between September 2019 and February 2020 to observe the presence and the effectiveness of preventing koalas from moving towards Cabbage Tree Road and driveways. The Department also notes that koala fence monitoring only occurred at three (3) locations, not four (4), between September 2020 and February 2021 and video footage was not reviewed for at least 60 days. Frog monitoring: Only one of the required two monitoring events occurred (March 2020) during the breeding season of 2019/2020. Between 13 August 2019 and 24 June 2020, disturbance activities occurred in a small area of the offset area to the west of the weighbridge, which was not adequately defined and delineated. <p>IEMA notes - It has been noted there were initial issues relating to biodiversity management, in particular with timing requirements. This has improved since 2019.</p>	NC REC 7: Ensure practices are in place to be compliant with clearing and ecological requirements for the site. Site to track and report against these key biodiversity requirements in the Annual Review and/or ecological monitoring reports.
38	<p>Biodiversity and Rehabilitation Bond</p> <p>38. Within 6 months of the approval of the Biodiversity and Rehabilitation Management Plan, the Applicant must lodge a Biodiversity and Rehabilitation Bond with the Department to ensure that the measures contained in the Biodiversity and Rehabilitation Management Plan are implemented in accordance with the performance and completion criteria set out in the plan and the relevant conditions of this consent. The sum of the bond must be determined by:</p> <p>(a) calculating the cost of implementing the measures contained in the Biodiversity and Rehabilitation Management Plan;</p> <p>(b) calculating the cost of rehabilitating all disturbed areas of the site, taking into account the likely surface disturbance over the next 3 years of quarrying operations; and</p> <p>(c) employing a suitably qualified quantity surveyor or other expert to verify the calculated costs, to the satisfaction of the Secretary.</p> <p>Notes:</p> <ul style="list-style-type: none"> If capital and other expenditure required by the Biodiversity and Rehabilitation Management Plan is largely complete, the Secretary may waive the requirement for lodgement of a bond in respect of the remaining expenditure. If the rehabilitation of the site area is completed (or partially completed) to the satisfaction of the Secretary, then the Secretary will release the bond (or relevant part of the bond). If the rehabilitation of the site is not completed to the satisfaction of the Secretary, then the Secretary will call in all or part of the bond, and arrange for the completion of the relevant works. 		Admin Non Compliance	<p>Biodiversity and Rehabilitation Bond is dated 20 January 2020</p>	<p><u>Preparation:</u></p> <p>Biodiversity and Rehabilitation Bond is dated 20 January 2020 and approved in a letter from DPIER dated 29/01/2020. The BRMP was approved on 16/4/19 therefore the Bond was required to be lodged by 14 October 2019. <u>Therefore - admin non-compliance.</u> No additional recommendation required.</p> <p>(a) Compliant</p> <p>(b) Compliant - the bond relates to three years of operations.</p> <p>(c) Compliant</p>	
39	<p>Within 3 months of each Independent Environmental Audit (see condition 12 of Schedule 5), the Applicant must review, and if necessary revise, the sum of the Biodiversity and Rehabilitation Bond to the satisfaction of the Secretary. This review must consider the:</p> <p>(a) effects of inflation;</p> <p>(b) likely cost of implementing the measures contained in the Biodiversity and Rehabilitation Management Plan and rehabilitating all disturbed areas of the site (taking into account the likely surface disturbance over the next 3 years of the development); and</p> <p>(c) performance in implementing the rehabilitation of the site to date.</p>		Not triggered		Not yet triggered. This is the first audit for the site.	
Property Inspections						
40	<p>If the Applicant receives a written request from the owner of any privately-owned building or structure located within 300 metres of quarrying operations or the Cabbage Tree Road intersection works (whether those operations or works are proposed or existing) for an inspection to establish the baseline condition of the building or structure, then within 2 months of receiving this request the Applicant shall:</p> <p>(a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties, to:</p> <ul style="list-style-type: none"> establish the baseline condition of the building or structure; and identify the measures that should be implemented to minimise the potential impacts of the development on the building or structure; and <p>(b) give the landowner a copy of the property inspection report.</p> <p>If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Applicant or landowner disagrees with the findings of the independent property investigation, either party may refer the matter to the</p>	Any written requests for baseline building condition assessments?	Compliant	Dilapidation Reports	<p>Site has commissioned these reports proactively.</p> <p>Screenshot provided which shows dilapidation reports were completed for 13 residences along Cabbage Tree Road.</p>	

Condition Number	Condition	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action
41	If any owner of privately-owned land claims that a building or structure on their land has been damaged as a result of the development, then within 2 months of receiving this claim in writing from the landowner, the Applicant shall: (a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties, to investigate the claim; and (b) give the landowner a copy of the property investigation report. If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Applicant must repair the damage to the satisfaction of the Secretary. If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Applicant or landowner disagrees with the findings of the independent property investigation, either party may refer the matter to the Secretary for resolution.		Not triggered		Not triggered. Based on site discussions.	
Visual						
42	The Applicant must implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the development to the satisfaction of the Secretary. These measures must include maintaining: (a) a 20 metre vegetated buffer along the southern boundary of the site adjacent to Cabbage Tree Road; and (b) existing vegetation for the initial 75 metres length of the access road, from its intersection with Cabbage Tree Road, to the satisfaction of the Secretary.	Evidence of visual screening and maintenance.	Compliant	Field inspection	Recommend including visual impact measures in the Annual Reviews. (a) 20m vegetated buffer observed on site (b) 75m of vegetation from the intersection as per site comms. No evidence of lighting meeting Australian Standards. No evidence of complaints.	
Waste						
43	The Applicant must: (a) manage on-site sewage treatment and disposal in accordance with the requirements of its EPL, and to the satisfaction of the EPA and Council; (b) minimise the waste generated by the development; (c) ensure that the waste generated by the development is appropriately stored, handled, and disposed of; and (d) report on waste management and minimisation in the Annual Review, to the satisfaction of the Secretary.	Annual Review waste summaries	Compliant	Waste records Inspection	(a) Annual Review Section 7 notes that sewage is removed from site by a licenced contractor. (b) Annual Review Section 7 outlines waste minimisation measures. (c) Annual Review Section 7 notes that waste is removed from site by a licenced contractor. (d) Waste management and minimisation is reported in Section 7 of the Annual Review. The Annual Reviews are provided to the EPA and Council each year.	
44	Except as expressly permitted in an EPL, the Applicant must not receive waste at the site for storage, treatment, processing, reprocessing or disposal.	Annual Review waste summaries	Not triggered		No waste received at the premises (as per site comms)	
Dangerous Goods						
45	The Applicant must ensure that the storage, handling, and transport of dangerous goods is done in accordance with the relevant Australian Standards, particularly AS1940 and AS1596, and the Dangerous Goods Code.	Evidence of dangerous goods licences.	Compliant	Inspection	All dangerous goods observed on site were stored appropriately. The largest source of diesel is the double skinned diesel storage tank and the diesel generator (double skinned).	
Radiation Survey						
46	The Applicant must ensure that an effective radiation survey is conducted by a suitably qualified and experienced expert, approved by the Secretary, for each area of the site following vegetation clearing and prior to commencing any other ground disturbing activities.	Radiation surveys for 2019 and 2020.	Compliant	Radiation surveys for 2019 (Site 1) and 2020 (Sites 2, 3 and 4) Endorsement letter for Bartolo, dated 14/6/18.	Radiation surveys for 2019 (Site 1) and 2020 (Sites 2, 3 and 4) provided. March 2021 memo (but not report) provided. Reports prepared by Bartolo Safety Management Service. Endorsement letter for Bartolo provided, dated 14/6/18.	
47	The Applicant must ensure that the location and extent of any monazite concentrates discovered by radiation surveys are reported to the Secretary, together with the proposed measures for managing these concentrates.	Radiation surveys for 2019 and 2020.	Not triggered		Reports provided have concluded that there are no radioactive concentrations or activities that are of concern for the proposed use of the land/sand.	
Review of PFAS Exposure Pathways						
48	In conjunction with preparation of each Annual Review, unless otherwise agreed with the Secretary, the Applicant shall engage a suitably qualified and experienced independent expert, approved by the Secretary, to review the currently available information on exposure pathways for PFAS contamination originating from the Williamtown RAAF Base, as may be applicable to local residents and the development. This report must assess whether or not quarrying operations are increasing the risk of PFAS exposure for local residents and/or the environment, to the satisfaction of the Secretary. The Applicant must ensure that the Review of PFAS Exposure Pathways reports are placed on its website and are available to the CCC and any interested person on request.	Williamtown Sand Syndicate – Review of Per- and Polyfluoroalkyl Substances Exposure Pathways (Kleinfelder, 30 March 2020 and undated 2021)	Compliant		• 2019 PFAS Exposure Pathways Review dated 30 March 2020 completed by Kleinfelder available on Newcastle Sand website. • Draft 2020 PFAS Exposure Pathways Review (undated) completed by Kleinfelder and provided by site. Section 8 of the review stated quarrying not being performed and therefore not increasing risk of PFAS exposure to local residents. • DPIE letter for Kleinfelder endorsement provided, dated 12/2/20.	
Bushfire						
49	The Applicant must: (a) ensure that the development is suitably equipped to respond to any fires on site; and (b) assist the Rural Fire Service and emergency services to the extent practicable if there is a fire in the vicinity of the site.	Evidence the site is equipped for bushfires. RFS consultation. Management plan?	Compliant	Inspection	(a) Water cart on site most of the time. (b) Not triggered.	
SCHEDULE 4 - ADDITIONAL PROCEDURES						
Notification of Landowners						
50	As soon as practicable, and no longer than 7 days, after obtaining monitoring results showing: (a) an exceedance of any criteria in Schedule 3, the Applicant must notify the affected landowners in writing of the exceedance, and provide regular monitoring results, at least every 3 months, to each affected landowner until the development is again complying with the relevant criteria; and (b) an exceedance of any air quality criteria in Schedule 3, the Applicant must send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and current tenants of the land (including the tenants of land which is not privately owned).	Evidence of notifying residents if there is an exceedance? If triggered.	Not triggered		Not triggered	
Independent Review						
51	If an owner of privately-owned land considers the development to be exceeding the relevant criteria in Schedule 3, then he/she may ask the Secretary in writing for an independent review of the impacts of the development on his/her land. If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision, the Applicant must: (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to: • consult with the landowner to determine his/her concerns; • conduct monitoring to determine whether the development is complying with the relevant criteria in Schedule 3; and • if the development is not complying with these criteria, then identify measures that could be implemented to ensure compliance with the relevant criteria; and (b) give the Secretary and landowner a copy of the independent review; and	Any independent reviews?	Not triggered		Not triggered.	
SCHEDULE 5 - ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING						
Environmental Management						
1	Environmental Management Strategy If the Secretary requires, the Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must: (a) be submitted to the Secretary for approval within 6 months of the Secretary requiring preparation of the strategy by notice to the Applicant; (b) provide the strategic framework for environmental management of the development; (c) identify the statutory approvals that apply to the development; (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development; (e) describe the procedures to be implemented to: • keep the local community and relevant agencies informed about the operation and environmental performance of the development; • receive, record, handle and respond to complaints; • resolve any disputes that may arise during the course of the development; • respond to any non-compliance; • respond to emergencies; and (f) include: • references to any strategies, plans and programs approved under the conditions of this consent; and • a clear plan depicting all the monitoring to be carried out under the conditions of this consent. The Applicant must implement any Environmental Management Strategy as approved from time to time by the Secretary.	Evidence of approval of the EMS. Evidence of complaints, incidents, inspections.	Not triggered		Not triggered. Has not been requested by DPIE.	

Condition Number	Condition	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action
2	Evidence of Consultation Where consultation with any public authority is required by the conditions of this consent, the Applicant must: (a) consult with the relevant public authority prior to submitting the required document to the Secretary for approval; (b) submit evidence of this consultation as part of the relevant document; (c) describe how matters raised by the authority have been addressed and any matters not resolved; and (d) include details of any outstanding issues raised by the authority and an explanation of disagreement between any public authority and the Applicant.	Evidence of government consultation.	Compliant	Management Plans	Consultation has been addressed in the Management Plans and correspondence has been appended to each document.	
3	Management Plan Requirements The Applicant must ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include: (a) detailed baseline data; (b) a description of: • the relevant statutory requirements (including any relevant approval, licence or lease conditions); • any relevant limits or performance measures/criteria; and • the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures; (c) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria; (d) a program to monitor and report on the: • impacts and environmental performance of the development; and • effectiveness of any management measures (see (c) above); (e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible; (f) a program to investigate and implement ways to improve the environmental performance of the development over time; (g) a protocol for managing and reporting any: • incidents; • complaints; • non-compliances with statutory requirements; and • exceedances of the impact assessment criteria and/or performance criteria; and (h) a protocol for periodic review of the plan. Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.		Compliant	Management Plans	IEMA has reviewed the management plans and found that they generally address the requirements of this condition. This condition has also been included in the Management Plans compliance table, however each requirement has not been separated out. a) Included in an "existing environment" chapter where applicable. b) Included in a "statutory requirements" chapter c) Included in a "management controls" chapter d) Included in "monitoring" and "reporting" chapters e) Included in a "management controls" chapter. TARP's included in the SWMP and the AQMP. f) Included in a "continuous improvement" chapter g) Included in "incidents" and "complaints" chapters h) Included in a "continuous improvement" chapter.	IMP REC 5: Separate out the individual requirements of the "all management plans" condition and include section references in all management plans.
4	Revision of Strategies, Plans & Programs Within 3 months of the submission of an: (a) incident report under condition 9 below; (b) Annual Review under condition 11 below; (c) audit report under condition 12 below; and (d) any modifications to this consent, the Applicant must review the strategies, plans and programs required under this consent, to the satisfaction of the Secretary. The applicant must notify the Department in writing of any such review being undertaken. Where this review leads to revisions in any such document, then within 6 weeks of the review the revised document must be submitted for the approval of the Secretary. Note: The purpose of this condition is to ensure that strategies, plans and programs are regularly updated to incorporate any	Evidence of plans being reviewed? Resubmission letters.	Admin Non Compliance	Management Plans	Management Plans available on the website are all from 2019 (with the exception of the SWMP and the Traffic MP) and have not been updated following the approval of Mod 1 (March 2020) or Mod 2 (March 2021). Site noted that Management Plans will be updated within 3 months of the completion of this audit. Noting the Water Management Plan was recently updated - dated July 2021.	NC REC 8: Update the management plans to reflect current approvals.
5	Updating and Staging of Strategies, Plans or Programs To ensure that strategies, plans or programs required under this consent are updated on a regular basis, and that they incorporate any appropriate additional measures to improve the environmental performance of the development, the Applicant may at any time submit revised strategies, plans or programs for the approval of the Secretary. With the agreement of the Secretary, the Applicant may also submit any strategy, plan or program required by this consent on a staged basis. The Secretary may approve a revised strategy, plan or program required under this consent, or the staged submission of any of these documents, at any time. With the agreement of the Secretary, the Applicant may prepare the revised or staged strategy, plan or program without undertaking consultation with all parties nominated under the applicable condition in this consent. While any strategy, plan or program may be submitted on a staged basis, the applicant will need to ensure that the operations associated with the development are covered by suitable strategies, plans or programs at all times. If the submission of any strategy, plan or program is to be staged; then the relevant strategy, plan or program must clearly describe the specific stage/s of the development to which the strategy, plan or program applies; the relationship of this stage/s to any future stages; and the trigger for updating the strategy, plan or program		Note		Noted.	
6	Adaptive Management The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation. Where any exceedance of these criteria and/or performance measures has occurred, the Applicant must as soon as becoming aware of any exceedance: (a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not reoccur; (b) consider all reasonable and feasible options for remediation (where relevant) (c) within 14 days of the exceedance occurring, submit a report to the Secretary describing these remediation options and any preferred remediation measures or other course of action; and (d) implement remediation measures as directed by the Secretary;	Evidence of submitting incident/ non - compliance reports for exceedances.	Not triggered		No criteria exceedances during the audit period	
Community Consultative Committee						
7	The Applicant must establish and operate a Community Consultative Committee (CCC) for the development to the satisfaction of the Secretary. The CCC must be operated in general accordance with the Department's Community Consultative Committee Guidelines, November 2016 (or later version). Notes: • The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent. • In accordance with the guidelines, the Committee should comprise an independent chair and appropriate representation from the Applicant, Council, Hunter Water, Williamtown and Surrounds Residents Action Group and the local community.	• CCC minutes (Oct 2019, Jan 2020, June 2020, Sept 2020, April 2021) • Evidence of CCC nominations being advertised in local paper in October 2020.	Compliant	CCC minutes	• CCC meeting minutes are available on the website, and include a summary of operations and environmental performance. • CCC does not include a representative from the Williamtown and Surrounds Residents Action Group. • October 2020 email from John Turner (CCC Chairman) with a copy of the advertisement that was placed in the local paper (Examiner) and residents newsletter, seeking nominations for the CCC. • November 2020 email from John Turner (CCC Chairman) noting that nominations were received for CCC positions.	
Reporting						
8	Incident Reporting The Applicant must immediately notify the Secretary (using the contact name, email address and phone number provided by the Department from time to time) and any other relevant agencies of any incident.	Evidence of submitting incident/ non - compliance reports for exceedances.	Not triggered		Not triggered. No evidence of anything being classified as an 'incident'.	
9	Within 7 days of the date of the incident, the Applicant must provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested. This report must include the time and date of the incident, details of the incident, measures implemented to prevent re-occurrence and must identify and non-compliance with this consent.	Evidence of submitting incident/ non - compliance reports for exceedances.	Not triggered		Not triggered.	
10	Regular Reporting The Applicant must provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.	IEMA to check website	Compliant	Website	Monitoring data and Annual Reviews are on the website.	

Condition Number	Condition	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action
11	<p>Annual Review</p> <p>By the end of March each year, or other timing as may be agreed by the Secretary, the Applicant must submit a review to the Department reviewing the environmental performance of the development to the satisfaction of the Secretary. This review must:</p> <p>(a) describe the development (including any progressive rehabilitation) that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current calendar year;</p> <p>(b) include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, which includes a comparison of these results against the:</p> <ul style="list-style-type: none"> • relevant statutory requirements, limits or performance measures/criteria; • requirements of any plan or program required under this consent; • monitoring results of previous years; and • relevant predictions in the documents listed in condition 2(d) of Schedule 2; <p>(c) identify any non-compliance over the past calendar year, and describe what actions were (or are being) taken to ensure compliance;</p> <p>(d) identify any trends in the monitoring data over the life of the development;</p> <p>(e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and</p> <p>(f) describe what measures will be implemented over the current calendar year to improve the environmental performance of the development.</p> <p>The Applicant must ensure that copies of the Annual Review are submitted to Council and are available to the Community</p>	2019 and 2020 Annual Reviews	Admin Non Compliance	2019 and 2020 Annual Reviews	<p>Two Annual Reviews were submitted during the Audit period (2019 and 2020). The 2019 Annual Review was submitted 27 March 2020 (re-submitted 15 September 2020) and the 2020 Annual Review was submitted 31 March 2021.</p> <p>a) Section 2 b) Section 5 c) Section 9. The 2019-20 EPL Annual Return noted non-compliances with Condition M2.2 (air quality monitoring) and Condition M8.1(d) (noise monitoring). These weren't reported in either the 2019 or 2020 Annual Review. Therefore <u>admin non-compliance</u>.</p> <p>d) Section 5 e) Section 10 f) Section 11</p> <p>To comply with the 2015 Annual Review Guidelines, the document should also include a section on "Actions required from previous Annual Review". See earlier recommendations about additional information required in the Annual Review.</p>	<p>NC REC 9: To comply with the 2015 Annual Review Guidelines, the document should also include a section on "Actions required from previous Annual Review".</p> <p>NC REC 10: Ensure that future EPL non-compliances are reported as non-compliances in the Annual Review.</p>
Independent Environmental Audit						
12	<p>Within a year of commencing quarrying operations, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant must commission, commence and pay the full cost of an Independent Environmental Audit of the development. This audit must:</p> <p>(a) be led and conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;</p> <p>(b) include consultation with the relevant agencies and the CCC;</p> <p>(c) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent and any relevant EPL or necessary water licences for the development (including any assessment, strategy, plan or program required under these approvals);</p> <p>(d) review the adequacy of strategies, plans or programs required under the abovementioned approvals;</p> <p>(e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, strategy, plan or program required under the abovementioned approvals; and</p>	<ul style="list-style-type: none"> • Letter from DPIE to Newcastle Sands dated 10 June 2021 "Cabbage Tree Road Sand Quarry (SSD-6125) IEA team endorsement" • Consultation emails to relevant agencies (various) dated 20 July 2021. 	Compliant		<p>This is the first IEA prepared for the Newcastle Sands Quarry.</p> <p>(a) The audit team (Chris Jones – lead auditor, Jessica Coffey – audit assistant, Katarina David – groundwater specialist, and John Whyte – ecologist specialist) was endorsed by DPIE in a letter dated 10 June 2021.</p> <p>(b) Consultation was undertaken with the required agencies in emails dated 20 July 2021. Feedback was received and was considered during the audit.</p> <p>(c) The IEA assessed the environmental performance of the development and compliance with the relevant requirements of the approvals.</p> <p>(d) The IEA reviewed the adequacy of the required strategies, plans or programs.</p> <p>(e) THE IEA recommended appropriate measures/actions to improve the environmental performance of the development, and/or any assessment, strategy, plan or program.</p> <p>(f) The IEA will be submitted to DPIE for approval.</p>	
13	<p>Within 12 weeks of commencing this audit, or as otherwise agreed by the Secretary, the Applicant must submit a copy of the audit report to the Secretary and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of these recommendations as required. The Applicant must implement these recommendations to the satisfaction of the Secretary.</p>		Not triggered		<p>This is the first IEA prepared for the Newcastle Sands Quarry. The audit report will be submitted within 12 weeks of commencing the audit.</p>	
Access to Information						
14	<p>Within 6 months of the date of this consent, until the completion of all works, including rehabilitation and remediation the Applicant must:</p> <p>(a) make the following information publicly available on its website:</p> <ul style="list-style-type: none"> • the documents listed in condition 2(d) of Schedule 2; • current statutory approvals for the development; • all approved strategies, plans and programs required under the conditions of this consent; • a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs; • a complaints register, updated monthly; • all Annual Reviews for the development; • the Review of PFAS Exposure Pathways reports; • independent environmental audits as described in condition 12 above, and the Applicant's responses to the recommendations in any audit; and • any other matter required by the Secretary; and <p>(b) keep this information up-to-date.</p>		Compliant	Website	<p>a) The required documents and approvals are available on the Newcastle Sand website.</p> <ul style="list-style-type: none"> • Links to EIS, MOD 1 and MOD 2 • Statutory approvals • Management plans and programs (Traffic MP, Air Quality MP, Noise MP, Biodiversity and Rehabilitation Plan, Aboriginal Cultural Heritage and Historic Heritage MP, Maximum Extraction Depth Report, Road Construction/Construction Environmental Management Plan, Soil and Water Management Plan). • Monitoring results (water - to July 2021, air to August 2021, noise to July 2021 and trucks to July 2021) • Complaints register (latest version dated June 2021) • 2019 Annual Review (not 2020 Annual Review - however unapproved) • PFAS Exposure Pathways report • This is the first IEA for Newcastle Sand • Licences, EBPC Referrals, PIRMP, COVID-19 protocol <p>b) The most recent versions of the relevant documents is available on the website.</p>	

SSD-6125 SoC

Number	Commitment	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action												
8.1	<p>INTRODUCTION</p> <p>WSS intend to construct and operate the Williamstown Sand Quarry in an environmentally responsible manner. Within this Response to Submissions and the EIS, descriptions of avoidance and mining impacts have been described, together with mitigation measures to lessen the impact of the project on the community and environment. To ensure that the Project operates with environmental safeguards in place during its life cycle, WSS is committed to the implementation of a comprehensive Environmental Management Plan and the commitments detailed in this document.</p> <p>Table 1: Operating limits, times and criteria.</p> <table border="1"> <thead> <tr> <th>Aspect</th> <th>Key Aspects of the Project</th> </tr> </thead> <tbody> <tr> <td>Project Life</td> <td>Approval is sought to operate the quarry for a period of up to 15 years.</td> </tr> <tr> <td>Production rate</td> <td>Up to 530,000 tonnes per annum.</td> </tr> <tr> <td>Operating Hours</td> <td> <p>Construction:</p> <ul style="list-style-type: none"> 7 am to 6 pm Monday to Friday. 8 am to 1 pm Saturday. No construction on Sunday or public holidays. <p>Operations:</p> <ul style="list-style-type: none"> Sand extraction and processing: <ul style="list-style-type: none"> 7 am to 5 pm Monday to Friday. 7 am to 4 pm Saturday. Loading and haulage: <ul style="list-style-type: none"> 5 am to 6 pm Monday to Friday. 7 am to 4 pm Saturday. No operations on Sunday or public holidays. </td> </tr> <tr> <td>Traffic</td> <td> <ul style="list-style-type: none"> Up to 6 laden trucks per hour (12 trips per hour) during the hours of 5 am to 7 am. Up to a maximum of 10 laden trucks per hour (20 trips per hour) during hours of 7 am to 6 pm on weekdays and 7am to 4pm Saturday (i.e. all haulage hours excluding the morning peak). Up to 6 vehicles of employees would be expected to arrive from 5 am to 7 am and leave between 5 pm and 7 pm. </td> </tr> <tr> <td>Noise and Air Quality Criteria</td> <td>As per Project Approval.</td> </tr> </tbody> </table>	Aspect	Key Aspects of the Project	Project Life	Approval is sought to operate the quarry for a period of up to 15 years.	Production rate	Up to 530,000 tonnes per annum.	Operating Hours	<p>Construction:</p> <ul style="list-style-type: none"> 7 am to 6 pm Monday to Friday. 8 am to 1 pm Saturday. No construction on Sunday or public holidays. <p>Operations:</p> <ul style="list-style-type: none"> Sand extraction and processing: <ul style="list-style-type: none"> 7 am to 5 pm Monday to Friday. 7 am to 4 pm Saturday. Loading and haulage: <ul style="list-style-type: none"> 5 am to 6 pm Monday to Friday. 7 am to 4 pm Saturday. No operations on Sunday or public holidays. 	Traffic	<ul style="list-style-type: none"> Up to 6 laden trucks per hour (12 trips per hour) during the hours of 5 am to 7 am. Up to a maximum of 10 laden trucks per hour (20 trips per hour) during hours of 7 am to 6 pm on weekdays and 7am to 4pm Saturday (i.e. all haulage hours excluding the morning peak). Up to 6 vehicles of employees would be expected to arrive from 5 am to 7 am and leave between 5 pm and 7 pm. 	Noise and Air Quality Criteria	As per Project Approval.		Compliant	Annual Reviews. Site inspection. Discussions with site.	Project Life - Compliant. Production limits were not exceeded during the audit period. Production rate - Compliant. Production limits were not exceeded during the audit period. Operating Hours - Construction and operation were compliance with the operating hours during the audit period. Traffic - Vehicle movements complied with the requirements during the audit period. Noise and Air Quality Criteria - Compliant during the audit period.	
Aspect	Key Aspects of the Project																	
Project Life	Approval is sought to operate the quarry for a period of up to 15 years.																	
Production rate	Up to 530,000 tonnes per annum.																	
Operating Hours	<p>Construction:</p> <ul style="list-style-type: none"> 7 am to 6 pm Monday to Friday. 8 am to 1 pm Saturday. No construction on Sunday or public holidays. <p>Operations:</p> <ul style="list-style-type: none"> Sand extraction and processing: <ul style="list-style-type: none"> 7 am to 5 pm Monday to Friday. 7 am to 4 pm Saturday. Loading and haulage: <ul style="list-style-type: none"> 5 am to 6 pm Monday to Friday. 7 am to 4 pm Saturday. No operations on Sunday or public holidays. 																	
Traffic	<ul style="list-style-type: none"> Up to 6 laden trucks per hour (12 trips per hour) during the hours of 5 am to 7 am. Up to a maximum of 10 laden trucks per hour (20 trips per hour) during hours of 7 am to 6 pm on weekdays and 7am to 4pm Saturday (i.e. all haulage hours excluding the morning peak). Up to 6 vehicles of employees would be expected to arrive from 5 am to 7 am and leave between 5 pm and 7 pm. 																	
Noise and Air Quality Criteria	As per Project Approval.																	
8.2	OPERATING LIMITS, TIMES AND CRITERIA																	
8.3	MANAGEMENT AND OFFSET MEASURES																	
8.3.1	General Management Measures																	
a	Williamstown Sand Syndicate Pty Ltd will prepare an Annual Environmental Management Report (AEMR) stating the environmental performance of the project to be distributed to stakeholders.		Compliant	Annual Reviews	Annual Reviews for 2019 and 2020 provided. 2019 available on website. 2020 currently unapproved.													
b	Staff, contractor and visitor inductions will include where relevant an overview of management measures and responsibilities and will include: <ul style="list-style-type: none"> EMP requirements. Environmental sensitivities. Hazard and risk management. Designated site access. Waste management. Spill response and management. Heritage management and heritage finds protocol. Weed and pathogen control. Bushfire prevention. Emergency response. Incident reporting (environmental and safety). Driver code of conduct. 		Compliant	Visitor Induction	Visitor induction completed prior to site visit, and noted that it includes environmental component. Staff/contractor inductions sighted in office, includes environmental component. Driver Code of Conduct (appended to Traffic MP) includes aspects such as noise.													
c	The effectiveness of the induction and training program will be monitored and improvements implemented where identified.		Compliant	Site comms. Email from KB dated 9/9/21.	Site advised (in email dated 9/9/21) that there has been several updates to inductions and training programs including matters relating to the update of the TMP and driver code of conduct for latest version of the TMP and changes evident on the induction associated with COVID-19. No evidence was able to be provided.													
8.3.2	Community Relations																	
a	Establishment of a community consultative committee (CCC) to facilitate meetings with representatives of the local community.		Compliant	CCC Meeting minutes Complaints register. Website.	CCC meeting minutes available on the website.													
b	Document CCC meeting agendas, issues raised, action items and close-out.		Compliant		CCC meeting minutes available on the website.													
c	A dedicated information contact phone number will be established prior to the commencement of construction and maintained throughout the life of the project.		Compliant		Phone number on the front gate and the website.													
d	Feedback, enquiries and complaints received will be recorded in a consultation register that will be established prior to the commencement of construction and maintained throughout the life of the project		Compliant		Complaints register is maintained and available on the website.													
e	Complaints recorded in the consultation register will include details of complainant, WSS response and commitments to follow-up by whom and when will be detailed.		Compliant		These aspects are covered in the complaints register, which is available on the website.													
f	Consultation with immediate neighbours via an annual site open day.		Not triggered		Site advised in an email (dated 9/9/21) that no open day has been feasible due to concerns with COVID at this stage. Photographs are frequently taken and shown in the CCC meetings which are then available on the website for public review, along with the Annual Review.													
g	Community information newsletters providing awareness of: <ul style="list-style-type: none"> Project progress. Operating hours, contact information and details of how to provide feedback. Ways in which further information can be sought. Details of breaches of any development approval and licence conditions and WSS response and corrective actions. 		Compliant		Community newsletters are available on the website, and distributed to local residents. The Newsletters include the required aspects.													
h	Website to include: <ul style="list-style-type: none"> Contact numbers. Copies of community newsletters. Details of annual open days. Copies of minutes from Community Consultative Committee. Copies of approvals. Copies of licences. 		Admin Non Compliance		Website was reviewed and confirmed to contain all of the required components, with the exception of the details of the annual open days. <u>Therefore Admin Non-Compliance.</u> Site noted that given the current COVID environment, organising an annual open day has not been feasible, and that site are seeking to amend this commitment.	NC REC 11: Include information on the Community Open Days on the website, or seek to have this commitment removed via consultation with DPIE.												

Number	Commitment	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action
8.3.3	Access, Fencing, Gates and Signage					
a	Redundant access tracks to be removed when no longer required for bushfire control, rehabilitation maintenance, resource access or haulage.		Not triggered		Not triggered. All tracks still currently required.	
b	The main access gate adjacent to Cabbage Tree Road, and any other installed gates that provide access to surrounding lands will be locked when the quarry is not operating. A key will be provided to PSC, Hunter Water, NPWS, and the RFS.		Compliant		Agencies have keys (as per site comms).	
c	Construct a Koala exclusion fence on the Subject Land boundary adjoining Cabbage Tree Road for Lot 1 DP 224587 to limit movement of Koalas from the site onto Cabbage Tree Road. <ul style="list-style-type: none"> Construct a Koala exclusion fence from the site entry to the weighbridge. The exclusion fence is to be installed with regard to the design specifications outlined in the Koala Sensitive Design Guideline (DEHP 2012). One-way fauna gate installed along the fence for circumstances where fauna is trapped on the road side of the fence. Total of four gates; two along Cabbage Tree Road (one on either side of the site entrance) and two along the internal access road (one on either side of the road). 		Medium Non-Compliance	DPIE Email dated 15/1/20. Site inspection. Biodiversity and Rehab Plan (2019) Notice to Furnish response (27/11/20) Email from DPIE dated 22/6/21 "Investigation of biodiversity breaches - CTR Quarry"	Koala exclusion fencing was erected in April 2019. Biodiversity MP notes that the Koala exclusion fence is located on the boundary adjoining Cabbage Tree Road, and from the site entry to the weigh bridge (where speed limit is 40 km/h). The fencing design was amended in consultation with DPIE (Anthony Barnes, email dated 15/1/20) and koala specialists to be barrier fencing that would slow the movement of koalas, but not preclude koala movement, aiming to minimising koala travel along and around fencing. The fencing has crossing fixtures at 200 m intervals. Fauna cameras have been placed along the koala exclusion fencing, no koalas have been identified in those cameras adjacent to the fencing. Letter from DPIE (dated 30/10/20) notes that the koala exclusion fence was required to be installed during construction however clearing occurred for eight (8) months before the koala exclusion fence was installed in April 2020. Site response was that the timing of installation was not feasible prior to commencing construction. Email from DPIE dated 22/6/21 "Investigation of biodiversity breaches - CTR Quarry" confirmed that this was a non-compliance with the BRMP. Although this commitment does not have a timing requirement, the 8 month period to install the exclusion fencing is too long. <u>No further recommendation.</u>	
d	A ticketing system will be connected between the boom gate and exit weigh bridge. The boom gate will be configured to only operate within the quarry operating hours and will be linked to peak permissible quarry traffic generation rates. Video surveillance will also be erected at the weighbridge for security and ticket cross checks.		Not triggered	Site inspection	Boom gate was replaced with a traffic light system.	
e	Construct a security fence around the office and workshop compound, including security measures to manage and limit unlawful activity.		Compliant	Site inspection	Security fence observed while on site.	
f	Progressively delineate the perimeter of the active resource area that will prevent incidental access into Offset Lands and not impede the movement of, or be a danger to, native fauna (e.g., rope barricade, or equivalent).		Medium Non-Compliance	Site inspection	DPIE noted (in a letter dated 30/10/20) that between 13 August 2019 and 24 June 2020, disturbance activities occurred in a small area of the on-site offset area to the west of the weighbridge, and that at the time of the disturbance, the offset area boundary was not adequately defined and delineated. Site advised that disturbance in this area was not related to excavation of the sand resource. Delineation was observed while on site. <u>No further recommendation as this is covered by the general; biodiversity recommendation included previously.</u>	
g	Remove or repair old internal fences.		Compliant	Site inspection	Confirmed as per site comms. Evidence of old fences being removed from site inspection.	
h	Install signage at main entrance on Cabbage Tree Road to advise of the following: <ul style="list-style-type: none"> Development name and description. Contact number for general and emergency enquiries. Site safety requirements (e.g., PPE, evacuation routes and muster points). 		Compliant	Site inspection	Signage observed while on site.	
i	Install fauna signage at main entrance and either side of corridor reminding drivers of the presence of wildlife and to adhere to site speed limits.		Compliant	Site inspection	Signage observed while on site.	
j	Install signage on perimeter of Project Area on adjoining access roads advising the presence of the offset area.		Not triggered		No offset area yet.	
k	Install signage on perimeter of site adjoining access roads advising the presence of the operational quarry.		Compliant	Site inspection	Signage observed while on site.	
l	Install speed limit signage on quarry access roads.		Compliant	Site inspection	Signage observed while on site.	
8.3.4	Traffic					
a	Traffic control plans prepared by an accredited person are to be approved by TfNSW prior to implementation by an accredited person for the construction of the quarry intersection.		Compliant	Traffic Management Plan	Traffic Management Plan prepared by Kleinfelder Australia dated 28 March 2019. Consultation sent to RMS on 20 December 2018. No comments received.	
b	The quarry intersection and associated acceleration and deceleration lanes will have the following signage installed (subject to approval by TfNSW). <ul style="list-style-type: none"> "No Stopping zones" Digital signage stating if quarry is opened or closed to avoid truck entry and idling at entry if gate is closed. Quarry approach and need to limit air breaking. Speed limit signage for 40 km/h entering site before intersection. Sign-on gate: in the event of arriving prior to gate being open turn off vehicle immediately. 		Compliant	Traffic Management Plan	Signage observed during site visit. Commitments documented in the Traffic MP and speed requirements included in the driver Code of Conduct.	
c	Speed limit signage within the site as follows: <ul style="list-style-type: none"> Outgoing traffic at 60 km/h between outgoing weighbridge and Cabbage Tree Road. Incoming traffic at 40 km/h between Cabbage Tree Road and the incoming weighbridge. 20km/h from the weighbridge to the processing plant / stockpiles. 		Compliant	Site inspection. Traffic MP and Driver Code of Conduct.	Signage observed during site visit. Commitments documented in the Traffic MP and speed requirements included in the driver Code of Conduct.	
d	WSS will implement a Driver Code of Conduct signed by all drivers during their site induction and will allow WSS to strictly enforce the access requirements and penalise non complying drivers, the Driver Code of Conduct will include but is no limited to the following: <ul style="list-style-type: none"> Quarry operating times. Proposed digital signs prior to deceleration lane stating status of quarry being open or close subject to TfNSW approval. This will mitigate early arrivals to the quarry. No stopping signage for extent of site for deceleration lane to deter early arrivals. Pre booking of high demand slots between 0500 and 0700 which are anticipated to be limited, these slots are likely to be pre-booked. Any unexpected truck turning up on site will have to wait on-site prior to exiting the site in the allocated slots. Quarry approach and need to limit air breaking. Respect our neighbours internal signage on exit of quarry. Sign-on gate: in the event of arriving prior to gate being open turn off vehicle immediately. IHE radio contact to quarry manager for enquiries prior approach to the quarry. 		Compliant	Driver Code of Conduct	Driver Code of Conduct (signed) is part of the site induction. Signage observed on site entry. Pre-booking system for time slots used on site (as per site comms)	
e	Peak traffic generation limits from the site are as follows: <ul style="list-style-type: none"> 6 laden trucks per hour (12 trips per hour) during the hours of 5 am to 7 am. 10 laden trucks per hour (20 trips per hour) during hours of 7 am to 6 pm. No haulage on Sundays or Public Holidays.		Compliant	Weighbridge records	As per SSD approval condition. Evidence of traffic movements by weighbridge records	
f	Incoming trucks will be weighed on entry to the site via a weigh bridge at the site office complex and again on leaving the site where product weight and tickets will be generated and recorded for each load.		Compliant	Weighbridge records	Weighbridge observed while on site.	

Number	Commitment	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action
g	Boom gate on outgoing weigh bridge linked to peak haulage rates. CCTV system to be installed on outgoing weigh bridge to provide compliance assessment of haulage numbers.		Compliant	Weighbridge records Cameras were sighted at inspection.	One weighbridge (in and out). CCTV system used on site. As per site comms.	
8.3.5	Weed Control					
a	Vehicles and access tracks • All machinery used on the site will be cleaned of all soil and organic matter prior to entering the Project Area. Road registered haulage vehicles will be required to remain on the formed access roads. • Vehicle access to the rehabilitation will be restricted to authorised personnel. • Once access tracks are no longer required they will be revegetated to minimise their potential as weed vectors.		Compliant	Site comms during audit on site.	<ul style="list-style-type: none"> Site equipment (e.g. hire equipment) is pressure cleaned (Gherni) prior to site entry. As per site comms. Road vehicles were observed on site to be driving only within formed access roads. Vehicle access to rehabilitation areas is restricted to site personnel (as per site comms) No tracks rehabilitated as yet due to early phase of operations. These commitments are captured in Section 6.22 of the Biodiversity and Rehabilitation MP and are included in site inductions.	
b	Weed-infested topsoil handling Pre-clearance surveys: • Pre-clearance survey to record approximate cover and abundance of environmental weeds within each area to be cleared. • Where infestations of environmental weeds occur they will be mapped and pegged as a "weed area" prior to clearing to allow for separate stockpiling and re-spreading. For practicality purposes during clearing and topsoil stripping, weed infestations greater than 100 m2 (i.e. 10 m x 10 m) will be delineated and pegged. Topsoil containing environmental weeds (as delineated in pre-clearance) will stockpiled separately and will not be blended or stockpiled with "clean" (weed-free) topsoil. • Topsoil stockpiles containing environmental weeds will be respread within a mapped "weed area" similar to its pre-disturbance location to avoid weed spread across the site. • Weed containing topsoil will not be transported between the Southern and Northern Resource areas. • The extent of respread topsoil with environmental weeds will be delineated and recorded.		Compliant	Kleinfelder Pre-Clearance Surveys Sector 1a and 2 (June 2020) and Sector 3, 3A, 3B, 4, 4A, 4B (October 2020), Area 7 (June 2021) Annual Reviews.	<ul style="list-style-type: none"> These commitments are captured in Section 6.22 of the Biodiversity and Rehabilitation MP and are reported on in the AEMRs. Pre-clearance survey reports provided which note species, locations and area of infestation. No weed infestations of greater than 100m2 were identified during the audit period. Reports concluded "Due to the low abundance of exotic weeds within the resource area, it is not necessary to separate topsoil containing weeds from uncontaminated topsoil". 	
c	Inspections During monitoring of the rehabilitation, annual monitoring will be conducted to identify any weeds, including non-local native species within the site. Inspections will include the outer perimeter of the current disturbance (i.e. interface with conservation areas) and the verges of internal access roads.		Compliant	Annual Reviews	No rehabilitation yet completed, however there was some evidence of naturally regenerating vegetation. Weed inspections were completed during the audit period, and reported in the Annual Reviews.	
d	Weed control Weed management will be conducted by a suitably qualified contractor with a focus on the recommendations made as a result of rehabilitation monitoring and inspections. Control of weeds will predominantly be through manual removal to limit the use of chemicals. Chemical controls will only be utilised where there are significant outbreaks.		Compliant	Weed Treatment Report (Wedgetail, June 2021)	Annual review notes that weed management is undertaken using manual removal and herbicide application if necessary. Report from Wedgetail (dated June 2021) outlining chemical weed treatment. Treatment was carried out by an ecologist (Kane Blundell), targeting areas previously identified by Wedgetail staff on routine inspections. Treatment was undertaken by backpack folia spraying. Target species included <i>Lantana camara</i> (Lantana), <i>Chrysanthemoides monilifera subsp. rotundata</i> (Bitou bush) and <i>Melinis repens</i> (Red Natal Grass).	
8.3.6	Vertebrate Pest Control					
a	All putrescible waste bins to be securely covered and removed from the site on a weekly basis to remove potential food source for vermin.		Compliant	Site inspection	Observed during site inspection.	
b	Undertake monitoring for presence of pests through one of the following methods: • Conducting searches and spotlighting, and mapping evidence of pest species across Project Area (e.g. rabbit warrens, pig scratching, evidence of wild dogs). • Installing remote motion sensing camera traps at a minimum of five locations across the Project Area for a two-week period. The presence of domestic or wild cats and dogs within the central wildlife corridor (consistent with PSC lease conditions) should be included within the program.		Compliant	Annual Reviews Site Inspection	Fauna surveillance cameras are used on site (and sighted during audit). Canine footprints also observed on site (as reported in Annual Reviews).	
c	Recording of incidental observations for evidence of pests and where suspected to be domestic and (if considered safe to do so) are to be captured and reported to PSC and returned to the owner if known or animal shelter if unknown.		Compliant	Annual Reviews Site Inspection	Annual Review notes that canine footprints have been observed on site (and this was sighted during the field inspection), however it is unclear if these are wild dogs or domestic dogs. 2020 Annual Review notes that dog trapping will be investigated for the following reporting period.	
d	Where detected during monitoring, implement a pest control program to reduce vertebrate pest numbers where there is potential for impacts on native wildlife and rehabilitation. The program is to have regard for the presence of domestic animals and return these to the owners where captured. The vertebrate pest control program is to be conducted: • In consultation with the LLS and adjoining landholders. • In accordance with Humane Pest Animal Control: Codes of Practice (DPI 2014). • By suitably qualified and experienced personnel. • Other control methods such as shooting or trapping can also be used if deemed necessary or appropriate with advice from BCD or the LLS. Given the proximity of residential properties baiting programs may not be appropriate.		Not triggered	Site comms.	Pest control (dog baiting) has been undertaken by neighbouring landowners and therefore a site based program is not deemed necessary. 2020 Annual Review notes that dog trapping will be investigated for the following reporting period.	
8.3.7	Erosion, Sediment Control and Soil Management					
a	A construction environmental management plan (CEMP) including erosion and sedimentation controls will be prepared and implemented for all construction activities proposed.		Compliant	CENP	Construction Environmental Management Plan dated 30 August 2019 and approved by DPIE on 26 August 2019.	
b	Erosion and sediment control plans (ESCP) to be prepared and implemented with all internal road construction activities.		Compliant	Soil and Water Management Plan	Erosion and sediment controls can be found in Section 5.2 of the Soil and Water Management Plan. All road construction activities now completed.	
c	Vegetation and soil excavated during the initial block construction will be stockpiled (vegetation and then topsoil) within an area adjacent to the processing plant. The initial area of cleared vegetation and topsoil will be used to supplement other extraction areas over the life of the project that are deficient in organic matter.		Compliant	Site inspection	Site inspection observed vegetation and topsoil stockpiles. Sighted an area where organic material had been respread, ready for rehabilitation.	
d	During excavation of each new extraction zone, vegetation and topsoil cleared will be laid over the previous extracted zone to encourage regrowth and rehabilitation.		Compliant	Site inspection	Site inspection observed vegetation and topsoil stockpiles. Sighted an area where organic material had been respread, ready for rehabilitation.	
e	Install erosion and sediment controls on-site as required in accordance with the Erosion and Sediment Control Regional Policy (PSC, 2002b) and the Code of Practice for Managing Urban Stormwater – Soils and Construction (Landcom,2004).		Compliant	Site inspection	Commitment captured in Soil and Water MP. Installed at commencement of Project. Erosion and sediment controls observed while on site. No erosion issues observed while on site.	
f	Maintain erosion and sediment controls as required and consistent with the Code of Practice for Managing Urban Stormwater – Soils and Construction (Landcom, 2004).		Compliant	Site inspection	Commitment captured in Soil and Water MP. Inspections completed monthly/post major rainfall. Erosion and sediment controls observed while on site. No erosion issues observed while on site.	
g	Maintain a bund at the downslope side of each of the extraction areas to contain any sediment and runoff that may be generated from disturbed areas on site.		Compliant	Site inspection	Completed prior to the extraction of each block. Sediment fencing observed while on site to contain any sediment runoff.	
h	Maintain a low level bund around the silty loam stockpile to limit potential for offsite transport and spread.		Compliant	Site Discussions	Based on site discussions this was completed during the establishment of the processing area.	
i	Final landform batters with edge of Project Boundary not to exceed 4H (horizontal) to 1V (vertical), 4H:1V.		Not triggered		No final landform established yet.	

Number	Commitment	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action
j	Disturbance of potentially contaminated soils or potential hazardous building materials or pipe (e.g. fibre cement containing asbestos) must be reported to the quarry manager immediately and no further disturbance of area to continue. Quarry manager to determine need for formal classification.		Not triggered		No contaminated soils or materials encountered during audit period.	
k	Erosion and sediment controls will be monitored to ensure performance is maintained.		Compliant	Inspections	Commitment captured in Soil and Water MP. Inspections completed monthly/post major rainfall. Erosion and sediment controls observed while on site. No erosion issues observed while on site.	
l	The post extraction landform must be surveyed on completion of the primary site rehabilitation works and the results presented in the form of plans to demonstrate compliance with the extraction limit of 1 m above highest predicted groundwater level.		Not triggered		Not triggered - no rehabilitation works completed yet.	
8.3.8	Water Management					
a	Water management controls will be revised and updated on determination of the project to ensure management measures proposed adequately reflect the requirements of the Conditions of Consent. The revised controls will be prepared in consultation with the NSW EPA, NSW Water and Hunter Water for approval by NSW DPE.		Compliant	Site inspection	Completed prior to commencement of operations. Soil and Water MP was prepared in consultation with EPA, NSW Water, Hunter Water and DPE.	
b	Water for potable use and dust suppression will be drawn from Hunter Water's reticulated water supply at Cabbage Tree Road. No groundwater will be extracted or utilised.		Compliant	Water records	All water is sourced from Hunter Water supply. No groundwater is extracted.	
c	Surface water will be contained onsite through incorporation of bunds around the perimeter of the resource area. Most of the bunds will be created as a result of the extraction process being topographically lower than the adjacent surfaces. The bund will also be incorporated into the access road through a trafficable mound that ensures all surface water within the resource area must percolate vertically into the groundwater.		Compliant	Site inspection	Minimal water pooled on site. Due to the sandy nature of the soil, most water absorbs into the ground and doesn't remain on site. Bund are located around the site.	
d	Rainwater will be captured from the workshop and office roofed area and reused for dust suppression.		Compliant	Site inspection	Rainwater is captured from the workshop and office roofed area and reused for dust suppression and/or ablutions. Based on an approximate roof area of 380m2, with average rainfall, generates 335 kL per annum (accounting for 80% capture).	
e	All impervious areas will be shaped such that water sheds to infiltration areas constructed in areas adjoining rehabilitated areas.		Compliant	Site inspection	No rehabilitated areas yet. All water from impervious areas drains to roadside table drains, and infiltration zones.	
f	WSS will consult with DPI Water with regards to the locations of and construction of proposed groundwater monitoring points, installation of loggers and selection of sampling points.		Admin Non Compliance	Maximum Depth Extraction Level Report (2019)	The Maximum Extraction Depth Management Plan (2019) indicates that Section 3.2 and 3.3 discuss the consultation with DPI. While these sections do discuss the location and frequency of monitoring, they do not indicate that the consultation with DPI was undertaken during the development of the monitoring network and sampling points. Site noted that DPI Water was provided a copy of the SWMP on 15 February 2019, and 15 October 2020 - no response was received from either correspondence (refer to page 102/103 of the SMWP), it is assumed that the location shown in the management plan were considered adequate. No evidence provided.	NC REC 12: Consultation is required with DPI Water with regards to the locations of and construction of proposed groundwater monitoring points. The evidence of this consultation was not sighted. It is recommended that this information be included in the Annual Review for 2021.
g	WSS will install groundwater monitoring wells, so that monitoring can be performed immediately up and down gradient of the main extraction areas after destruction of existing bores.		Compliant	Maximum Depth Extraction Level Report (2019)	Section 3.2 of Maximum Depth Extraction Level Report (2019) provides the recommendations for the installation of groundwater monitoring wells upgradient and downgradient of main extraction area.	
h	Data loggers will be installed in monitoring wells to continuously monitor and provide additional data for input to the groundwater model.		Compliant	Email from site 9/9/21.	The Maximum Extraction Depth Management Plan (2019) recommends that 5 bores out of 13 have dataloggers installed. The review of monitoring reports for 2020 and 2021 has not found a reference to dataloggers, only manual dipping. Site advised in an email dated 9/9/21 that dataloggers were installed within the wells as marked within the SWMP, and that data is collected regularly during the monitoring program. No monitoring data provided to verify this and there are no graphs to show the datalogging. <u>Therefore low low-compliance.</u> Site noted that data from loggers is periodically downloaded, and that this data will be used to inform the Maximum Extraction Depth Review. Site noted that data will be incorporated into the quarterly Water Monitoring Reports, and integrated into the Annual Review.	IMP REC 6: There is a requirement that data loggers will be installed in monitoring wells to continuously monitor and provide additional data for input to the groundwater model. While the Maximum Extraction Depth Management Plan (2019) recommends that 5 bores have dataloggers installed, there is no reporting of this data. The datalogger data needs to be included in the quarterly monitoring and annual review as a confirmation of monitoring during the year.
i	Trigger levels for monitoring will be developed in consultation with DPI Water to ensure the groundwater table is not intersected.		Admin Non Compliance		Triggers were detailed in Sections 7 and 9 of the 2019 Soil and Water Management Plan. Plan was sent to the Natural Resources Regulator (formerly DPI Water) on 15 February 2019 for review. No comments received. Section 3.3 of the Maximum Depth Extraction Level Report presents the set of water level triggers. Monthly monitoring until June 2020 have all water quality data compared to trigger levels as defined in SWMP, however after July 2020 and up to May 2021 (the latest available monitoring report) the Site had adopted the trigger values setup in KLF (2020) although the trigger values were not approved by DPI Water at the time. The comparison should have been made with the trigger levels setup in SWMP (2019) which was valid document at the time of reporting. The SWMP was updated and approved in July 2021 to include site-specific trigger levels (Section 8.5) which were developed in consultation with DPI Water. While this approved criteria is not applicable for data collected during the current audit period, it will be applicable for future monitoring. <u>Therefore no further recommendations.</u>	
j	Management protocols for PFAS for sub-water table disturbance during construction.		Compliant		Management protocols for PFAS were developed and are presented in Section 5.4 of the Construction Environmental Management Plan (2019)	
k	WSS will update the groundwater model every two years from commencement of quarry activities to determine maximum predicted groundwater level along with updated topography showing the progress of the quarry.		Not triggered		The quarry started the operation in August 2019 therefore the deadline for the updated groundwater model is in August 2021(outside the audit period). This modelling report may have been prepared however it is not sighted. Site advised that this commitment is considered to be effectively superseded by Schedule 2, Condition 12. In this regard, Andrew Fulton of Groundwater Exploration Services has now been endorsed by the Director and has been engaged to complete the review.	IMP REC 7: A groundwater model and quarry floor height will be reviewed every two years following the commencement of activities. The activities commenced in August 2019; therefore, these updates are due in August 2021.
l	The quarry floor height will be reviewed every two against the revised groundwater model (refer to Rehabilitation section for establishing the adopted level), unless trigger levels determine a review is required.		Not triggered		The review of quarry floor height is due in August 2021 (outside the audit period), and as such this review was not sighted.	As per above recommendation.

Number	Commitment	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action
m	No equipment maintenance will occur within Tomago Sandbeds Special Area.		Compliant	Site inspection	Site advised that equipment maintenance is undertaken in bunded area, sighted during field visit.	
8.3.9	Hydrocarbon Controls					
a	If obvious signs of contamination such as discoloured or odorous soils are encountered during site set-up and extraction, work will stop in the vicinity of the area and, if safe to do so, samples will be taken for analysis		Not triggered		Not triggered.	
b	A fully bunded and undercover hardstand for fuel, hydrocarbon and chemical storage will be constructed outside of the Tomago Sandbeds Special Area.		Compliant	Site inspection	Sighted during site visit. All hydrocarbons and chemicals are stored in bunded areas. Stored undercover.	
c	Personnel to be trained in spill containment and response procedures.		Compliant	Site inspection	Staff training and inductions include spill response procedures (as per site comms)	
d	Hazardous material stored onsite will be kept to the minimum practicable amount.		Compliant	Site inspection	Sighted during site visit. All hydrocarbons and chemicals are stored in bunded areas. Not large volumes.	
e	Spill response kits will be kept and maintained onsite		Compliant	Site inspection	Spill response kits sighted during field visit.	
f	Processing plant area (moved around the site based on resource area) installed on site will include: <ul style="list-style-type: none"> A bunded parking area for the overnight parking of the bull dozer. If power via electrical mains supply is unavailable, diesel generators will be required. If used, diesel generators will: <ul style="list-style-type: none"> Be located within a bunded area. Include an internal double skinned and self bunded diesel storage tank. Be refuelled as required within the bunded refill area. Be returned to the Office and Workshop Compound on conclusion of operations each Saturday. This is proposed in the context of reducing the risk of vandalism over the weekend, and limiting risks (e.g. electrical and diesel) associated with the daily transport of the generator to and from processing plant area. 		Compliant	Site inspection	Processing plant area observed during site visit. Includes bunded parking areas for bulldozers. Currently has electrical mains supply.	
g	Mobile equipment installed on site will: <ul style="list-style-type: none"> Be refuelled at a lined and bunded refuelling area. Include spill control kits. Operators trained in the use and maintenance of spill control kits. Return of all mobile equipment at end of each day to Office and Workshop Compound (excluding the bull dozer). 		Compliant	Site inspection Site discussions	Discussed with site personnel and observed during site visit. Includes these requirements. No issues determined.	
h	Electric screen and air separator installed on site will include bunding under the electric screen and air separator plant to capture hydraulic leaks.		Not triggered		No air separator. Plastic under electric screen. Site advised planned upgrade in future.	
i	Refuelling of equipment will be undertaken over a bunded concrete pad by a registered contractor. No fuel or diesel will be stored on site contained in plant and equipment. Oils and grease will be stored in a bunded area.		Compliant	Site inspection	Refuelling areas observed during site visit. In a bunded area. Oil and grease stored in bunded area.	
j	Mobile plant used in the extraction process will be refuelled outside of the Tomago Sandbeds Special Area, including: <ul style="list-style-type: none"> Pneumatic tyred loaders (2x full time) Dump Trucks (campaign usage as required for extraction area 7C). Sales truck (Daily). Trailer mounted diesel generator to power processing plant interim or back up in the event electricity is not available.		Compliant	Site inspection	Refuelling areas observed during site visit. In a bunded area.	
k	All diesel powered pneumatic tyred mobile plant will be removed from the Tomago Sandbeds Special Area at the end of each day's operation, including: <ul style="list-style-type: none"> Loaders x 2 (daily) Dump trucks (campaign usage as required for extraction area 7C). Sales trucks (daily) Trailer mounted diesel generator (where used) This plant will be stored within fenced area with CCTV and back to base security at the Office and Workshop area located outside the Special Area.		Compliant	Site inspection	Discussed with site during site visit. All mobile plant is removed from the Tomago Sandbeds Special Area at the end of each day's operation	
l	When plant and equipment is not operating, pressure will be removed from hydraulic lines and hydraulic fluid returned to the tank. The tank will be bunded to 110% of capacity.		Compliant	Site comms.	Site advised that hydraulic equipment used onsite are fitted with shutoff valves to reduce the extent of leak in any hydraulic failure. When machinery is not operating, hydraulic pressure is also reduced. Bunding is installed under stationery equipment operating onsite.	
m	The tracked plant will be refuelled on a fully bunded and lined hardstand. The following plant that are permitted to be refuelled on the fully bunded and lined hardstand area within the Tomago Sandbeds Special area include: <ul style="list-style-type: none"> 1 x Dozer (Maximum of 3 campaigns of 2 weeks each, 42 days per year). 1x Excavator (Maximum of 3 campaigns of 2 weeks each, 42 days per year). 		Low Non-Compliance	Site comms.	Site advised that operations within the Tomago Sand Beds have not been able to operate consistent with these requirements. The EIS was based on the recovery of sand in a sequential manner using front-end loaders, with bull dozers and excavators only considered necessary for clearing operations. The variability in the resource and market demands have required the use of bull dozers and excavators and four wheel drive dump trucks. In addition to the above circumstance relating to the resource, wheeled loaders have been identified during operations to have increased safety risks when operating on unconsolidated surfaces. Tyre pressures must be reduced substantially to avoid loss of traction, this then compromises stability when buckets are loaded at capacity of approximately 12 tonnes. The reduced stability has potential to increase risks of damaging trucks when loading and the loader. Site have noted that this commitment will require amendment via a modification to be submitted in the last quarter of 2021. <u>As site is planning to submit a modification for this commitment, there is no further recommendation.</u>	
n	Any hydrocarbon spills on site will include the following response: <ul style="list-style-type: none"> Immediate deployment of spill control kits. Notifications of relevant stakeholders (e.g. EPA and HWC) consistent with the Pollution Incident Response Management Plan (PIRMP) for any spills estimated to be greater than 30 L. Recovery of all contaminated sands or gravels regardless of size for collection and offsite disposal at a licenced waste facility. 		Compliant	Site comms.	Site advised that no spills greater than 30L have occurred onsite. Minor spills are cleaned up through bagging of contaminated sands for offsite disposal to suitably licenced waste facility.	
o	Appropriate maintenance schedules for plant and equipment must be followed to detect and repair leaks.		Compliant	Site communications.	Equipment is on a regular maintenance schedule (as per site comms)	

Number	Commitment	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action
8.3.10	Greenhouse Gas and Energy					
a	Record diesel and electricity by the operations. • Review of opportunities to improve energy efficiency		Compliant	Annual Review	Diesel and electricity records are provided in the Annual reviews	
b	On site diesel efficiency will continue to improve based upon the following measures: • Scheduling activities so that equipment and vehicle operation is optimised. • The quarry fleet will continue to be replaced by more efficient equipment over the life of the project, where replaced. Fuel use efficiency will be an important factor in selecting quarry fleet. • Resource recovery will be optimised within the constraints of the Project. • Machines will be working to their upper design performance. Optimising machine performance is key performance indicator for operators. • Fleet will be serviced and maintained to OEM specifications.		Compliant	Annual Review	Opportunities to improve energy efficiency are assessed and reported in the Annual Review	
8.3.11	Waste					
a	Application to Port Stephens Council for installation of effluent management system.		Compliant	Annual Review Council Approval dated 11 June 2018	Annual Reviews confirm that all septic waste is removed from site by licenced contractors. Council approval provided dated 11 June 2018.	
b	All wastes generated by Cabbage Tree Road Quarry will be managed by the way of Council collection services or via appropriately licensed waste contractors.		Compliant	Annual Review	Annual Reviews confirm that all waste is removed from site by licenced contractors.	
c	The on-site pumping system must be located and constructed in accordance with Port Stephens Councils Development Assessment Framework for on-site sewerage.		Compliant	Council Approval dated 11 June 2018	Council approval provided dated 11 June 2018 confirming that the sewage tank designs are approved by Council.	
d	No onsite disposal of waste will occur.		Compliant	Site discussions and inspection	Discussed with site, no on site disposal of waste.	
e	Scrap metal will be deposited into a dedicated receptacle for periodic collection and recycling.		Compliant	Annual Review	Annual Reviews confirm that all scrap metal is separated and removed from site by licenced contractors.	
f	Diesel fuel will be stored within self-bunded above ground tank and all refuelling will be undertaken on a bunded and covered hardstand area.		Compliant	Site Inspection	Observed during site visit, all hydrocarbons stored in bunded areas and refuelling completed in bunded area.	
g	During excavation any foreign materials encountered will signal an immediate stop work in the proximate area until the nature of the object/s can be determined. In the case of uncovered potential asbestos sheeting or pipe laboratory testing may be required to determine if asbestos fibres are present in the surrounding sand.		Not triggered		Not triggered.	
h	Where excavation is to occur below the quarry floor, an excavation specific spoil and water management procedure is to be developed to manage PFAS contaminated soil and groundwater and/or acid sulphate soils.		Not triggered	Site comms.	Not triggered. Site noted that this SOC is effectively replaced by Condition 15 (iii), the Construction EMP with PFAS contingency.	
i	All waste oil will be collected and stored in containers within a covered and bunded area, and will be removed from the site by an appropriately licensed contractor with all relevant waste tracking documentation completed.		Compliant	Annual Review	Annual Reviews confirm that all waste oil is separated and removed from site by licenced contractors.	
j	All oil filters will be separately stored in containers with a covered bunded area, and will be removed from the site by an appropriately licensed contractor with all relevant waste tracking documentation completed.		Compliant	Annual Review	Annual Reviews confirm that all waste oil filters are separated and removed from site by licenced contractors.	
k	Silt will be periodically removed from the various silt control structures and used in progressive rehabilitation of the site		Compliant	Site comms.	Site noted that this occurs as necessary to maintain the capacity of the sediment control devices.	
l	All office paper and general waste originating from the office, amenities building and packaging from routine equipment and vehicle maintenance consumables will be placed in appropriate containers for collection by council or a licensed contractor for disposal/ recycling at an appropriate waste management facility.		Compliant	Annual Review	Annual Reviews confirm that all paper and cardboard waste is separated and removed from site by licenced contractors.	
m	Wastewater from the amenities, workshop and laboratory will be collected in a pump-out system and transported off-site by a licensed contractor.		Compliant	Annual Review	Annual Reviews confirm that all septic waste is removed from site by licenced contractors.	
n	All waste tyres will be removed by the supplier of replacement tyres.		Compliant	Site comms.	Site noted that no waste tyres are kept on site.	
8.3.12	Air Quality					
a	Air Quality controls and management measures will be revised and updated on determination of the project to ensure management measures proposed adequately reflect the requirements of the Conditions of Consent. The revised controls will be prepared in consultation with the NSW EPA for approval by NSW DPE.		Compliant	Monitoring results Site inspection	Section 6.10 of the Air Quality Management Plan states that controls will be reviewed annually at a minimum and reported in the Annual Review.	
b	Bitumen seal access road through to the boundary for the southern boundary of the northern resource area.		Low Non-Compliance		Site inspection observed that the site entrance road has been sealed, however the road has not been sealed all the way to the Northern Resource Area.	NC REC 13: Ensure the bitumen seal access road is constructed through to the boundary for the southern boundary of the northern resource area.
c	Utilise water carts or a sprinkler system for dust suppression of exposed areas and haul roads.		Compliant	Site inspection	Water cart and sprinklers observed while on site.	
d	Water sprays will be incorporated into transfer points where higher levels of moisture are acceptable, such as conveyor transfers to product and reject stockpiles.		Compliant	Site inspection	Water sprinklers observed while on site.	
e	Install a suitable continuous air quality monitoring network.		Compliant	Monitoring results Site inspection	Continuous Air Quality Monitoring is completed (2 x Bam and 2 x HVAS)	
f	WSS will install a meteorological station to allow quarry personnel to access instantaneous wind speed and direction data and also generate site specific meteorological data records.		Compliant		The site utilised the nearby Williamtown BoM weather station.	
g	Quarry operations will be subject to a staged shutdown of equipment based on rolling 24 hour average PM10 concentrations, PM10 concentration spikes and adverse background air quality and meteorological conditions. Indicative completion criteria are set out below, it important to note that these triggers will be adapted and refined as the project progresses based on actual monitoring data. The proposed draft triggers include: Where the wind is directed toward surrounding residences, that is the weather station indicates winds are blowing from the quadrants west (270 degrees), through North (0 degrees) to East (90 degrees) the quarry should review dust controls (e.g. stockpile sprays and need for dust suppression on trafficked areas). In addition, based on the real-time air quality monitoring network, the following controls should be implemented: 1. No topsoil stripping or dozer push to occur where: a) Wind is directed toward surrounding residences; AND b) Rolling PM10 24-hour average exceeds 35 µg/m3 OR c) Rolling PM10 1-hour average exceeds 50 µg/m3. 2. If levels continue to increase after two hours, suspend sand extraction and processing (loading trucks only) where: a) Wind is directed toward surrounding residences; AND b) Rolling PM10 24 hour average exceeds 42.5 µg/m3 OR c) Rolling PM10 1-hour average exceeds 50 µg/m3. 3. If levels continue to increase after two hours, suspend loading trucks (no machinery operating) where: a) Wind is directed toward surrounding residences; AND b) Rolling PM10 24 hour average exceeds 45 µg/m3. OR c) Rolling PM10 1-hour average exceeds 50 µg/m3.		Low Non-Compliance	Monitoring results Site documentation and discussions	1. There were a number of instances where 24h PM10 exceeded 35 µg/m3. Site was unable to provide evidence that topsoil stripping/dozer operations ceased on each occasion. Email chain provided for ceasing operations on 19-20 August 2020. <u>Therefore, low non-compliance.</u> 2. Not triggered - no exceedances of 24h 42.5µg/m3 criteria or 50µg/m3 rolling avg. 3. Not triggered - no exceedances of 24h 45µg/m3 criteria or 50µg/m3 rolling avg. See previous comments about recording response and actions to the air quality TARP. Site noted that the Air Quality TARP was developed to be an indicative response framework to manage dust levels onsite as noted within the AQMP "it is important to note that these triggers will be adapted and refined as the project progresses to ensure compliance with criteria and suitable actions are undertaken". Site advised that it is proposed to amend this SOC in the next Consent modification, in addition to an amendment to the EPL and the AQMP.	NC REC 14: Until Newcastle Sands consults with DPIE and EPA, they need to implement and record the real time triggers for air quality.

Number	Commitment	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action
h	In the event the Trigger Response Framework fails to maintain levels below criteria, monitoring results are to be assessed for compliance using the following protocol: 1. Results above 24 hour average PM10 criteria of 50 µg/m3. 2. Is wind direction in the preceding three hours toward receptors and the monitoring location? If No, unlikely to be due to project, suspend extraction activities until levels drop below 48 µg/m3. Sales can continue. If Yes continue to Step 3. 3. Are regional levels also elevated as per the EPA monitoring network? 4. Does the quarry monitoring network show upstream and downstream air quality levels are above criteria? If Yes, unlikely to be due to project, suspend extraction activities until levels drop below 48 µg/m3. If No continue to Step 5. 5. Exceedance directly related to activities onsite. Non-compliance has occurred. 6. Review activities onsite and develop actions to mitigate future non-compliance.		Compliant	Monitoring results Site documentation and discussions	Site noted that this process is followed when evaluating high dust levels. No further recommendation. See NC REC 14.	
i	If noncompliance is demonstrated, additional monitoring will be undertaken within one week following implementation of additional mitigation controls.		Not triggered		No non-compliances recorded.	
8.3.13	Noise					
a	Noise controls will be revised and updated on determination of the project to ensure management measures proposed adequately reflect the requirements of the Conditions of Consent. The revised controls will be prepared in consultation with the NSW EPA for approval by NSW DPE.		Compliant		Section 7.10 of the Noise Management Plan states that controls will be reviewed annually at a minimum and reported in the Annual Review.	
b	The following noise management measures will be employed during construction activities: • The proponent will inform potentially noise affected residents of the nature of works to be carried out, the expected noise levels and duration, as well as contact details. • All feasible and reasonable work practices will be implemented where possible to meet the noise affected level. • Construction personnel will be made aware of the requirement to minimise noise, and to implement best practice operating techniques to minimise noise. • Consideration should be given to operating low noise emission plant where possible.		Compliant		Construction noise was undertaken in accordance with these commitments, which area capture in the Noise MP. No noise exceedances during the audit period.	
c	Operational noise mitigation measures will include: • Areas 8, 9 and 10 will be extracted last to retain the natural sound attenuation of the sand dunes for as long as possible. • Extraction orientation will, where feasible, maintain the sand face between the operating plant and the nearest dwelling. • Use of a dozer for operational material push up will be restricted to areas within the northern resource area and only used in the southern resource area where monitoring determines noise criteria will not be exceeded at dwellings. • All dozers operating within the southern resource area will be restricted to first gear in reverse to minimise associated track noise. • All equipment frequently used onsite will be fitted with a BBS-Tek "back alarm" broadband reversing alarms or similar. • All plant is to be positioned on each pad with regard to minimising the potential for offsite noise at the surrounding dwellings. • Diesel generators used for backup power will be positioned such that the exhaust is generally directed to the north.		Compliant		These commitments are all captured in the Noise MP. Noise management measures (such as quackers) were observed on site during audit. No exceedances or non-compliances during the audit period.	
d	The following noise monitoring is recommended for the construction phase of the project: • Attended noise monitoring at the potentially most affected residences at commencement, or during the highest noise emitting period, of each construction activity. • If noncompliance is demonstrated, additional monitoring will be undertaken within one week following implementation of additional mitigation controls. • Vibration monitoring at the potentially most affected residences at commencement, or during the highest vibration emitting period, of Cabbage Tree Road intersection construction activity.		Compliant		Construction noise monitoring was completed (reports available on the website) by Spectrum Acoustics. No exceedances or non-compliances. Vibration monitoring results were included in the 2020 Annual Review. No exceedances.	
e	Detailed dilapidation reporting will also be undertaken at all properties within a 300 m radius of quarrying activities and/or intersection works where access is provided to undertake the reporting prior to the commencement of any works. Each property owner will be provided a copy of the dilapidation report for their property.		Compliant	Noise Management Plan and monitoring	Dilapidation reports were completed during 2019 for all nearby residents, reports sighted during audit.	
f	The following monitoring is recommended for the operational phase of the Project: • Attended noise monitoring at the potentially most affected residences at commencement, or during the highest noise emitting period, of each phase of the Project. These phases should include: o Clearing and stripping in Areas 1, 3, 7, 8, 9, 10. o Extraction and processing works in Areas 1, 8, 9, 10. • Periodic attended monitoring with a frequency of one day per quarter unless targeted monitoring is already scheduled in that quarter.		Compliant		Operational noise monitoring was completed quarterly during the audit period (reports available on the website) by Spectrum Acoustics. No exceedances or non-compliances.	
g	Attended monitoring results are to be assessed for compliance using the following protocol: • Results above intrusiveness criteria. • Do standard weather conditions apply (as per INP)? • If non-standard weather conditions apply, undertake follow-up monitoring. • Are the results considered to be directly related to activities onsite or are they from an unrelated source? • If related to activities onsite and standard weather conditions apply a non-compliance has occurred.		Compliant		Operational noise monitoring was completed quarterly during the audit period (reports available on the website) by Spectrum Acoustics. No exceedances or non-compliances. Results are assessed as per these requirements and are reported in the Annual reviews and EPL Annual Returns.	
h	If noncompliance is demonstrated, additional monitoring will be undertaken within one week following implementation of additional mitigation controls.		Not triggered		No exceedances/non-compliances.	
i	Where noise monitoring or complaints suggest the project is unable to achieve these noise goals the proponent will undertake the following sequence of investigations and controls: • Review the details of the noise level exceedances, the weather, operational activities at the time and the nature of the noise exceedance. • If due to failure or equipment or to follow operational procedures, undertake corrective actions to prevent recurrence. • If exceedance not as a result of failure, review and refine procedures. • If operational practices cannot be improved, consult with the residents of impacted dwellings to discuss potential mitigation measures, this may include: o Double glazing of windows or similar improvements to dwellings. o Erection of a noise barrier (on resident's property or near source). o Provide compensation to allow receptor to seek relief from noise emissions.		Not triggered		No exceedances/non-compliances.	
j	Attended noise monitoring at representative dwellings will be carried out during normal operations and the results compared with the predicted model results. The model may be recalibrated to allow noise levels for the remaining scenarios to be more accurately predicted.		Compliant		Operational noise monitoring is undertaken at representative residences and results align with the predicted models.	

Number	Commitment	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action
8.3.14	Aboriginal Heritage					
a	An Aboriginal Cultural Heritage Management Plan (ACHMP) will be developed in consultation with the relevant Aboriginal stakeholders and BCD prior to the commencement of the Project. The ACHMP will address the following matters: • A protocol for managing any archaeological material exposed during the course of operations. • Recommendations for the ongoing management of the study area.		Compliant	Aboriginal and Historic Heritage Management Plan Annual Review	Aboriginal and Historic Heritage Management Plan dated 5 June 2019. DPIE approved Plan on 17 June 2019. Consultation with stakeholders dated 16 August 2018. This included: • Nur-Run-Gee; • Worimi Local Aboriginal Land Council; and • Mur-roo-ma Inc. • Archaeological protocol is located in Section 7.2 of the Plan • Ongoing management of the area is in Section 6 of the Plan.	
b	All staff and contractors will undergo site induction incorporating Aboriginal cultural awareness and be made aware of statutory legislation protecting sites and places of significance.		Compliant	Site induction	Site induction observed which includes Aboriginal Heritage components.	
c	Management of any artefacts will be undertaken in consultation with Aboriginal stakeholder groups in accordance with the ACHMP.		Not triggered	Site discussions	No artefacts currently managed by the site.	
8.3.15	Historical Heritage					
a	Footings associated with the former World War II radar station will be subject to photographic archival recording of footings and survey of its location prior to disturbance by a qualified archaeologist.		Not triggered		Footings not found.	
b	Should unexpected heritage items be discovered during the Project and are likely to be disturbed by the Project, all works in the immediate area will cease and a qualified archaeologist or heritage consultant will provide an assessment and, if necessary, the Heritage Branch, Department of Planning will be notified.		Not triggered		No unexpected finds	
8.3.16	Visual Amenity					
a	All structures with the potential to be visible from off site will be finished in non-reflective natural tones which blend with natural vegetation.		Compliant		Observed during site inspection.	
b	Any required lighting will be directed downwards in accordance with relevant Australian Standards (AS 4282- Control of Obtrusive Effects of Outdoor Lighting).		Compliant	Site inspection Biodiversity and Rehabilitation Plan	Site advised (in an email dated 9/9/21) that no specific audit has been completed against AS 4282, however lighting is directed down and does not cause nuisance at neighbouring properties.	IMP REC 8: When the site office and infrastructure move further north ensure lighting has been installed and managed as per the Australian Standards.
c	Maintain a 20 m vegetated buffer along the southern boundary of the operation between the resource area and Cabbage Tree Road.		Compliant		Captured in Biodiversity and Rehab Plan, sighted on site plans, and observed during site visit.	
d	Exclude resource extraction, thus maintaining a vegetated screen, for the first 75m of the access road from Cabbage Tree Road, as shown by Response to Submissions Figure 3.		Compliant		Sighted on site plans, and discussed with site personnel during site visit.	
e	Areas of disturbance are kept to the minimum practicable at any one point.		Compliant		This was discussed with site and observed during the site visit. Areas are cleared in a staged process, prior to completing extraction.	
f	Undertake rehabilitation of disturbed areas as soon as practicable.		Compliant		No rehabilitation yet completed, however during site inspection, an area was sighted where topsoil and vegetative matter had been respread, ready for rehabilitation.	
8.3.17	Bushfire and Hazard					
a	Consultation with the Rural Fire Service on fire management controls.		Compliant	Site comms.	Bushfire Control Plan SWMS provided, dated 4/1/21. Site advised that there was a verbal conversation between the Quarry Manager and RFS. No evidence of consultation able to be provided.	
b	Review bushfire danger ratings and when total fire bans are in place prior to undertaking clearing activities or other hot works onsite. Postpone activity where feasible or increase preparedness through having a fire tanker on standby.		Compliant	Site comms. Email from JB dated 9/9/21.	Site noted in an email dated 9/9/21 that construction was occurring during bushfires of 2019, this would have been discussed during tool box meetings at the time. No evidence provided to verify this.	
c	All mobile machinery and fixed plant to include on-board fire extinguishers		Compliant	Site comms. Site inspection	Site noted that all machinery and plant onsite has a suitable fire extinguisher onboard. Observed on site in one dozer.	
d	Maintain a 40 m asset protection zone (APZ) around the office and workshop area.		Compliant	Site inspection	Observed on site plans and sighted during field visit.	
f	Maintain access roads and mapping of tracks consistent with their required purpose.		Compliant	Site inspection	Observed during site visit, access tracks are well maintained.	
g	All dangerous goods will be stored in accordance with dangerous goods storage requirements and relevant Australian Standards.		Compliant	Site inspection	Lockable dangerous goods cabinet viewed onsite during Audit.	
h	Procedures for refuelling and servicing of all plant and equipment will be undertaken in a manner to prevent spills and protect drinking water catchment from potential contamination. These procedures will be detailed in the EMS to be prepared for the site operations.		Compliant	Site inspection	Observed during site visit, machinery is refuelled in a bunded area. Captured in the Soil and water MP.	
8.3.18	Ecology and Rehabilitation Management					
a	Seed Collection • Seed will be collected by appropriately qualified contractor in advance of clearing activities for species determined likely to require direct seeding or propagation, and determined to be required for direct seeding and propagation based on monitoring results.		Medium Non-Compliance	• SSD 6125 - Cabbage Tree Sand Quarry - Notice to Furnish Information and Records Under Section 9.22 of the EP&A Act 1979. • Sector 1a and Sector 2 Nocturnal and Diurnal Fauna Surveys and Tree Removal (Kleinfelder, 28/07/20) • Sector 3, 3A, 3B, 4, 4A, 4B Pre-clearance, Nocturnal, Diurnal Fauna Surveys and Tree Removal (Kleinfelder, 12/12/20). • Area 7 clearing works undertaken on 30 March & 1 April, 2021 (Wedgetail, 11/6/21)	• Based on the 2019 Annual Review, The development commenced construction on 14 August 2019 and remained in the construction phase for the duration of the reporting period. • Notice to Furnish response noted that formal seed collection occurred on 3 September 2019 (Kleinfelder). The timing of this condition requires seed collection by appropriately qualified contractor in advance of clearing activities for species determined likely to require direct seeding or propagation. Therefore non-compliant for timing. • Sector 1a and Sector 2 Nocturnal and Diurnal Fauna Surveys and Tree Removal (Kleinfelder, 28/07/20). Nocturnal Fauna Survey completed on 22/07/20 in Sector 1a and 2 prior to tree removal. During the tree removal process, fruit from <i>Angophora costata</i> (Smooth-bark Apple) and <i>Corymbia gummifera</i> (Red Bloodwood) was able to be collected from multiple felled individuals within the resource area. • Sector 3, 3A, 3B, 4, 4A, 4B Pre-clearance, Nocturnal, Diurnal Fauna Surveys and Tree Removal (Kleinfelder, 12/12/20). During the tree removal process, fruit from <i>Angophora costata</i> (Smooth-bark Apple), <i>Corymbia gummifera</i> (Red Bloodwood) and <i>Eucalyptus pilularis</i> (Blackbutt) was available to be collected from multiple felled individuals within the resource area. • Area 7 clearing works undertaken on 30 March & 1 April, 2021 (Wedgetail, 11/6/21) noted that an abundance of seed was present on a number of <i>Corymbia gummifera</i> (Bloodwood) and <i>Eucalyptus camfieldii</i> (Stringybark) species that were felled throughout clearing of Area 7. It was recommended that this seed be utilised by storing all plant material and topsoil from this area so as to preserve seed both attached to vegetation, as well as that which is present in the soil seed bank. See recommendation in Schedule 3 Condition 37. It is noted that seed collection has improved since the initial issues in 2019. Site advised that practical and operational preference is to ensure the seed is collected only as needed and where possible, practically removal of seed, this SOC was not intended to apply to all clearing at all times. Seed collection has occurred during clearing since operations have commenced.	

Number	Commitment	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action
b	Seed will be stored under appropriate conditions.		Compliant	Site Comms	Seed is stored appropriately. Site advised that Kleinfelder currently have the seed that has been collected onsite, and that it is stored in suitable conditions. Residual seed has been used in existing revegetation activities on batters and stockpiles.	
c	<p>Pre-clearing surveys</p> <ul style="list-style-type: none"> Confirmation of resource boundaries and extent of clearing. Habitat trees (containing hollows or nests) within the clearing area will be clearly marked using flagging tape or spray paint. Habitat trees are to be felled using the procedure outlined in Rehabilitation Plan. Habitat trees (containing hollows or nests) within 3 m of the resource boundary will be marked for avoidance, including the delineation of the tree drip line to limit compaction and excavation that may affect the tree. Areas of noxious weeds or environmental weeds will be marked to avoid mixing of weed containing soil with weed-free topsoil (refer to 8.3.5 Weed Control). The following surveys will be conducted within the area proposed for removal within a one day period: <ul style="list-style-type: none"> Nocturnal surveys will be conducted the night before clearing, and diurnal surveys will be conducted the morning of clearing, prior to commencement; and The procedure for when a Koala is identified within the clearing area is outlined below. All clearing will be supervised by a suitable qualified ecologist. Any occupied trees will be clearly marked and will be left during clearing and managed according to the habitat tree removal protocol. Where a Koala is identified in a tree, the procedure outlined below will be followed. 		Medium Non-Compliance	<ul style="list-style-type: none"> SSD 6125 - Cabbage Tree Sand Quarry - Notice to Furnish Information and Records Under Section 9.22 of the EP&A Act 1979. Preclearance survey of Sector 1a and 2 (Kleinfelder, 22/06/20). Sector 3, 3A, 3B, 4, 4A, 4B Pre-clearance Survey (Kleinfelder, 30/10/20). Sector 3, 3A, 3B, 4, 4A, 4B Pre-clearance, Nocturnal, Diurnal Fauna Surveys and Tree Removal (Kleinfelder 12/12/20). Preclearance survey of Area 7 (Wedgetail, 11/06/21). 	<p><u>Correspondence:</u></p> <ul style="list-style-type: none"> Letter from DPIE dated 30/10/2020 noted that pre-clearance surveys were not undertaken prior to clearing on 14, 15 and 27 August 2019, 1, 2 and 3 September 2019, 14 October 2019 and 8 January 2020, and that nocturnal surveys were not undertaken on 13, 25 and 31 August 2019, 13 October 2019, 7 January 2020 and 26 July 2020, and that diurnal surveys were not undertaken on 14 and 26 August 2019, 1 September 2019, 14 October 2019 and 8 January 2020. Email from DPIE dated 22/6/21 "Investigation of biodiversity breaches - CTR Quarry" confirmed that this was a non-compliance with the BRMP. Therefore <u>non-compliance</u>. <p><u>Ecology Reports:</u></p> <ul style="list-style-type: none"> Preclearance survey of Sector 1a and 2 (Kleinfelder, 22/06/20). On June 12, 2020 a Kleinfelder ecologist conducted a pre-clearance assessment within sector 1a and sector 2. A total of 25 hollow-bearing trees, 21 dead stag trees containing hollows and one hollowed log were recorded during the assessment. Sector 3, 3A, 3B, 4, 4A, 4B Pre-clearance Survey (Kleinfelder, 30/10/20). On 29/10/20 a Kleinfelder ecologist conducted a pre-clearance assessment within sectors 3, 3A, 3B, 4, 4A and 4B. A total of 12 hollow-bearing trees and 2 dead stags containing hollows were recorded (total of 14 hollows). 3 fauna species noted during the pre-clearance these included Varanus varius (Lace Monitor), Pogona barbata (Eastern Bearded Dragon) and a Eurostopodus mystacalis (White-throated Nightjar). The nesting area was flagged off with wooden stakes and pink flagging tape to delineate the area to prevent any harm. Sector 3, 3A, 3B, 4, 4A, 4B Pre-clearance, Nocturnal, Diurnal Fauna Surveys and Tree Removal (Kleinfelder 12/12/20). Pre-clearance survey of Sector 3 completed on 20/11/20. On 2/12/2020, a Kleinfelder Ecologist conducted a nocturnal fauna survey within Sector 3, 3A, 3B, 4, 4A, 4B prior to tree removal. One fauna species the Brown Quail (Coturnix ypsilophora) was detected and relocated. On 4/12/2020, diurnal fauna surveys were conducted prior to tree removal. One White-throated Nightjar (Eurostopodus mystacalis) was detected and was dispersed. Preclearance survey of Area 7 (Wedgetail, 11/06/21). Pre-clearance survey completed on 25 March to 1 April 2021. Ecologist was present at the site. Inspection targeted native fauna, specifically koala, and confirming presence of hollows. Hollow bearing trees were identified and marked. Night survey completed on 29/3/21 targeting koala and squirrel gliders. No target threatened species were detected during the survey. <p>See recommendation in Schedule 3 Condition 37. It appears pre clearance work has improved since the initial issues in 2019.</p>	
d	<p>Koala Management Protocol</p> <p>The following procedure will be used if a Koala is identified as occupying a tree within the proposed clearing area. The aim of this capture and relocation procedure is to ensure that no Koalas are harmed during the vegetation clearing activities within the extraction area:</p> <ul style="list-style-type: none"> The individual will be captured prior to the commencement of clearing. The individual will be given a veterinary check for any disease or illness and a monitoring device will be attached (remote tracker). Any Koalas captured will be relocated into an area of retained vegetation adjacent to where it was originally located. All individuals will be monitored for a three-month period post relocation. Where any Koalas are identified and captured for re-location, the following will be reported on: <ul style="list-style-type: none"> Location identified within the disturbance area, and location of relocation; Movement of the Koala will be mapped for the three-month period; Any instances where the Koala enters areas proposed for future clearing will be identified, and the need for further monitoring/action determined. If there is the potential for the individual to occur within areas of future vegetation clearing, a plan to ensure the individual is not impacted will be developed; and The health of the individual will be checked at the end of the three-month period and any impacts (i.e. dog attacks, vehicle strikes, bushfire impacts, or disease) will be identified. 		Compliant	Sector 3, 3A, 3B, 4, 4A, 4B Pre-clearance, Nocturnal, Diurnal Fauna Surveys and Tree Removal (Kleinfelder 12/12/20).	Sector 3, 3A, 3B, 4, 4A, 4B Pre-clearance, Nocturnal, Diurnal Fauna Surveys and Tree Removal (Kleinfelder 12/12/20). On 4/12/2020, a Kleinfelder Ecologist supervised the clearing of non-habitat and habitat trees within sectors 3, 3A and 3B. One Koala (Phascolarctos cinereus) was found during the clearing operations within sector 3 in a Blackbutt (Eucalyptus pilularis) tree. Clearing operations were stopped immediately to assess the koala. The relocation of the koala was deemed to be hazardous to the welfare of the koala and was left to relocate overnight. The koala had relocated by the following day.	
e	<p>Vegetation Clearing</p> <ul style="list-style-type: none"> A fully qualified, experienced and licenced ecologist will supervise clearing and encourage movement of any displaced animals into adjoining vegetation. 		Medium Non-Compliance	<ul style="list-style-type: none"> SSD 6125 - Cabbage Tree Sand Quarry - Notice to Furnish Information and Records Under Section 9.22 of the EP&A Act 1979. Email from DPIE dated 22/6/21 "Investigation of biodiversity breaches - CTR Quarry" 	<p>Letter from DPIE (dated 30/10/20) notes that an ecologist was not present on site during all clearing that occurred on 14, 15 and 27 August 2019, 1 and 2 September 2019, and 8 January 2020. And that an ecologist was not present on site during the felling of habitat tree number 242 on 3 September 2019.</p> <p>Site response in Notice to Furnish was that an ecologist was not present for mulching/under scrubbing works, however was present for all hollow-bearing tree clearing. Site advised that tree 242 was felled on 3 Sept 2019 prior to an ecologist arriving on site.</p> <p><u>DPIE concluded in an email dated 22/6/21 that this was a breach of the BRMP. Therefore non-compliance.</u></p>	

Number	Commitment	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action
f	<p>Clearing will be undertaken predominantly by bulldozer and may be conducted in conjunction with topsoil removal.</p> <ul style="list-style-type: none"> Vegetation should be cleared in a way that maintains habitat linkages and allows fauna living in or near the clearing site to move safely from the site to adjacent areas: <ul style="list-style-type: none"> Clearing should occur towards connecting vegetation. The direction of clearing should also ensure that fauna are directed away from Cabbage Tree Road and the quarry spine road. Sequential clearing should not create an 'island' of habitat that is isolated from adjoining habitat by roads or cleared and disturbed areas. Habitat trees will be left to stand for a period of two nights (also refer to Koala Protocol). Habitat trees will be left to stand for a period of two nights (also refer to Koala Protocol and Habitat Tree Removal) and "soft-felled" under supervision of a suitably experienced fauna ecologist. No clearing should occur during the early evening or at night (when fauna species are most likely to be on the move and are more vulnerable to injury). Plants that are suitable for brush matting (and may be vulnerable to dropping seed during clearing) will be cut ahead of the quarry face and stockpiled on weed-matting or similar to ensure seed is not "lost" during clearing and can then be spread over topsoiled areas. Large organic debris, and where possible, other vegetation cleared from the operational area will be stockpiled and spread on rehabilitated areas immediately after re-distribution of topsoil. Vegetation stockpiling should maintain a minimum 10 m cleared asset protection zone around the stockpile to minimise fire risk in adjoining vegetation. 		Medium Non-Compliance	<ul style="list-style-type: none"> Habitat Tree Removal Report (Kleinfelder, 31/10/2019). Sector 1a and Sector 2 Nocturnal and Diurnal Fauna Surveys and Tree Removal (Kleinfelder, 28/07/20) Sector 3, 3A, 3B, 4, 4A, 4B Pre-clearance, Nocturnal, Diurnal Fauna Surveys and Tree Removal (Kleinfelder 12/12/20). Area 7 clearing works undertaken on 30 March & 1 April, 2021 (Wedgetail, 11/6/21). 	<p>As per above line item, low non-compliance due to an ecologist not always present for clearing.</p> <p><u>Ecology Reports provided:</u></p> <ul style="list-style-type: none"> Habitat Tree Removal At the Cabbage Tree Road Sand Quarry (Kleinfelder, 31/10/2019). Habitat tree removal occurred on 3 September and 14 October 2019. Ecologists attended the site on these dates. Hollow bearing trees were inspected prior to felling. No fauna was present in the 4 x hollow bearing trees removed. 6 x nest boxes were identified for installation to compensate for the loss of habitat. Sector 1a and Sector 2 Nocturnal and Diurnal Fauna Surveys and Tree Removal (Kleinfelder, 28/07/20) Nocturnal fauna survey on 22/7/20 in Sector 1a and 2 prior to tree removal. No fauna were detected. On 23, 24 and 27 of July 2020, diurnal fauna surveys were conducted prior to tree removal. No fauna were detected during the diurnal surveys. On 23, 24 and 27 of July 2020, a Kleinfelder Ecologist supervised the clearing of non-habitat and habitat trees. One pair of Feathertail Gliders (<i>Acrobates pygmaeus</i>) were identified. The hollow containing the gliders was relocated outside of the resource area. No other fauna were identified during the felling of the habitat trees. Sector 3, 3A, 3B, 4, 4A, 4B Pre-clearance, Nocturnal, Diurnal Fauna Surveys and Tree Removal (Kleinfelder 12/12/20). On 2/12/2020, a Kleinfelder Ecologist conducted a nocturnal fauna survey within Sector 3, 3A, 3B, 4, 4A, 4B prior to tree removal. One fauna species the Brown Quail (<i>Coturnix ypsilophora</i>) was detected and relocated. On 4/12/2020, diurnal fauna surveys were conducted prior to tree removal. One White-throated Nightjar (<i>Eurostopodus mystacalis</i>) was detected and was dispersed. On 4/12/2020, a Kleinfelder Ecologist supervised the clearing of non-habitat and habitat trees within sectors 3, 3A and 3B. One Koala (<i>Phascolarctos cinereus</i>) was found during the clearing operations within sector 3 in a Blackbutt (<i>Eucalyptus pilularis</i>) tree (refer above line item). <p>Area 7 clearing works undertaken on 30 March & 1 April, 2021 (Wedgetail, 11/6/21). Clearing works undertaken across Area 7 on 30 March, and 1 April 2021 and were supervised by Wedgetail ecologists. All HBT were inspected upon being soft felled by excavator on April 1, 2021. 5 hollows were considered suitable habitat for fauna to occupy. Therefore 5 nest boxes will need to be installed (1 Large, 3 Medium and 1 Small), to offset the hollows that were felled. One Eastern Bearded Dragon (<i>Pogonia barbata</i>) was captured and relocated.</p>	
g	<p>Fauna Displacement Protocol</p> <p>Displacement of fauna may occur as part of the clearing process. All clearing will be supervised by a suitable qualified, experienced and licenced ecologist, the following protocol should be followed in case of an injured animal:</p> <ul style="list-style-type: none"> If possible any fauna fleeing the clearing area should be captured and relocated or directed to a safe area outside the extraction zone during the tree removal process. All fauna are to be handled in such a way as to prevent injury to the animal or the handler. Once the animal is safely handled it should be relocated or caged in a hessian bag or box and released at an appropriate time of day. Any microbats or other nocturnal species captured during the tree removal process should be held in cotton or hessian bags and released at dusk on the same day as capture if possible. If any animal is injured during the construction process, a veterinarian should be contacted immediately for professional advice on the best course of action. If any native animal is injured during other operational/ construction processes while an ecologist, environmental representative or animal handler is not present, they must be contacted immediately. 		Compliant	<ul style="list-style-type: none"> Sector 1a and Sector 2 Nocturnal and Diurnal Fauna Surveys and Tree Removal (Kleinfelder, 28/07/20). Sector 3, 3A, 3B, 4, 4A, 4B Pre-clearance, Nocturnal, Diurnal Fauna Surveys and Tree Removal (Kleinfelder 12/12/20). Area 7 clearing works undertaken on 30 March & 1 April, 2021 (Wedgetail, 11/6/21). 	<ul style="list-style-type: none"> Sector 1a and Sector 2 Nocturnal and Diurnal Fauna Surveys and Tree Removal (Kleinfelder, 28/07/20). On 23, 24 and 27 of July 2020, a Kleinfelder Ecologist supervised the clearing of non-habitat and habitat trees. One pair of Feathertail Gliders (<i>Acrobates pygmaeus</i>) were identified. The hollow containing the gliders was relocated outside of the resource area. Sector 3, 3A, 3B, 4, 4A, 4B Pre-clearance, Nocturnal, Diurnal Fauna Surveys and Tree Removal (Kleinfelder 12/12/20). On 2/12/2020, a Kleinfelder Ecologist conducted a nocturnal fauna survey within Sector 3, 3A, 3B, 4, 4A, 4B prior to tree removal. One fauna species the Brown Quail (<i>Coturnix ypsilophora</i>) was detected and relocated. On 4/12/2020, diurnal fauna surveys were conducted prior to tree removal. One White-throated Nightjar (<i>Eurostopodus mystacalis</i>) was detected and was dispersed. On 4/12/2020, a Kleinfelder Ecologist supervised the clearing of non-habitat and habitat trees within sectors 3, 3A and 3B. One Koala (<i>Phascolarctos cinereus</i>) was found during the clearing operations within sector 3 in a Blackbutt (<i>Eucalyptus pilularis</i>) tree (refer above line item). Area 7 clearing works undertaken on 30 March & 1 April, 2021 (Wedgetail, 11/6/21). Clearing works undertaken across Area 7 on 30 March, and 1 April 2021 and were supervised by Wedgetail ecologists. One Eastern Bearded Dragon (<i>Pogonia barbata</i>) was captured and relocated. 	
h	<p>Habitat Tree Removal</p> <p>Habitat trees will be removed according to the following protocol:</p> <ul style="list-style-type: none"> Hollow bearing trees will be left standing for two nights after the surrounding vegetation has been cleared to encourage any native fauna species utilising the habitat hollows to self-relocate. The actual felling of any habitat trees will be attended by a suitably experienced fauna ecologist in order to ensure the safety of any fauna found to be in the hollows. On all occasions, trees having potential habitat hollows will be 'soft felled' by an experienced machine operator. The recommended soft felling procedure is as follows: <ul style="list-style-type: none"> The hollow-bearing tree is given several moderate nudges with an excavator to give a warning to any occupying native fauna. The hollow-bearing tree is then surveyed and native fauna given an opportunity to self-relocate before the tree is actually felled. The hollow-bearing tree is soft felled with the rate of the tree's fall controlled by the machinery operator to minimise impact. All hollows will be inspected for fauna and if any are found, the animal should be relocated at an appropriate time of day (i.e. dusk for nocturnal species). If the animal is injured, it will be taken to a local veterinarian. Suitable medium and large hollows should be cut from the tree at least one metre beyond the deepest point of the hollow and then stored in a dry safe place in size related categories for replacement in rehabilitated areas. The number and size of hollows within each habitat tree will be recorded after each habitat is felled. This information will inform the nest box installation works that will occur post extraction. 		Medium Non-Compliance	<ul style="list-style-type: none"> Habitat Tree Removal Report (Kleinfelder, 31/10/2019). Sector 1a and Sector 2 Nocturnal and Diurnal Fauna Surveys and Tree Removal (Kleinfelder, 28/07/20) Sector 3, 3A, 3B, 4, 4A, 4B Pre-clearance, Nocturnal, Diurnal Fauna Surveys and Tree Removal (Kleinfelder 12/12/20). Area 7 clearing works undertaken on 30 March & 1 April, 2021 (Wedgetail, 11/6/21). Email from DPIE dated 22/6/21 "Investigation of biodiversity breaches CTR Quarry" 	<p><u>Correspondence:</u></p> <ul style="list-style-type: none"> An ecologist was not present on site during the felling of habitat tree number 242 on 3 September 2019. <u>DPIE concluded in an email dated 22/6/21 that this was a breach of the BRMP. Therefore non-compliance.</u> <p><u>Ecology Reports provided:</u></p> <ul style="list-style-type: none"> Habitat Tree Removal At the Cabbage Tree Road Sand Quarry (Kleinfelder, 31/10/2019). Habitat tree removal occurred on 3 September and 14 October 2019. Ecologists attended the site on these dates. Hollow bearing trees were inspected prior to felling. No fauna was present in the 4 x hollow bearing trees removed. 6 x nest boxes were identified for installation to compensate for the loss of habitat. Sector 1a and Sector 2 Nocturnal and Diurnal Fauna Surveys and Tree Removal (Kleinfelder, 28/07/20) Nocturnal fauna survey on 22/7/20 in Sector 1a and 2 prior to tree removal. No fauna were detected. On 23, 24 and 27 of July 2020, diurnal fauna surveys were conducted prior to tree removal. No fauna were detected during the diurnal surveys. On 23, 24 and 27 of July 2020, a Kleinfelder Ecologist supervised the clearing of non-habitat and habitat trees. One pair of Feathertail Gliders (<i>Acrobates pygmaeus</i>) were identified. The hollow containing the gliders was relocated outside of the resource area. No other fauna were identified during the felling of the habitat trees. Sector 3, 3A, 3B, 4, 4A, 4B Pre-clearance, Nocturnal, Diurnal Fauna Surveys and Tree Removal (Kleinfelder 12/12/20). On 2/12/2020, a Kleinfelder Ecologist conducted a nocturnal fauna survey within Sector 3, 3A, 3B, 4, 4A, 4B prior to tree removal. One fauna species the Brown Quail (<i>Coturnix ypsilophora</i>) was detected and relocated. On 4/12/2020, diurnal fauna surveys were conducted prior to tree removal. One White-throated Nightjar (<i>Eurostopodus mystacalis</i>) was detected and was dispersed. On 4/12/2020, a Kleinfelder Ecologist supervised the clearing of non-habitat and habitat trees within sectors 3, 3A and 3B. One Koala (<i>Phascolarctos cinereus</i>) was found during the clearing operations within sector 3 in a Blackbutt (<i>Eucalyptus pilularis</i>) tree (refer above line item). <p>Area 7 clearing works undertaken on 30 March & 1 April, 2021 (Wedgetail, 11/6/21). Clearing works undertaken across Area 7 on 30 March, and 1 April 2021 and were supervised by Wedgetail ecologists. All HBT were inspected upon being soft felled by excavator on April 1, 2021. 5 hollows were considered suitable habitat for fauna to occupy. Therefore 5 nest boxes will need to be installed (1 Large, 3 Medium and 1 Small), to offset the hollows that were felled. One Eastern Bearded Dragon (<i>Pogonia barbata</i>) was captured and relocated.</p>	
i	<p>Topsoil Stripping and Placement</p> <p>Areas of 'weed contaminated' topsoil:</p> <ul style="list-style-type: none"> Refer to Weed Control (Section 8.3.5). 		Compliant	Refer above.	Refer to commitments in Section 8.3.5.	

Number	Commitment	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action
j	Areas of 'clean' topsoil: • Topsoil is to be transferred and respread directly over the previously quarried area as soon as it is mined out and no longer required for access (exhausted area). • Once an area is exhausted and becomes available for rehabilitation the floor of the quarried area will be ripped, if it is hard and impenetrable, prior to redistribution of topsoil. • Direct topsoil transfer from an area ahead of the mining face, to the recently exhausted area, will be utilised to facilitate the natural regeneration of plant species and limit the degradation of soil microbes.		Not triggered	Annual Reviews	Direct transfer of topsoil was not available during the audit period as no rehab areas were established. Topsoil was stockpiled in bunds for later use.	
k	Strip topsoil to 100 mm minimum depth (having regard to final landform floor levels of the quarried area needing to meet the required 1 m above groundwater).		Compliant	Annual Reviews	Annual Reviews confirm topsoil has been stripped to depths of up to 300mm thick.	
l	Where topsoil is stripped at more than 150 mm thickness, topsoil to be stripped in two paths and re-laid in correct order.		Compliant	Site comms.	Site advised that topsoil stripping is stripped in two passes where feasible. However, available topsoil storage area is currently restricted the ability to do this at all times, and as quarry sequencing is now moving to more sequential methods (i.e. clear, strip, extract, clear, strip, rehabilitate, extract) the ability to strip in two passes will improve. Alternative methods of stripping upper 150mm of topsoil and extracting less may prove better process for topsoil management.	IMP REC 9: Records of topsoil stripping and depth (including stripping in two paths) should be kept on site.
m	Avoiding stockpiling topsoil enabling direct transfer to rehabilitation areas where feasible.		Not triggered	Annual Reviews	Direct transfer of topsoil was not available during the audit period as no rehab areas were established. Topsoil was stockpiled in bunds for later use.	
n	Minimising stripping depths to avoid seed burial, and taking two strips where possible ensuring respreading is sequential.		Compliant	Site comms.	Site advised that topsoil stripping is stripped in two passes where feasible. However, available topsoil storage area is currently restricted the ability to do this at all times, and as quarry sequencing is now moving to more sequential methods (i.e. clear, strip, extract, clear, strip, rehabilitate, extract) the ability to strip in two passes will improve. Alternative methods of stripping upper 150mm of topsoil and extracting less may prove better process for topsoil management.	As per above IMP REC 9.
o	If a hard or indurated layer is present on the floor of the quarried area, the floor will be ripped prior to topsoil respreading.		Not triggered	Annual Reviews	Not triggered. No quarried areas ready for topsoil respreading.	
p	Respread topsoil to a minimum thickness of 100 mm, noting the need to achieve a final land form of 1 m above groundwater).		Not triggered	Annual Reviews	Not triggered. No quarried areas ready for topsoil respreading.	
q	Operational Levels and Final Landform • Quarry floor levels to be established on weekly basis.		Compliant	Survey reports	Survey reports provided.	
r	Quarry floor levels to be reviewed on completion of quarrying to confirm required topsoil strip depth.		Not triggered	Annual Reviews	Not triggered. No operational areas completed for topsoil respreading.	
s	Independent registered surveyor to undertake audit		Admin Non Compliance	-	Site advised that Centurion Survey Pty Ltd undertakes routine survey and review of onsite survey equipment. However unable to provide evidence of this. It is understood that site has these records, however they were unable to be provided prior to the completion of the audit. <u>Therefore no further recommendation.</u>	
t	Operational floor of quarry to be no less than 0.7 m above highest predicted groundwater level. Level relative to thickness of topsoil removal, i.e. if topsoil stripping is less than 0.3 m than the operational floor level must be increased accordingly such that replacement of topsoil achieves final landform requirement of 1 m above highest predicted groundwater level.		Compliant	Site comms	Site advised that extraction depth is adjusted relative to the available topsoil to ensure final land form is at 1m or above the maximum predicted groundwater level. Site noted that the first completed area to final landform height was completed in October 2021 (outside of the audit period).	
u	Final landform, including topsoil to be not less than 1 m above highest predicted groundwater level.		Not triggered	Annual Reviews	Not triggered. Final landform not yet established.	
v	Nest Box Installations • Hollows will be replaced with nest boxes at a ratio of 1:1 within the rehabilitation area. • Nest box design will be selected to replace the natural size of removed hollows. The number and type of nest boxes to be installed will be determined for surveys of hollow-bearing trees felled during clearing. • Nest boxes will be installed on wooden poles at an approximate height of 3 m within the rehabilitation area.		Low Non-Compliance	Email from DPIE dated 22/6/21 "Investigation of biodiversity breaches - CTR Quarry" Nest Box Monitoring Report (Wedgetail, April 2021). Newcastle Sand Nest Box Pre-installation Survey (Kleinfelder, 10/07/20) Newcastle Sand Nest box Pre-installation Survey (Kleinfelder, 17/11/20). Nest box Installation – March 2021 (Wedgetail, 13/5/21).	<u>Correspondence:</u> • DPIE letter dated 30/10/20 noted that nest boxes are required to be installed up to 12 months prior to clearing where feasible, however nest boxes were not installed until November 2020, which is 15 months after clearing commenced in August 2019. • In the Notice to furnish response, Newcastle Sands noted that it was not possible to install nest boxes 12 months prior to construction. • Email from DPIE dated 22/6/21 "Investigation of biodiversity breaches - CTR Quarry" concluded that this was considered a non-compliance with the BRMP. <u>Therefore low non-compliance. However no further recommendation included as these have now been installed.</u> Below ecology reports confirm nest boxes have now been installed. <u>Ecology reports:</u> • Nest Box Monitoring Report (Wedgetail, April 2021). Monitoring of 94 nest boxes within on-site BOAs completed on 20, 21, 23 April 2021. Species identified included Common brushtail possums (<i>Trichosurus vulpecula</i>), Squirrel gliders (<i>Petaurus norfolcensis</i>) and Sugar gliders (<i>Petaurus breviceps</i>). • Newcastle Sand Nest Box Pre-installation Survey (Kleinfelder, 10/07/20). On July 10, 2020, a Kleinfelder ecologist conducted a nest box pre-installation survey within two retained vegetation areas adjacent to the resource areas 1a and 2. 25 nest box locations were chosen within the retained vegetation outside of resource areas. • Newcastle Sand Nest box Pre-installation Survey (Kleinfelder, 17/11/20). On 11/11/20, a Kleinfelder ecologist conducted a nest box pre-installation survey within 3 retained vegetation areas adjacent to resource areas. 60 nest box locations were chosen within retained vegetation outside the resource area. • Nestbox Installation – March 2021 (Wedgetail, 13/5/21). On 29-30/3/2021, an Ecologist from Wedgetail installed 100 nest boxes within the Onsite Biodiversity Offset Area. Currently, a total of 75 hollows have been removed due to clearing the impact area, and a total of 184 nest boxes have been installed within Onsite Biodiversity Offset Area.	

Number	Commitment	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action
w	<p>Placement of woody debris and brush matting</p> <ul style="list-style-type: none"> Where possible individual plant species (especially <i>Leptospermum</i>, <i>Melaleuca</i> and <i>Eucalyptus</i> species) will be harvested when they are bearing mature seed rather than immediately prior to clearing. Bradysporous (seed retaining) species are best harvested and spread in autumn whereas geosporous (seed shedding) species are best harvested immediately prior to annual seed release in late spring. Experienced and qualified contractors to coordinate seed collection. 		Compliant	<ul style="list-style-type: none"> SSD 6125 - Cabbage Tree Sand Quarry - Notice to Furnish Information and Records Under Section 9.22 of the EP&A Act 1979. Sector 1a and Sector 2 Nocturnal and Diurnal Fauna Surveys and Tree Removal (Kleinfelder, 28/07/20) Sector 3, 3A, 3B, 4, 4A, 4B Pre-clearance, Nocturnal, Diurnal Fauna Surveys and Tree Removal (Kleinfelder, 12/12/20). Area 7 clearing works undertaken on 30 March & 1 April, 2021 (Wedgetail, 11/6/21) 	<ul style="list-style-type: none"> Notice to Furnish response noted that formal seed collection occurred on 3 September 2019 (Kleinfelder). Sector 1a and Sector 2 Nocturnal and Diurnal Fauna Surveys and Tree Removal (Kleinfelder, 28/07/20). Nocturnal Fauna Survey completed on 22/07/20 in Sector 1a and 2 prior to tree removal. During the tree removal process, fruit from <i>Angophora costata</i> (Smooth-bark Apple) and <i>Corymbia gummifera</i> (Red Bloodwood) was able to be collected from multiple felled individuals within the resource area. Sector 3, 3A, 3B, 4, 4A, 4B Pre-clearance, Nocturnal, Diurnal Fauna Surveys and Tree Removal (Kleinfelder, 12/12/20). During the tree removal process, fruit from <i>Angophora costata</i> (Smooth-bark Apple), <i>Corymbia gummifera</i> (Red Bloodwood) and <i>Eucalyptus pilularis</i> (Blackbutt) was available to be collected from multiple felled individuals within the resource area. Area 7 clearing works undertaken on 30 March & 1 April, 2021 (Wedgetail, 11/6/21) noted that an abundance of seed was present on a number of <i>Corymbia gummifera</i> (Bloodwood) and <i>Eucalyptus camfieldii</i> (Stringybark) species that were felled throughout clearing of Area 7. It was recommended that this seed be utilised by storing all plant material and topsoil from this area so as to preserve seed both attached to vegetation, as well as that which is present in the soil seed bank. <p>IEMA considers this condition compliant as seed has been able to be collected from site prior to clearing events. See above commitment for seed collection non-compliance relating to timing.</p>	
x	<p>Distribution of all stockpiled vegetation will occur following the respreading of topsoil up to a maximum of 20% ground cover by woody debris (greater than 10 cm diameter). The re-laid vegetation will comprise branches and timber of all sizes including leaves and stems of shrubs and grasses.</p> <ul style="list-style-type: none"> The placement of large timber should have regard to its orientation for the purpose of the capture of wind-blown sand and delay of runoff. Generally, this means an orientation along the north-east to south-west vectors, perpendicular to dominant onshore and off-shore winds. 		Not triggered	Annual Reviews	Not triggered. No rehabilitation yet completed.	
y	<p>Direct Seeding</p> <ul style="list-style-type: none"> Common pioneer species (i.e. <i>Acacia</i> species and <i>Actinotus helianthi</i>) and others will usually regenerate from topsoil or brush matting and direct seeding is not required. Where monitoring shows a deficiency in a particular species they will be introduced through direct seeding. 		Not triggered	Site comms.	Not triggered. No direct seeding required (site comms)	
z	<p>Locally sourced seed will be used, and will be sown in the soil rather than broadcast. Harvesting of mature seed and direct sowing into re-topsoiled areas at the most appropriate time of year (usually autumn or spring) will be undertaken for species that typically do not readily regenerate from the soil seedbank, such as <i>Eucalyptus</i>, <i>Angophora</i>, <i>Banksia</i> and <i>Xanthorrhoea</i>.</p>		Not triggered	Site comms.	Not triggered. No direct seeding required (site comms)	
aa	<p>Propagation and Replanting</p> <p>The focus of propagation is to:</p> <ul style="list-style-type: none"> Introduce to the rehabilitation the dominant structural species that have difficulty establishing from topsoil, brush matting, or direct seeding or recalcitrant species. Provide advanced species that are desired for establishment in strategic locations or densities to achieve the revegetation objectives. Propagation will be undertaken by a local wholesale nursery. 		Not triggered	Annual Reviews	Not triggered. No rehabilitation yet completed.	
bb	<p>Where targeted species do not regenerate through the topsoil seedbank or direct seeding, tube stock will be planted within the rehabilitation. Planted tube stock will be watered to ensure for initial establishment.</p>		Not triggered	Annual Reviews	Not triggered. No rehabilitation yet completed.	
cc	<p>Transplanting</p> <ul style="list-style-type: none"> Transplanting of will be used as a method of revegetation for certain species. The plants will be excavated with a front-end loader (or similar) retaining as much soil around the roots as possible The plant will then be moved to a prepared hole, water in where possible. For mature <i>Xanthorrhoea</i> species (Grass Trees), these will be burnt (where weather and conditions permit). Burning the shirt of dead leaves and some of the lower green leaves is important to stimulate new growth and flowering. 		Not triggered	Annual Reviews	Not triggered. No rehabilitation yet completed.	
dd	<p>Species Composition and Structure</p> <ul style="list-style-type: none"> Rehabilitation will aim to achieve the species composition and structure of the following communities: <ul style="list-style-type: none"> Smooth-barked Apple – Blackbutt Forest and Coastal Sand Wallum Woodland-Heath. Canopy species of the adjoining Swamp Mahogany – Paperbark Swamp Forest will supplement rehabilitation in areas where this community adjoins the rehabilitation area. The composition of the rehabilitation will aim to meet the performance and ultimately the completion criteria specified in the Rehabilitation Plan. 		Not triggered	Annual Reviews	Not triggered. No rehabilitation yet completed.	
ee	<p>Landscaping Areas will include species composition and structure that will aim to establish native ground cover and shrub species that are consistent with requirements for fuel loads within Asset Protection Zones (e.g. maintained, minimal wood debris, discontinuous patches of the shrub layer, no canopy species within 10 m of building and where present do not have connected canopy with adjoining vegetation).</p>		Not triggered		Not triggered. Site advised that no landscaping has yet taken place.	
ff	<p>Rehabilitation Monitoring</p> <ul style="list-style-type: none"> Six monthly (bi-annual) monitoring of rehabilitation for the first three years and monitoring at years four, five and eight post-rehabilitation will be assessed against the performance criteria. The Eight year (or final) monitoring event will also be compared against the completion criteria, and where met will not require further monitoring. 		Not triggered	Annual Reviews	Not triggered. No rehabilitation yet completed.	

Number	Commitment	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action
8.3.19	Decommissioning and Closure					
a	Prepare a final quarry closure plan to establish a safe, stable and non-polluting final landform.		Not triggered		Not triggered. Closure plan to be developed when site is within three years of closure.	
b	Satisfy land owner lease conditions for relinquishment of bond.		Not triggered		Not triggered. Closure plan to be developed when site is within three years of closure.	
c	Decommissioning will include: <ul style="list-style-type: none"> • Removal of all plant and equipment (e.g. all fuel infrastructure, weigh bridges, site office and the workshop structure). • Consultation with land owner to agree on residual infrastructure to be left onsite. Expected residual infrastructure / works includes: <ul style="list-style-type: none"> o Intersection and bitumen access road. o Building pads. o Electrical line work from Cabbage Tree Road to Office and Workshop area. o Water mains pipe work though to Office and Workshop area. o Building pads. o A 40 m wide asset protection zone (with inner and outer protection areas) around office and workshop compound. 		Not triggered		Not triggered. Closure plan to be developed when site is within three years of closure.	
d	Meet rehabilitation completion criteria, or at a minimum establish that the rehabilitated lands are on trajectory to meet the completion criteria without additional input.		Not triggered		No rehabilitation completed yet on site.	
8.3.20	Offsets					
a	Sufficient biodiversity offsets will be secured to satisfaction of BCD and DPE prior to the commencement of construction.		Not triggered		No biodiversity offset developed yet. Extension letter received from DPIE.	
	Additional Mod 2 Commitments					
	The air separator will not be operated concurrently with the wash plant.		Compliant	Site discussions	Site has advised no air separator.	
	Where water use onsite, measured on the water meter with the HWC network, exceeds 27 ML/year (approx. 90% of the maximum level estimated in the EIS of 29.65 ML/yr.), further water saving measures will be employed, such as, the use of dust suppressant additives, increased bitumen sealing of road surfaces or other suitable measures.		Not triggered		Not yet triggered.	
	Regular visual leak monitoring and inspection of tank and pipeline condition.		Compliant		Site advised in an email (dated 9/9/21) that this is completed visually, however no evidence is available to verify this.	
	Two-weekly inspection of sprinkler systems for observation of leaks or seized spray heads.		Compliant		Site advised in an email (dated 9/9/21) that this is completed visually, however no evidence is available to verify this. Also noted that this is only applicable when fines are being irrigated, at this stage they are being blended in the floor as evidenced while onsite.	
	Cycling as needed (between fresh and process) of irrigation line feed water to flush lines and reduce build up of leaves.		Compliant		Site advised in an email (dated 9/9/21) that this is completed visually, however no evidence is available to verify this.	
	Concrete barrier blocks or suitable bunding around the tank perimeter to minimise collision risks onsite, where susceptible to potential collision with mobile equipment.		Compliant	Site inspection	Concrete barrier blocks observed on site	
	For tanks above 100 kL, sand bunding to contain the capacity the largest tank.		Not triggered	Email dated 9/9/21.	Site noted the following in an email (dated 9/9/21) Tanks onsite are 50KL. Slope of hardstand against batter provides an "in disturbance area capacity" of more than this amount. Current hard stand / area draining back to batter and extraction area is more than 2,500m ² with a 2% fall toward the batter / in pit for recapture and containment in event of tank failure. At only 2cm depth, the largest tank is suitably contained.	
	In addition to the above commitments, the Soil and Water Management Plan (in particular) will be amended to reflect the inclusion of the wash plant onsite.		Compliant	Site inspection. 2021 SWMP. Approval letter dated	SWMP was updated in 2021 to include Mod 2 and the wash plant. Approved 13/7/21.	
	In order to minimise silt build up in the tanks it is proposed to use the process water for rehabilitation irrigation and dust suppression. The net outcome is a negligible change in water demand.		Not triggered		Site noted in an email (dated 9/9/21) that this system is still within the early commissioning phases and insufficient time has elapsed to evaluate comparative use figures. Considered not triggered.	

EPL 21264

Condition Number	Condition	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action																								
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. 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>Crushing, grinding or separating</td> <td>Crushing, grinding or separating</td> <td>> 100000 - 500000 T annual processing capacity</td> </tr> <tr> <td>Extractive activities</td> <td>Extractive activities</td> <td>> 100000 - 500000 T annual capacity to extract or process</td> </tr> </tbody> </table>	Scheduled Activity	Fee Based Activity	Scale	Crushing, grinding or separating	Crushing, grinding or separating	> 100000 - 500000 T annual processing capacity	Extractive activities	Extractive activities	> 100000 - 500000 T annual capacity to extract or process	Production records	Compliant	Production data. Annual Reviews	<ul style="list-style-type: none"> April 2020: 5,000 tonnes (as part of a trial) 1 May to 31 Dec 2020: 124,310.7 tonnes (Operations commenced) 1 Jan to 30 June 2021: 170,279.7 tonnes 																
Scheduled Activity	Fee Based Activity	Scale																												
Crushing, grinding or separating	Crushing, grinding or separating	> 100000 - 500000 T annual processing capacity																												
Extractive activities	Extractive activities	> 100000 - 500000 T annual capacity to extract or process																												
A2	Premises or plan to which this licence applies																													
A2.1	<p>The licence applies to the following premises:</p> <table border="1"> <thead> <tr> <th>Premises Details</th> </tr> </thead> <tbody> <tr> <td>CABBAGE TREE ROAD SAND QUARRY</td> </tr> <tr> <td>298 CABBAGE TREE ROAD</td> </tr> <tr> <td>WILLIAMTOWN</td> </tr> <tr> <td>NSW 2318</td> </tr> <tr> <td>AS SHOWN ON PLAN TITLED "QUARRY OPERATIONS PLAN - FIGURE 1" WITHIN ALLOTMENTS: LOT 1012 DP 814078 LOT 11 DP 629503 LOT 121 DP 556403 LOT 1 DP 224587 THIS PLAN HAS BEEN FILED AS EPA DOCUMENT DOC19/442133.</td> </tr> </tbody> </table>	Premises Details	CABBAGE TREE ROAD SAND QUARRY	298 CABBAGE TREE ROAD	WILLIAMTOWN	NSW 2318	AS SHOWN ON PLAN TITLED "QUARRY OPERATIONS PLAN - FIGURE 1" WITHIN ALLOTMENTS: LOT 1012 DP 814078 LOT 11 DP 629503 LOT 121 DP 556403 LOT 1 DP 224587 THIS PLAN HAS BEEN FILED AS EPA DOCUMENT DOC19/442133.		Note		Noted																			
Premises Details																														
CABBAGE TREE ROAD SAND QUARRY																														
298 CABBAGE TREE ROAD																														
WILLIAMTOWN																														
NSW 2318																														
AS SHOWN ON PLAN TITLED "QUARRY OPERATIONS PLAN - FIGURE 1" WITHIN ALLOTMENTS: LOT 1012 DP 814078 LOT 11 DP 629503 LOT 121 DP 556403 LOT 1 DP 224587 THIS PLAN HAS BEEN FILED AS EPA DOCUMENT DOC19/442133.																														
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. In this condition the reference to "the licence application" includes a reference to:</p> <p>a) 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</p> <p>b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.</p>		Note		Noted																									
2	DISCHARGES TO AIR AND WATER AND APPLICATIONS TO LAND																													
P1	Location of monitoring/discharge points and areas																													
P1.1	<p>The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.</p> <table border="1"> <thead> <tr> <th colspan="4">Air</th> </tr> <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>13</td> <td>Ambient Air Monitoring</td> <td></td> <td>PM10 real time particulate monitoring station as described as "RT1" in the document titled "Particulate Matter Monitoring Locations, Figure 5," dated 22 July 2019, EPA file Doc19/629648.</td> </tr> <tr> <td>14</td> <td>Ambient Air Monitoring</td> <td></td> <td>PM10 real time particulate monitoring station as described as "RT2" in the document titled "Particulate Matter Monitoring Locations, Figure 5," dated 22 July 2019, EPA file Doc19/629648.</td> </tr> <tr> <td>15</td> <td>Ambient Air Monitoring</td> <td></td> <td>PM10 particulate monitoring station as described as "HVAS-1 PM10" in the document titled "Particulate Matter Monitoring Locations, Figure 5," dated 22 July 2019, EPA file DOC19/629648.</td> </tr> <tr> <td>16</td> <td>Ambient Air Monitoring</td> <td></td> <td>TSP particulate monitoring station as described as "HVAS-2 TSP" in the document titled "Particulate Matter Monitoring Locations, Figure 5," dated 22 July 2019, EPA file DOC19/629648.</td> </tr> </tbody> </table>	Air				EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description	13	Ambient Air Monitoring		PM10 real time particulate monitoring station as described as "RT1" in the document titled "Particulate Matter Monitoring Locations, Figure 5," dated 22 July 2019, EPA file Doc19/629648.	14	Ambient Air Monitoring		PM10 real time particulate monitoring station as described as "RT2" in the document titled "Particulate Matter Monitoring Locations, Figure 5," dated 22 July 2019, EPA file Doc19/629648.	15	Ambient Air Monitoring		PM10 particulate monitoring station as described as "HVAS-1 PM10" in the document titled "Particulate Matter Monitoring Locations, Figure 5," dated 22 July 2019, EPA file DOC19/629648.	16	Ambient Air Monitoring		TSP particulate monitoring station as described as "HVAS-2 TSP" in the document titled "Particulate Matter Monitoring Locations, Figure 5," dated 22 July 2019, EPA file DOC19/629648.	Air quality locations - to be sighted by IEMA.	Compliant	Air Quality Management Plan. Annual Reviews	These monitoring locations are outlined in the Air Quality Management Plan. The Annual Reviews confirm that monitoring is undertaken at these locations throughout the audit period.	
Air																														
EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description																											
13	Ambient Air Monitoring		PM10 real time particulate monitoring station as described as "RT1" in the document titled "Particulate Matter Monitoring Locations, Figure 5," dated 22 July 2019, EPA file Doc19/629648.																											
14	Ambient Air Monitoring		PM10 real time particulate monitoring station as described as "RT2" in the document titled "Particulate Matter Monitoring Locations, Figure 5," dated 22 July 2019, EPA file Doc19/629648.																											
15	Ambient Air Monitoring		PM10 particulate monitoring station as described as "HVAS-1 PM10" in the document titled "Particulate Matter Monitoring Locations, Figure 5," dated 22 July 2019, EPA file DOC19/629648.																											
16	Ambient Air Monitoring		TSP particulate monitoring station as described as "HVAS-2 TSP" in the document titled "Particulate Matter Monitoring Locations, Figure 5," dated 22 July 2019, EPA file DOC19/629648.																											
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.		Note		Noted																									

Condition Number	Condition	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action																																
P1.3	<p>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.</p> <p style="text-align: center;">Water and land</p> <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>Groundwater Monitoring</td> <td></td> <td>Groundwater Monitoring Bore "BH2" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry" - EPL Supporting Documentation dated 19 March 2019, EPA Doc19/382742.</td> </tr> <tr> <td>2</td> <td>Groundwater Monitoring</td> <td></td> <td>Groundwater Monitoring Bore "BH4" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry" - EPL Supporting Documentation" dated 19 March 2019, EPA Doc19/382742.</td> </tr> <tr> <td>3</td> <td>Groundwater Monitoring</td> <td></td> <td>Groundwater Monitoring Bore "BH6" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry" - EPL Supporting Documentation" dated 19 March 2019, EPA Doc19/382742.</td> </tr> <tr> <td>4</td> <td>Groundwater Monitoring</td> <td></td> <td>Groundwater Monitoring Bore "BH7" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry" - EPL Supporting Documentation: dated 19 March 2019, EPA Doc19/382742.</td> </tr> <tr> <td>5</td> <td>Groundwater Monitoring</td> <td></td> <td>Groundwater Monitoring Bore "BH9" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry" - EPL Supporting Documentation" dated 19 March 2019, EPA Doc19/382742.</td> </tr> <tr> <td>6</td> <td>Groundwater Monitoring</td> <td></td> <td>Groundwater Monitoring Bore "BH11" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry" - EPL Supporting Documentation" dated 19 March 2019, EPA Doc19/382742.</td> </tr> <tr> <td>7</td> <td>Groundwater Monitoring</td> <td></td> <td>Groundwater Monitoring Bore "MW239S" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry" - EPL Supporting Documentation" dated 19 March 2019, EPA Doc19/382742.</td> </tr> </tbody> </table>	EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description	1	Groundwater Monitoring		Groundwater Monitoring Bore "BH2" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry" - EPL Supporting Documentation dated 19 March 2019, EPA Doc19/382742.	2	Groundwater Monitoring		Groundwater Monitoring Bore "BH4" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry" - EPL Supporting Documentation" dated 19 March 2019, EPA Doc19/382742.	3	Groundwater Monitoring		Groundwater Monitoring Bore "BH6" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry" - EPL Supporting Documentation" dated 19 March 2019, EPA Doc19/382742.	4	Groundwater Monitoring		Groundwater Monitoring Bore "BH7" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry" - EPL Supporting Documentation: dated 19 March 2019, EPA Doc19/382742.	5	Groundwater Monitoring		Groundwater Monitoring Bore "BH9" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry" - EPL Supporting Documentation" dated 19 March 2019, EPA Doc19/382742.	6	Groundwater Monitoring		Groundwater Monitoring Bore "BH11" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry" - EPL Supporting Documentation" dated 19 March 2019, EPA Doc19/382742.	7	Groundwater Monitoring		Groundwater Monitoring Bore "MW239S" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry" - EPL Supporting Documentation" dated 19 March 2019, EPA Doc19/382742.	Groundwater locations - to be sighted by IEMA.	Compliant	Soil and Water Management Plan. Annual Reviews.	These monitoring locations are outlined in the Soil and Water Management Plan. The Annual Reviews confirm that monitoring is undertaken at these locations throughout the audit period. Groundwater bores, their location and monitoring results for 2019 are given in Annual review 2019 . Water quality data is also provided in 5.1.4 and 5.1.5. Monthly and quarterly reporting for 2019, 2020 and 2021 of water levels and quality are undertaken as per this condition and were sighted in these reports.	
EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description																																			
1	Groundwater Monitoring		Groundwater Monitoring Bore "BH2" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry" - EPL Supporting Documentation dated 19 March 2019, EPA Doc19/382742.																																			
2	Groundwater Monitoring		Groundwater Monitoring Bore "BH4" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry" - EPL Supporting Documentation" dated 19 March 2019, EPA Doc19/382742.																																			
3	Groundwater Monitoring		Groundwater Monitoring Bore "BH6" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry" - EPL Supporting Documentation" dated 19 March 2019, EPA Doc19/382742.																																			
4	Groundwater Monitoring		Groundwater Monitoring Bore "BH7" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry" - EPL Supporting Documentation: dated 19 March 2019, EPA Doc19/382742.																																			
5	Groundwater Monitoring		Groundwater Monitoring Bore "BH9" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry" - EPL Supporting Documentation" dated 19 March 2019, EPA Doc19/382742.																																			
6	Groundwater Monitoring		Groundwater Monitoring Bore "BH11" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry" - EPL Supporting Documentation" dated 19 March 2019, EPA Doc19/382742.																																			
7	Groundwater Monitoring		Groundwater Monitoring Bore "MW239S" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry" - EPL Supporting Documentation" dated 19 March 2019, EPA Doc19/382742.																																			
P1.4	<p>The following points referred to in the table below are identified in this licence for the purposes of weather and/or noise monitoring and/or setting limits for the emission of noise from the premises.</p> <p style="text-align: center;">Noise/Weather</p> <table border="1"> <thead> <tr> <th>EPA Identification no.</th> <th>Type of monitoring point</th> <th>Location description</th> </tr> </thead> <tbody> <tr> <td>17</td> <td>Meteorological Station</td> <td>Williamstown Bureau of Meteorology Station</td> </tr> </tbody> </table>	EPA Identification no.	Type of monitoring point	Location description	17	Meteorological Station	Williamstown Bureau of Meteorology Station	Met monitoring results	Compliant	Air Quality Management Plan. Annual Reviews	Use of the Williamstown meteorological monitoring station is outlined in the Air Quality Management Plan. The Annual Reviews confirm that monitoring is undertaken at this location throughout the audit period.																											
EPA Identification no.	Type of monitoring point	Location description																																				
17	Meteorological Station	Williamstown Bureau of Meteorology Station																																				
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.	Discharge results and incidents (if applicable)	Compliant	EPL Annual returns	Site has complied with the POEO Act.																																	
L2	Waste																																					
L2.1	The licensee must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by the licence.	waste records	Compliant	Waste records. Annual Reviews. Site comms.	No waste received at the premises during the audit period.																																	
L3	Noise limits																																					
L3.1	<p>Noise Limits</p> <table border="1"> <thead> <tr> <th>Receiver</th> <th>Day LAeq(15 Min)</th> <th>Shoulder LAeq(15 Min)</th> <th>Shoulder LA Max(1 Min)</th> </tr> </thead> <tbody> <tr> <td>Any residential receiver</td> <td>43</td> <td>39</td> <td>45</td> </tr> </tbody> </table>	Receiver	Day LAeq(15 Min)	Shoulder LAeq(15 Min)	Shoulder LA Max(1 Min)	Any residential receiver	43	39	45	Noise results and reports	Compliant	Noise Management Plan Annual Reviews	Quarterly attended noise monitoring is outlined in the Noise Management Plan. The Annual Reviews confirm that noise monitoring was undertaken throughout the audit period, and was compliant with this criteria.																									
Receiver	Day LAeq(15 Min)	Shoulder LAeq(15 Min)	Shoulder LA Max(1 Min)																																			
Any residential receiver	43	39	45																																			
L3.2	Operational noise generated at the premises must not exceed the noise limits shown in the table above. Note: The noise limits detailed above do not apply at a particular residence if the licensee has a written agreement with that particular residence to exceed those limits. Note: This condition does not apply to construction activities of the intersection of the quarry access road and Cabbage Tree Road or vegetation clearing in the Southern Resource Area.		Compliant	Annual Reviews Noise Monitoring reports	The Annual Reviews and noise monitoring reports provided confirm that noise monitoring was undertaken throughout the audit period, and was compliant with this criteria.																																	

Condition Number	Condition	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action
L3.3	The following noise limits apply to vegetation clearing in the Southern Resource Area. The licensee must only undertake vegetation clearing activities in the Southern Resource Area in the following circumstances: a) noise generated by the development does not exceed 47dB(A)LAeq (15min); b) bulldozer(s) or equipment with sound power levels greater than 104 dB(A) are not permitted to be used in sectors 9B, 10A, 10B, and 10C as shown in Figure 2 of Appendix 1 of Project Approval SSD-6125; c) clearing operations are limited to: • the day period, Monday to Friday only; • campaigns not exceeding 5 consecutive working days; and • no more than 4 campaigns in a calendar year.		Compliant	Annual Reviews Noise Monitoring reports	(a) Noise monitoring results have not recorded any exceedances of the criteria. (b) Not triggered - site has not entered these areas. (c) Clearing records are provided in the Annual Reviews.	
L3.4	For the purpose of the Noise limits above: Day is the period from 7am to 6pm Monday to Friday and 7am to 4pm Saturdays. The morning shoulder period is from 6am to 7am Monday to Friday.		Note		Noted	
L3.5	The noise limits set out in this licence apply under all meteorological conditions except for the following: a) Wind Speeds greater than 3 metres/second at 10 metres above ground level; or b) Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or c) Stability class G temperature inversions.		Note		Noted	
L3.6	For the purpose of the condition above: a) Data recorded by the meteorological station identified as EPA monitoring point 17 must be used to determine meteorological conditions; and b) Temperature inversion conditions (stability category) are to be determined by the sigma theta method referred to in the NSW Noise Policy for Industry.		Compliant	Air Quality and Noise MPs. Annual reviews	Use of the Williamstown meteorological monitoring station is outlined in the Air Quality and Noise Management Plans, including the use of sigma theta for determining temperature inversions. The Annual Reviews confirm that monitoring is undertaken at this location throughout the audit period.	
L3.7	Determining Compliance To determine compliance: a) with the Leq (15 minute) noise limits in the Noise Limits table, the noise measurement equipment must be located: i) approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or ii) within 30 metres of a dwelling façade, but not closer than 3m, where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable iii) within approximately 50 metres of the boundary of a National Park or a Nature Reserve. b) with the LA1(1 minute) noise limits in the Noise Limits table, the noise measurement equipment must be located within 1 metre of a dwelling façade. c) with the noise limits in the Noise Limits table, the noise measurement equipment must be located: i) at the most affected point at a location where there is no dwelling at the location; or ii) at the most affected point within an area at a location prescribed by part (a) or part (b) of this condition. Note: A non-compliance of the Noise Limits table will still occur where noise generated from the premises in excess of the appropriate limit is measured: i) at a location other than an area prescribed in part (a) and part (b); and/or ii) at a point other than the most affected point at a location.		Compliant	Noise monitoring reports (Spectrum Acoustics) a	Noise monitoring reports (Spectrum Acoustics) address these requirements in the monitoring location Section 2.2.	
L3.8	For the purposes of determining the noise generated at the premises the modification factors in Fact Sheet C of the NSW Noise Policy for Industry must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.		Compliant	Noise monitoring reports (Spectrum Acoustics) a	Noise monitoring is completed by a consultant (Spectrum Acoustics).	
L4	Hours of operation					
	<u>Quarrying operations</u> 7am to 5pm Monday to Friday 7am to 4pm Saturday At no time on Sundays or public holidays. <u>Loading and dispatch of laden trucks</u> 6am to 6pm Monday to Friday 7am to 4pm Saturday At no time on Sundays or Public holidays. Note: The licensee may undertake maintenance activities outside these hours provided it is not audible at any residential receiver.	Records of operation hours	Compliant	Email dated 9/9/21. Truck loading and dispatch records.	Site has confirmed that quarrying operations have occurred within approved hours (email dated 9/9/21), however no evidence to verify this. Considered compliant. Truck loading and dispatch records provided. All compliant.	
L5	Potentially offensive odour					
L5.1	The licensee must not cause or permit the emission of offensive odour beyond the boundary of the premises.	Any odour complaints?	Compliant	Site comms. Complaints register.	No odours (as per site comms)	
L6	Other limit conditions					
L6.1	Extraction and Rehabilitation Depth Limits The Licensee must not undertake any sand extraction within 0.7 metres of the predicted maximum groundwater level at the premises at any time.	As per requests for depth extraction info	Compliant	Evidence of plots. Marked up survey points sighted in the field. Centurion survey reports. Maximum Extraction Depth Management Plan (Watershed HydroGeo, 2019)	Evidence of plots. Marked up survey points sighted in the field. Centurion survey reports. Maximum Extraction Depth Management Plan (Watershed HydroGeo, 2019)	
L6.2	The Licensee must ensure that rehabilitation final landform levels remain 1 metre above the maximum predicted groundwater height.		Not triggered		No rehabilitation final landform has been established yet.	
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: 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.	Waste management info	Compliant	Annual reviews. EPL Annual returns.	Deemed to be compliant with this condition. Processing, handling, movement and storage of materials deemed to be carried out in a competent manner. No waste treated/stored/processed at the site.	
O2	Maintenance of plant and equipment					
O2.1	All plant and equipment installed at the premises or used in connection with the licensed activity: a) must be maintained in a proper and efficient condition; and b) must be operated in a proper and efficient manner.	Maintenance records	Compliant	Plant maintenance records	Plant maintenance records provided.	
O3	Dust					
O3.1	All areas in or on the premises must be maintained in a condition that prevents or minimises the emission of dust to the air.		Compliant	Site inspection	No dust issued observed during site inspection. Minimal dust generating activities undertaken on site.	
O3.2	Any activity carried out in or on the premises must be carried out by such practical means as to prevent dust or minimise the emission of dust to the air.		Compliant	Site inspection. Emails regarding modified operations in high wind days.	No dust issued observed during site inspection. Minimal dust generating activities undertaken on site. Site provided evidence of modifying operations in high dust generating conditions.	

Condition Number	Condition	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action
O3.3	Any plant operated in or on the premises must be operated by such practical means to prevent or minimise dust or other air pollutants.	Implementation of AQMP	Compliant	Site inspection. Emails regarding modified operations in high wind days.	No dust issued observed during site inspection. Minimal dust generating activities undertaken on site. Site provided evidence of modifying operations in high dust generating conditions. Water cart observed on site.	
O3.4	All trafficable areas and vehicle manoeuvring areas in or on the premises must be maintained, at all times, in a condition that will minimise the emission of dust to the air, or emission from the premises of wind-blown or traffic generated dust.		Compliant	Site inspection	Water cart observed on site.	
O3.5	Trucks entering and leaving the premises that are carrying loads of dust generating materials must have their loads covered at all times, except during loading and unloading.		Compliant	Driver Code of Conduct	Documented in the driver code of conduct and observed during the site visit.	
O3.6	The licensee must ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of operations to match its available water supply for dust suppression purposes.		Compliant	Site comms.	Adequate water via Hunter Water supply.	
O3.7	The licensee must review operations and ensure that water dust suppression is active on haul roads and stockpile areas during the following conditions: a) Where wind conditions are directed towards surrounding residences, that is, the weather station indicates winds are blowing from the quadrants west (270 degrees) through North (0 degrees) to East (90 degrees). b) When the continuous PM10 monitor shows the rolling PM10 24 hr average exceeds the background average concentration of 22 micrograms per cubic metre.	Evidence of watering of roads and stockpiles when conditions trigger.	Compliant	Site inspection.	Water cart observed on site.	
O3.8	The Licensee must cease all topsoil stripping and dozer operations when the following occurs: a) Wind is directed towards surrounding residences, and b) Rolling PM10 24 hr average exceeds 35 micrograms per cubic metre.	Evidence of ceasing operations when conditions trigger.	Low Non-Compliance	Annual reviews Site comms.	<ul style="list-style-type: none"> Construction period (commencing 14 August 2019). Operational period (commencing 1 May 2020 – to day of site inspection 22 July 2021). Note, the first truck left site via the completed intersection on 18 May 2020. <p>It is assumed that topsoil stripping and dozer operations occurred through most days of construction and operations. There were a number of instances where 24h PM10 exceeded 35 µg/m³. Site was unable to provide evidence that topsoil stripping/dozer operations ceased on each occasion. Email chain provided for ceasing operations on 19-20 August 2020. <u>There fore, low non-compliance.</u></p> <p>Site noted that the Air Quality TARP was developed to be an indicative response framework to manage dust levels onsite. Site propose to amend this SOC in the next Consent modification, in addition to an amendment to the EPL and the AQMP.</p>	NC REC 14: Until Newcastle Sands consults with DPIE and EPA, they need to implement and record the real time triggers for air quality.
O3.9	The Licensee must suspend all sand processing activities when: a) Wind is directed towards surrounding residences, and b) Rolling PM10 24 hr average exceeds 40 micrograms per cubic metre.	Evidence of ceasing operations when conditions trigger.	Not triggered		We are assuming that sand processing (washing through the plant) would have occurred from 1 May 2020. No 2020 events where 24h PM10 exceeded 40µg/m3 once sand processing commenced.	
O3.10	The Licensee must suspend all sand extraction from the face when dust levels increase after two hours when: a) Wind is directed towards surrounding residences, and b) Rolling PM10 24 hr average exceeds 42.2 micrograms per cubic metre.	Evidence of ceasing operations when conditions trigger.	Not triggered		No 2020 events where 24h PM10 exceeded 42.2 µg/m3 once sand extraction commenced.	
O3.11	If dust levels continue to increase after two hours, the Licensee must cease loading and shut down all machinery at the premises when: a) Wind is directed towards surrounding residences, and b) Rolling PM10 24 hr average exceeds 45 micrograms per cubic metre.	Evidence of ceasing operations when conditions trigger.	Not triggered		No 2020 events where 24h PM10 exceeded 45µg/m3 once loading activities commenced.	
O3.12	The Licensee must progressively rehabilitate mined/quarried areas as each section is completed.		Not triggered		No rehabilitation completed on the site yet.	
O4	Emergency response					
O4	Note: The licensee must maintain, and implement as necessary, a current Pollution Incident Response Management Plan (PIRMP) for the premises. The licensee must keep the incident response plan on the premises at all times. The incident response plan must document systems and procedures to deal with all types of incidents (e.g. spills, explosions or fire) that may occur at the premises or that may be associated with activities that occur at the premises and which are likely to cause harm to the environment. The PIRMP must be tested at least annually or following a pollution incident. The licensee must develop the Pollution Incident Response Management Plan in accordance with the requirements in Part 5.7A of the Protection of the Environment Operations (POEO) Act 1997 and POEO regulations.	Evidence of PIRMP on site? Implementation? Testing?	Compliant	PIRMP. PIRMP testing records.	PIRMP dated 15 October 2019 available on website. PIRMP testing records observed while on site (2020-2021)	
O5	Processes and management					
O5.1	Preventing Pollution from Fuels and Chemicals All above ground tanks containing material that is likely to cause environmental harm must be bunded or have an alternative spill containment system in place.	As per consent requirements for bunding	Compliant	Site inspection. Site comms.	Above ground tanks are double skinned. Hydrocarbons were observed to be stored in bunded areas. Equipment stored in designated areas at night.	
O5.2	Bunds must: a) have walls and floors constructed of impervious materials; b) be of sufficient capacity to contain 110% of the volume of the tank (or 110% volume of the largest tank where a group of tanks are installed); c) have floors graded to a collection sump; and d) not have a drain valve incorporated in the bund structure, or be constructed and operated in a manner that achieves the same environmental outcome.		Compliant	Site inspection. Site comms.	Bunded areas observed during the site visit and deemed to be adequate for quantities stored.	IMP REC 10: Recommendation for long term concrete bunding in the workshop in the fuel area.
O5.3	All fuel storage and refuelling areas at the premises must be constructed to comply with the relevant Australian Standards.		Compliant	SWMP. Site inspection.	SWMP notes that fuels are stored within bunded areas in accordance with the Australian Standards. Hydrocarbons and refuelling areas were observed to be bunded during the site visit.	
O5.4	Except as detailed in the condition below, refuelling and all storage of fuels and chemicals must be within an appropriately roofed and concrete bunded area within the workshop compound, located outside of the Tomago Sandbeds Special Area.		Compliant	Site inspection. Site comms.	Bunded hydrocarbon storage areas were sighted to be in a covered area.	
O5.5	Tracked plant may be refuelled on a fully bunded and lined hardstand located within the Tomago Sandbeds Special Area. This bunded and lined area must be capable of holding both the tracked equipment and the fuel tank.		Compliant	Site inspection. Site comms.	Bunded refuelling area observed during site visit and bund deemed suitable for the required volumes.	
O5.6	No fuel storage or refuelling activities may occur at the premises outside of the areas constructed to the relevant Australian Standards.		Compliant	Site inspection. Site comms.	Bunded refuelling area observed during site visit. Site advised no refuelling elsewhere.	
O5.7	The Licensee must ensure that, outside of the operating hours during which quarrying operations are permitted, all fuel powered equipment is removed from the "Tomago Sandbeds Special Area" to a secure storage, except for equipment being used in vegetation clearing operations, which may be stored within a fully bunded and lined hardstand area outside of operating hours.		Compliant	Site inspection. Site comms.	Equipment stored in designated areas at night.	
O5.8	Preventing Pollution from Trucks The Licensee must; a) ensure that all laden trucks entering or exiting the site have their loads covered; b) ensure that all laden trucks exiting the site are cleaned before leaving the site of material that may fall from vehicles; and c) use its best endeavours to ensure that appropriate signage is displayed on all trucks used to transport product from the development so that they can be easily identified by road users.		Compliant	Site inspection. Site comms. Driver Code of Conduct.	(a) all laden trucks observed to leave site with loads covered, and this is documented in the Driver Code of Conduct. (b) Site discussed procedure for cleaning all laden trucks prior to leaving the site. (c) Truck signage sighted during field visit.	

Condition Number	Condition	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action																								
O5.9	Waste Classification The licensee must ensure that any liquid and/or non liquid waste generated and/or stored at the premises assessed and classified in accordance with the DECC Waste Classification Guidelines as in force from time to time.		Compliant	Site inspection. Site comms. Annual reviews	No waste stored at the premises. Any waste generated is removed by a licenced contractor.																									
O6	Other operating conditions																													
O6.1	Minimising Noise All dozers operating within the Southern Resource Area must be restricted to operating in first gear in reverse to minimise associated track noise.		Compliant	Noise Management Plan. Noise Monitoring reports. Annual Reviews. Complaints register.	Site confirmed they are currently operating in the Northern and Southern Resource Area. This requirement is noted in the noise management plan. Noise monitoring undertaken quarterly and no noise exceedances. Noise also reported in the Annual Reviews.																									
O6.2	All mobile equipment used onsite must be fitted with a BBS-Tec "back alarm" broadband reversing alarm or similar such device.		Compliant	Site inspection. Site comms.	Equipment is fitted with "quackers" (as per site comms) and witnessed while on site.																									
O6.3	No groundwater on the premises is to be extracted or used on the premises without the prior approval of the EPA.		Compliant	Site comms.	No groundwater is extracted from the site (as per site comms)																									
O6.4	Within the premises boundary the Licensee must accurately determine the location of areas impacted by the former mineral sand extraction operations including the settling ponds, sand tailings disposal areas, monazite trenches and the "equipment graveyard" areas and prior to works commencing on site install suitable fencing to prohibit any activities in these areas.		Compliant	Radioactivity surveys.	Radioactivity surveys completed (copies provided).																									
O6.5	Stormwater Management The drainage from all areas at the premises which will liberate suspended solids when stormwater runs over these areas must be diverted to adequately sized sediment basins.	Evidence of water management (design in Water and MP) and field assessment by IEMA	Not triggered	Site inspection. Site comms.	No sediment basins, all water reports to swale drains.																									
O6.6	The sediment basins must be maintained to ensure that their design capacity is available for the storage of all runoff from cleared areas.		Not triggered		Not applicable. No sediment basins.																									
O6.7	Stormwater management measures must be prepared and implemented to mitigate the impacts of stormwater run-off from and within the premises in a manner that is consistent with the Stormwater Management Plan for the catchment. Where a Stormwater Management Plan has not yet been prepared the measures should be consistent with the guidance contained in Managing Urban Stormwater: Soils and Construction: Volume 2C Unsealed Roads and Volume 2E Mines and Quarries (DECCW 2008).		Compliant	Site inspection. Site comms.	No sediment basins, all water reports to swale drains.																									
O6.8	Sewage Management The Licensee must establish and use an on-site sewage pump out system, incorporating an adequately sized holding tank located outside of the "Tomago Sandbeds Special Area".	Sewage management as per Project Approval request.	Compliant	Site inspection. Site comms.	Sewage tank on site.																									
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.		Compliant	EPL Annual Returns. Monitoring reports.	Monitoring is recorded and retained, copies provided to auditors.																									
M1.2	All records required to be kept by this licence must be: 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.		Compliant	EPL Annual Returns. Monitoring reports.	Monitoring records were available to the auditors to cover the entire audit period.																									
M1.3	The following records must be kept in respect of any samples required to be collected for the purposes of this licence: 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.	Raw environmental monitoring spreadsheets	Admin Non Compliance	Water monitoring reports. Chain of Custody Air Quality Monitoring. Noise monitoring reports.	Monitoring data sheets provided and reviewed. • Water - Appended to Kleinfelder monthly water monitoring reports. Date, time, monitoring location and name of sampler recorded. • Air - Chain of Custody sheet provided from ALS for air quality sampling. Date, time and monitoring location recorded, but not name of person who collected sample. <u>Therefore admin non compliance.</u> • Noise - Spectrum acoustics noise monitoring reports. Noise monitoring reports do not specify who completed the noise monitoring. <u>Therefore admin non compliance.</u> Site advised that this has now been rectified and further training of the sampler completed, forms now include Sampler name.	NC REC 15: Future noise and air quality monitoring reports to note the name of the person collecting the sample in accordance with EPL requirements.																								
M2	Requirement to monitor concentration of pollutants discharged																													
M2.1	For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:		Note		Noted																									
M2.2	Air Monitoring Requirements POINT 13,14 <table border="1"><thead><tr><th>Pollutant</th><th>Units of measure</th><th>Frequency</th><th>Sampling Method</th></tr></thead><tbody><tr><td>PM10</td><td>micrograms per cubic metre</td><td>Continuous</td><td>Australian Standard 3580.9.8 - 2001</td></tr></tbody></table> POINT 15 <table border="1"><thead><tr><th>Pollutant</th><th>Units of measure</th><th>Frequency</th><th>Sampling Method</th></tr></thead><tbody><tr><td>PM10</td><td>micrograms per cubic metre</td><td>Every 6 days</td><td>AM-18</td></tr></tbody></table> POINT 16 <table border="1"><thead><tr><th>Pollutant</th><th>Units of measure</th><th>Frequency</th><th>Sampling Method</th></tr></thead><tbody><tr><td>Total suspended particles</td><td>micrograms per cubic metre</td><td>Every 6 days</td><td>AM-15</td></tr></tbody></table>	Pollutant	Units of measure	Frequency	Sampling Method	PM10	micrograms per cubic metre	Continuous	Australian Standard 3580.9.8 - 2001	Pollutant	Units of measure	Frequency	Sampling Method	PM10	micrograms per cubic metre	Every 6 days	AM-18	Pollutant	Units of measure	Frequency	Sampling Method	Total suspended particles	micrograms per cubic metre	Every 6 days	AM-15	Raw dust monitoring spreadsheet. Preferably one spreadsheet.	Low Non-Compliance	Air quality monitoring reports	Monitoring undertaken as per these frequencies however there were numerous times throughout the audit period where there was a loss of data/unable to get a sample (7% downtime at RT1 and 13% downtime at RT2).. Site provided evidence that the monitoring equipment has been serviced and is no longer experiencing the loss of data. Therefore <u>low non-compliance.</u> This was noted as a non-compliance in the 2019-20 EPL Annual Return (specifically for failure to collect four HVAS samples from both Point 15 and Point 16 due to availability of calibration equipment for the monitoring units).However wasn't noted as a non-compliance in the 2019 or 2020 Annual Review.	As per NC REC 10: Ensure that future EPL non-compliances are reported as non-compliances in the Annual Review.
Pollutant	Units of measure	Frequency	Sampling Method																											
PM10	micrograms per cubic metre	Continuous	Australian Standard 3580.9.8 - 2001																											
Pollutant	Units of measure	Frequency	Sampling Method																											
PM10	micrograms per cubic metre	Every 6 days	AM-18																											
Pollutant	Units of measure	Frequency	Sampling Method																											
Total suspended particles	micrograms per cubic metre	Every 6 days	AM-15																											

Condition Number	Condition	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action																																			
M2.3	Water and/ or Land Monitoring Requirements POINT 1,2,3,4,5,6,7 <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Arsenic</td> <td>micrograms per litre</td> <td>Monthly</td> <td>Grab sample</td> </tr> <tr> <td>Conductivity</td> <td>microsiemens per centimetre</td> <td>Monthly</td> <td>Grab sample</td> </tr> <tr> <td>Depth</td> <td>metres</td> <td>Monthly</td> <td>Probe</td> </tr> <tr> <td>Iron</td> <td>milligrams per litre</td> <td>Monthly</td> <td>Grab sample</td> </tr> <tr> <td>Manganese</td> <td>milligrams per litre</td> <td>Monthly</td> <td>Grab sample</td> </tr> <tr> <td>pH</td> <td>pH</td> <td>Monthly</td> <td>Grab sample</td> </tr> <tr> <td>Turbidity</td> <td>nephelometric turbidity units</td> <td>Monthly</td> <td>Grab sample</td> </tr> </tbody> </table>	Pollutant	Units of measure	Frequency	Sampling Method	Arsenic	micrograms per litre	Monthly	Grab sample	Conductivity	microsiemens per centimetre	Monthly	Grab sample	Depth	metres	Monthly	Probe	Iron	milligrams per litre	Monthly	Grab sample	Manganese	milligrams per litre	Monthly	Grab sample	pH	pH	Monthly	Grab sample	Turbidity	nephelometric turbidity units	Monthly	Grab sample		Compliant	Water monitoring reports. Annual review.	The groundwater quality parameters are being monitored since 2019 and the evidence is provided in the monthly , quarterly and baseline groundwater reports for 2019, 2020 and 2021 and annual review report (2020). The 2019-20 Annual Return noted a non-compliance with this condition, where each month (12 occasions) site could not collect sample at EPA Pt5 (BH9) due to bore being dry or having insufficient water to sample. Not considered a non-compliance by the auditor.				
Pollutant	Units of measure	Frequency	Sampling Method																																						
Arsenic	micrograms per litre	Monthly	Grab sample																																						
Conductivity	microsiemens per centimetre	Monthly	Grab sample																																						
Depth	metres	Monthly	Probe																																						
Iron	milligrams per litre	Monthly	Grab sample																																						
Manganese	milligrams per litre	Monthly	Grab sample																																						
pH	pH	Monthly	Grab sample																																						
Turbidity	nephelometric turbidity units	Monthly	Grab sample																																						
M3	Testing methods - concentration limits																																								
M3.1	Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with: a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place. Note: The Protection of the Environment Operations (Clean Air) Regulation 2010 requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".		Note		Noted																																				
M3.2	Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted		Note		Noted																																				
M4	Weather monitoring																																								
M4.1	At the point(s) identified below, the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1 of the table below, using the corresponding sampling method, units of measure, averaging period and sampling frequency, specified opposite in the Columns 2, 3, 4 and 5 respectively. POINT 17 <table border="1"> <thead> <tr> <th>Parameter</th> <th>Sampling method</th> <th>Units of measure</th> <th>Averaging period</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>Temperature at 2 metres</td> <td>AM-4</td> <td>degrees Celsius</td> <td>1 hour</td> <td>Continuous</td> </tr> <tr> <td>Wind Direction at 10 metres</td> <td>AM-2 & AM-4</td> <td>Degrees</td> <td>15 minutes</td> <td>Continuous</td> </tr> <tr> <td>Wind Speed at 10 metres</td> <td>AM-2 & AM-4</td> <td>metres per second</td> <td>15 minutes</td> <td>Continuous</td> </tr> <tr> <td>Sigma Theta</td> <td>AM-2 & AM-4</td> <td>Degrees</td> <td>15 minutes</td> <td>Continuous</td> </tr> <tr> <td>Rainfall</td> <td>AM-4</td> <td>millimetres</td> <td>15 minutes</td> <td>Continuous</td> </tr> <tr> <td>Relative humidity</td> <td>AM-4</td> <td>percent</td> <td>1 hour</td> <td>Continuous</td> </tr> </tbody> </table>	Parameter	Sampling method	Units of measure	Averaging period	Frequency	Temperature at 2 metres	AM-4	degrees Celsius	1 hour	Continuous	Wind Direction at 10 metres	AM-2 & AM-4	Degrees	15 minutes	Continuous	Wind Speed at 10 metres	AM-2 & AM-4	metres per second	15 minutes	Continuous	Sigma Theta	AM-2 & AM-4	Degrees	15 minutes	Continuous	Rainfall	AM-4	millimetres	15 minutes	Continuous	Relative humidity	AM-4	percent	1 hour	Continuous	As per consent request for met data	Compliant	BoM met data for met Station 061078	Meteorological monitoring is undertaken at the Williamtown RAAF met station (ID: 061078). The required parameters are monitored. Noted that the BoM met station is out of the sites controls.	
Parameter	Sampling method	Units of measure	Averaging period	Frequency																																					
Temperature at 2 metres	AM-4	degrees Celsius	1 hour	Continuous																																					
Wind Direction at 10 metres	AM-2 & AM-4	Degrees	15 minutes	Continuous																																					
Wind Speed at 10 metres	AM-2 & AM-4	metres per second	15 minutes	Continuous																																					
Sigma Theta	AM-2 & AM-4	Degrees	15 minutes	Continuous																																					
Rainfall	AM-4	millimetres	15 minutes	Continuous																																					
Relative humidity	AM-4	percent	1 hour	Continuous																																					
M5	Recording of pollution complaints																																								
M5.1	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.	Complaints log and records	Compliant	Website	A complaints register is maintained and is available on the website.	IMP REC 11 - Don't include residents names in the complaints register in the Annual Review. Best practice to just refer to them as resident A, resident B, etc.																																			
M5.2	The record must include details of the following: 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.		Compliant	Website. Complaints register.	A complaints register is maintained and is available on the website. The complaints register addresses all of the required aspects.																																				
M5.3	The record of a complaint must be kept for at least 4 years after the complaint was made.		Compliant	Complaints register	Complaints register dates back to 2019 (construction of the site)																																				
M5.4	The record must be produced to any authorised officer of the EPA who asks to see them.		Compliant	Complaints register	A complaints register is maintained and is available on the website.																																				
M6	Telephone complaints line																																								
M6.1	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.		Compliant	Site inspection. Website	Phone number provided on the front gate and the website																																				
M6.2	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.		Compliant	Site inspection. Website	Phone number provided on the front gate and the website																																				
M6.3	The preceding two conditions do not apply until 60 days after the date of the issue of this licence.		Note		Noted																																				
M7	Other monitoring and recording conditions																																								
M7.1	Extraction Height Survey The licensee must ensure quarry operators are aware excavation RL heights to allow continual compliance with extraction depth limits. Such provisions may include GPS capability on quarry machinery, relevant network of survey pegs and frequent surveys of operations.		Compliant	Site inspection. Site comms.	Operators are trained regarding excavation RL heights. GPS capability on quarry machinery, and survey pegs observed during site visit.																																				


Condition Number	Condition	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action
M8	Noise monitoring					
M8.1	To assess compliance with the noise limits section of this licence, attended noise monitoring must be undertaken in accordance with the noise conditions and: a) at a location representative of the most affected residences in the noise limit conditions and; b) occur quarterly in a reporting period; c) occur each day and shoulder period as defined in the NSW Industrial Noise Policy for a minimum of: • 1.5 hours during the day; and • 30 minutes during the shoulder period. d) occur for three consecutive operating days. Note: It is the intention of the EPA to review the noise monitoring results required under this condition after a period of (3) years to assess the suitability of the required monitoring.	Noise reports	Low Non-Compliance	Noise monitoring reports.	Noise monitoring is undertaken quarterly by Spectrum Acoustics. (a) Monitoring undertaken at receiver 42 which is representative of receivers south of the site. (b) Monitoring occurs quarterly (reports provided) (c) and (d) Section 1.2 of the Noise Monitoring Reports note that each quarterly survey consists of 30 minute morning-shoulder measurements and 1.5 hour day measurements at a location representative of the most affected residences in the noise limit conditions, and is done over a minimum of three consecutive 24 hour periods. (d) Noise monitoring completed quarterly, 4 days were single days only during construction, one event was for three consecutive days. <u>Therefore low non-compliance.</u> Reported in 2019-20 EPL Annual Return however not reported as a non-compliance in either the 2019 or 2020 Annual Reviews.	as per NC REC 10: Ensure that future EPL non-compliances are reported as non-compliances in the Annual Review.
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: 1. a Statement of Compliance, 2. a Monitoring and Complaints Summary, 3. a Statement of Compliance - Licence Conditions, 4. a Statement of Compliance - Load based Fee, 5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan, 6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and 7. a Statement of Compliance - Environmental Management Systems and Practices. 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.	Annual Return docs	Compliant	2019-20 EPL Annual Return.	2019-2020 Annual Report Provided. Includes all the required sections. Document was submitted to the EPA.	
R1.2	An Annual Return must be prepared in respect of each reporting period, except as provided below. Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.		Note		Noted	
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. Note: An application to transfer a licence must be made in the approved form for this purpose.		Not triggered		Not triggered	
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.		Not triggered		Not triggered	
R1.5	The Annual Return for the reporting period must be supplied to the EPA via eConnect EPA or 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').		Compliant	EPL Annual return	Reporting period ended 30 July 2020, and document was submitted 28 September 2020 (60 days)	
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.		Compliant	EPL Annual return	Copy was available on site. The 2019-2020 Annual Return was the first one prepared for the operation.	
R1.7	Within the Annual Return, the Statements 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.		Compliant	EPL Annual Return (unsigned)	Signed copy of the 2019 EPL Annual Return not provided to IEMA, only unsigned copy. Site advised that signatures are now electronically completed. No signed copy is available.	
R1.8	Groundwater Monitoring Report The licensee must supply with each Annual Return a monitoring report that includes: a) all groundwater monitoring results obtained over the reporting period; b) a graphical presentation of all groundwater monitoring results (one parameter per graph) extending back to when monitoring began; and c) a commentary on results that have been obtained, highlighting any changes or trends observed over time and make recommendations where adverse effects are identified.	Groundwater report with Annual Return. Evidence of submission.	Compliant	Groundwater Monitoring Report (2020)	Groundwater monitoring report (2020) and water quality report (2021) as part of the Annual review report includes the evidence of groundwater monitoring results, graphical presentation in the Appendix 6 and Appendix C of the reports (2020 and 2021 respectively) including a commentary of the results and changes and trends. The water quality data is presented in Baseline, monthly and quarterly groundwater monitoring reports available separately.	
R1.9	Annual Extraction Height Survey The licensee must submit to the EPA with each Annual Return an annual independent survey report to demonstrate compliance with the extraction depth limit on this licence. The report must show all RL's of quarry operations and compare these against the RL's for the maximum predicted groundwater levels.		Compliant	EPL Annual return	2019-20 EPL Annual Return included Survey Plan as Appendix 4.	
R2	Notification of environmental harm					
R2.1	Notifications must be made by telephoning the Environment Line service on 131 555. Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.	Incident management	Not triggered		Not triggered	
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.		Not triggered		Not triggered	
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.		Not triggered		Not triggered	
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.		Not triggered		Not triggered	

Condition Number	Condition	Evidence Requested by IEMA	Compliance Status	Evidence Collected/Source	Findings	Recommended Action
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.		Not triggered		Not triggered	
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.		Not triggered		Not triggered	
R4	Other reporting conditions					
R4	Noise Monitoring Report A noise compliance assessment report must be submitted to the EPA within 30 days of the completion of the quarterly monitoring. The assessment must be prepared by a suitably qualified and experienced acoustical consultant and include: a) an assessment of compliance with the noise limits as detailed in this licence; and b) an outline of any management actions taken within the monitoring period to address any exceedances of the limits detailed in this licence.	Noise monitoring report submitted with Annual Return.	Low Non-Compliance		Not completed. Site advised that noise reports now provided to EPA following completion consistent with requirement.	NC REC 16: Site to complete a noise compliance assessment and submit within 30 days of the completion of quarterly monitoring as per EPL Condition R4 requirements.
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.		Compliant	Site inspection	Copy is available on site	
G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.		Not triggered		Not triggered	
G1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.		Compliant	Site inspection	Copy is available on site	
G1.4	The Licensee must nominate to the EPA a representative of the proponent that is available at all times and is capable of providing immediate assistance or response during emergencies or any other incidents at the premises. The name of the nominated representative and their contact details, including their telephone number, must be current at all times. The nomination and contact details must be provided to the EPA's Director - Hunter at PO BOX 488G, Newcastle NSW 2300.		Compliant	Site inspection. Site comms.	Site has nominated, and advised the EPA that the nominated representative is Darren Williams (General Manager)	



APPENDIX C IEA Certification Form



Development Name	Cabbage Tree Road Sand Quarry
Development Consent No.	SSD 6125
Description of Development	Sand Quarry
Development Address	Cabbage Tree Road, Williamtown, NSW 2318
Operator	Newcastle Sand
Operator Address	398 Cabbage Tree Road, Williamtown, NSW 2318
Title of Audit	Cabbage Tree Road Sand Quarry Independent Environmental Audit 2021
Audit Period	8 May 2018 (date of approval) – 22 July 2021 (Site visit)
<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> <p><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></p> <p><i>The findings of the Audit are reported truthfully, accurately and completely;</i></p> <p><i>I have exercised due diligence and professional judgement in conducting the Audit;</i></p> <p><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></p> <p><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></p> <p><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></p> <p><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></p> <p><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> <p><i>Note.</i></p> <p><i>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>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	Chris Jones
Address	51 Hudson Street Hamilton, NSW 2303
Email Address	chris.jones@iema.com.au
Audit or Certification (if relevant)	Principal Environmental Auditor
Date:	13/10 2021



APPENDIX D

Endorsement of IEA Team





Mr Jonathan Berry
Principal Advisor
C/- Cabbage Tree Road Sand Quarry

By Email ONLY: jberry@wedgetail.com.au

10/06/2021

Dear Mr Berry

**Cabbage Tree Road Sand Quarry (SSD-6125)
IEA team endorsement**

I refer to your request (SSD-6125-PA-20) for the Secretary's approval of suitably qualified persons to prepare the 2021 Independent Environmental Audit (IEA) for the Cabbage Tree Road Sand Quarry, as required by Schedule 5 condition 12 of SSD-6125, as modified (the consent).

The Department has reviewed the nominations and information you have provided and is satisfied that these experts are suitably qualified and experienced. Consequently, the Secretary endorses the following audit team for the 2021 IEA:

- Chris Jones – lead auditor
- Jessica Coffey – audit assistant
- Katarina David – groundwater specialist
- John Whyte – ecologist specialist

Please ensure this correspondence is appended to the IEA Report.

The IEA must be prepared, undertaken and finalised in accordance with the conditions of Schedule 5 condition 12 of the consent and must:

- Include consultation with relevant agencies (including, but not limited to, the Department's Resource Assessment and Compliance branches, DPIE EES, DPIE Water, NRAR, Port Stephens Council) and the Community Consultative Committee
- Assess the environmental performance of the development and whether it is complying with the requirements of the consent, as well as all approved strategies, plans and programs required under the consent
- Review the adequacy and implementation of strategies, plans and programs required under the consent
- Recommend appropriate measures or actions to improve the environmental performance of the development and/or any assessment, strategy, plan or program required under the consent

The IEA must also be prepared in accordance with the Department's *Post-approval requirements for State Significant Developments Independent Audit Guideline, October 2015* (IEA Guideline) which can be found on the Department's website.

Failure to meet these requirements will require revision and resubmission.

The audit period shall be from 8 May 2018 (date of determination of the consent) to the date of the IEA site inspection, on or near the 30 June 2021, or as otherwise agreed with the Secretary.

As required by Schedule 5 condition 13 of the consent, a copy of the IEA report together with a response to any recommendations contained in the IEA report (RAR) and a timetable for the implementation of these recommendations (in DDMMYY format) is to be submitted to the Department within 12 weeks of commencing the audit. As such, the IEA report and RAR shall be submitted via the Major Projects website no later than 3 September 2021, or as otherwise agreed with the Secretary.

If you wish to discuss the matter further, please contact Ann Hagerthy, Senior Compliance Officer, on 02 6575 3407.

Yours sincerely

A handwritten signature in black ink that reads "H Watters". The signature is written in a cursive, flowing style.

Heidi Watters
Team Leader Northern
Compliance

As nominee of the Planning Secretary