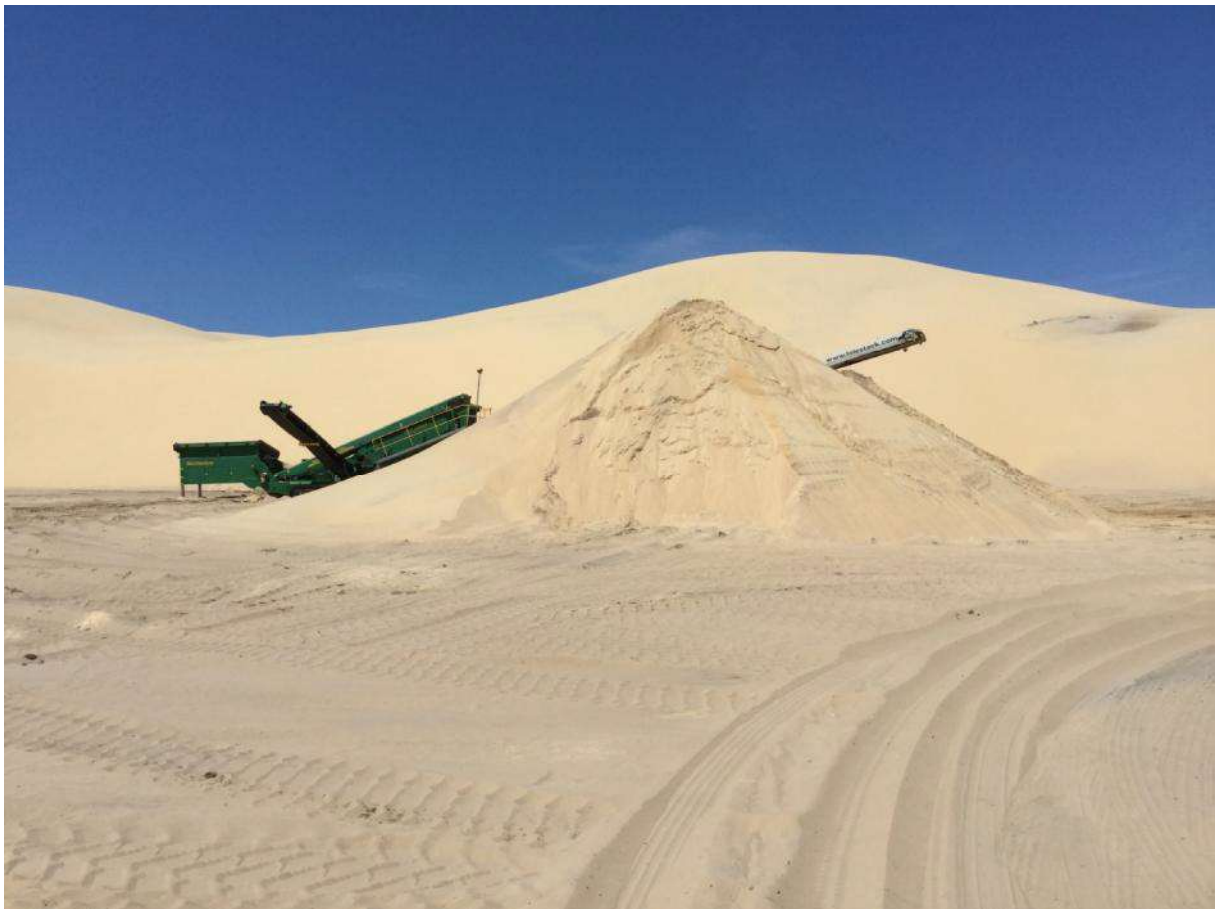


Mackas Sand Pty Ltd – MP 08_0142

Independent Environmental Audit

2015, 2016, 2017



Document controls

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Reviewed by:	David Bone Lead Environmental Auditor		

Summary

The following report contains the findings of an audit conducted by the Independent Environmental Auditor, David Bone, from Onsite Environmental Management (OSEM). This report has been prepared to review the compliance status of the project approvals, plans and specifications for the approved major project (MP- 08_0142) Mackas Sand Project (the Project). Schedule 5 Condition 4 of the Ministers Conditions of Approval (MCOA); stipulate the requirements for an Independent Environmental Audit as follows:

"4. Within 2 years of the date of the commencement of quarrying operations, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:

- (a) be conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been approved by the Director-General;*
- (b) assess the environmental performance of the project, and its effects on the surrounding environment;*
- (c) assess whether the project is complying with the relevant standards, performance measures and statutory requirements;*
- (d) review the adequacy of any strategy/plan/program required under this approval; and, if necessary,*
- (e) recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under this approval.*

5. Within 1 month of completion of each Independent Environmental Audit, the Proponent shall submit a copy of the audit report to the Director-General and relevant agencies, with a response to any of the recommendations in the audit report.

6. Within 3 months of submitting a copy of the audit report to the Director-General, the Proponent shall review and if necessary revise the:

- (a) strategies/plans/programs required under this approval; and*
- (b) rehabilitation bond, to consider the:*
 - effects of inflation;*
 - changes to the total area of disturbance; and*
 - performance of the rehabilitation against the completion criteria of the Landscape Management Plan, to the satisfaction of the Director-General. ."*

This report is being carried out to satisfy this condition of the MCOA for the years 2015, 2016 and 2017.

The audit consisted of a site inspection of the operations, including active mining areas, haulage routes, weighbridges, screening areas, biodiversity offset areas and offices on the 24th of January 2018.

Following the site inspection a review of the environmental management system was undertaken including reviews of environmental monitoring records, reports and recording systems.

The review noted that the Project Approval conditions were generally being complied with and where non-compliances were noted, the site team had already reported the main issues and rectification measures to DPE. No new non-compliances with approval conditions were reported to the auditor for the 2017 period and no new non-compliances with other conditions were identified during the audit and data review period. Non-compliances are detailed in Section 2 of this report.

The site management team also identified in the 2015 and 2016 Annual Reviews that the reporting of non-compliances with approval conditions was not met, as notifications to DPE for non-compliances identified at the site were not undertaken with 24hrs of the non-compliances being identified, as required by Condition 2 of Schedule 5.

Written reports on non-compliances required by Condition 3 of Schedule 5 were not undertaken in the timeframe provided in the approval. These matters related to extraction depth exceedances of Condition 7 of Schedule 2 and Condition 2 of Schedule 3.

The DPE Compliance team audit of the site in May 2016 also identified non-compliances with vehicle movements outside of the allowances provided in Condition 4B of Schedule 3.

Reporting on these non-compliances was undertaken as part of the Annual Review and was submitted in August 2016, following an extension of time granted by DPE. A written report on the non-compliance with Condition 4B of Schedule 3 was submitted to DPE in a separate report prior to the final Annual Review submission in August 2016.

As a result of the audit and review of information provided, non-compliances (already reported) and several administrative opportunities for improvement were identified in relation to recording of monitoring data, reporting of data and site activities recording procedures.

None of these opportunities for improvement are considered to have contributed to any of the previously identified non-compliances in this audit period or considered likely to contribute to any potential non-compliance with conditions or requirements. The opportunities relate to the recording and presentation of data to allow better interpretation of results presented in the public domain.

OSEM would like to thank the following people for their efforts and support during this audit:

- Brendan Rice (Umwelt - Senior Environmental Officer)
- Bret Jenkins (Umwelt - Senior Principal Environmental Consultant – Mining and Extractive)
- Rod Williams (Umwelt - Senior Sand Environmental Officer)
- Dave Davis (Umwelt Principal Acoustician)
- Robert Mackenzie (Mackas Sand Quarry Manager)

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Appendices

Appendix A – Mackas Sand Independent Environmental Audit Compliance Table

Appendix B - Photolog

Prepared by: Onsite Environmental Management

David Bone – Lead Environmental Auditor



1 Introduction

1.1 Background

Macka's Sand operations on Lot 218 and Lot 220 are located approximately 25 kilometres north-east of Newcastle near Salt Ash in the Port Stephens LGA in New South Wales.

Macka's Sand has operated sand extraction operations in the area since 1992. Lot 218 and Lot 220 are owned by the Worimi Local Aboriginal Lands Council and operated under agreement by Macka's Sand Pty Ltd.

Macka's Sand was granted approval 08_0142 over lots 218 and 220 for sand extraction operations on 20 September 2009. Modifications to this approval have been granted in 20 September 2013 (Mod 1) and 16 March 2016 (Mod 2).

The operations also have an EPBC approval (2011/6214) until December 2029 for construction of a haul road through a vegetated area along the alignment of the approved alternative access route.

The operations have obtained an EPL (EPL 13218) which covers the operations on Lot 218 and Lot 220.

1.2 Audit Scope

The audit was undertaken on the following approval documents

- NSW DPE Ministers Conditions of Approval (MCOA) 08_0142 consolidated approval (Mod 1, Mod 2)
- Mackas Sand approved Statement of Commitments (SoC)
- DoE Controlled Action (EPBC 2011/6214)
- Environmental Protection Licence (EPL) 13218

1.3 Audit Procedures

A compliance table containing all audit requirements was prepared, audit dates finalised and a site inspection was conducted on the 24th of January 2018. Due to unforeseen circumstances with the auditor's family, the audit period was extended to 17 April 2018 to allow for adequate review of the large volume of data over the three year period of the audit.

Review of documentation and data for the period 2015, 2016, 2017 was then conducted over the period between 24 January and 7 April 2018. Reporting of the audit was then undertaken between 7 April and 16 April 2018.

The audit covered all matters relating to the project approvals noted above, with a total of 221 requirements found, consisting of:

- 89 Ministers Conditions of Approval
- 13 EPBC Controlled Action Conditions
- 43 Statement of Commitments
- 76 Environmental Protection Licence Conditions

2 Audit Findings

The compliance spreadsheet in Appendix A contains all requirements from the documents listed in Section 1.2 and 1.3. Conditions highlighted in green are considered to be compliant, non compliances are highlighted in red, requirements which are currently under review are highlighted in yellow.

From the audit compliance sheets attached in Appendix A, it can be seen that on average 93% of all conditions are considered to be compliant and 7% are considered to be non-compliant.

The following is a breakdown of the compliance for each consent, license or approval:

- DPE Project Approval Conditions of Consent 08-0142 93%
- EPBC Controlled Action Decision 2011/6214 92%
- Mackas Sand Statement of Commitments 91%
- EPL 13218 96%

The compliance status has been calculated for the audit period of January 2015 to December 2017.

The non-compliances recorded are highlighted below:

DPE Consent 08-0142

- ***Schedule 2 Condition 7 - Extraction Depths –***
 - Annual review data for 2015 and 2016 identifies that extraction depths were exceeded in both years. The 2015 non-compliance was identified by a DPE Compliance audit and the 2016 non-compliance was identified by Mackas Sand during annual surveys of the site. Both Non-compliances were reported in the corresponding annual reviews (2015, 2016). As a result of these non-compliances, survey in 2017 was undertaken more frequently (March, July, August, October and December 2017). A review of this data showed that large areas of Lot 218 were outside the required levels in March 2017 by up to 1.3m. The levels were noted to be compliant in all other surveys for 2017.
 - As part of a voluntary undertaking by Mackas Sand to physically mark the extraction level depth boundaries across the floor of the quarry. However the rapid movement of the mobile dune field in which the quarry on Lot 218 operates has either buried or moved the concrete blocks used. At the time of the audit, large steel posts were being installed to assist in physical identification of the boundaries. GPS and laser levelling has also been installed on equipment to further ensure compliance with this condition. As noted above the extraction levels have been compliant since March 2017 following completion of installation of GPS equipment.
- ***Schedule 3 Condition 2 (d) - Extraction Depths –***
 - Baseline assessment completed, submitted and approved.
 - Monitoring of extraction depths now undertaken quarterly (2017 shows even more frequent survey undertaken).
 - Non-compliances noted to extraction depths in 2015, 2016 and part of 2017.

- ***Schedule 3 Condition 4B Truck Movements-***

- Data for 2015 and 2016 shows exceedance of this condition. 2015 exceedance noted by DPE Compliance Audit and reported in Annual Review for 2015. 2016 exceedance data reported in 2016 Annual Review. 2017 data reviewed using 2 random weekdays per month and 2 random Saturdays per month. Mackas report that an algorithm is now run on the data from the weighbridge on a monthly basis. These reviews did not identify any exceedances of this condition. The audit random review of 48 days out of the year did not identify any exceedances of this condition.
- Site inspection identified that speed limits are in place and are enforced and truck driver awareness of the requirements of this condition and the use of the weighbridge is included in training provided to all operators on the site.

- ***Schedule 3 Condition 11 Air Quality Monitoring –***

- Plan prepared, approved and monitoring conducted.
- Non-compliances reported in 2015, 2016 due to dust gauge exposure period outside of the AS3580.10.1 2003 standard exposure period for DDG 1 and DDG 2. A six week exposure period was noted to have occurred on two occasions in 2015 and on one occasion in 2016. The standard exposure period is 30 days +/- 2 days.
- Non-compliances were also noted for 9 out of 11 months of data for 2017.

- ***Schedule 3 Condition 28B Biodiversity Offset Security –***

- DPE audit in May 2015 noted that no evidence of these requirements could be provided. Mackas Sand identified that the VCA registration process was underway and that the offset area was being managed in accordance with the approved Landscape Management Plan as if the VCA was registered.
- Arrangements in progress, area secured from development.
- Mackas Sand identifies that following several years of negotiation with OEH and the preparation and approval of several management plans that December 2018 is the agreed date between Mackas Sand and OEH for finalisation of this agreement.

- ***Schedule 5 Condition 2 Incident Reporting –***

- No material harm incidents have occurred or had the potential to occur during the audit period.
- Exceedances noted in 2016 for truck departure times in DPE Compliance audit during this audit period which were not reported.

EPBC Decision 2011/6214

- ***Condition 6 Publishing of Data –***

- Annual reviews for 2015 and 2016 published on web site and contain this report.
- Annual review documents contain the reports required by this condition but they are not uploaded until the Annual Review is compiled which is in March the following year. Document required to be uploaded by 1 September each year.

Statement of commitments

- ***SOC 1.1.5 Operational Controls, Extraction Limits –***

- Maximum extraction levels have been noted to be non-compliant since 2014. IEA in 2014 notes no survey data to confirm depths. Survey data for 2017

shows exceedances up until March 2017, compliant levels following March 2017.

- ***SOC 1.2.5 Ecology, Weed Management***
 - Plan developed and implemented.
 - Plan not updated following legislative changes coming into force in 2017.
 - Monthly monitoring of weeds not undertaken.
- ***SOC 1.6.3 Noise, Truck Movements***
 - Plan prepared and implemented. DPE audit in 2015 identified non compliances with the MCOA in relation to truck movements outside of the time restrictions in this plan.
 - 2016 non compliances noted in Annual Review 2016.
 - 2017 review shows compliance with this condition from data sample reviewed.
- ***SOC 1.13.3, Incident and exceedance reporting***
 - DPE Audit noted non-compliances at the site which were not reported within this timeframe within the audit period.
 - 2016 Annual Review identifies exceedances which were not reported in this timeframe.

EPL 13218

- ***Condition L5.1, Extraction Depths***
 - Quarry operations noted to be undertaken over the audit period outside of these conditions. Extraction depths have been shown in DPE audit and IEA 2014, 2015 to be lower than approved levels. 2017 survey data shows compliance with extraction depths from March 2017 onwards.
 - Sediment cores reportedly being undertaken in December 2017 to satisfy the remainder of this condition.
- ***Condition M1.1, Monitoring Records***
 - Monitoring data recorded and reported as required.
 - Data not reported in accordance with POEO Act requirements. Data not published within 14 days of the final report being received.
- ***Condition M2.2, Monitoring of pollutants***
 - Ground water sampled and analysed in accordance with this condition.
 - Air Quality not sampled in accordance with AS 3580.10.1, exposure periods for 2015, 2016, 2017. Non-compliances reported for 2015 (2 occurrences) and 2016 (2 occurrences) in Annual Review, 2017 non-compliances (8 occurrence's not reported to date).

The inspection and data review revealed that there were some areas where ambiguities exist in relation to monitoring records and the reporting of results details on these items are provided in Section 3.

3 Conclusions and Recommendations

3.1 Conclusion and Recommendations

The Project shows a high compliance rate to the conditions of approval requirements at 93% compliant.

However the audit revealed 14 non-compliances as listed in section 2. The list below highlights areas where improvements could be made:

- Rehabilitation Reporting
 - Maps of the areas extracted, rehabilitated and planned for rehabilitation recorded in the annual review table should be included in the annual review.
 - Reporting of rehabilitation in the annual reviews is noted to contain ambiguities in the wording and should be clarified in future reports. For clarity it is recommended that the DPE 2015 Annual Review Guidelines, Table 8, be used.
- Dust Suppression Recording
 - The visual recording of dust and water cart usage and driver behaviour monitoring etc is undertaken but not recorded formally. No records of the usage of dust suppression or of visual inspection available. It is suggested a simple checksheet or similar is prepared and filled in by Supervisors on regular trips to and from the office etc. and/or by the watercart driver.
- Air Quality Monitoring
 - Additional training on the correct procedure for monitoring in accordance with AS 3580.10.1 should be undertaken.
- Website
 - The structure of the site makes information hard to find and labelling is not consistent. Suggest either group into years or group into report types required and add each new report into those sections.
 - Ensure that data on monitoring is reviewed and exceedances reported as required by the COA, SOC and EPL.
- Audit Timing
 - Given the large volume of data to be reviewed and the requirement to publish the Annual Review in March of the following year, it is recommended that the independent audit be scheduled to April of the following year. This would allow the review of all 3 Annual Reviews reports. The next audit would therefore be scheduled to occur in 2021 for the years 2018, 2019, 2020.

4 References

Mackas Sand Conditions of Approval 08-0124
EPL 13218
EPBC Decision 2011-6214
Independent Audit report 2015
Extraction survey data 2016, 2017
EPBC Landscape Management Plan
Mackas Sand Annual Reviews 2015, 2016
Mackas Sand Noise Management Plan
Mackas Sand Air Quality Management Plan
Mackas Sand Soil and Water Management Plan
Mackas Sand Landscape Management Plan
Mackas Sand Cultural Heritage Management Plan
Mackas Sand Heritage Management Plan
Air Quality Monitoring Results December 2017
2016 Annual Groundwater Monitoring Report to EPA
2017 Annual Groundwater Monitoring Report
Truck Weighbridge data for Lot 218 and Lot 220 2016 and 2017

Appendices

Appendix A – Compliance Table

Mackas Sand - Master Compliance Table

Compliance:	Key Dates:
Complies	Ministers Approval- 20/6/09
Under Review	Mod 1 - 30/6/15
Not Applicable	Mod 2 - 16/3/16
Ongoing	
Non Compliant	Compliance Summary
	Complies 83
	Under Review 0
	Non Compliant 6
Phase:	Percentage Compliant 83
Pre-Construction	
Construction	
Pre-Operation	
Operation	



Ministers Conditions of Approval								
Ref No.	Query Type	Condition Reference	Condition	Phase	Findings	Actions	Complies	Supporting Documentation
1	Obligation to Mitigate Harm to the Environment	Schedule 2.1	The Proponent shall implement all reasonable and feasible measures to prevent or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the project.	OPO/O	Approvals obtained cover operations undertaken	Nil	Complies	
2	Terms of Approval	Schedule 2.2	The Proponent shall carry out the project: (a) generally in accordance with the EA; (b) generally in accordance with the EA (MOD 1); (c) generally in accordance with the EA (MOD 2); (d) in accordance with the statement of commitments; and (e) in accordance with the conditions of this approval.	POG/POO	Approvals obtained cover operations undertaken	Nil	Complies	
3	Terms of Approval	Schedule 2.3	If there is any inconsistency between the documents in conditions 2(a) to 2(c), the more recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.	POG/POO	Noted	Nil	Complies	
4	Terms of Approval	Schedule 2.4	The Proponent shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of: (a) any reports, plans, programs or correspondence that are submitted in accordance with this approval; and (b) the implementation of any actions or measures contained in these reports, plans, programs or correspondence.	POG/POO	Approvals obtained cover operations undertaken	Nil	Complies	
5	Limits on Approval	Schedule 2.6	Quarrying operations may take place on site until 31 December 2029. Notes: • Under this approval, the Proponent is required to rehabilitate the site to the satisfaction of the Secretary. Consequently this approval will continue to apply in all other respects other than the right to conduct quarrying operations until the site has been rehabilitated to a satisfactory standard. • The Department acknowledges that additional sand resources may exist on the site at the end of this period. Any extension of quarrying operations after this time will be subject to further approval.	O	Operations ongoing, date not reached. Rehabilitation commenced.	Nil	Complies	
6	Limits on Approval	Schedule 2.6	The Proponent shall not transport, or permit to be transported, more than: (a) 1,000,000 tonnes of product in a calendar year from Lot 218; and (b) 1,000,000 tonnes of product in a calendar year from Lot 220.	O	Extraction data reviewed for the 2015/2016 period shows compliance with this condition. 2017 transport logs show compliance with this condition.		Complies	Annual Reviews and transportation logs
7	Limits on Approval	Schedule 2.7	The Proponent shall not undertake any sand extraction: (a) within 0.7 m of the maximum predicted groundwater level on Lot 220; and (b) within 1.0 m of the maximum predicted groundwater level on Lot 218, unless the core sample testing program demonstrates that extraction to within 0.7 m of the maximum predicted groundwater level can be undertaken without disturbing acid sulphate soils.	O	Annual review data for 2015 and 2016 identifies that extraction depths were exceeded in both years. The 2015 non-compliance was identified by a DPE Compliance audit and the 2016 non-compliance was identified by Mackas Sand during annual surveys of the site. Both Non-compliances were reported in the corresponding annual reviews (2015, 2016). As a result of these non-compliances, survey in 2017 was undertaken more frequently (March, July, August, October and December 2017). A review of the data showed that large areas of Lot 218 were outside the required levels in March 2017 by up to 1.3m. The levels were noted to be compliant in all other surveys for 2017. Several methods have been trialled to physically mark the extraction level boundaries across the floor of the quarry, however the mobile dune field in which the quarry on Lot 218 operates has either buried or moved the concrete blocks used. At the time of the audit, large steel posts were being installed to assist in physical identification of the boundaries. GPS and laser levelling has been installed on equipment to further ensure compliance with this condition.	Continue to conduct quarterly survey to identify any issues with extraction levels.	Non Compliant	Annual survey data October, December 2016, March, July, August, October, December 2017. Annual reviews 2015, 2016, 2017.
8	Limits on Approval	Schedule 2.7A	The Proponent shall ensure that the final rehabilitated ground surface level on Lot 218 and Lot 220 is at least 1.0 m above the maximum predicted groundwater level.	O	Rehabilitation ongoing	Maps of the areas extracted, rehabilitated and planned for rehabilitation recorded in the annual review table should be included in the annual review.	Complies	Site Inspection
9	Updating and Staging Strategies, Plans or Programs	Schedule 2.8	The Proponent must regularly review the strategies, plans and programs required under this consent and ensure that these documents are updated to incorporate measures to improve the environmental performance of the development and reflect current best practice in the quarrying industry. To facilitate these updates, the Proponent may at any time submit revised strategies, plans or programs for the approval of the Secretary. With the agreement of the Secretary, the Proponent may also submit any strategy, plan or program required by this consent on a staged basis.	POG/POO	Plans reviewed following IEA. Reviewed as part of modification approval in 2016/7.		Complies	Management Plans

10	Updating and Staging Strategies, Plans or Programs	Schedule 2.8	<p>With the agreement of the Secretary, the Proponent may prepare a revision or stage of any strategy, plan or program required under this consent without undertaking consultation with all parties nominated under the applicable condition in this consent.</p> <p>Notes:</p> <ul style="list-style-type: none"> While any strategy, plan or program may be submitted on a staged basis, the Proponent must ensure that the existing operations on site 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 to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program. 	POC/POIO	Noted		Complies	
11	Structural Adequacy	Schedule 2.8	<p>The Proponent shall 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.</p> <p>Notes:</p> <ul style="list-style-type: none"> Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works. Part 8 of the EP&A Regulation sets out the requirements for the certification of the project. 	POC/POIO	No new buildings or alterations have occurred during this period.		Complies	Site Inspection
12	Demolition	Schedule 2.19	The Proponent shall ensure that all demolition work is carried out in accordance with <i>AS 2801-2001: The Demolition of Structures</i> , or its latest version.	POC/POIO	No demolition required		Complies	
13	Protection of Public Infrastructure	Schedule 2.11	<p>The Proponent shall:</p> <p>(a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the project; and</p> <p>(b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the project.</p> <p>Note: This condition does not apply to any road maintenance works which are covered by the Section 94 contributions described below in condition 13.</p>	POC/POIO	No interaction with public infrastructure this period.		Complies	Site Inspection
14	Operation of Plant and Equipment	Schedule 2.12	The Proponent shall ensure that all plant and equipment used at the site is:	CO	Plant observed was noted to be in a proper and efficient condition		Complies	Site Inspection
15	Section 94 Contributions	Schedule 2.13	The Proponent shall pay Council contributions for roadworks in accordance with the Port Stephens Section 94 Development Contributions Plan 2007, as may be updated from time to time, to the satisfaction of the Secretary.	POC/POIO	Contributions paid as required.		Complies	Quarry Data
16	General Extraction and Processing Provisions - Identification of Boundaries	Schedule 2.1	Prior to carrying out any development on site, or as otherwise agreed by the Secretary, the Proponent shall:	PO/PO	Boundaries surveyed and marked in the field.		Complies	Survey for 2015,16,17, Site Inspection
17	General Extraction and Processing Provisions - Maximum Extraction Depth Map	Schedule 2.3	<p>The Proponent shall:</p> <p>(a) establish the average year and highest predicted groundwater levels for the site based on all available (and at least 12 months) site specific and HWG groundwater monitoring data;</p> <p>(b) engage a suitably qualified and experienced expert to establish the maximum extraction depths to which extraction can be undertaken on site, to comply with condition 7 of schedule 2;</p> <p>(c) submit a Maximum Extraction Depth Map (contour map or similar) for the project to the Secretary within 6 months of the date of this approval; and</p> <p>(d) comply with the extraction depths specified in the map, to the satisfaction of the Secretary.</p>	POC/POIO	Baseline assessment completed, submitted and approved. Monitoring of extraction depths undertaken quarterly (2017 shows more frequent monitoring). Non-compliances noted to extraction depths in 2015, 2016 and part of 2017. Levels physically marked in the field. Some issues with current markers being dislodged or moved by sand dune migration and more robust steel post markers were being installed during the audit. GPS equipment installed into extraction equipment.	See Item 7	Non Compliant	Survey for 2015,16,17
18	General Extraction and Processing Provisions - Maximum Extraction Depth Map	Schedule 2.3	Within 3 months of the completion of the Independent Environmental Audit (see condition 5 of schedule 5), the Proponent shall review and update as required the Maximum Extraction Depth Map for the project to the satisfaction of the Secretary.	O	Mapping updated regularly during the audit period		Complies	Updated maps from monitoring in 2015,2016, 2017.
19	Noise - Impact Assessment Criteria	Schedule 2.4	<p>The Proponent shall ensure that the noise generated by the project, except for noise generated by the use of the Alternate access road, does not exceed the noise impact assessment criteria in Table 1.</p> <p>Notes:</p> <ul style="list-style-type: none"> To interpret the locations referred to Table 1, see the figure in Appendix 3. Noise generated by the project is to be measured in accordance with the relevant requirements, and exemptions (including certain meteorological conditions), of the NSW Industrial Noise Policy. The noise limits do not apply if the Proponent has an agreement with the relevant owners of these residences/land to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement. 	CO	Noise monitoring undertaken as required, no non-compliances noted, no complaints received in relation to noise from latest CCC meeting notes, Nov 2017.		Complies	Noise monitoring reports, Annual Reviews
20	Noise - Impact Assessment Criteria - Alternate Access Road to Lot 218	Schedule 2.4A	<p>The Proponent shall ensure that the noise generated by the use of the Alternate access road does not exceed the noise criteria in Table 1A.</p> <p>Notes:</p> <ul style="list-style-type: none"> To interpret the locations referred to Table 1A, see the figure in Appendix 3. Noise generated by the project is to be measured in accordance with the relevant requirements, and exemptions (including certain meteorological conditions), of the NSW Industrial Noise Policy. The noise limits do not apply if the Proponent has an agreement with the relevant owners of these residences/land to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement. 	O	Noise monitoring undertaken as required, no non-compliances noted, no complaints received in relation to noise from latest CCC meeting notes, Nov 2017.		Complies	Noise monitoring reports, Annual Reviews

21	Noise - Operating road/Route	Schedule 2.65	<p>The Proponent shall ensure, for the use of the Alternate access road, that:</p> <ul style="list-style-type: none"> (a) a speed limit of 40 km/hour is applied and enforced for all vehicles; (b) trucks slowing to use the intersection of the access road and Nelson Bay Road do not use engine or compression braking systems; (c) laden truck movements exiting the site do not exceed 14 per hour during the period from 5 am to 6 am, Monday to Friday (except for Public Holidays); (d) laden truck movements exiting the site do not exceed 8 per hour during the period from 6 am to 9 am, Monday to Friday (except for Public Holidays); (e) laden truck movements exiting the site do not exceed 24 per hour during the period from 9 am to 10 pm, Monday to Friday (except for Public Holidays); (f) laden truck movements exiting the site do not exceed 5 per hour between 5 am and 6 am on Saturdays (except for Public Holidays); (g) laden truck movements exiting the site do not exceed 9 per hour between 6 am and 7 am on Saturdays (except for Public Holidays); (h) laden truck movements exiting the site do not exceed 24 per hour between 7 am and 4 pm on Saturdays (except for Public Holidays); and (i) combined laden truck movements exiting from Lots 218 and 220 do not exceed 10 per hour in total on Sundays and Public Holidays. 	0	<p>Data for 2015 and 2016 shows exceedance of this condition. 2015 exceedance noted by DPE Compliance Audit and reported in Annual Review for 2015. 2016 exceedance data reported in 2016 Annual Review. 2017 data reviewed using 2 random weekdays per month and 2 random Saturdays per month. Mackays report that an algorithm is now run on the data from the weighbridge on a monthly basis. These reviews did not identify any exceedances of this condition. The audit random review of 48 days out of the year did not identify any exceedances of this condition.</p> <p>Site inspection identified that speed limits are in place and are enforced and truck driver awareness of the requirements of this condition and the use of the weighbridge is included in training provided to all operators on the site.</p>	<p>Continue to conduct monthly review of data and provision of driver awareness training. Weighbridge software issues appear to have been resolved from previous years examined during this audit.</p>	Non Compliant	<p>Weighbridge data for 2017, Annual review 2015, Annual review 2016.</p>
22	Noise - Land Acquisition Criteria	Schedule 2.6	<p>If the noise generated by the project exceeds the criteria in Table 2, the Proponent shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 6-8 of schedule 4.</p>	0	<p>Project complies with criteria and no requests for acquisition received.</p>		Complies	<p>Annual Reviews</p>
23	Noise - Cumulative Noise Criteria	Schedule 2.6	<p>The Proponent shall take all reasonable and feasible measures to ensure that the noise generated by the quarrying operations combined with the noise generated by other extractive industries does not exceed the following amenity criteria on any privately owned land, to the satisfaction of the Secretary:</p> <ul style="list-style-type: none"> • LAeq(11 hour) 50 dB(A) – Day; • LAeq(1 hour) 45 dB(A) – Evening; and • LAeq(9 hour) 40 dB(A) – Night. <p>Note: Cumulative noise is to be measured in accordance with the relevant procedures in the NSW Industrial Noise Policy.</p>	0	<p>Noise monitoring undertaken as required, no non-compliances noted, no complaints received in relation to noise from latest CCC meeting notes, Nov 2017.</p>		Complies	<p>Noise monitoring reports, Annual Reviews</p>
24	Noise - Traffic Noise Impact Assessment Criteria	Schedule 2.7	<p>The Proponent shall take all reasonable and feasible measures to ensure that the traffic noise generated by the project does not exceed the traffic noise impact assessment criteria in Table 3.</p>	0	<p>Noise monitoring undertaken as required, no non-compliances noted, no complaints received in relation to noise from latest CCC meeting notes, Nov 2017.</p>		Complies	<p>Noise monitoring reports, Annual Reviews</p>
25	Additional Noise Mitigation Measures	Schedule 2.8	<p>Upon receiving a written request from:</p> <ul style="list-style-type: none"> • the owner of residence R1, if the residence is habitable in the opinion of the Secretary; or • the owner of any residence where operational noise monitoring shows the noise generated by the project at night is greater than or equal to: <ul style="list-style-type: none"> o 40 dB(A) LAeq(15 minute) for residences R1 to R4; o 39 dB(A) LAeq(15 minute) for residences R20 to R23; and o 38 dB(A) LAeq(15 minute) for all other privately-owned residences, the Proponent shall implement additional noise mitigation measures such as double glazing, insulation, and/or air conditioning at the residence in consultation with the landowner. <p>These additional mitigation measures must be reasonable and feasible.</p> <p>If within 3 months of receiving this request from the landowner, the Proponent and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.</p> <p>Notes:</p> <p>Aeq(15 minute)</p> <ul style="list-style-type: none"> • To interpret the locations referred to in this condition, see the figure in Appendix 3. • The noise limits do not apply if the Proponent has an agreement with the relevant owner/s of these residences/land to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement. 	0	<p>Noise monitoring undertaken as required, no non-compliances noted, no complaints received in relation to noise from latest CCC meeting notes, Nov 2017.</p>		Complies	<p>Noise monitoring reports, Annual Reviews</p>
26	Noise - Operating Hours	Schedule 2.8	<p>The Proponent shall comply with the operating hours in Table 4.</p> <p>However, the Proponent may undertake:</p> <ul style="list-style-type: none"> (a) quarrying operations within 250 metres of residence R27 if the Proponent has an agreement with the owner of the residence to extend the hours of operation; and/or (b) transportation outside the hours in Table 4, to a maximum of 5.00am to 10.00pm Monday to Saturday, and 8.00am to 12.00pm on Sundays and Public Holidays, if the Proponent has agreements to extend the hours of transportation with the following: <ul style="list-style-type: none"> • all owners of privately-owned land with frontage to Lavis Lane (between the site and Nelson Bay Road), for transportation from Lot 218 using the Lavis Lane access road; and/or • all owners of 2344, 2353 and 2368 Nelson Bay Road, for transportation from Lot 218 using the Alternate access road; and/or • all owners of privately-owned land with frontage to Oakvale Road (between the site and Nelson Bay Road), for transportation from Lot 220; and the Proponent has advised the Department in writing of the terms of these agreements. <p>Notes:</p> <ul style="list-style-type: none"> • To interpret the residence location referred to in this condition, see the figure in Appendix 3. • For the purposes of this condition, transportation includes all laden truck movements on site access roads, Lavis Lane, the Alternate access road and Oakvale Road. • Transportation is further restricted under condition 32 below. • Maintenance activities may be conducted outside the hours in Table 4 provided that the activities are not audible at any privately-owned residence. • This condition does not apply to delivery of material if that delivery is required by police or other authorities for safety reasons, and/or the operation of personnel or equipment are endangered. In such circumstances, notification is to be provided to EPA and the affected residents as soon as possible, or within a reasonable period in the case of emergency. 	0	<p>Operations currently comply with this requirement</p>		Complies	<p>Noise monitoring reports, Annual Reviews, Site Inspection</p>

27	Noise - Noise Monitoring	Schedule 2.10	<p>The Proponent shall prepare a Noise Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with EPA, and be submitted to the Secretary for approval within 3 months of the date of this approval;</p> <p>(b) include:</p> <ul style="list-style-type: none"> • a description of the measures that would be implemented to minimise noise emissions from the project, with particular focus on: <ul style="list-style-type: none"> o quarrying operations within 250 metres of residences on privately-owned land; o transportation activities; and o continual improvement of noise performance; • a noise monitoring protocol for evaluating compliance with the relevant noise limits in this approval (including traffic noise); • a protocol for the investigation, notification and mitigation of identified exceedances of the relevant noise limits; and • a continual improvement program for investigating, implementing and reporting on reasonable and feasible measures to reduce noise generated by the project. The Proponent shall implement the approved management plan as approved from time to time by the Secretary. 	PO	Plans prepared and approved for use.		Compliance	Noise Management Plan, Annual review data
28	Air Quality - Impact Assessment Criteria	Schedule 2.11	The Proponent shall ensure that the dust emissions generated by the project do not cause additional exceedances of the air quality impact assessment criteria listed in Tables 5, 6 and 7 at any residence on private owned land, or on more than 25 percent of any privately owned land.	CO	Plan prepared and monitoring conducted, no exceedances noted.		Compliance	Noise monitoring, Annual Review data
29	Air Quality - Operating Conditions	Schedule 2.12	The Proponent shall ensure any visible air pollution generated by the project is assessed regularly, and that quarrying operations are relocated, modified, and/or stopped as required to minimise air quality impacts on <u>adjacent-owned land, to the satisfaction of the Secretary.</u>	O	Regular dust suppression of haul roads occurs but is not recorded currently.	Prepare check sheet to record dust suppression and visual dust monitoring.	Compliance	Site Inspection
30	Air Quality - Air Quality Monitoring	Schedule 2.13	<p>The Proponent shall prepare an Air Quality Monitoring Program for the project to the satisfaction of the Secretary. This program must:</p> <p>(a) be prepared in consultation with EPA, and be submitted to the Secretary for approval within 3 months of the date of this approval; and</p> <p>(b) include details of how the air quality performance of the project will be monitored, and include a protocol for evaluating compliance with the relevant air quality criteria in this approval.</p> <p>Note: Initially, this program should concentrate on monitoring the dust deposition impacts of the project. However, in time, it may be expanded to include other pollutants.</p> <p>The Proponent shall implement the approved monitoring program as approved from time to time by the Secretary.</p>	PO/PO	<p>Plan prepared, approved and monitoring conducted.</p> <p>Non-compliance reported in 2015, 2016 due to dust gauge exposure period outside of the AS3580.10.1 2016 standard exposure period for DDG 1 and DDG 2. A six week exposure period was noted to have occurred on two occasions in 2015 and on one occasion in 2016. The standard exposure period is 30 days +/- 2 days. This was reported as a non-compliance under S3 C11, however it is considered to be a non-compliance with an exposure period rather than an exceedance of the annual average criteria and should therefore be a non-compliance under S3 C13.</p> <p>Non-compliance were also noted for 9 out of 11 months of data for 2017 related to exposure periods outside of the requirements of AS3580.10.1 2016.</p>	Ensure monitoring is undertaken in accordance with the approved plans and methods. Additional training on the procedure for monitoring should be undertaken.	Non Compliance	Annual Reviews 2015, 2016, 2017 Air Quality report.
31	Meteorological Monitoring	Schedule 2.14	During the life of the project, the Proponent shall ensure that there is a suitable meteorological station in the vicinity of the site that complies with the requirements in the Approved Methods for Sampling of Air Pollutants in <u>New South Wales guideline.</u>	CO	Williamtown RAAF Base used		Compliance	Annual Reviews
32	Soil and Water - Water Supply	Schedule 2.15	<p>The Proponent shall ensure that it has sufficient water for all stages of the project, and if necessary, adjust the scale of operations to match its water supply.</p> <p>Note: The Proponent is required to obtain necessary water licences for the project under the Water Management Act 2000.</p> <p>Except as may be expressly provided for by an EPL, the Proponent shall comply with section 120 of the Protection of the Environment Operations Act 1997 during the carrying out of the project.</p>	PO/CO/PO	Water supply sourced from Mackay Sand and Soil Pty Ltd.		Compliance	
33	Soil and Water - Pollution of Waters	Schedule 2.16	The Proponent shall manage on-site sewage to the satisfaction of Council and EPA. The facility must comply with the requirements of the Environment and Health Protection Guidelines – On-site Sewage Management for Single Households (1998).	CO	Noted in plans. An EPL has been obtained for the operations. Monitoring undertaken of water quality. No discharges from site.		Compliance	EPL 13216
34	Soil and Water - Wastewater Treatment	Schedule 2.17	The Proponent shall prepare a Soil and Water Management Plan for the project to the satisfaction of the Secretary. This plan must:	CO	Remote facilities have pump out systems with Mackay Sand and Soil facilities also utilised.		Compliance	Site Inspection
35	Soil and Water - Soil and Water Management	Schedule 2.18	<p>The Proponent shall prepare a Soil and Water Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with EPA, DPI Water and HWC, and be submitted to the Secretary for approval within 3 months of the date of this approval; and</p> <p>(b) include a:</p> <ul style="list-style-type: none"> • Site Water Balance; • Erosion and Sediment Control Plan; • Surface Water Monitoring Program; and • Ground Water Monitoring Program. <p>The Proponent shall implement the approved management plan as approved from time to time by the Secretary.</p> <p>Note: The Department accepts that the initial Soil and Water Management Plan may not include a detailed Site Water Balance. However, the detailed Site Water Balance must be approved prior to the commencement of any sand washing or groundwater extraction activities for the project.</p>	PO/PO	Plans prepared and approved for use.		Compliance	SWMP
36	Soil and Water - Soil and Water Management	Schedule 2.19	<p>The Site Water Balance must:</p> <p>(a) include details of:</p> <ul style="list-style-type: none"> • sources and security of water supply; • water use on site; • water management on site; • any off-site water transfers; • reporting procedures; and <p>(b) investigate and describe measures to minimise water use by the project.</p>	PO/PO	Included in approved plan.		Compliance	SWMP

37	Soil and Water - Soil and Water Management	Schedule 2.26	The Erosion and Sediment Control Plan must: (a) be consistent with the requirements of Managing Urban Stormwater: Soils and Construction, Volume 1, 4th Edition, 2004 (Landcom); (b) identify activities that could cause soil erosion and generate sediment; (c) describe measures to minimise soil erosion and the potential for the transport of sediment off site; (d) describe the location, function, and capacity of erosion and sediment control structures; and (e) describe what measures would be implemented to maintain the structures over time.	POPO	Included in approved plan.		Complies	SWMP
38	Soil and Water - Soil and Water Management	Schedule 2.27	The Surface Water Monitoring Program must include: (a) baseline data on surface water quality, where available; (b) surface water impact assessment criteria; (c) a program to monitor surface water quality (particularly in project sediment basins); and (d) a protocol for the investigation, notification and mitigation of identified exceedances of the surface water impact assessment criteria.	POPO	Included in approved plan.		Complies	SWMP
39	Soil and Water - Soil and Water Management	Schedule 2.22	The Ground Water Monitoring Program must include: (a) detailed baseline data on ground water levels and quality, based on statistical analysis (including available HMC data); (b) groundwater impact assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts; (c) a program to monitor groundwater levels and quality, including a groundwater core sample testing program to monitor changes in metallic species above the maximum predicted groundwater level at Lot 218, that; (d) is developed in consultation with EPA; (e) samples to a depth at least 2 m below the proposed extraction depth of 0.7 m above the maximum predicted groundwater level, from at least two locations within the area proposed to be extracted within the first 3 years; and (f) includes testing for acid forming minerals at regular depth and time intervals; (g) a protocol for further groundwater modelling to confirm the limits to excavation depth across the site permitted in accordance with condition 7 of schedule 2; and (h) a protocol for the investigation, notification and mitigation of identified exceedances of the ground water impact assessment criteria.	POPO	Included in approved plan.		Complies	SWMP
40	Soil and Water - Unexploded Ordnance	Schedule 2.23	The Proponent shall prepare and implement an Unexploded Ordnance Management Plan for the project to the satisfaction of the Secretary. This plan must: (a) be prepared by a suitable qualified ordnance expert whose appointment has been approved by the Secretary, and be submitted to the Secretary for approval prior to the commencement of quarrying operations on Lot 218; and (b) include: - a protocol for managing unexploded ordnance risk on Lot 218 during quarrying operations; and - a description of the measures that would be undertaken if any unexploded ordnance is discovered during the project.	POPO	Included in approved plan.		Complies	UXO Plan
41	Rehabilitation and Landscape Management - Rehabilitation	Schedule 2.24	The Proponent shall progressively rehabilitate the site in a manner that is generally consistent with the final landform in the EA (as reproduced in Appendix 4), to the satisfaction of the Secretary. Note: The Department acknowledges that rehabilitation activities on Lot 218 may be limited given the planned ongoing extraction on this lot. However, the long-term/final landform for Lot 218 must be addressed as part of the Landscape Management Plan (see below).	CIO	Progressive rehabilitation undertaken on the sites.		Complies	RLMP
42	Rehabilitation and Landscape Management - Landscape Management Plan	Schedule 2.25	The Proponent shall prepare a Landscape Management Plan for the project to the satisfaction of the Secretary. This plan must: (a) be prepared in consultation with OEH, DPI Water and Council, and be submitted to the Secretary within 6 months of the date of this approval, or prior to any vegetation clearing on Lot 220, whichever is sooner; (b) include a: - Rehabilitation Management Plan; and - Long Term Management Strategy. The Proponent shall implement the approved management plan as approved from time to time by the Secretary. Note: The Department accepts that the initial Landscape Management Plan may not include the detailed Long Term Management Strategy. However, a conceptual strategy must be included in the initial plan, along with a timetable for implementation.	POPO	Included in approved plan. Plan implemented on site. Total rehabilitation on Lot 218 undertaken is 3.5Ha. No rehabilitation has been undertaken at the site during this audit period due to ongoing extraction and limited areas available for final rehabilitation. Rehabilitation maintenance has been ongoing over the audit period.	Reporting of rehabilitation in the annual reviews is noted to contain ambiguities in the wording and should be clarified in the 2017 report. For clarity it is recommended that the DPE 2015 Annual Review Guidelines Table 8, contained in the annual review guidelines be used.	Complies	RLMP
43	Rehabilitation and Landscape Management - Landscape Management Plan	Schedule 2.28	The Rehabilitation Management Plan must include: (a) the objectives for the site rehabilitation and site landscaping; (b) a description of the short, medium, and long term measures that would be implemented to rehabilitate and landscape the site; (c) detailed performance and completion criteria for the site rehabilitation and site landscaping; (d) a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for: - progressively rehabilitating disturbed areas; - landscaping the site to minimise visual impacts; - protecting vegetation and soil outside the disturbance areas; - preventing and/or minimising the accretion of sand dunes outside the project disturbance areas; - undertaking pre-clearance surveys; - salvaging and reusing material from the site for habitat enhancement; - managing impacts on fauna; - maintaining koala habitat linkages; - conserving and reusing topsoil; - collecting and propagating seed for rehabilitation works; - salvaging and reusing material from the site for habitat enhancement; - controlling weeds and feral pests; - controlling access; and - bushfire management; (e) a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria; (f) a description of the potential risks to successful rehabilitation, and a description of the contingency measures that would be implemented to mitigate these risks; and (g) details of who would be responsible for monitoring, reviewing, and implementing the plan.	POPO	Included in approved plan. Plan implemented on site.		Complies	RLMP

44	Rehabilitation and Landscape Management - Landscape Management Plan	Schedule 3.37	<p>The Long Term Management Strategy must:</p> <ul style="list-style-type: none"> define the objectives and criteria for quarry closure and post-extraction management; investigate and/or describe options for the future use of the site; describe the measures that would be implemented to minimise or manage the ongoing environmental effects of the project; and describe how the performance of these measures would be monitored over time. 	POPO	Plan prepared and monitoring conducted.		Complies	RLMP
45	Rehabilitation and Landscape Management - Rehabilitation Bond	Schedule 3.38	<p>Within 3 months of the approval of the Landscape Management Plan, the Proponent shall lodge a rehabilitation bond for the project with the Secretary to ensure that the site rehabilitation is implemented in accordance with the performance and completion criteria of the Landscape Management Plan. The sum of the bond shall be determined by:</p> <p>(a) calculating the full cost of rehabilitating the site in each 3 year review period (see condition 7 of schedule 5); and</p> <p>(b) employing a suitably qualified expert to verify the calculated costs, to the satisfaction of the Secretary.</p> <p>Notes:</p> <ul style="list-style-type: none"> If the rehabilitation is completed to the satisfaction of the Secretary, the Secretary will release the bond. If the rehabilitation is not completed to the satisfaction of the Secretary, the Secretary will call in all or part of the bond, and arrange for the satisfactory completion of the relevant works. 	POPO	Bond in place		Complies	Quarry Data
46	Rehabilitation and Landscape Management - Biodiversity Offset Strategy	Schedule 3.364	<p>The Proponent shall prepare a Biodiversity Offset Strategy for the Biodiversity Offset Area, in consultation with OEH and to the satisfaction of the Secretary. The strategy must include:</p> <p>(a) performance criteria for the offset area;</p> <p>(b) a description of the proposed short-term and long-term management measures for the offset area, including to:</p> <ul style="list-style-type: none"> protect, conserve and enhance the vegetation within the offset area; control access to the offset area; control weeds and feral pests; and a program to measure and monitor the effectiveness of the Strategy against the performance criteria. <p>The Proponent shall implement the approved strategy as approved from time to time by the Secretary.</p>	POPO	Strategy prepared and implemented		Complies	RLMP, BOS
47	Rehabilitation and Landscape Management - Long Term Security of Biodiversity Offset	Schedule 3.368	<p>Prior to the end of December 2014, or as otherwise agreed by the Secretary, the Proponent shall make suitable arrangements to provide appropriate long-term security for the Biodiversity Offset Area, to the satisfaction of the Secretary.</p> <p>Note: Mechanisms to provide appropriate long term security to the land within the Biodiversity Offset Strategy include a Biotransfer Agreement under Part 7A Division 2 of the Threatened Species Conservation Act 1995, a Voluntary Conservation Agreement under section 69B of the National Parks and Wildlife Act 1974, or any alternative mechanism that results in similar conservation outcomes. Any mechanism used to secure the land must remain in force in perpetuity.</p>	POPO	<p>DPE audit in May 2015 noted that no evidence of these requirements could be provided. Mackias Sand identified that the VCA registration process was underway and that the offset area was being managed in accordance with the approved Landscape Management Plan as if the VCA was registered.</p> <p>Arrangements in progress for the finalisation of the VCA and the area has been secured from development. Mackias Sand advises that following several years of negotiation and the preparation of multiple management plans requested by OEH during the application process, the draft conservation agreement with OEH is to be provided to Mackias Sand by OEH on 14 May 2018. This date is subject to Mackias Sands providing advice regarding the landowner(s) / mortgagee(s) details, relevant to the area proposed in the VCA. The conservation agreement will be provided to the landowner(s) / mortgagee(s), as relevant for their review and signature prior to submission of the draft conservation agreement for OEH's review and acceptance, in mid 2018. It is therefore anticipated by Mackias Sand that the draft conservation agreement is likely to be finalised in late 2018.</p>	<p>Mackias Sand have identified that an extension of time for the finalisation of this agreement with OEH.</p>	Non Compliant	BOS, IEA reports
48	Heritage - Aboriginal Cultural Heritage Management Plan	Schedule 3.39	<p>The Proponent shall prepare an Aboriginal Cultural Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with OEH and the Aboriginal community, and be submitted to the Secretary for approval prior to the disturbance of any Aboriginal object or site; and</p> <p>(b) include a:</p> <ul style="list-style-type: none"> detailed salvage program and management plan for all identified Aboriginal sites within the project disturbance area; detailed description of the measures that would be implemented to protect Aboriginal sites and PAD outside the project disturbance area; protocol for monitoring operations and vegetation removal on the site; protocol for undertaking additional archaeological investigation, and where warranted excavation and/or salvage, on: any identified stabilised soil surfaces on Lot 218 that are proposed to be disturbed; or any area of the identified PAD on Lot 220 that is proposed to be disturbed; protocol for monitoring of reject material; description of the measures that would be implemented if any new Aboriginal objects or skeletal remains are discovered during the project; and protocol for the ongoing consultation and involvement of the Aboriginal community in the conservation and management of Aboriginal cultural heritage on the site, including the establishment of a management group comprising Aboriginal stakeholders and a suitably qualified archaeologist. <p>The Proponent shall implement the approved management plan as approved from time to time by the Secretary.</p>	POPO	Included in approved plan. Plan implemented on site.		Complies	ACHMP

49	Heritage - Non-Indigenous Heritage Management Plan	Schedule 2.50	<p>The Proponent shall prepare a non-indigenous Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <ul style="list-style-type: none"> (a) be prepared in consultation with the Heritage Branch and Council, and be submitted to the Secretary for approval prior to the disturbance of any heritage item, including the identified tank traps; (b) include: <ul style="list-style-type: none"> - archival recording of the tank traps, in accordance with the requirements and guidelines of the Heritage Branch; - a protocol for the investigation, removal and storage of the tank traps, and for their reinstallation following quarrying operations; and - a description of the measures that would be implemented if any new heritage objects or items are discovered during the project. <p>The Proponent shall implement the approved management plan as approved from time to time by the Secretary.</p>	PC/PO	Included in approved plan. Plan implemented on site.		Complied	HMP
50	Traffic and Transport - Road Upgrades	Schedule 2.51	<p>The Proponent shall upgrade Lavis Lane (including the eastern section leading to the private haul road) to provide a minimum 6 metre sealed carriageway, to the satisfaction of Council, prior to the commencement of transportation using the Lavis Lane access road, unless otherwise agreed by the Secretary.</p>	C	Lavis Lane not used for haulage. New intersection constructed at alternative location.		Complied	Site Inspection
51	Traffic and Transport - Alternate Access Road to Lot 218	Schedule 2.51A	<p>If the Proponent intends to use the Alternate access road, the Proponent shall:</p> <ul style="list-style-type: none"> (a) arrange for an independent Road Safety Audit to be undertaken based on the existing concept design plan for the intersection on Nelson Bay Road and the proposed alternate access road. The Road Safety audit should assess the impact of construction of the proposed acceleration lane and the safety of vehicles turning into the existing driveways of the properties located on the northern side of Nelson Bay Road and into Sansom Road/Nelson Bay Road. The Road Safety Audit should also identify appropriate safety measures to make right turn manoeuvres from Nelson Bay Road safer. The Road Safety Audit is to be conducted prior to construction and to the satisfaction of RMS; (b) construct the Alternate access road, in consultation with, and to the satisfaction of, Council; (c) far seal and maintain the first 200 m of the Alternate access road south from Nelson Bay Road, to the satisfaction of Council; (d) construct a left-in, left-out intersection from Nelson Bay Road to the Alternate access road, with appropriate acceleration and deceleration lanes, advance "Trucks Entering" warning signage and road markings in accordance with relevant Austroads standards, in consultation with RMS and Council, and to the satisfaction of RMS; (e) upgrade the access point to 2344 Nelson Bay Road, in consultation with the landowner and to the satisfaction of RMS; (f) not use the Alternate access road to transport sand until all RMS requirements regarding the intersection have been fully met; and (g) use its best endeavours to obtain an agreement from local bus operators to not make unscheduled stops in, or immediately adjacent to, the proposed acceleration and deceleration lanes. <p>Note: The conceptual alignment of the alternate access road is shown in Appendix 1.</p>	PO/O	Alternate access constructed and in use.		Complied	Site Inspection
52	Traffic and Transport - Alternate Access Road to Lot 218	Schedule 2.51B	<p>The Proponent shall not restrict public access to any Crown road or public road located along the alignment of the Alternate access road, while ever the roads remain Crown roads or public roads.</p>	CO	No restrictions to access along this route.		Complied	Site Inspection
53	Traffic and Transport - Traffic Restrictions	Schedule 2.52	<p>The Proponent shall restrict truck movements (in plus out) on Lavis Lane and Oakvale Road to a maximum of 10 per hour during the night time period and on Sundays and public holidays, unless otherwise approved by the Secretary.</p> <p>Note: The Secretary may consider allowing additional truck movements if the Proponent has agreements with residents on Lavis Lane and Oakvale Road, as described in condition 9 above.</p>	CO	This access not utilised		Complied	Site Inspection
54	Traffic and Transport - Road Haulage	Schedule 2.53	<p>The Proponent shall ensure that:</p> <ul style="list-style-type: none"> (a) all loaded vehicles entering or leaving the site are covered; and (b) all loaded vehicles leaving the site are cleared of materials that may fall on the road, before they leave the site. 	CO	During the site inspection all vehicles were noted to comply with this requirement.		Complied	Site Inspection
55	Traffic and Transport - Drivers' Code of Conduct	Schedule 2.53A	<p>Prior to 14 April 2016, the Proponent shall prepare a Drivers' Code of Conduct applicable to drivers of all project-related vehicles, including trucks that haul sand from Mackus Sand's operations on Lots 218 and 220. This Code of Conduct must:</p> <ul style="list-style-type: none"> (a) be prepared in consultation with Council and RMS and be submitted to the Secretary for approval; (b) describe the measures that would be implemented to ensure that drivers of all project-related vehicles, including sand haulage trucks: <ul style="list-style-type: none"> - 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 informed of when heavy traffic volumes are likely to be encountered on Nelson Bay Road, including the 6 am to 9 am peak and the summer holiday period; - are informed of usual school bus travel times on Nelson Bay 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 Nelson Bay Road whilst merging from the acceleration lane of the access road intersection; - are provided with contact details in case of emergencies or accidents; - are provided with details of potential environmental hazards, such as potential for fauna to cross the 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 any injured fauna and that they must immediately report all fauna strikes on the site to Mackus Sand's management; - provided with updates on local road conditions; - minimise truck noise impacts at residences; and - minimise travel to the site prior to 5 am on weekdays; (c) include a monitoring program of the measures in (b). <p>The Proponent shall implement the approved Drivers' Code of Conduct as approved from time to time by the Secretary.</p>	PC/CO/PO/O	Code of Conduct prepared and implemented. Driver training sessions undertaken.		Complied	Code of Conduct

56	Traffic and Transport - Vehicle Monitoring	Schedule 2.22B	The Proponent shall assess the effectiveness of the measures contained within the Drivers' Code of Conduct, to the satisfaction of the Secretary.	POC/POIO	Spot audits of haulage drivers undertaken by site staff. No records kept of this activity.	The visual recording of dust and water cart usage and driver behaviour monitoring etc is not recorded formally. No records of the usage of dust suppression or of visual inspection available. It is suggested a simple check sheet or similar is prepared and filled in by Supervisors on regular trips to and from the office etc, and/or by the watercart driver.	Complies	Site Inspection
57	Traffic and Transport - Vehicle Monitoring	Schedule 2.23C	The Proponent shall provide, in each Annual Review, a report on condition 33B above and which includes details of all fauna injured or killed by vehicle strikes, time and date of any such strikes, species involved, action taken immediately following the strike and any consequent measures put in place to prevent or minimise a recurrence of fauna strikes.	O	Road kill records kept and reported in Annual Review		Complies	Annual Reviews
58	Traffic and Transport - Vehicle Monitoring	Schedule 2.23D	The Proponent shall install and operate video cameras adjacent to the Alternate access road approximately 100 metres from its intersection with Nelson Bay Road to monitor the time and direction of travel of vehicles as they enter and leave the Lot 218 sand quarry, to the satisfaction of the Secretary. These cameras must be located in a fixed position with a field of view that only incorporates lands owned by the Proponent. Recordings from these cameras must be securely stored for at least 30 days and made available to the Department on request.	O	Cameras installed and operating		Complies	Site Inspection
59	Traffic and Transport - Vehicle Monitoring	Schedule 2.23H	The Proponent shall, by the use of its weighbridge on the Alternate access road to Lot 218, 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 via the Alternate access road. These records shall be made available to the Department on request.	O	Records maintained and reviewed		Complies	Site Inspection, Quarry Data
60	Traffic and Transport - Parking	Schedule 2.24	The Proponent shall provide sufficient parking on-site for all project-related traffic, in accordance with Council's parking codes, and to the satisfaction of the Secretary.	CI/O	Parking available on site and adequate for workers at the site.		Complies	Site Inspection
61	Visual - Visual Access	Schedule 2.25	The Proponent shall minimise the visual impacts of the project to the satisfaction of the Secretary.	CI/O	The extraction areas are generally not visible from the public areas. Rehabilitation activities being implemented to provide long term visual benefits.		Complies	Site Inspection
62	Visual - Lighting Emissions	Schedule 2.26	The Proponent shall: (a) take all practicable measures to mitigate off-site lighting impacts from the project; and (b) ensure that all external lighting associated with the project complies with Australian Standard AS4282 (NT) 1995 – Control of Obtrusive Effects of Outdoor Lighting, to the satisfaction of the Secretary.	CI/O	The lighting required for operations is not generally visible from public areas. No complaints in relation to lighting from the operations has been raised during the audit period.		Complies	Site Inspection, Community Meetings, Complaints.
63	Visual - Advertising	Schedule 2.27	The Proponent shall not erect or display any advertising structure(s) or signs on the site without the written approval of the Secretary. Note: This does not include traffic management and safety or environmental signs.	CI/O	No signage noted during audit other than compliant signage.		Complies	Site Inspection
64	Waste Management - Waste Minimisation	Schedule 2.28	The Proponent shall minimise the amount of waste generated by the project to the satisfaction of the Secretary	CI/O	The site generate very little waste materials. No issues of concern noted in relation to this issue. Wastes contained as required in bins etc.		Complies	Site Inspection
65	Emergency and Hazards Management - Dangerous Goods	Schedule 2.29	The Proponent shall ensure that the storage, handling, and transport of fuels and dangerous goods are conducted in accordance with the relevant Australian Standards, particularly AS1940 and AS1596, and the Dangerous Goods Code.	CI/O	The site does not have any storage of dangerous goods.		Complies	Site Inspection
66	Emergency and Hazards Management - Safety	Schedule 2.40	The Proponent shall secure the project to ensure public safety to the satisfaction of the Secretary.	CI/O	The site is secured with fencing and lockable gates		Complies	Site Inspection
67	Emergency and Hazards Management - Bushfire Management	Schedule 2.41	The Proponent shall: (a) ensure that the project is suitably equipped to respond to any fires on-site; and (b) assist the rural fire service and emergency services as much as possible if there is a fire on-site.	CI/O	The site has fire fighting resources available in the form of water carts, pumps and water. The site team liaise with RFS, NPWS, HWC and RAAF in relation to fire fighting in this area.		Complies	Site Inspection
68	Production Data	Schedule 2.42	The Proponent shall: (a) provide annual production data to the DRE using the standard form for that purpose; and (b) include a copy of this data in the Annual Review.	O	Annual Reviews for 2015 and 2016 reviewed. These documents contain these requirements.		Complies	Annual reviews
69	Notification of Landowners	Schedule 4.1	Within 1 month of the date of this approval, the Proponent shall notify the landowner of residence R1 in writing that they have the right to require the Proponent to undertake additional noise mitigation measures on their residence in accordance with condition 6 of schedule 3 at any stage during the project, if the residence is habitable in the opinion of the Secretary.	C	Residents notified as required.		Complies	Community Meetings
70	Notification of Landowners	Schedule 4.2	If the results of the monitoring required in schedule 3 identify that impacts generated by the project are greater than the relevant impact assessment criteria, except where a negotiated agreement has been entered into in relation to that impact, then the Proponent shall, within 2 weeks of obtaining the monitoring results, notify the Secretary, the affected landowners and tenants (including tenants of quarry-owned properties) accordingly, and provide quarterly monitoring results to each of these parties until the results show that the project is complying with the criteria in schedule 3.	O	The results of noise monitoring shows compliance with the requirements and therefore no notifications have been required.		Complies	Annual Reviews, Noise monitoring data
71	Independent Review	Schedule 4.3	If a landowner of privately-owned land considers the project to be exceeding the impact assessment criteria in schedule 3, then he/she may ask the Secretary in writing for an independent review of the impacts of the project on his/her land.	O	No requests have been made during the audit period.		Complies	Community Meetings

72	Independent Review	Schedule 4.4	<p>If the Secretary is satisfied that an independent review is warranted, the Proponent shall within 2 months of the Secretary's decision:</p> <ul style="list-style-type: none"> (a) consult with the landowner to determine his/her concerns; (b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to conduct monitoring on the land, to: <ul style="list-style-type: none"> • determine whether the project is complying with the relevant impact assessment criteria in schedule 3; and • identify the source(s) and scale of any impact on the land, and the project's contribution to this impact; and (c) give the Secretary and landowner a copy of the independent review. 	●	No requests have been made during the audit period.		Compline	Community Meetings
73	Independent Review	Schedule 4.5	<p>If the independent review determines that the project is complying with the relevant impact assessment criteria schedule 3, then the Proponent may discontinue the independent review with the approval of the Secretary.</p> <p>If the independent review determines that the project is not complying with the relevant impact assessment criteria in schedule 3, then the Proponent shall:</p> <ul style="list-style-type: none"> (a) implement all reasonable and feasible measures, in consultation with the landowner, to ensure that the project complies with the relevant criteria, and conduct further monitoring to determine whether these measures ensure compliance; or (b) secure a written agreement with the landowner to allow exceedances of the relevant impact assessment criteria, to the satisfaction of the Secretary. 	●	No requests have been made during the audit period.		Compline	Community Meetings
74	Land Acquisition	Schedule 4.6	<p><i>If the further monitoring referred to under paragraph (a) above determines that the project is complying with the relevant impact assessment criteria in schedule 3, then the Proponent may discontinue the independent review with the approval of the Secretary.</i></p> <p>When 3 months of receiving a written request from a landowner with acquisition rights, the Proponent shall make a binding written offer to the landowner based on:</p> <ul style="list-style-type: none"> (a) the current market value of the landowner's interest in the property at the date of this written request, as if the property was unaffected by the project the subject of the project application, having regard to the: <ul style="list-style-type: none"> • existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and • presence of improvements on the property and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of the 'additional noise mitigation measures' in condition 6 of schedule 3; (b) the reasonable costs associated with: <ul style="list-style-type: none"> • relocating within the Port Stephens local government area, or to any other local government area determined by the Secretary. 	●	No requests have been made during the audit period.		Compline	Community Meetings
75	Land Acquisition	Schedule 4.6	<p>However, if following this period, the Proponent and landowner cannot agree on the acquisition price of the land and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Secretary for resolution.</p> <p>Upon receiving such a request, the Secretary shall request the President of the NSW Division of the Australian Property Institute (the API) to appoint a qualified independent valuer to:</p> <ul style="list-style-type: none"> (a) consider submissions from both parties; (b) determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in paragraphs (a)-(c) above; (c) prepare a detailed report setting out the reasons for any determination; and (d) provide a copy of the report to both parties. <p>Within 14 days of receiving the independent valuer's report, the Proponent shall make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.</p>	●	No requests have been made during the audit period.		Compline	Community Meetings
76	Land Acquisition	Schedule 4.6	<p>However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Secretary for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Secretary shall determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above and the independent valuer's report. Within 14 days of this determination, the Proponent shall make a binding written offer to the landowner to purchase the land at a price not less than the Secretary's determination.</p> <p>If the landowner refuses to accept the Proponent's binding written offer under this condition within 6 months of the offer being made, then the Proponent's obligations to acquire the land shall cease, unless the Secretary determines otherwise.</p>	●	No requests have been made during the audit period.		Compline	Community Meetings
77	Land Acquisition	Schedule 4.7	<p>The Proponent shall pay all reasonable costs associated with the land acquisition process described in condition 6 above.</p>	●	No requests have been made during the audit period.		Compline	Community Meetings
78	Land Acquisition	Schedule 4.8	<p>If the Proponent and landowner agree that only part of the land shall be acquired, then the Proponent shall also pay all reasonable costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of the plan at the Office of the Registrar-General.</p>	●	No requests have been made during the audit period.		Compline	Community Meetings

79	Environmental Management Strategy	Schedule 5.1	<p>The Proponent shall prepare an Environmental Management Strategy for the project to the satisfaction of the Secretary. This strategy must:</p> <p>(a) be submitted to the Secretary for approval within 3 months of the date of this approval;</p> <p>(b) provide the strategic framework for environmental management of the project;</p> <p>(c) identify the statutory approvals that apply to the project;</p> <p>(d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;</p> <p>(e) describe the procedures that would be implemented to:</p> <ul style="list-style-type: none"> • keep the local community and relevant agencies informed about the operation and environmental performance of the project; • receive, handle, respond to, and record complaints; • resolve any disputes that may arise during the course of the project; • respond to any non-compliance; and • respond to emergencies; and (f) include: • copies of the various strategies, plans and programs that are required under the conditions of this approval once they have been approved; and • a clear plan depicting all the monitoring currently being carried out within the project area. <p>The Proponent shall implement the approved strategy as approved from time to time by the Secretary.</p>	POPO	Included in approved plan. Plan implemented on site.		Complies	Site Inspection
80	Incident Reporting	Schedule 5.2	<p>Within 24 hours of detecting an exceedance of the performance criteria in this approval or the occurrence of an incident that causes (or may cause) material harm to the environment, the Proponent shall notify the Department and other relevant agencies of the exceedance/incident.</p>	CO	No material harm incidents have occurred or had the potential to occur during the audit period. Exceedances noted in 2016 for truck departure times in DPE Compliance audit during the audit period which were not reported.		Non Compliant	Annual Reviews, Monitoring data
81	Incident Reporting	Schedule 5.3	<p>Within 5 days of notifying the Department and other relevant agencies of an exceedance/incident, the Proponent shall provide the Department and these agencies with a written report that must:</p> <p>(a) describe the date, time, and nature of the exceedance/incident;</p> <p>(b) identify the cause (or likely cause) of the exceedance/incident;</p> <p>(c) describe what action has been taken to date; and</p> <p>(d) describe the proposed measures to address the exceedance/incident.</p>	CO	No incidents notified to the department or other relevant agencies during this report period. DPE compliance NCR addressed in 2016 Annual Review.		Complies	Annual Reviews, Monitoring data.
82	Annual Review	Schedule 5.4	<p>By the end of March each year, or other timing agreed by the Secretary, the Proponent shall review the environmental performance of the project to the satisfaction of the Secretary. This review must:</p> <p>(a) describe the development (including any rehabilitation) that was carried out in the past calendar year, and the development that is proposed to be carried out over the next year;</p> <p>(b) include a comprehensive review of the monitoring results and complaints records of the project over the past 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, program or strategy required under this approval; • monitoring results of previous years; and • relevant predictions in the EA and EA (MOD 1); <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 project;</p> <p>(e) identify any discrepancies between the predicted and actual impacts of the project, 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 project.</p>	O	Annual reviews submitted on 31 March for 2015 and 2016 reporting periods. Submission of reports in 2017 during this audit period were in August 2017 following extensions negotiated with DPE.		Complies	Annual Reviews
83	Revision of Strategies, Plans and Programs	Schedule 5.4A	<p>Within 3 months of:</p> <p>(a) the submission of an incident report under conditions 2 or 3 above;</p> <p>(b) the submission of an annual review under condition 4 above;</p> <p>(c) the submission of an audit report under condition 6 below; or</p> <p>(d) any modification to the conditions of this approval, (unless the conditions require otherwise), the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this consent, to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted for the approval of the Secretary.</p> <p>Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.</p>	O	Some plans revised and approved due to modifications. These modifications were undertaken in accordance with this requirement.		Complies	Annual Reviews, Management Plans
84	Independent Environmental Audit	Schedule 5.5	<p>Within 2 years of the date of the commencement of quarrying operations, and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:</p> <p>(a) be conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been approved by the Secretary;</p> <p>(b) assess the environmental performance of the project, and its effects on the surrounding environment;</p> <p>(c) assess whether the project is complying with the relevant standards, performance measures and statutory requirements;</p> <p>(d) review the adequacy of any strategy/plan/program required under this approval; and, if necessary,</p> <p>(e) recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under this approval.</p>	O	This audit satisfies this requirement.		Complies	
85	Independent Environmental Audit	Schedule 5.6	<p>Within 1 month of completion of each Independent Environmental Audit, the Proponent shall submit a copy of the audit report to the Secretary and relevant agencies, with a response to any of the recommendations in the audit report.</p>	O	The audit reporting period has been extended. The submission of this report is required within 1 month of the date of completion of the audit. The audit was completed following data provided for review in 28/3/19.		Complies	
86	Independent Environmental Audit	Schedule 5.7	<p>Within 3 months of submitting a copy of the audit report to the Secretary, the Proponent shall review and if necessary revise the:</p> <p>(a) strategies/plans/programs required under this approval; and</p> <p>(b) rehabilitation bond, to consider the:</p> <ul style="list-style-type: none"> • effects of inflation; • changes to the total area of disturbance; and • performance of the rehabilitation against the completion criteria of the Landscape Management Plan, to the satisfaction of the Secretary. 	O	Plans may require revision as a result of this audit.		Complies	
87	Community Consultative Committee	Schedule 5.8	<p>Within 3 months of the commencement of quarrying operations, the Proponent shall establish a Community Consultative Committee (CCC) for the project to the satisfaction of the Secretary, in accordance with the Department's Guideline for Establishing and Operating Community Consultative Committees for Mining Projects.</p>	O	CCC established and meetings held regularly.		Complies	Community Meetings

88	Access to Information	Schedule 6.8	Within 1 month of the approval of any strategies/plans/programs required under this approval (or any subsequent revision of these strategies/plans/programs), or the completion of the audits or Annual Review required under this approval, the Proponent shall: (a) provide a copy of the relevant document/s to the relevant agencies and to members of the general public upon request; and (b) ensure that a copy of the relevant document/s is made publicly available on its website and at the site.	O	Documents available on the website as required by this condition. The format of the website and naming could be improved to provide easier access to reports.	Website – The structure of the site makes information hard to find and labeling is not consistent. Suggest either grouping data into years or grouping into data types.	Complies	Website data
89	Access to Information	Schedule 6.10	During the project, the Proponent shall: (a) make a summary of monitoring results required under this approval publicly available on its website and at the site; and (b) update these results on a regular basis (at least every 3 months).	O	Results available on the website and files uploaded on a quarterly basis. Results were noted to be available for the current quarterly period. These reports are a cumulative report which contain the previous months data.	This reporting is considered to be compliant with the requirements of this condition, however labelling of the reports on the website to identify them as being cumulative reports and removing the previous months reports will make navigation of the website easier and clearer.	Complies	Website data

Mackas Sand - Master Compliance Table

Compliance:	Key Dates:
Complies	Ministers Approval- 29/11/13
Under Review	
Not Applicable	Compliance
Ongoing	Complies 12 Under Review 0
Non Compliant	Non Compliant 1
Phase:	Percentage Compliant 92
Pre-Construction	
Construction	
Pre-Operation	
Operation	



EPBC							
Ref No.	Condition Reference	Condition	Phase	Findings	Actions	Complies	Supporting Documentation
1	1	The approval holder must not clear outside the approved alternate haul route area (as depicted at Figure 1 and coordinates). The approval holder must not clear more than 0.37 hectares of habitat for Newcastle Doubletail (<i>Diuris praecox</i>), Leafless Tounge-orchid (<i>Cryptostylis hunteriana</i>), New Holland Mouse (<i>Pseudomys novaehollandiae</i>), Long-nosed Potoroo (<i>Potorous tridactylus tridactylus</i>), Spot-tailed Quoll (<i>Dasyurus maculatus maculatus</i>), Grey-headed Flying-fox (<i>Pteropus poliocephalus</i>) and Large-eared Pied Bat (<i>Chalinolobus dwyeri</i>), Regent Honeyeater (<i>Anthochaera phrygia</i>) and Swift Parrot (<i>Lathamus discolor</i>).	O	The operations have boundaries marked and are within the approved clearing boundaries	Nil	Complies	Site Inspection
2	2	The approval holder must submit a Landscape Management Plan for the alternate haul route area to the Minister within six months of the dte of this approval or before any vegetation clearing of the alternate haul route area, whichever is sooner.	P/O	LMP Prepared, approved and implemented	Nil	Complies	LMP

3	3	The Landscape Management Plan must specify: a) pre-clearance surveys that will be undertaken before any vegetation clearing of the alternate haul route area b) weed monitoring and management measures, including ongoing monitoring parameters, frequencies, triggers, corrective actions, timing and scope for the duration of the project approval; and c) rehabilitation measures with the objective of re-establishing the Coastal Sand Apple-Blackbutt Forest community Details of how the Landscape Management Plan will be monitored, reviewed and implemented must be provided to the Minister.	P/O	LMP Prepared, approved and implemented	Nil	Complies	LMP
4	4	Note: The Minister may determine that a plan, strategy or program approved by the Director-General of the Department of Planning (NSW) satisfies a plan, strategy or program required by these conditions.	P/O	LMP Prepared, approved and implemented	Nil	Complies	LMP
5	5	To aid safe movement of the following ground dwelling, gliding and arboreal species across the alternate haul road, the proponent must: a) ensure a speed limit of 40km/ph applied for all vehicles using the proposed alternate haul road; and b) limit night traffic, consistent with the requirements of the Operating Conditions and Operating Hours as specified in the Environmental Assessment Modifications.	O	Speed restriction signage in place across site.	Nil	Complies	LMP, Code of Conduct, Site Inspection
6	5	Within 30 days after the commencement of the action, the person taking the action must advise the Department in writing of the actual date of commencement.	P	Not within this audit period (2013)	Nil	Complies	EPBC Annual Report
7	6	By 1 September of each year after the commencement of the action, the approval holder must publish a report on their website addressing compliance with the conditions of this approval over the previous 12 months, including implementation of any management plans as specified in the conditions. Non-compliance with any of the conditions of this approval must be reported to the Department at the same time as the compliance report is published.	O	Annual reviews for 2015 and 2016 published on web site and contain this report. Annual review documents contain the reports required by this condition but they are not uploaded until the Annual Review is complied which is in March the following year.	Ensure that documents are uploaded to the website within the timeframes noted in this condition.	Non-Compliant	Mackas Sand Website
8	7	Upon the direction of the Minister, the approval holder must ensure that an independent audit of compliance with the conditions of approval is conducted and a report is submitted to the Minister. The independent auditor must be approved by the Minister prior to the commencement of the audit. Audit criteria must be agreed to by the Minister and the audit report must address the criteria to the satisfaction of the Minister.	O	This audit conducted of the NSW DPE MCOA for the site. This audit has not been requested under this condition.	Nil	Complies	
9	8	If at any time after the five years from the date of this approval, the approval holder has not substantially commenced the action, then the approval holder must not commence the action without the written	O	The operations have substantially commenced prior to this date.	Nil	Complies	Site Inspection
10	9	If the Minister believes that it is necessary or convenient for the better protection of threatened species and threatened ecological communities (s. 18 & s. 18A of the EPBC Act) to do so, the Minister may request that the approval holder make specified revisions to the plans approved pursuant to the above conditions and submit the revised plan for the Minister's written approval. The approval holder must comply with any such request. The revised approved plan must be implemented. Unless the Minister has approved the revised plan then the person taking the action must continue to implement the plan originally approved, as specified in the conditions.	O	No requests of this nature during the audit period	Nil	Complies	

11	10	The approval holder must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, including those measures required by this approval, and make them available upon request to the Department. Such records may be subject to audit by the Department or an independent auditor in accordance with section 458 of the EPBC Act, or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the Department's website. The results of audits may also be published through the general media	O	Audit records available for the relevant requirements of this approval.	Nil	Complies	Annual Reviews, Quarry Data, Website
12	11	If the approval holder wishes to carry out any activity otherwise than in accordance with the Environmental Assessment and the Landscape Management Plan referred to in the above Conditions, the person taking the action may submit a revised plan for the Minister's approval. If the Minister approves the revised plan submitted, the person taking the action must implement this plan instead of the plan originally approved.	O	All activities carried out in accordance with the environmental assessment.	Nil	Complies	Site Inspection
13	12	Unless otherwise agreed to in writing by the Minister, the person taking the action must publish all management plans, referred to in these conditions of approval on their website. Each management plan must be published on the website within 1 month of being approved.	O	Management plans contained on the website	Nil	Complies	Website

Mackas Sand - Master Compliance Table

Compliance:	Key Dates:
Complies	Ministers Approval- 20/9/09
Under Review	Mod 1 - 30/9/13
Not Applicable	Mod 2 - 18/3/16
Ongoing	
Non Compliant	
Phase:	Compliance
Pre-Construction	Complies 39
Construction	Under Review 0
Pre-Operation	Non Compliant 4
Operation	Percentage Compliant 91



Statement of Commitments								
Ref No.	Query Type	Condition Reference	Condition	Phase	Findings	Actions	Complies	Supporting Documentation
1	Operational Controls	1.1.1	All activities will be undertaken in accordance with the EA, EA (MOD 1) and EA (MOD 2).	PC/G/PO/O			Complies	Audit Report, quarry data
2	Operational Controls	1.1.2	Sand extraction and processing activities at Lot 218 and Lot 220 may be undertaken 24 hours per day, seven days per week. No sand extraction operations will be undertaken within 250 metres of R27 (Hufnagl residence) between the hours of 6.00 pm and 7.00 am unless an agreement with the owner of R27 for extraction activities within these hours is obtained.	O			Complies	Annual Reviews, Site inspection
3	Operational Controls	1.1.3	Transport of product from Lot 218 will be undertaken between 5.00 am and 10.00 pm, Monday to Saturday and 8.00 am to 12.00 pm on Sundays and Public Holidays. Transport of product from Lot 220 will be undertaken between 5.00 am and 10.00 pm, Monday to Saturday and 8.00 am to 12.00 pm on Sundays and Public Holidays.	O	2016 DPE Audit identifies non compliance with truck movements		Complies	Weighbridge Data 2017, Annual reviews 2015, 2016
4	Operational Controls	1.1.4	A maximum of 1,000,000 tonnes per year of sand products will be extracted from Lot 218 and a maximum of 1,000,000 tonnes per year will be extracted from Lot 220. Annual sand production information will be provided to the Department and DRE.	O	Extraction data reviewed for the 2015,2016 period shows compliance with this condition. 2017 transport logs show compliance with this condition.		Complies	Weighbridge Data 2017, Annual reviews 2015, 2016
5	Operational Controls	1.1.6	The interim landform during extraction on Lot 218 and Lot 220 will be no lower than 0.7 metres above the maximum predicted groundwater level as shown on Figure 2.1 of EA (MOD 1). The final landform will be at least 1 metre above the maximum predicted groundwater level as shown on Figure 4.9 of the EA. The height of the final landform will be verified by topographic survey.	O	Maximum extraction levels have been noted to be non-compliant since 2014. IEA in 2014 notes no survey data to confirm depths. Survey data for 2017 shows compliance until March 2017.		Non Compliant	Survey Data 2016, 2017
6	Ecology	1.2.1	A Vegetation Clearance Management Plan will be developed prior to any vegetation clearing occurring for the proposal. This plan will be implemented for all vegetation clearing required as part of the proposal.	PC/G/PO/O	Plan in place		Complies	RLMP
7	Ecology	1.2.2	A comprehensive Biodiversity Monitoring Program will be developed prior to any vegetation clearing being undertaken for the proposal.	PC/G/PO/O	Monitoring program developed, approved and implemented.		Complies	RLMP
8	Ecology	1.2.3	Clearing operations will be timed so that potential impacts on breeding species, particularly the squirrel glider and threatened micro-bats are avoided. Where possible, clearing will be avoided in winter months when micro-bats and the eastern pygmy possum are in a state of torpor and squirrel gliders begin to breed.	G/O	Clearing complete in Lot 218 for access. Lot 220 clearing ongoing. Clearing restrictions included in monitoring program.		Complies	Rehabilitation and ecological monitoring reports

9	Ecology	1.2.4	A Feral Animal Control Management Plan will be developed and implemented prior to any clearing activities being undertaken for the proposal.	PC/C/PO/O	No Feral Animal Control Plan noted to be required as no feral pests identified that would require control programs. Requirement for plan included in LMP.		Complies	RLMP
10	Ecology	1.2.5	A Weed Management Plan will be developed and implemented prior to any clearing activities being undertaken for the proposal.	PC/C/PO/O	Plan developed and implemented. Plan not updated following legislative changes coming into force in 2017. Records of monthly monitoring of weeds as recommended in the 2016 Rehabilitation Monitoring report not available. Mackas Sand advises that the 2017 Annual Review (not published to date) identifies that weed management has commenced on the boundary bunds and within an approximately 2 hectare area where extraction is	The plan does not refer to the modified weed management requirements of the Biosecurity Act and requires review.	Non Compliant	RLMP, Annual Reviews 2016
11	Ecology	1.2.6	A comprehensive Rehabilitation and Decommissioning Plan will be prepared to ensure rehabilitation objectives are achieved to a reasonable extent. The Plan will include: • the rehabilitation program; • native vegetation and fauna habitat management including provision of artificial hollows and nest boxes and fauna translocation procedures; • feral animal control; • fire management; • weed management; • minimisation of edge effects; • stormwater control; • fauna displacement measures including nest boxes and tree hollows; • control of public access; • monitoring; and • funding.	PC/C/PO/O	Plan prepared and implemented		Complies	RLMP
12	Ecology	1.2.7	The feasibility of establishing native vegetation at the western end of Lot 218 to create a link between adjoining vegetated areas following the completion of sand extraction in this area will be investigated within 5 years of operations and if feasible the Rehabilitation and Decommissioning Plan will be revised to include vegetation of this area.	O	Not triggered yet		Complies	RLMP
13	Aboriginal Heritage	1.3.1	An Aboriginal Cultural Heritage Management Plan (ACHMP) will be developed in consultation with the relevant Aboriginal stakeholders and OEH prior to the commencement of any clearing activities. The ACHMP will include: • a protocol to assess significance of Aboriginal objects; • appropriate remedial actions etc. at end of life of operations. These will be drawn from the Rehabilitation and Decommissioning Plan; • identification of an 'in perpetuity' a keeping place with the requirement for 'in perpetuity' being resolved with the Aboriginal community; • establishment of a Management Group that includes an invitation to all stakeholders and an archaeologist; • a commitment to lodging site cards for any Aboriginal objects identified; • a skeletal material protocol. Relevant legislation requires that if Aboriginal skeletal material is found, the proponent will need to obtain an OK in writing from OEH and Police before work resumes; • development of an Aboriginal Cultural Education program for use as part of the induction for workers; and • protocols for extraction of sand on Lot 218 from below the 1945 land surface including test pitting procedures as set out in the FA and survey and clearance of unexploded	PC/PO	Plan prepared and implemented		Complies	ACHMP

14	Aboriginal Heritage	1.3.2	An Aboriginal Cultural Heritage Management Group will be established prior to commencement of the proposal to managed matters relating to Aboriginal cultural heritage within the study area.	PC/PO	Group established and consulted.		Complies	ACHMP
15	Aboriginal Heritage	1.3.3	The Aboriginal Cultural Heritage Management Group will conduct a monitoring visit to the Lot 218 proposal area on a monthly basis for the first 12 months of operation, with subsequent inspection intervals to be determined as part of the ACHMP.	O	Monitoring undertaken as required		Complies	ACHMP
16	Aboriginal Heritage	1.3.4	The Aboriginal Cultural Heritage Management Group will conduct a monitoring visit to the Lot 220 operational area on a biannual basis for 12 months, with subsequent inspection intervals to be determined as part of the ACHMP.	O	Monitoring undertaken as required		Complies	ACHMP
17	Aboriginal Heritage	1.3.5	A sample of reject material from the screening operations on Lot 220 will be taken each day, where sufficient material is present. The samples will be provided to the Aboriginal Cultural Heritage Management Group on a monthly basis.	O	Material set aside as required		Complies	ACHMP
18	Historic Heritage	1.4.1	Prior to disturbance of any tanks traps at either Lot 218 or Lot 220, the location of the tank traps will be surveyed and a photographic record made in accordance with Heritage Council of NSW requirements for archival recording. The survey data and photographic recording will be forwarded to the Heritage Branch of the Department of Planning.	C/O	Surveys undertaken as required prior to removal where required		Complies	HMP
19	Historic Heritage	1.4.2	Any disturbed tank traps will be replaced along the original alignment of the Northern Defence Line.	C/O	Ongoing. Disturbed items relocated as required.		Complies	HMP
20	Traffic and Access	1.5.1	In accordance with the requirements of Section 4.5 of the Port Stephens Section 94 Development Contributions Plan 2007, Mackas Sand will make a road maintenance contribution of 1.20 cents per tonne. Kilometre for product transported on Port Stephens Council roads.	PC/C/PO/O	Data on extraction supplied to PSC.		Complies	Quarry data
21	Traffic and Access	1.5.2	Within 6 months of the commencement of haulage of product from Lot 218 along Lavis Lane, the proponent will contribute to the sealing of the 700 metre unsealed section of Lavis Lane.	O	No haulage on Lavis Lane occurring		Complies	Site Inspection
22	Traffic and Access	1.5.3	Mackas Sand will meet all costs of designing and constructing the proposed new intersection on Nelson Bay Road including any works required to provide safe access from driveways that access Nelson Bay Road within the construction zone for the proposed new intersection.	PC/C/PO/O	Alternative access road constructed and in use.		Complies	Site Inspection
23	Traffic and Access	1.5.4	Mackas Sand undertakes to not restrict the public's right of access to the public roads that are located along the alignment of the proposed haul road between Lot 122 and Nelson Bay Road reserve while ever these roads are public roads.	PC/C/PO/O	No access restricted		Complies	Site Inspection
24	Noise	1.6.1	An Operational Noise Management Plan will be developed for the proposal and implemented prior to sand extraction commencing. The plan will incorporate a noise monitoring program to monitor noise emissions and determine compliance with the project specific noise goals. The plan will include specific measures to monitor and address potential noise impacts at residential receiver R27 (Hufnagel Residence).	PO	Plan prepared and implemented		Complies	NMP
25	Noise	1.6.2	No sand extraction will be undertaken within 250 metres of receiver R27 during evening and night periods unless agreement is reached with the landholder.	O	Extraction not at this distance currently		Complies	Site Inspection
26	Noise	1.6.3	A Traffic Noise Management Plan will be developed and implemented for truck movements on the private haul road from Lot 220. The Plan will focus on but not be limited to truck movements between the hours of 5.00 am and 7.00 pm.	PO	Plan prepared and implemented. DPE audit in 2015 identified non compliances with the MCOA in relation to truck movements outside of the time restrictions in this plan. 2016 non compliances noted in Annual Review 2016. 2017 review shows compliance with this condition from data sample reviewed.		Non Compliant	NMP; Annual Reviews, Weighbridge records
27	Air Quality	1.7.1	Dust suppression activities, such as spraying a suitable dust suppressant, will be undertaken on all unsealed access roads used to transport product from Lot 218 and Lot 220 so that at least a 75 percent reduction in dust generation is achieved.	C/O	Water cart in use across site. Unable to determine whether 75% dust suppression is achieved. Dust levels noted to be acceptable during site visit.		Complies	Site Inspection
28	Groundwater	1.8.1	A Groundwater Management Plan will be developed prior to any sand extraction activities to the satisfaction of the Department in consultation with EPA. The Plan will include a groundwater monitoring program that includes quarterly monitoring of groundwater level and quality (electrical conductivity, pH, turbidity, arsenic, manganese and iron) at groundwater monitoring bores SP 1 to SP 6 as shown on Figure 4.7 of the EA. The results of the monitoring are to be commented on and compiled into an annual report.	PO	Plan prepared and implemented.		Complies	GMP

29	Groundwater	1.8.2	Any refuelling of equipment used for the proposal will be undertaken by a registered contractor to remove the need for on-site storage of fuels. No maintenance of equipment or storage of chemicals will occur at either site.	G/O	Contractor used for refuelling of equipment		Complies	Site Inspection
30	Groundwater	1.8.3	Prior to sand washing being undertaken on-site access to a suitable water supply will be obtained and evidence of this will be provided to the Department. Prior to sand washing commencing a detailed Water Management Plan for the sand washing operation will be prepared and provided to the Department.	O	No sand washing currently occurring at the site.		Complies	Site Inspection
31	Surface Water	1.9.1	Table drains and flow dissipation structures will be installed along on-site access roads as required in accordance with the Erosion and Sediment Control Regional Policy (Port Stephens Council 2002) and the Code of Practice for Managing Urban Stormwater – Soils and Construction (Landcom 2004).	C	Drainage in place across site. No issues noted during site inspection		Complies	Site Inspection
32	Surface Water	1.9.2	Site Water Management Plans for operations on Lot 218 and Lot 220 will be submitted for approval to the Department in consultation with EPA prior to the commencement of sand extraction activities. The Plan will include details on the storage and handling of chemicals on the sites including refuelling of mobile equipment.	PC/O	Plans prepared and implemented		Complies	SWMP
33	Surface Water	1.9.3	Access roads will be constructed so as to not impede flood flows on Tilligerry Creek floodplain. The alternate access road will be sealed between Nelson Bay Road and the southern edge of the Tilligerry Creek crossing to minimise sediment generation and transport adjacent to Tilligerry Creek.	C	Access roads compliant with this requirement.		Complies	Site Inspection
34	Public Safety	1.10.1	High visibility fencing with appropriate set back from the extraction face and signage will be erected on the seaward side of the Lot 218 operational area.	C	Not inspected, no access to seaward side from quarry. Reported to be in place.		Complies	
35	Public Safety	1.10.2	Any access tracks leading into either Lot 218 or Lot 220 other than those used for product haulage will be blocked from recreational vehicle use with boulders or other suitable methods.	C	Tracks blocked with concrete blocks and large timber		Complies	Site Inspection
36	Public Safety	1.10.3	Inspections of high visibility fencing and any structures built to control public access to the sites will be undertaken every week. Maintenance or repair of any fences and structures will occur within this timeframe, as required.	O	Inspections occur on a regular basis. Inspections are not documented.	Document inspections on check sheets or similar to provide evidence of compliance	Complies	
37	Visual	1.11.1	A 30 metre vegetated buffer will be maintained along the northern boundary of Lot 220, except where the proposed access road will be constructed into the site. Buffer areas of 20 metres will be maintained along the other boundaries of the site. In-fill planting will be undertaken in buffer areas as required to ensure a sufficient visual screening is in place around the site.	O	A buffer area of greater than 30m is in place at this location		Complies	Site Inspection
38	Visual	1.11.2	Extensive supplementary planting of suitable screening species will be undertaken in the Lot 220 northern boundary buffer area within 50 metres of the Hufnagl residence.	G/O	Extraction not in close proximity to this residence. Resident on CCC and regularly updated on extraction activities.		Complies	Site Inspection, Annual Reviews survey mapping.
39	Greenhouse Gases	1.12.1	Mackas Sand will seek to achieve continuous improvement in energy efficiency in sand extraction and processing operations.	O	No tracking of energy efficiency undertaken.	Consider adding this section to the Annual Review to report on any programs or actions undertaken.	Complies	
40	Environmental Management, Monitoring and Auditing	1.13.1	Mackas Sand will obtain an Environmental Protection Licence for the proposal in accordance with the Protection of the Environment Operations Act 1997.	PC	EPL 13218 obtained and in force.		Complies	EPL 13218
41	Environmental Management, Monitoring and Auditing	1.13.2	Three years after the commencement of the proposal, and every four years thereafter, Mackas Sand will commission and pay the full cost of an Independent Environmental Audit of the proposal.	O	Audits undertaken as required		Complies	IEA reports
42	Environmental Management, Monitoring and Auditing	1.13.3	Within 7 days of detecting an exceedance of the limits/performance criteria in this approval or an incident causing (or threatening to cause) material harm to the environment, Mackas Sand shall report the exceedance/incident to EPA and any relevant agency. The report will: <ul style="list-style-type: none"> • identify the cause (or likely cause) of the exceedance/incident; • describe what action has been taken to date; and • describe the proposed measures to address the exceedance/incident. 	G/O	DPE Audit noted non-compliances at the site which were not reported within this timeframe within the audit period. Non - compliances identified in this audit relating to Extraction Depth not reported in accordance with this condition.	Ensure all data obtained under these conditions is reviewed within 14 days of receipt and where exceedances are noted, notify the relevant authorities of the exceedance and actions taken to prevent recurrence.	Non Compliant	Audit reports 2015, 2016, Monitoring data 2017, Survey data 2016, 2017

43	Environmental Management, Monitoring and Auditing	1.13.4	Prior to the commencement of any operations, Mackas Sand will implement, publicise and list with a telephone company a contact phone number, which will enable the general public to reach a person who can arrange appropriate response action to the enquiry. Mackas Sand will maintain a register to record details of all enquiries received and actions undertaken in response. Mackas Sand will supply the EPA with a copy of the enquiries register on an annual basis.	PO	Contact Details publicised and current		Complies	Website
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Mackas Sand - Master Compliance Table

Compliance:	Environment Protection Licence
Complies	Doc Ref: EPL 13218
Under Review	Doc Date: 4 July 2016
Not Applicable	Revision: 1.0
Ongoing	
Non Compliant	
Phase:	
Pre-Construction	Compliance Complies 75 Under Review 0
Construction	Non Compliant 3 Percentage 96 Compliant
Pre-Operation	
Operation	



EPL Conditions								
Ref No.	Query Type	Condition Reference	Condition	Phase	Findings	Actions	Complies	Supporting Documentation
1	Administrative	A1.1	Unless otherwise further restricted by a condition of the EPL, the scale of which the activity is carried out must not exceed the maximum scale specified in this condition. The specified scale of this condition is >500 000 - 2 000 000 T annual capacity to extract, process or store.	O	Extraction data reviewed for the 2015,2016 period shows compliance with this condition. 2017 transport logs show compliance with this condition.		Complies	Survey data October , December 2016 and March, July, August, October and December 2017. Annual reviews 2015, 2016
2	Administrative	A1.2	Development Consent 08_0142 allows extraction of up to 1,000,000 t/a from Lot 218 and 1,000,000 t/a from Lot 220	O	Extraction data reviewed for the 2015,2016 period shows compliance with this condition. 2017 transport logs show compliance with this condition.		Complies	Survey data October , December 2016 and March, July, August, October and December 2017. Annual reviews 2015, 2016
3	Administrative	A2.1	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: 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 b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.	O	Noted		Complies	Site Inspection

4	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.	○	Noted		Complies	
5	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.	○	No waste generated outside the premises is stored on the premises.		Complies	Site Inspection
6	Waste	L2.2	This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the premises if it requires and environment protection licence.	○	No wastes processed at the premises		Complies	Site Inspection
7	Waste	L2.3	The licensee must not cause, permit or allow any waste to be received at the premises, except the wastes expressly referred to in the column titled "Waste" and meeting the definition, if any, in the column titled "Description" in the table included in this section of the EPL. Any waste received at the premises must only be used for the activities referred to in relation to that waste in the column titled "Activity" in the table. Any waste received at the premises is subject to those limits or conditions, if any, referred to in relation to that waste contained in the column titled "Other Limits" in the table. This condition does not limit any other conditions in this licence.	○	No waste generated outside the premises is stored on the premises.		Complies	Site Inspection
8	Noise Limits	L3.1	Noise from the premises must not exceed the limits specified in the table contained in this section of the EPL.	○	Noise monitoring undertaken and levels noted to below criteria.		Complies	Annual Reviews 2015, 2016. Noise monitoring reports 2017
	Noise Limits	L3.2	For the purposes of the table above: a) Where LAeq means the equivalent noise level – the level of noise equivalent to the energy average of noise levels occurring over a measurement period. b) Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sunday and Public Holidays. c) Evening is defined as the period 6pm to 10pm. d) Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8 am Sunday and Public Holidays. e) Residence locations are shown on Figure 4.4 of the report "Environmental Assessment – Sand Extraction Operations from Lot 218 and Lot 220, Salt Ash". A copy of which has been filed on EPA file LIC08/1532.	○	Monitoring conducted as required by this condition.		Complies	Annual Reviews 2015, 2016. Noise monitoring reports 2017
	Noise Limits	L3.3	The noise limits set out in the 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 category G temperature inversion conditions.	○	Monitoring conducted as required by this condition.		Complies	Annual Reviews 2015, 2016. Noise monitoring reports 2017

9	Noise Limits	L3.4	<p>For the purposes of determining meteorological conditions:</p> <p>a) data recorded by the meteorological station identified as Bureau of Meteorology (BoM) Williamtown Weather Station (station 061078) must be used; and</p> <p>b) temperature inversion conditions (stability category) are to be determined by the sigma theta method referred to in Part E2 of Appendix E to the NSW Industrial Noise Policy.</p>	o	Noise monitoring data utilises a weather station setup specifically for the monitoring undertaken with a backup being the Williamtown RAAF Base station.		Complies	Annual Reviews 2015, 2016
10	Noise Limits	L3.5	<p>To determine compliance:</p> <p>a) with the Leq(15 minute) noise limits detailed in this licence, the noise measurement equipment must be located:</p> <ul style="list-style-type: none"> - approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or - within 30 metres of a dwelling facade, but not closer than 3 metres, where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable - within approximately 50 metres of the boundary of a National Park or a Nature Reserve. <p>b) with the LA1(1 minute) noise limits detailed in this licence, the noise measurement equipment must be located within 1 metre of a dwelling facade.</p> <p>c) with the noise limits detailed in this licence, the noise measurement equipment must be located:</p> <ul style="list-style-type: none"> - at the most affected point at a location where there is no dwelling at the location; or - at the most affected point within an area at a location prescribed by conditions (a) or (b) of this licence 	o	Monitoring conducted as required by this condition.		Complies	Annual Reviews 2015, 2016. Noise monitoring reports 2017
11	Noise Limits	L3.6	<p>For the purpose of determining the noise generated at the premises the modification factors in Section 4 of the NSW Industrial Noise Policy, January 2000, must be applied as appropriate, to the noise levels measured by the noise monitoring equipment.</p> <p>Note: Development Consent 08_0142 required additional noise mitigation measures and land acquisition where certain noise criteria cannot be met.</p> <p>Note: Project Approval 08_0142 MOD 1 and MOD 2 place a number of additional noise limits and truck movement limits on the Licensee for the Alternate Access Road to Lot 218. As the Alternate Access Road does not form part of the Licensed Premise, these limits have not been added to the Environment Protection Licence and will be regulated by the Department of Planning and / or Roads and Maritime Services.</p>	o	Monitoring conducted as required by this condition.		Complies	Annual Reviews 2015, 2016. Noise monitoring reports 2017

12	Hours of Operation	L4.1	<p>Quarrying operations (other than transportation) on the scheduled premise can occur on any day at any time.</p> <p>Quarrying operations on Lot 220 (other than transportation) when operating less than 250 metres from Residence R27 must only occur:</p> <ul style="list-style-type: none"> • Mondays to Fridays - 7:00am to 6:00pm • Weekends and Public Holidays - none <p>Note 1: Residence R27 is shown on Figure 4.4 of the Environmental Assessment "Sand Extraction Operations from Lot 218 and 220 Salt Ash" dated April 2009. A copy of this figure is filed as EPA document DOC16/140051.</p> <p>Note 2: The Licensee may undertake quarrying operations within 250 metres of residence R27 if the Proponent has an agreement with the owner of the residence to extend the hours of operations. Such an agreement must be provided to the EPA within 14 days of</p>	O	Quarry operations noted to be undertaken in accordance with these conditions		Complies	Annual Reviews 2015, 2016, Weighbridge Data, 2017.
13	Extraction Limit Depths	L4.1	<p>The Licensee must not undertake any sand extraction:</p> <ul style="list-style-type: none"> • within 0.7 metres of the maximum predicted groundwater level on Lot 220; and • within 1.0 metres of the maximum predicted groundwater levels on Lot 218. <p>Note:</p> <p>The maximum predicted groundwater level is shown in Figure 2.1 of the Environmental Assessment (MOD 1). This figure has been filed as EPA document DOC 16/140063.</p> <p>Note:</p> <p>The Licensee may extract to within 0.7 metres of the maximum predicted groundwater level within Lot 218 with the prior approval of the EPA. Any application to the EPA to extract to within 0.7m of the maximum predicted groundwater level must include results from at least one sediment core undertaken within the extraction area down to a depth of one metre below the proposed extraction depth. The sediment core must be analysed at regular intervals for pyrite or other acid forming materials and results provided with the submission.</p>	O	Quarry operations noted to be undertaken over the audit period outside of these conditions. Extraction depths have been shown in DPE audit and IEA 2014, 15 to be lower than approved levels. 2017 survey data shows compliance from March 2017. Sediment cores reportedly being undertaken in 2018 to satisfy this condition.	Continue regular survey of quarry extraction depths	Non Compliant	Survey data 2016, 2017
14	Operating Conditions	O1.1	<p>Licensed activities must be carried out in a competent manner. This includes:</p> <p>a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and</p> <p>b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.</p>	O	Activities undertaken as required by this condition		Complies	Site Inspection
15	Operating Conditions	O2.1	<p>All plant and equipment installed at the premises or used in connection with the licensed activity:</p> <p>a) must be maintained in a proper and efficient condition; and</p> <p>b) must be operated in a proper and efficient manner.</p>	O	Activities undertaken as required by this condition		Complies	Site Inspection
16	Operating Conditions	O3.1	<p>All areas in or on the premises must be maintained in a condition that prevents or minimises the emission of dust to the air.</p>	O	Watercart noted to be in regular use. Dust levels noted to be minimised during the site inspection.		Complies	Site Inspection
17	Operating Conditions	O3.2	<p>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.</p>	O	Watercart noted to be in regular use. Dust levels noted to be minimised during the site inspection.		Complies	Site Inspection

18	Operating Conditions	03.3	Any plant operated in or on the premises must be operated by such practical means to prevent or minimise dust or other air pollutants.	O	Activities undertaken as required by this condition		Complies	Site Inspection
19	Operating Conditions	03.4	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.	O	Watercart noted to be in regular use. Dust levels noted to be minimised during the site inspection.		Complies	Site Inspection
20	Operating Conditions	03.5	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.	O	Activities undertaken as required by this condition		Complies	Site Inspection
21	Emergency Response	04.1	The licensee must maintain, and implement as necessary, a current Pollution Incident Response Management Plan (PIRMP) for the premises.	O	PIRMP in place for the operations		Complies	PIRMP
22	Emergency Response	04.1	The licensee must keep the incident response plan on the premises at all times.	O	PIRMP located in the main office		Complies	Site Inspection
23	Emergency Response	04.1	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.	O	PIRMP contains the required information		Complies	PIRMP
24	Emergency Response	04.1	The PIRMP must be tested at least annually or following a pollution incident.	O	No PIRMP training or testing conducted during audit period. No activation of the PIRMP required due to operations. Contacts updated annually.	Record testing of PIRMP in register within PIRMP.	Complies	Annual Review 2015, 2016, EPL annual returns
25	Emergency Response	04.1	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.	O	PIRMP contains the required information		Complies	PIRMP
26	Other Operating Conditions	05.1	There must be no extraction equipment operated within 250 metres of residence R27, as shown in "Figure 4.4 Residential Receivers and Noise Logger Locations" of the Environmental Assessment, during evening and night periods unless agreement is reached with the landholder.	O	Extraction complies with this requirement during the audit period.		Complies	Site Inspection
27	Other Operating Conditions	05.2	Prior to sand extraction occurring within 250 metres of residence R27, as shown in "Figure 4.4 Residential Receivers and Noise Logger Locations" of the Environmental Assessment, a Noise Management Plan that specifically addresses noise controls to achieve compliance with the noise limits for R27, must be prepared and approved by the EPA.	O	Not required during this audit period. Extraction not within these limits.		Complies	Site Inspection
28	Other Operating Conditions	05.3	The proponent must implement a Traffic Noise Management Plan.	O	Noise management of haulage included in Noise Management and Traffic Management Plans		Complies	TMP
29	Other Operating Conditions	05.3	The Traffic Noise Management Plan (NMP) must include, but need not be limited to, particular focus on truck movements on the private access roads (servicing both Lot 218 and Lot 220) to ensure that the licence noise limit is not exceeded: a) Truck speed limits; b) Maintenance of the road in good conditions free of potholes, corrugations and other features causing generation of excessive noise; c) Use of quietest available trucks that meet operational requirements; d) Driver training; e) Conditions in driver's contracts of employment requiring them to minimise noise generation; abide by the speed limits and other reasonable instructions to minimise noise, together with a system of sanctions for non-compliance.	O	Plan includes these requirements and is implemented.		Complies	TMP

30	Other Operating Conditions	OE.4	Any dedicated refuelling area must be hardstand and suitably bunded in accordance with EPA bunding guidance. Note: Development Consent 08_0142 prohibits on-site maintenance of equipment or storage of fuels and chemicals on the premises. This development consent notes refuelling of equipment will be undertaken by a registered contractor to remove the need for on-site storage of fuels.	○	Refuelling by contractor, no bulk storage on the premises.		Complies	Site Inspection
31	Monitoring Records	MY.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.	○	Monitoring data recorded and retained as required. Data not reported in accordance with POEO Act requirements.	The data on the website does not meet the EPA requirements for publication of monitoring data. The data does is not published within 14 days of receiving data.	Non Compliant	Annual Review 2015, 2016, EPL annual returns, Monitoring data 2017
32	Monitoring Records	MY.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.	○	Monitoring data recorded and retained as required		Complies	Annual Review 2015, 2016, EPL annual returns, Monitoring data 2017
33	Monitoring Records	MY.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.	○	Monitoring data recorded and retained as required		Complies	Annual Review 2015, 2016, EPL annual returns, Monitoring data 2017
34	Requirement to Monitor Concentration of Pollutants Discharged	M2.2	For each monitoring/discharge point or utilisation area specified in the tables in section M2.2 and M2.3 (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.	○	Ground water sampled and analysed in accordance with this condition. AQ not sampled in accordance with AS 3580.10.1 exposure periods for 2015, 2016, 2017 are not compliant with the requirements of this condition. Non-compliances reported for 2015 (2 occurrences) and 2016 (2 occurrences) in Annual Review, 2017 non-compliances (9 occurrences) not reported to date.	Training for staff noted to be undertaken in 2016 has not resolved the issue. Further training or use of a qualified sampler is recommended.	Non Compliant	Annual Reviews 2015, 2016, 2017 Air Quality Data

35	Testing Methods - Concentration Limits	M3.1	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: 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".	O	Monitoring generally undertaken as required by this condition, see M2.2.		Complies	Annual Review 2015, 2016, EPL annual returns, Monitoring data 2017
36	Testing Methods - Concentration Limits	M3.2	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.	O	Monitoring generally undertaken as required by this condition, see M2.2.		Complies	Annual Review 2015, 2016, EPL annual returns, Monitoring data 2017
37	Recording of pollution complaints	M4.1	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.	O	Complaints are recorded and retained as required. No complaints received during audit period.		Complies	Community Meetings, complaints register
38	Recording of pollution complaints	M4.2	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.	O	Complaints are recorded and retained as required		Complies	Community Meetings, complaints register
39	Recording of pollution complaints	M4.3	The record of a complaint must be kept for at least 4 years after the complaint was made.	O	Complaints are recorded and retained as required		Complies	Community Meetings, complaints register
40	Recording of pollution complaints	M4.4	The record must be produced to any authorised officer of the EPA who asks to see them.	O	Complaints are recorded and retained as required		Complies	Community Meetings, complaints register
41	Telephone complaints line	M5.1	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.	O	Contact details publicised and current.		Complies	Community Meetings, complaints register
42	Telephone complaints line	M5.2	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.	O	Contact details publicised and current.		Complies	Website
43	Telephone complaints line	M5.3	The preceding two conditions do not apply until 3 months after the date of the issue of this licence.	O	This condition now applies and contact details are publicised and current.		Complies	Website

44	Noise Monitoring	<i>ME.1</i>	<p>Noise Monitoring</p> <p>To assess compliance with the noise limits of this licence, attended noise monitoring must be undertaken in accordance with limit requirements of this licence:</p> <p>a) at the locations listed in the noise limit conditions of this licence;</p> <p>b) occur annually in a reporting period;</p> <p>c) occur during the time of year when noise propagation from the premises is likely to be at its worst, that is, generally winter conditions; and</p> <p>d) occur during each day, evening and night period as defined in the NSW Industrial Noise Policy.</p> <p>Note: It is the intention of the EPA to review the noise monitoring results required under this condition after a period of three (3) years to assess the suitability of the required noise monitoring.</p>	○	Monitoring undertaken as required by this condition. The EPA review of monitoring has not been undertaken.		Complies	Annual Reports, Annual return, Noise monitoring data
45	Air Quality	<i>ME.2</i>	<p>Additional Ambient Air Quality Monitoring</p> <p>The licensee must implement ambient air quality monitoring via High Volume Air Sampler (HVAS) or Tapered Element Oscillating Microbalance (TEOM) unit, to monitor particulate matter emissions from site operations at the nearest or most affected residential receiver/s for Lot 220.DP.1049608.</p>	○	This requirement has not been triggered under the Planning Consent conditions as the owner has not requested this monitoring.		Complies	Community Meetings
46	Air Quality	<i>ME.2</i>	<p>An ambient air quality monitor must be installed at a suitable location within the vicinity of Residence "R27" within 6 months of the owner of R27 requesting in writing that the unit be installed. EPA must grant approval to the proposed location of the monitor. Residence R27 is shown on Figure 4.4 of the Environmental Assessment "Sand Extraction Operations from Lots 218 and 220, Salt Ash" dated April 2009. A copy of this figure is filed as EPA document DOC16/140051.</p> <p>Note: Resident R27 does not currently want a HVAS sampler to be placed on his property. This resident may change his mind or the property may change ownership in the future.</p>	○	This requirement has not been triggered under the Planning Consent conditions as the owner has not requested this monitoring.		Complies	Community Meetings
47	Air Quality	<i>ME.2</i>	The licensee must advise the EPA within seven days of commissioning of any ambient air quality monitor.	○	This requirement has not been triggered under the Planning Consent conditions as the owner has not requested this monitoring.		Complies	Community Meetings
48	Other monitoring and recording conditions	<i>ME.3</i>	<p>Monitoring for Extraction Depth Limits</p> <p>The Licensee must ensure adequate provisions are made to ensure quarry operators are aware of excavation RL heights to allow continued compliance with extraction depth limits. Such provisions may include GPS capabilities on quarry machinery, increased network of survey pegs and frequent surveys of the operation.</p>	○	<p>Quarry operations noted to be undertaken over the audit period outside of these conditions as reported in 2015 and 2016 annual reviews and 2015 DPE compliance audit. Extraction depths have been shown in DPE audit and IEA 2015 to be lower than approved levels. 2017 survey data shows non-compliance with these requirements until at least March 2017. Survey mapping from July 2017 onwards shows compliance with extraction levels.</p> <p>Extraction limits physically marked in the field. Some issues with the current markers being dislodged or moved by sand dune migration and more robust steel post markers were being installed during the audit. GPS equipment installed in mid 2017 on equipment and survey of the quarry floor undertaken at least quarterly.</p>	Continue current survey and monitoring program	Complies	Survey data October, December 2016 and March, July, August, October and December 2017. Annual reviews 2015, 2016

49	Annual return documents	R1.1	<p>The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:</p> <ol style="list-style-type: none"> 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. <p>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.</p>	○	Annual returns completed as required		Complies	Annual Returns, POEO Website
50	Annual return documents	R1.2	An Annual Return must be prepared in respect of each reporting period, except as provided in the following conditions (R1.3 & R1.4)	○	Annual returns completed as required		Complies	Annual Returns, POEO Website
51	Annual return documents	R1.3	<p>Where this licence is transferred from the licensee to a new licensee:</p> <ol style="list-style-type: none"> a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period. 	○	No transfer of EPL has occurred during the audit period.		Complies	Annual Returns, POEO Website
52	Annual return documents	R1.4	<p>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:</p> <ol style="list-style-type: none"> 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. 	○	The license has not been surrendered		Complies	POEO Website
53	Annual return documents	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').	○	Annual returns completed as required		Complies	Annual Returns, POEO Website
54	Annual return documents	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.	○	Data retained for the required period		Complies	Quarry records

55	Annual return documents	R1.7	<p>Within the Annual Return, the Statements of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:</p> <p>a) the licence holder; or</p> <p>b) by a person approved in writing by the EPA to sign on behalf of the licence holder.</p> <p>Note:</p> <p>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.</p> <p>Note:</p> <p>An application to transfer a licence must be made in the approved form for this purpose.</p>	○	Annual returns completed as required		Complies	Annual Returns, POEO Website
56	Annual return documents	R1.8	<p>Annual Groundwater Monitoring Report</p> <p>A report must be compiled annually showing the results of all groundwater monitoring conducted on the premises.</p>	○	Groundwater reported in Annual Review. A separate report is also prepared.		Complies	Annual Reviews
57	Annual return documents	R1.8	<p>This report must graphically present the results of all groundwater results since monitoring began and note on the graph when any groundwater extraction and/or recharge began. There must be a separate graph prepared for each parameters monitored and results must be compared to relevant criteria, such as that developed by ANZECC.</p>	○	The data reported in the annual review satisfies these requirements		Complies	Annual Reviews
58	Annual return documents	R1.8	<p>The report must also provide a commentary on the results that have been obtained, highlighting any changes observed over time, and make recommendations where adverse effects are observed.</p>	○	Commentary provided in report		Complies	Annual Reviews
59	Annual return documents	R1.8	<p>The report must be submitted to the EPA annually with the Environment Protection Licence Annual Return.</p>	○	Annual Review submitted to EPA		Complies	Annual Reviews
60	Notification of environmental harm	R2.1	<p>Notifications must be made by telephoning the Environment Line service on 131 555.</p>	○	No notifications made or required during the audit period.		Complies	
61	Notification of environmental harm	R2.2	<p>The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.</p> <p>Note:</p> <p>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.</p>	○	No notifications made or required during the audit period.		Complies	
62	Notification of environmental harm	R3.2	<p>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.</p>	○	No notifications made or required during the audit period.		Complies	
63	Notification of environmental harm	R3.4	<p>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.</p>	○	No requests of this nature		Complies	

64	Other reporting conditions	RA.1	A noise compliance assessment report must be submitted to the EPA within 30 days of the completion of the yearly 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 detailed in this licence; and b) an outline of any management actions taken within the monitoring period to address any exceedances of the limits contained in this licence.	0	Noise data and analysis of compliance contained in the Annual Review.		Complies	Annual Reviews, 2017 noise monitoring reports
65	Other reporting conditions	RA.2	The Licensee must submit to the EPA an independent Survey Report every 3 years to demonstrate compliance with extraction depth limits as stipulated in the limit conditions of this licence.	0	Survey reports undertaken quarterly or bi monthly and supplied to EPA as part of Annual Return.		Complies	Survey Data 2016, 2017
66	Other reporting conditions	RA.2	The report must stipulate the RLs of quarrying operations on both Lot 218 and Lot 220 and compare these to the RLs for the maximum predicted groundwater level. The first report is due commencing 2016, followed by 2019 etc.	0	Survey reports undertaken quarterly or bi monthly and supplied to EPA as part of Annual Return.		Complies	Survey Data 2016, 2017
67	Other reporting conditions	RA.2	The report must be submitted with the Annual Return for the relevant year.	0	Survey reports undertaken quarterly or bi monthly and supplied to EPA as part of Annual Return.		Complies	Annual Returns, POEO Website
68	General Conditions	GI.1	A copy of this licence must be kept at the premises to which the licence applies.	0	EPL available at the premises		Complies	Site Inspection
69	General Conditions	GI.2	The licence must be produced to any authorised officer of the EPA who asks to see it.	0	EPL available at the premises. No EPA inspections undertaken.		Complies	Site Inspection
70	General Conditions	GI.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.	0	EPL available at the premises		Complies	Site Inspection
71	Pollution studies and reduction programs	UI.1	The licensee must develop a program to monitor groundwater levels and quality and a soil core testing program to monitor changes in metallic species above the maximum predicted groundwater level at Lot 218.	0	Groundwater program undertaken, soil core testing program not completed to date.	Complete sampling required under this program and provide report to EPA	Complies	GWMP
72	Pollution studies and reduction programs	UI.1	The groundwater monitoring program must include details of monitoring bores (and justification for their inclusion); parameters to be monitored (and justification) and frequency of monitoring (and justification).	0	Groundwater program approved and implemented		Complies	GWMP
73	Pollution studies and reduction programs	UI.1	The soil testing program must include core samples to a depth at least 2 metres below the proposed extraction depth of 0.7 metres above the maximum predicted groundwater level.	0	Soil core testing program provided to EPA, sampling not completed at the time of the audit (January 2018)	Complete sampling required under this program and provide report to EPA	Complies	
74	Pollution studies and reduction programs	UI.1	The soil sampling must include cores from at least two locations within the area proposed to be extracted in the period 2015 to 2017.	0	Soil core testing program provided to EPA, sampling not completed at the time of the audit (January 2018)	Complete sampling required under this program and provide report to EPA	Complies	
75	Pollution studies and reduction programs	UI.1	The testing of the cores must include testing for acid forming minerals at regular depth and time intervals.	0	Soil core testing program provided to EPA, sampling not completed at the time of the audit (January 2018)	Complete sampling required under this program and provide report to EPA	Complies	
76	Pollution studies and reduction programs	UI.1	The program must be written into a report which must be supplied to the EPA (addressed the Manager Hunter - hunter.region@epa.nsw.gov.au) by 30 September 2016.	0	Soil core testing program provided to EPA, sampling not completed at the time of the audit (January 2018)	Complete sampling required under this program and provide report to EPA	Complies	

Appendix A – Photolog



Nest Box installation in Offset area Lot 218



Biodiversity offset area fencing



Rehabilitation area Lot 220



Rehabilitation area Lot 220



Processing Lot 220



Lot 220 Woody Debris retained for rehabilitation area



Lot 220 replacement of tank traps following extraction



Lot 218 Weighbridge area



Lot 218 VMS board in use to notify drivers of speed restrictions on haul road



Extraction operations Lot 218



MACKA'S
SAND & SOIL
SUPPLIES

Grafil Pty Ltd - ABN 83 002 240 922 trading as Macka's Sand & Soil Supplies

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Our Ref: 1646_DP&E_Hagerthy_20180417

17 April 2018

Ann Hagerthy
Department of Planning and Environment
PO Box 3145
SINGLETON NSW 2330

Via email: compliance@planning.nsw.gov.au

Dear Ann

Re: Mackas Sand 2015- 2017 Independent Environmental Audit (08_0142)

In accordance with Schedule 5, Condition 6, of the Mackas Sand Project Approval (08_0142) (the Approval), please find enclosed the Independent Environmental Audit for the 2015-2017 period, on behalf of Mackas Sand Pty Limited (Mackas Sand). The audit was undertaken by David Bone of Onsite Environmental Management (OSEM), in accordance with Schedule 5, Condition 5, of the Approval, with the final audit report being provided to Mackas Sand on 15 April 2018.

Also find below Mackas Sand's proposed action plan / response to the audit findings.

The audit identified that overall Mackas Sand was compliant with 93% of the elements audited. A total 14 non-compliances were identified. The breakdown of non-compliance is as follows:

- Project Approval - 6
- Environment Protection and Biodiversity Conservation Approval – 1
- Statement of Commitments – 4 and
- Environment Protection Licence – 3.

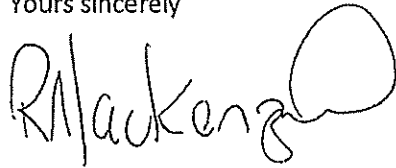
These findings are reproduced in **Table 1** below, together with Mackas Sand response for your reference.

We note that Mackas Sand does not agree with two audit findings, being N-07 and N-09 as identified in **Table 1**. We have sought to contact the Independent Environmental Auditor by phone and email

to discuss these matters following receipt of the report on 15 April 2018 with the objective of providing any required further information to seek to demonstrate our compliance with these conditions. However, to date we have not had any contact from him. The action plan therefore includes additional Mackas Sand commentary in relation to these matters.

Please do not hesitate to contact Rod Williams (02) 49 505 322 or myself if you have any questions.

Yours sincerely

A handwritten signature in black ink, appearing to read 'R/McKenzie', followed by a large, loopy circular flourish.

Robert McKenzie
Director Mackas Sand Pty Ltd

Enc: *Mackas Sand Pty Ltd – MP 08_0142 Independent Environmental Audit 2015, 2016, 2017
(Onsite Environmental Management April 2018)*

Table 1 –Independent Environmental Audit Non-Compliances Findings and Plan of Action

Issue No.	Project Approval Condition	Requirement	Audit Finding	Mackas Sand Audit Response
Identified Non-Compliances with the Project Approval				
N-01	Schedule 2 Condition 7	Limits on Approval The Proponent shall not undertake any sand extraction: (a) within 0.7 m of the maximum predicted groundwater level on Lot 220; and (b) within 1.0 m of the maximum predicted groundwater level on Lot 218, unless the core sample testing program demonstrates that extraction to within 0.7 m of the maximum predicted groundwater level can be undertaken without disturbing acid sulphate soils.	Non-Compliance with extraction depth.	Noted. Mackas Sand has entered into a voluntary undertaking with the Department of Planning and Environment to implement additional management measures and controls regarding this matter. It is considered that the voluntary undertaking appropriately addresses this issue.

Issue No.	Project Approval Condition	Requirement	Audit Finding	Mackas Sand Audit Response
N-02	Schedule 3 Condition 2(d)	<p>Maximum Extraction Depth Map</p> <p>The Proponent shall:</p> <ul style="list-style-type: none"> (a) establish the average year and highest predicted groundwater levels for the site based on all available (and at least 12 months) site specific and HWC groundwater monitoring data; (b) engage a suitably qualified and experienced expert to establish the maximum extraction depths to which extraction can be undertaken on site, to comply with condition 7 of schedule 2; (c) submit a Maximum Extraction Depth Map (contour map or similar) for the project to the Secretary within 6 months of the date of this approval; and (d) comply with the extraction depths specified in the map, to the satisfaction of the Secretary. 	Non-Compliance with extraction depth.	<p>Noted.</p> <p>Mackas Sand has entered into a voluntary undertaking with the Department of Planning and Environment to implement additional management measures and controls regarding this matter.</p> <p>It is considered that these measures appropriately addresses this issue.</p>

Issue No.	Project Approval Condition	Requirement	Audit Finding	Mackas Sand Audit Response
N-03	Schedule 3 Condition 4B	<p>Operating Conditions</p> <p>The Proponent shall ensure, for the use of the Alternate access road, that:</p> <p>(a) a speed limit of 40 km/hour is applied and enforced for all vehicles;</p> <p>(b) trucks slowing to use the intersection of the access road and Nelson Bay Road do not use engine or compression braking systems;</p> <p>(c) laden truck movements exiting the site do not exceed 14 per hour during the period from 5 am to 6 am, Monday to Friday (except for Public Holidays);</p> <p>(d) laden truck movements exiting the site do not exceed 8 per hour during the period from 6 am to 9 am, Monday to Friday (except for Public Holidays);</p> <p>(e) laden truck movements exiting the site do not exceed 24 per hour during the period from 9 am to 10 pm, Monday to Friday (except for Public Holidays);</p> <p>(f) laden truck movements exiting the site do not exceed 5 per hour between 5 am and 6 am on Saturdays (except for Public Holidays);</p> <p>(g) laden truck movements exiting the site do not exceed 9 per hour between 6 am and 7 am on Saturdays (except for Public Holidays);</p> <p>(h) laden truck movements exiting the site do not exceed 24 per hour between 7 am and 4 pm on Saturdays (except for Public Holidays); and</p>	Non-Compliance with hourly truck movements.	<p>Noted.</p> <p>Mackas Sand has implemented additional management measures and controls regarding this matter, as disused with the Department of Planning and Environment.</p> <p>It is considered that the measures implemented have appropriately addressed this issue.</p>

Issue No.	Project Approval Condition	Requirement	Audit Finding	Mackas Sand Audit Response
		(i) combined laden truck movements exiting from Lots 218 and 220 do not exceed 10 per hour in total on Sundays and Public Holidays.		
N-04	Schedule 3 Condition 13	<p>Air Quality Monitoring</p> <p>The Proponent shall prepare an Air Quality Monitoring Program for the project to the satisfaction of the Secretary. This program must:</p> <p>(a) be prepared in consultation with EPA, and be submitted to the Secretary for approval within 3 months of the date of this approval; and</p> <p>(b) include details of how the air quality performance of the project will be monitored, and include a protocol for evaluating compliance with the relevant air quality criteria in this approval.</p> <p>Note: Initially, this program should concentrate on monitoring the dust deposition impacts of the project. However, in time, it may be expanded to include other pollutants.</p> <p>The Proponent shall implement the approved monitoring program as approved from time to time by the Secretary.</p>	Non-Compliance with exposure period of dust gauge samples. No exceedance of the annual average criteria was identified.	Mackas Sand will review dust gauge sampling protocols during April 2018 and reinforce timing requirements to those undertaking sampling.

Issue No.	Project Approval Condition	Requirement	Audit Finding	Mackas Sand Audit Response
N-05	Schedule 3 Condition 28B	<p>Long Term Biosecurity Offset</p> <p>Prior to the end of December 2014, or as otherwise agreed by the Secretary, the Proponent shall make suitable arrangements to provide appropriate long-term security for the Biodiversity Offset Area, to the satisfaction of the Secretary.</p> <p>Note: Mechanisms to provide appropriate long term security to the land within the Biodiversity Offset Strategy include a Biobanking Agreement under Part 7A Division 2 of the Threatened Species Conservation Act 1995, a Voluntary Conservation Agreement under section 69B of the National Parks and Wildlife Act 1974, or any alternative mechanism that results in similar conservation outcomes. Any mechanism used to secure the land must remain in force in perpetuity.</p>	Non-Compliance with timing.	<p>Mackas Sand has engaged a consultant to complete the agreement and expects a draft conservation agreement on 14 May 2018. The conservation agreement will be provided to the landowner(s) / mortgagee(s), as relevant to the review and signature prior to submission of the draft conservation agreement for OEH's review and acceptance, expected in mid 2018. It is anticipated that the draft conservation agreement is likely to be finalised in 2018 subject to OEH processing times.</p> <p>Mackas Sand will seek an extension of time from DP&E for the establishment of the conservation agreement until the end of December 2018.</p>
N-06	Schedule 5 Condition 2	<p>Incident Reporting</p> <p>Within 24 hours of detecting an exceedance of the limits/performance criteria in this approval or the occurrence of an incident that causes (or may cause) material harm to the environment, the Proponent shall notify the Department and other relevant agencies of the exceedance/incident.</p>	Non-Compliance with timing associated with the 2016 truck departure time.	Mackas Sand will review incident reporting protocols during April 2018 and reinforce timing requirements to relevant staff.

Issue No.	Project Approval Condition	Requirement	Audit Finding	Mackas Sand Audit Response
Identified Non-Compliances with the EPBC Approval				
N-07	Condition 6	By 1 September of each year after the commencement of the action, the approval holder must publish a report on their website addressing compliance with the conditions of this approval over the previous 12 months, including implementation of any management plans as specified in the conditions. Non-compliance with any of the conditions of this approval must be reported to the Department at the same time as the compliance report is published.	Non-Compliance with timing.	<p>The EPBC approval was granted 29 November 2013. The first compliance report assessed the period 29 Nov to 31 Dec 2013 and was completed during March 2014. Subsequent compliance reports for the 2014, 2015, 2016 and 2017 calendar years have been prepared during March / April of the following compliance review year. This review period aligns with the Annual Review reporting period required by the Approval.</p> <p>As the EPBC condition does not specify the compliance review period and as Mackas Sand has completed the required compliance reviews "by 1 September of each year after the commencement of the action", (i.e. typically March) Mackas Sand believes it is compliant with this condition.</p> <p>Mackas Sand proposes to clarify reporting timing requirements with DoEE to address this question going forward.</p>

Issue No.	Project Approval Condition	Requirement	Audit Finding	Mackas Sand Audit Response
Identified Non-Compliances with the Statement of Commitments				
N-08	1.1.5	Operational Controls The interim landform during extraction on Lot 218 and Lot 220 will be no lower than 0.7 metres above the maximum predicted groundwater level as shown on Figure 2.1 of EA (MOD 1). The final landform will be at least 1 metre above the maximum predicted groundwater level as shown on Figure 4.9 of the EA. The height of the final landform will be verified by topographic survey.	Non-Compliance with extraction depth.	Noted. Mackas Sand has entered into a voluntary undertaking with the Department of Planning and Environment to implement additional management measures and controls regarding this matter. It is considered that the voluntary undertaking appropriately addresses this issue.
N-09	1.2.5	Ecology A Weed Management Plan will be developed and implemented prior to any clearing activities being undertaken for the proposal.	Non Compliance with modified weed management requirements of the Biosecurity Act	Mackas Sand notes the Auditor's comment; however suggest the finding is outside the scope of the condition. The elements of the commitment being "...developed and implemented prior to any clearing activities being undertaken..." have been satisfied. As such, Mackas Sand suggests this is an opportunity for improvement and not a Non-Compliance. Mackas Sand will review the Weed Management Plan, as required before 17 July 2018 and will make amendments were necessary related to the Biosecurity Act.

Issue No.	Project Approval Condition	Requirement	Audit Finding	Mackas Sand Audit Response
N-10	1.6.3	<p>Noise</p> <p>Traffic Noise Management Plan will be developed and implemented for truck movements on the private haul road from Lot 220. The Plan will focus on but not be limited to truck movements between the hours of 5.00 am and 7.00 pm.</p>	<p>Non Compliance with traffic movements.</p>	<p>Noted.</p> <p>Mackas Sand has implemented additional management measures and controls regarding this matter, as disused with the Department of Planning and Environment.</p> <p>It is considered that the measures implemented have appropriately addressed this issue.</p>
N-11	1.13.1	<p>Environmental Management, Monitoring and Auditing</p> <p>Within 7 days of detecting an exceedance of the limits/performance criteria in this approval or an incident causing (or threatening to cause) material harm to the environment, Mackas Sand shall report the exceedance/incident to EPA and any relevant agency. The report will:</p> <ul style="list-style-type: none"> • describe the date, time and nature of the exceedance/incident; • identify the cause (or likely cause) of the exceedance/incident; • describe what action has been taken to date; and • describe the proposed measures to address the exceedance/incident. 	<p>Non-compliance with reporting timeframe</p>	<p>Mackas Sand will review reporting protocols during April 2018 and reinforce timing requirements with relevant personnel.</p>

Issue No.	Project Approval Condition	Requirement	Audit Finding	Mackas Sand Audit Response
Identified Non-Compliances with the EPL				
N-12	L5.1	<p>Extraction Limit Depths</p> <p>The Licensee must not undertake any sand extraction:</p> <ul style="list-style-type: none"> • within 0.7 metres of the maximum predicted groundwater level on Lot 220; and • within 1.0 metres of the maximum predicted groundwater levels on Lot 218. <p>Note:</p> <p>The maximum predicted groundwater level is shown in Figure 2.1 of the Environmental Assessment (MOD 1). This figure has been filed as EPA document DOC 16/140063.</p> <p>Note:</p> <p>The Licensee may extract to within 0.7 metres of the maximum predicted groundwater level within Lot 218 with the prior approval of the EPA. Any application to the EPA to extract to within 0.7m of the maximum predicted groundwater level must include results from at least one sediment core undertaken within the extraction area down to a depth of one metre below the proposed extraction depth. The sediment core must be analysed at regular intervals for pyrite or other acid forming materials and results provided with the submission.</p>	<p>Non-Compliance with extraction depth.</p>	<p>Noted.</p> <p>Mackas Sand has entered into a voluntary undertaking with the Department of Planning and Environment to implement additional management measures and controls regarding this matter.</p> <p>It is considered that the voluntary undertaking appropriately addresses this issue.</p>

Issue No.	Project Approval Condition	Requirement	Audit Finding	Mackas Sand Audit Response
N-13	M1.1	Monitoring Records 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.	Non-Compliance with reporting format	Mackas Sand will review and update, as required the structure of its EPL reports that are published on its website as required before 17 July 2018. Mackas Sand will review reporting timeframe protocols associated with publishing of such reports during April 2018 and reinforce timing requirements with relevant personnel.
N-14	M2.2	Requirement to Monitor Concentration of Pollutants Discharged For each monitoring/discharge point or utilisation area specified in the tables in section M2.2 and M2.3 (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	Non-Compliance with exposure period of dust gauge samples. No exceedance of the annual average criteria was identified.	Mackas Sand will review dust gauge sampling protocols during April 2018 and reinforce timing requirements to those undertaking sampling.