

Mackas Sands Pty Ltd

Independent Environmental Audit:

Sand Extraction Lot 218 and Lot 220, Salt Ash, NSW

Audit Number: AQ1228-01

September 2012

Prepared by



Contents

1. EXECUTIVE SUMMARY	4
2. INTRODUCTION	6
3. SUMMARY OF REVIEW PROCESS.....	6
3.1. AUDIT BACKGROUND.....	6
3.2. PURPOSE.....	6
3.3. SCOPE	7
3.4. REVIEW PROCESS.....	7
3.5. ISSUES TO BE CONSIDERED IN REVIEWING THIS REPORT	7
4. SUMMARY OF FINDINGS	7
4.1. AREAS OF NON-COMPLIANCE	9
4.2. AREAS OF PARTIAL-COMPLIANCE.....	10
4.4. AREAS OF COMPLIANCE	12
5. CONCLUSIONS	13
1 Audit Checklist	14

Independent Environmental Audit Report

PROJECT:	Sand Extraction, Lot 218 and Lot 220, Salt Ash, NSW		
AUDIT NUMBER	2012/01		
Audit Date	13 January 2012		
ADDRESS:	Off Oakvale Drive Salt Ash, NSW		
PERSONS CONTACTED:	Robert Mackenzie	Director	
	Peter Jamieson	Director Umwelt (Australia) Pty Ltd	
AUDIT TEAM MEMBERS			
	James Hart,	AQUAS, Lead Auditor	
SCOPE OF AUDIT:	Compliance with Department of Planning and Infrastructure conditions of Approval, Application No 08_0142		

1. EXECUTIVE SUMMARY

This report has been prepared following an audit of the Mackas Sands Pty Ltd management plans and operations at Lot 218 and Lot 220, Salt Ash to assess compliance with the Department of Planning and Infrastructure's (DP&I) conditions of approval (08_0142) for the project. The audit was conducted on 13 January 2012 by James Hart (AQUAS), in consultation with Robert Mackenzie (Mackas Sands) and Peter Jamieson (Umwelt).

The prime objective of the audit was to assess the degree of compliance with the DP&I conditions of consent.

At the time of the audit, no works had commenced for Lot 218. Quarrying operations on lot 220 included screening of sands, front end loader operations and truck movements.

The findings of this audit report confirm that processes to manage the environmental impact of the sand extraction activities at lot 220 have generally been implemented in accordance with the DP&I conditions of approval and site management plans. No sand extraction has occurred at Lot 218. While two non-compliances were identified, it is noted that the non-compliances identified are minor in nature and do not compromise the general integrity of the operations with respect to compliance with approval conditions.

Mackas Sands has developed documentation to address the requirements of the approval conditions, and provided evidence to verify general compliance with the approval conditions and environmental management plans.

Two non-compliances were raised during the audit:

1. Process does not ensure that management plans, reports and monitoring data are made available within required timeframes.
2. An independent audit of the project was not undertaken within two years of commencement of quarrying operations.

Seven areas of partial compliance were identified.

1. While the Soil and Water Management Plan Section 5.3 requires inspections of sediment fences on a weekly basis, no documented records of weekly inspections were available. It was reported that inspections are conducted on a monthly basis.
2. While the Soil and Water Management Plan – Section 6.0 includes groundwater monitoring program, the following was noted:
 - Groundwater impact assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts, not adequately defined.
 - Protocol for further groundwater modelling to confirm the limits to excavation depth not included;
 - Protocol for the investigation, notification and mitigation of identified exceedences of the ground water impact assessment criteria not included.

3. Access through unauthorised tracks has not been restricted. It was reported that attempts to prevent access had been implemented, however these had been unsuccessful due to removal concrete blocks installed to prevent access by local land owner. Additional methods to block recreational vehicles to Lot 220 have not been employed.
4. Aboriginal Cultural Heritage Management Plan requires samples to be collected daily and bagged with date. Samples were collected on a daily basis and a composite samples were bagged on a monthly basis and provided to the Aboriginal Cultural Heritage Management Group.
5. While the Biodiversity Monitoring Program had been prepared and included in the Mackas Sand Ecological Monitoring Program for Lot 220 DP 1049608, it did not appear to have been completed prior to vegetation clearance being conducted.
6. While it was reported that inspections of high visibility fencing and structures built to control public access are undertaken, no documented records of inspections were available.
7. While a telephone number has been publicised through on site signage and on company website, the telephone number has not been listed with a telephone company.

We note and acknowledge the cooperation and assistance of Mackas Sands and Umwelt personnel during the process of this audit.

Report prepared and authorised by



James Hart

(Lead Auditor)

2. INTRODUCTION

Mackas Sands Pty Ltd has been granted approval (08_0142) under Part 3A of the Environmental planning and Assessment Act 1979 to extract up to 2 million tonnes of sand per year from lot 218 in DP 1044608 (Lot 218) and Lot 220 in DP 1049608 (Lot 220), Salt Ash, NSW. Both lots are land owned by the Worimi Local Aboriginal Council and contain approximately 21 million tonnes of sand resources. Approval was provided on 20 September 2009, and sand extraction commenced on Lot 220. No sand extraction has occurred at lot 218.

The objective of this audit was to assess the degree of compliance with the DP&I's conditions of the approval for management of the environmental impacts of the sand extraction operations.

3. SUMMARY OF REVIEW PROCESS

3.1. Audit Background

As part of DP&I's approval, Mackas Sands require independent auditing of compliance with the conditions of consent obtained for the Sand extraction works.

Schedule 5, condition 5 of the conditions of consent require and independent audit to be commissioned and the full cost paid within two 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

3.2. Purpose

The purpose of this audit is to fulfil the requirements as stipulated in conditions Schedule 5, condition 5 of the approval and to provide feedback to Mackas Sands on any areas of non-conformance, partial compliance or improvement suggestions.

3.3. Scope

The audit scope covers a general review of management plans prepared for the sand extraction operations, and a site inspection to assess of implementation of environmental controls on site.

An audit checklist was developed and used to assess compliance with the DP&I conditions of consent.

3.4. Review Process

The audit commenced with an Opening Meeting to confirm the scope, purpose and timeline of the audit. This was held at 09:00, 13 January in the Mackas Sands office.

The audit involved a review of Mackas Sands records, site inspection and interviews with project personnel.

The site inspection conducted included inspection of roads and drainage structures, inspection of access control measures implemented and inspection of quarrying operations. At the time of audit activities being undertaken included sand screening and loading operations.

A closing meeting was held on 13 January 2012 where the preliminary audit findings were presented to Mackas Sands and Umwelt.

3.5. Issues to be considered in reviewing this report

This audit was based on a review of compliance with the approval conditions for the construction and operation of sand extraction activities at Lot 218 and Lot 220.

In particular, the audit focused on the implementation of measures described in the Environmental Management Plans to manage the impacts of the activities on the surrounding environment. The checklist appended to this report identifies those compliance issues that could be assessed given the stage of the project.

By its very nature an audit does not guarantee full compliance of all aspects of the project with the conditions of approval and undertakings of the Site Management Plans. In the opinion of the audit team however, the extent and scope of the field inspection together with the records maintained by Mackas Sands there was sufficient evidence to verify general compliance of the activities with the requirements of the conditions of approval.

4. SUMMARY OF FINDINGS

Activities being undertaken at the time of audit were:

- Screening of sand;
- Loading of trucks;
- Operation of Front end loader.

Documentation reviewed included a combination of hard copy records and electronic records maintained by Mackas Sands, with records readily available during the audit.

The attached check lists records the outcome of the audit process. Several issues were identified for the consideration of Mackas Sands to improve their compliance with the Management Plans and conditions of consent. The following summarises key findings for review and action by Mackas Sands as appropriate.

Areas of non-conformance and partial conformance are summarised in Tables 4.1 and 4.2 following.

4.1. Areas of Non-compliance

Issue No.	Condition	Requirement	Issue sighted
N-01	10 13 18 Schedule 5 1	<p>The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Director-General. This plan must:</p> <p>(a) be prepared in consultation with DECCW, and be submitted to the Director-General for approval within 3 months of the date of this approval</p> <p>The Proponent shall prepare and implement an Air Quality Monitoring Program for the project to the satisfaction of the Director-General. This program must:</p> <p>(a) (a) be prepared in consultation with DECCW, and be submitted to the Director-General for approval within 3 months of the date of this approval;</p> <p>The Proponent shall prepare and implement a Soil and Water Management Plan for the project to the satisfaction of the Director-General. This plan must:</p> <p>(a) (a) be prepared in consultation with DECCW, OOW and HWC, and be submitted to the Director-General for approval within 3 months of the date of this approval</p> <p>The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. This strategy must:</p> <p>(a) (a) be submitted to the Director-General for approval within 3 months of the date of this approval</p>	<p>The process for development and provision of documentation does not ensure that plans and reports are provided within required timeframes.</p> <p>Noise management plan was submitted 22/12/09, required to be submitted before 20/12/09.</p> <p>Air Quality Monitoring Program was submitted 23/12/09, required to be submitted before 20/12/09.</p> <p>Soil and Water Quality Management Plan was submitted 23/12/09, required to be submitted before 20/12/09.</p> <p>Environmental Management Strategy was prepared and submitted 23/12/09. Required prior to 20/12/09.</p>
	Schedule 5 4	Within 12 months of the date of this approval, and annually thereafter, the Proponent shall submit an AEMR to the Director-General and relevant agencies	<p>AEMR sighted for 2010-2011. Date submitted – November 2011. Required to be submitted by 20/09/11.</p> <p>AEMR for 2011-2012 under preparation. Reported to be submitted by 20/09/12.</p>
	Schedule 5 9	<p>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 AEMR required under this approval, the Proponent shall:</p> <p>(a) provide a copy of the relevant document/s to the relevant agencies and to members of the general public upon request; and</p> <p>(b) ensure that a copy of the relevant document/s is made publicly available on its website and at the site.</p>	<p>Website accessed 11/01/12.</p> <p>Plans were not available on website at time of audit.</p>
	Schedule 5 10	<p>During the project, the Proponent shall:</p> <p>(a) make a summary of monitoring results required under this approval publicly available on its website and at the site; and</p> <p>(b) update these results on a regular basis (at least every 3 months).</p>	Monitoring results up to August 2011 available on website. Subsequent results not available on website.

N-02	5	<p>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:</p> <p>(a) be conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been approved by the Director-General;</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, NSW Government 16 Department of Planning</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>	<p>Independent Auditor (AQUAS) engaged. Quarrying operations reported to have commenced 23/09/2009. Audit undertaken 13/01/2012.</p> <p>Audit not undertaken within 2 years of commencement of quarrying operations.</p>
------	---	--	--

4.2. Areas of Partial-compliance

Issue No.	Condition	Requirement	Issue sighted
P-01	21	<p>The Surface Water Monitoring Program must include:</p> <p>(a) baseline data on surface water quality, where available;</p> <p>(b) surface water impact assessment criteria;</p> <p>(c) a program to monitor surface water quality (particularly in project sediment basins); and</p> <p>(d) a protocol for the investigation, notification and mitigation of identified exceedences of the surface water impact assessment criteria.</p>	<p>Soil and Water Management Plan Section 5.3 requires weekly inspections of sediment fences on a weekly basis. It was reported that inspections are conducted on a monthly basis.</p>
P-02	22	<p>The Ground Water Monitoring Program must include:</p> <p>(a) detailed baseline data on ground water levels and quality, based on statistical analysis (including available HWC data);</p> <p>(b) groundwater impact assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts;</p> <p>(c) a program to monitor groundwater levels and quality;</p> <p>(d) 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</p> <p>(e) a protocol for the investigation, notification and mitigation of identified exceedences of the ground water impact assessment criteria.</p>	<p>Included in Soil and Water Management Plan – Section 6.0.</p> <p>Groundwater impact assessment criteria not clearly identified.</p> <p>Protocol for further groundwater modelling to confirm the limits to excavation depth not included</p> <p>Protocol for the investigation, notification and mitigation of identified exceedences of the ground water impact assessment criteria not included</p>
P-03	26	<p>The Rehabilitation Management Plan must include:</p> <p>(d) a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for: controlling access</p>	<p>The process identified for control of access does not align with planning approval statement of Commitments 1.10.2. Access through unauthorised tracks has not been restricted. It was reported that attempts to prevent access had been implemented, however these had been unsuccessful due to removal concrete blocks installed to prevent access by local land owner. Additional methods to block recreational vehicles to Lot 220 have not been employed.</p>

Issue No.	Condition	Requirement	Issue sighted
P-04	29	<p>The Proponent shall prepare and implement an Aboriginal Cultural Heritage Management Plan for the project to the satisfaction of the Director-General. This plan must:</p> <p>(a) be prepared in consultation with DECCW and the Aboriginal community, and be submitted to the Director-General 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 o 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>Aboriginal Cultural Heritage Management Plan for Sand Extraction Operations from Lot 218 DP 1044608 and Lot 220 DP 1049608, Salt Ash, October 2009 available. Approved 9/12/09.</p> <p>Aboriginal Cultural Heritage Management Plan requires samples to be collected daily and bagged with date. Samples were reported to be collected daily and a composite sample prepared on a monthly basis and provided to the Aboriginal Cultural Heritage Management Group.</p>
P-05	Statement of Commitments 1.2.2	A comprehensive Biodiversity Monitoring Program will be developed prior to any vegetation clearing being undertaken for the proposal.	<p>Biodiversity Monitoring Program was included in the Mackas Sand Ecological Monitoring Program for Lot 220 DP 1049608.</p> <p>Does not appear to have been completed prior to vegetation clearance being conducted</p>
P-06	Statement of Commitments 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.	<p>Work has not commenced in Lot 218.</p> <p>While it was reported that daily and weekly inspections of sediment controls have been undertaken, no records of inspections of controls were available for Lot 220.</p>
P-07	Statement of Commitments 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 DECCW with a copy of the enquiries register on an annual basis.	<p>Telephone number has been publicised through on site signage and on company website.</p> <p>Telephone number has not been listed with a telephone company.</p>

4.3. Opportunities for Improvement

OFI-01	Statement of Commitments 1.1.5	The final landform for Lot 220 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.	Maximum predicted groundwater level has been determined and sand extraction levels determined. It was reported that the dozer driver regularly checks levels using survey equipment provided. However, no records of survey checks have been maintained
--------	-----------------------------------	--	--

4.4. Areas of compliance

All other relevant conditions audited were found to be either compliant or not applicable.

5. CONCLUSIONS

On the basis of the findings of this audit, it is considered that Mackas Sands have generally complied with the requirements of the approval conditions and requirements of the environmental management plans for activities carried out to date. It is noted that the non-compliances identified are minor in nature and do not compromise the general integrity of the operations with respect to compliance with approval conditions. Mackas Sands should review the identified issues and determine the action required, and timeframe for completion, as part of their Management review process.

ATTACHMENTS:

- ✓ **Audit Checklists**

CIRCULATION:

- ✓ **Umwelt (Australia)(Pty Ltd**
- ✓ **Mackas Sands Pty Ltd**
- ✓ **AQUAS Pty Ltd**

Report issued by E-mail on 4 September 2012

1 Audit Checklist

CONDITIONS OF APPROVAL -

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
1.	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	The proponent has prepared management plans which identify environmental requirements throughout the stages of the project. Control measures have been identified for environmental impacts and have been generally implemented.	Y	
2.	2	The Proponent shall carry out the project generally in accordance with the: (a) EA; (b) statement of commitments; and (c) conditions of this approval	Audits findings show that works have been carried out in general accordance with the EA, statement of commitments and conditions of approval.	Y	
3.	3	If there is any inconsistency between the above, the conditions of this approval shall prevail to the extent of the inconsistency	Not applicable	N/A	
4.	4	The Proponent shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of: (a) any reports, plans, programs or correspondence that are submitted in accordance with this approval; and (b) the implementation of any actions or measures contained in these reports, plans, programs or correspondence	Proponent has generally complied with requirement/s of the Director-General.	Y	
5.	5	Quarrying operations may take place on site until 31 December 2029	Current year 2012.	Y	
6.	6	The Proponent shall not transport 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.	340,000 tonnes transported from lot 220 year ending December 2011. No production from lot 218	Y	
7.	7	The Proponent shall not undertake any extraction within: (a) 2 metres of the average year groundwater level; and (b) 1 metre of the highest predicted groundwater level.	Report – Determination of Maximum Predicted Groundwater Level and Maximum Extraction Level at Lot 218 and 220, Salt Ash available. Reported that dozer operator undertakes surveys of area to verify extraction has not occurred at levels lower than allowable. However, no records of survey were maintained to verify compliance.	Y	

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
Management Plans/Monitoring Programs					
8.	8	With the approval of the Director-General, the Proponent may submit any management plan or monitoring program required by this approval on a progressive basis.		N/A	
Management Plans/Monitoring Programs					
9.	9	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. <i>Notes:</i> <input type="checkbox"/> Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works; <input type="checkbox"/> Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.	No buildings have been erected on Lots 218 and 220	N/A	
Demolition					
10.	10	1 The Proponent shall ensure that all demolition work is carried out in accordance with AS 2601-2001: <i>The Demolition of Structures</i> , or its latest version.	No demolition has occurred	N/A	
Protection of Public Infrastructure					
11.	11	The Proponent shall: (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the project; and (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the project. <i>Note: This condition does not apply to any road maintenance works which are covered by the Section 94 contributions described below in condition 13.</i>	No damage to public infrastructure has occurred.	N/A	
Operation of Plant and Equipment					
12.	12	The Proponent shall ensure that all plant and equipment used at the site is: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient condition.	Maintenance records sighted	Y	
Section 94 Contributions					
13.	13	The Proponent shall pay Council contributions for roadworks in accordance with the <i>Port Stephens Section 94 Development Contributions Plan 2007</i> , as may be updated from time to time, to the satisfaction of the Director-General.	Records of Section 94 contribution payments were sighted (28/07/11 and 17/11/11). Payment quarterly as required by PSC.	Y	

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
GENERAL EXTRACTION AND PROCESSING PROVISIONS					
14.	1	<p>Prior to carrying out any development on site, or as otherwise agreed by the Director-General, the Proponent shall:</p> <p>(a) engage an independent registered surveyor to survey the boundaries of the approved limit of extraction;</p> <p>(b) submit a survey plan of these boundaries to the Director-General; and</p> <p>(c) ensure that these boundaries are:</p> <p><input type="checkbox"/> clearly marked at all times in a permanent manner that allows operating staff and inspecting officers to clearly identify those limits, for all boundaries other than the seaward edge of Lot 218; or</p> <p><input type="checkbox"/> identifiable using an accurate Global Positioning System in a manner that allows operating staff and inspecting officers to readily identify those limits, for the seaward edge of Lot 218.</p> <p>Notes:</p> <p><input type="checkbox"/> The limit of extraction is shown on the figures in Appendix 1.</p> <p><input type="checkbox"/> The Department accepts that the seaward edge of the extraction area on Lot 218 may be surveyed via provision of Mapping Grid Australia 94 coordinates.</p> <p><input type="checkbox"/> The Department accepts that the boundary marking may be undertaken on a staged basis, as long as all areas subject to disturbance are appropriately marked.</p>	<p>Survey of Lot 220 undertaken 5/11/09 and submitted to DP&I 26/11/09</p> <p>Survey of lot 218 reported to be submitted 15/11/09.</p>	Y	
Maximum Extraction Depth Map					
15.	2	<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 HWC 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 Director-General 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 Director-General</p>	<p>Report – Determination of Maximum Predicted Groundwater Level and Maximum Extraction Level at Lot 218 and 220, Salt Ash available.</p> <p>Compiled by Umwelt (Australia) Pty Ltd</p>	Y	
16.	3	<p>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 Director-General.</p>	Not applicable at this stage of the project.	N/A	

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
Noise					
17.	4	The Proponent shall ensure that the noise generated by the project does not exceed the noise impact assessment criteria in Table 1.	Two noise monitoring events undertaken in January 2011 and September 2011. Results indicated that Mackas Sands was complying with the noise assessment criteria.	Y	
18.	5	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.	Not applicable	N/A	
Cumulative Noise Criteria					
19.	6	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 Director- General: <input type="checkbox"/> $L_{Aeq}(11 \text{ hour})$ 50 dB(A) – Day; <input type="checkbox"/> $L_{Aeq}(4 \text{ hour})$ 45 dB(A) – Evening; and <input type="checkbox"/> $L_{Aeq}(9 \text{ hour})$ 40 dB(A) – Night. <i>Note: Cumulative noise is to be measured in accordance with the relevant procedures in the NSW Industrial Noise Policy.</i>	Two noise monitoring events undertaken in January 2011 and September 2011 indicated that Mackas Sands was complying with the noise assessment criteria.	Y	
Traffic Noise Impact Assessment Criteria					
20.	7	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.	Two noise monitoring events undertaken in January 2011 and September 2011 indicated that Mackas Sands was complying with the traffic noise impact assessment criteria.	Y	
Additional Noise Mitigation Measures					
21.	8	Upon receiving a written request from: <input type="checkbox"/> the owner of residence R1, if the residence is habitable in the opinion of the Director-General; or <input type="checkbox"/> the owner of any residence where operational noise monitoring shows the noise generated by the project at night is greater than or equal to: o 40 dB(A) $L_{Aeq}(15 \text{ minute})$ for residences R1 to R4; o 39 dB(A) $L_{Aeq}(15 \text{ minute})$ for residences R20 to R23; and o 38 dB(A) $L_{Aeq}(15 \text{ minute})$ 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	No noise exceedences have occurred	N/A	

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
		landowner. These additional mitigation measures must be reasonable and feasible.			
22.		<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 Director-General for resolution.</p> <p>Notes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> To interpret the locations referred to in this condition, see the figure in Appendix 3. <input type="checkbox"/> 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. 	No noise exceedences have occurred	N/A	
Operating Hours					
23.		<p>The Proponent shall comply with the operating hours in Table 4.</p> <p>Table 4: Operating hours</p> <p>However, the Proponent may undertake:</p> <p>(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</p> <p>(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 all owners of privately-owned land with frontage to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Lavis Lane (between the site and Nelson Bay Road), for operations on Lot 218; and/or <input type="checkbox"/> Oakvale Road (between the site and Nelson Bay Road), for operations on 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"> <input type="checkbox"/> To interpret the residence location referred to in this condition, see the figure in Appendix 3. <input type="checkbox"/> For the purposes of this condition, transportation includes all laden and unladen truck movements on site access roads, Lavis Lane and Oakvale Road. <input type="checkbox"/> Transportation is further restricted under condition 32 below. <input type="checkbox"/> Maintenance activities may be conducted outside the hours in Table 4 provided that the activities are not audible at any privately-owned residence. <input type="checkbox"/> 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 or personnel or equipment are endangered. In such circumstances, notification is to be provided to DECCW and the affected residents as soon as possible, or within a reasonable period in the case of emergency. 	<p>Current operating hours for lot 220 – 6am to 5pm.</p> <p>No work at lot 218.</p>	Y	

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
Noise Monitoring					
24.	10	The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Director-General. This plan must: (a) be prepared in consultation with DECCW, and be submitted to the Director-General for approval within 3 months of the date of this approval; (b) include: <input type="checkbox"/> a description of the measures that would be implemented to minimise noise emissions from the project, with particular focus on: o quarrying operations within 250 metres of residences on privately-owned land; o transportation activities; and o continual improvement of noise performance; <input type="checkbox"/> a noise monitoring protocol for evaluating compliance with the relevant noise limits in this approval (including traffic noise); <input type="checkbox"/> a protocol for the investigation, notification and mitigation of identified exceedances of the relevant noise limits; and <input type="checkbox"/> a continual improvement program for investigating, implementing and reporting on reasonable and feasible measures to reduce noise generated by the project.	Project approval – 20/09/2009 Noise Management Plan (22/12/2009) has been prepared and included in the Environmental Management Strategy for Sand Extraction at Lot 218 and 220, Salt Ash, NSW	N	01
Air quality					
25.	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 privately owned land, or on more than 25 percent of any privately owned land.	Dust monitoring undertaken. Water carts used to wet reduce and reduce dust generation.	Y	
Operating Conditions					
26.	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 privately-owned land, to the satisfaction of the Director-General	Dust cart used to suppress dust from haul road.	Y	
Air Quality Monitoring					
27.	13	The Proponent shall prepare and implement an Air Quality Monitoring Program for the project to the satisfaction of the Director-General. This program must: (a) be prepared in consultation with DECCW, and be submitted to the Director-General for approval within 3 months of the date of this approval; and (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	Project approval – 20/09/2009 Air Quality Monitoring Program included as Appendix 3 in the Environmental Management Strategy. Submitted 23/12/09.	N	02

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
		this approval. <i>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.</i>	Air Quality Monitoring Program not submitted within 3 months of the date of approval.		
METEOROLOGICAL MONITORING					
28.	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 <i>Approved Methods for Sampling of Air Pollutants in New South Wales</i> guideline	Meteorological data obtained from the nearby Williamtown Airport station.	Y	
SOIL AND WATER					
Water Supply					
29.	15	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. <i>Note: The Proponent is required to obtain necessary water licences for the project under the Water Management Act 2000.</i>	Section 3.1 of the Soil and Water Management Plan identifies water as being obtained off-site by contract water cart. Water is only required for dust suppression.	Y	
Pollution of waters					
30.	16	Except as may be expressly provided for by an EPL, the Proponent shall comply with section 120 of the <i>Protection of the Environment Operations Act 1997</i> during the carrying out of the project.	No pollution incidents have occurred.	Y	
Wastewater Treatment					
31.	17	The Proponent shall manage on-site sewage to the satisfaction of Council and DECCW. The facility must comply with the requirements of the <i>Environment and Health Protection Guidelines – On-site Sewage Management for Single Households (1998)</i> .	No onsite sewage at present. Facilities are located at the nearby Mackas Sands Office and compound. The Soil and Water Management Plan identified pump-out systems to be constructed as required.	Y	
Soil and Water Management					
32.	18	The Proponent shall prepare and implement a Soil and Water Management Plan for the project to the satisfaction of the Director-General. This plan must: (a) be prepared in consultation with DECCW, OOW and HWC, and be submitted to the Director-General for approval within 3 months of the date of this approval; and (b) include a: <input type="checkbox"/> Site Water Balance;	Project approval – 20/09/2009 Submitted 23/12/12 Soil and Water Management Plan Extractive Industry Lot 218 and 220, Salt Ash, NSW	N	03

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
		<input type="checkbox"/> Erosion and Sediment Control Plan; <i>NSW Government 9 Department of Planning</i> <input type="checkbox"/> Surface Water Monitoring Program; and <input type="checkbox"/> Ground Water Monitoring Program.			
33.	19	The Site Water Balance must: (a) include details of: <input type="checkbox"/> sources and security of water supply; <input type="checkbox"/> water use on site; <input type="checkbox"/> water management on site; <input type="checkbox"/> any off-site water transfers; <input type="checkbox"/> reporting procedures; and (b) investigate and describe measures to minimise water use by the project.	Soil and Water Management Plan- Section 3.0 Requirements covered by sections 3.1 to 3.6.	Y	
34.	20	The Erosion and Sediment Control Plan must: (a) be consistent with the requirements of <i>Managing Urban Stormwater: Soils and Construction, Volume 1, 4th Edition, 2004</i> (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.	Soil and Water Management Plan – Section 4.0. Requirements covered by sections 4.1 to 4.6.	Y	
35.	21	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.	Soil and Water Management Plan – Section 5.0. Requirements covered by sections 5.1 to 5.4 Section 5.3 requires weekly inspections of sediment fences on a weekly basis. It was reported that inspections are conducted on a monthly basis.	P	01
36.	22	The Ground Water Monitoring Program must include: (a) detailed baseline data on ground water levels and quality, based on statistical analysis (including available HWC 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; (d) 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 (e) a protocol for the investigation, notification and mitigation of identified exceedances of the ground water impact assessment criteria.	Soil and Water Management Plan – Section 5.0. Requirements covered by sections 6.1 to 6.5 groundwater impact assessment criteria not clearly identified. Protocol for further groundwater modelling to confirm the limits to excavation depth not included Protocol for the investigation, notification and mitigation of identified exceedances of	P	02

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
			the ground water impact assessment criteria not included		
Unexploded Ordnance					
37.	23	The Proponent shall prepare and implement an Unexploded Ordnance Management Plan for the project to the satisfaction of the Director-General. This plan must: (a) be prepared by a suitable qualified ordnance expert whose appointment has been approved by the Director-General, and be submitted to the Director-General for approval prior to the commencement of quarrying operations on Lot 218; and (b) include: <input type="checkbox"/> a protocol for managing unexploded ordnance risk on Lot 218 during quarrying operations; and <input type="checkbox"/> a description of the measures that would be undertaken if any unexploded ordnance is discovered during the project.	Unexploded Ordnance Management Plan (Sept 2011) included as Appendix 8 of the Environmental Management Strategy. Section 6.0 addresses requirements for the management of unexploded ordnance.	Y	
REHABILITATION AND LANDSCAPE MANAGEMENT					
Rehabilitation					
38.	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 Director-General. <i>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).</i>	A Rehabilitation Management Plan has been prepared and included in the Landscape Management plan. Progressive rehabilitation was being undertaken.	Y	
Landscape Management Plan					
39.	25	The Proponent shall prepare and implement a Landscape Management Plan for the project to the satisfaction of the Director-General. This plan must: (a) be prepared in consultation with DECCW, OOW and Council, and be submitted to the Director-General within 6 months of the date of this approval, or prior to any vegetation clearing on Lot 220, whichever is sooner; (b) include a: <input type="checkbox"/> Rehabilitation Management Plan; and <input type="checkbox"/> Long Term Management Strategy. <i>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 augmentation of the strategy with each subsequent review of the plan.</i>	Project approval – 20/09/2009 Submitted 14/10/2009. Mackas Sand Pty Ltd Landscape Management Plan (Including Rehabilitation Management plan and Long Term Management Strategy), November 2009.	Y	

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
40.	26	<p>The Rehabilitation Management Plan must include:</p> <p>(a) the objectives for the site rehabilitation and site landscaping;</p> <p>(b) a description of the short, medium, and long term measures that would be implemented to rehabilitate and landscape the site;</p> <p>(c) detailed performance and completion criteria for the site rehabilitation and site landscaping;</p> <p>(d) a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:</p> <ul style="list-style-type: none"> <input type="checkbox"/> progressively rehabilitating disturbed areas; <input type="checkbox"/> landscaping the site to minimise visual impacts; <input type="checkbox"/> protecting vegetation and soil outside the disturbance areas; <input type="checkbox"/> preventing and/or minimising the accretion of sand dunes outside the project disturbance areas; <input type="checkbox"/> undertaking pre-clearance surveys; <input type="checkbox"/> salvaging and reusing material from the site for habitat enhancement; <input type="checkbox"/> managing impacts on fauna; <input type="checkbox"/> maintaining koala habitat linkages; <input type="checkbox"/> conserving and reusing topsoil; <input type="checkbox"/> collecting and propagating seed for rehabilitation works; <input type="checkbox"/> salvaging and reusing material from the site for habitat enhancement; <input type="checkbox"/> controlling weeds and feral pests; <input type="checkbox"/> controlling access; and <input type="checkbox"/> bushfire management; <p>(e) a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria;</p> <p>(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</p> <p>(g) details of who would be responsible for monitoring, reviewing, and implementing the plan.</p>	<p>Rehabilitation Management Plan (Section 3.0 of the Landscape Management Plan) Includes:</p> <p>Short term rehabilitation strategy – Progressive Rehabilitation;</p> <p>Erosion control of topsoil stockpiles Signposting of stockpiles Seed collection Monthly weed surveys</p> <p>Control of access does not align with planning approval Statement of Commitments 1.10.2.</p> <p>Mackas Sands Quarry Manager responsible for monitoring, reviewing, and implementing the plan.</p>	P	03
41.	27	<p>The Long Term Management Strategy must:</p> <ul style="list-style-type: none"> <input type="checkbox"/> define the objectives and criteria for quarry closure and post-extraction management; <input type="checkbox"/> investigate and/or describe options for the future use of the site; <input type="checkbox"/> describe the measures that would be implemented to minimise or manage the ongoing environmental effects of the project; and <input type="checkbox"/> describe how the performance of these measures would be monitored over time. 	Section 4.0 of the Landscape Management Plan identifies how requirements are met.	Y	
Rehabilitation Bond					

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
42.	28	<p>Within 3 months of the approval of the Landscape Management Plan, the Proponent shall lodge a rehabilitation bond for the project with the Director-General 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 Director-General.</p> <p>Notes:</p> <p><input type="checkbox"/> If the rehabilitation is completed to the satisfaction of the Director-General, the Director-General will release the bond.</p> <p><input type="checkbox"/> If the rehabilitation is not completed to the satisfaction of the Director-General, the Director-General will call in all or part of the bond, and arrange for the satisfactory completion of the relevant works.</p>	<p>Approval of Landscape Management Plan 5/11/09.</p> <p>DP&I acceptance of Rehabilitation bond 9/12/09.</p> <p>Letter to DP&I 3/11/2011 provides calculation of Rehabilitation bond.</p> <p>Matt Newton, of Umwelt verified costs Rehabilitation Bond has been lodged. February 2011.</p>	Y	
HERITAGE					
Aboriginal Cultural Heritage Management Plan					
43.	29	<p>29. The Proponent shall prepare and implement an Aboriginal Cultural Heritage Management Plan for the project to the satisfaction of the Director-General. This plan must:</p> <p>(a) be prepared in consultation with DECCW and the Aboriginal community, and be submitted to the Director-General for approval prior to the disturbance of any Aboriginal object or site; and</p> <p>(b) include a:</p> <p><input type="checkbox"/> detailed salvage program and management plan for all identified Aboriginal sites within the project disturbance area;</p> <p><input type="checkbox"/> detailed description of the measures that would be implemented to protect Aboriginal sites and PAD outside the project disturbance area;</p> <p><input type="checkbox"/> protocol for monitoring operations and vegetation removal on the site;</p> <p><input type="checkbox"/> protocol for undertaking additional archaeological investigation, and where warranted excavation and/or salvage, on:</p> <p>o any identified stabilised soil surfaces on Lot 218 that are proposed to be disturbed; or</p> <p>o any area of the identified PAD on Lot 220 that is proposed to be disturbed;</p> <p><input type="checkbox"/> protocol for monitoring of reject material;</p> <p><input type="checkbox"/> description of the measures that would be implemented if any new Aboriginal objects or skeletal remains are discovered during the project; and</p> <p><input type="checkbox"/> protocol for the ongoing consultation and involvement of the Aboriginal community in the conservation and management of Aboriginal cultural heritage on the site, including</p>	<p>Aboriginal Cultural Heritage Management Plan for Sand Extraction Operations from Lot 218 DP 1044608 and Lot 220 DP 1049608, Salt Ash, October 2009 available. Approved 9/12/09.</p> <p>This is included in Section 2.0 Consultation</p> <p>Note: Requires samples to be collected daily and bagged with date! Reported that samples are collected on a daily basis and bagged to provide a monthly composite sample.</p>	P	04
Audit Report AQ1228-01 - Rev 1	13/01/12	Audit Compliance Codes: Y: Compliance achieved; N: Non-compliance; P: Partial compliance; NA: not applicable at time of audit; OI: Opportunity for Improvement			Page 24 of 40

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
		the establishment of a management group comprising Aboriginal stakeholders and a suitably qualified archaeologist.			
Non-indigenous Heritage Management Plan					
44.	30	The Proponent shall prepare and implement a non-indigenous Heritage Management Plan for the project to the satisfaction of the Director-General. This plan must: (a) be prepared in consultation with the Heritage Branch and Council, and be submitted to the Director-General for approval prior to the disturbance of any heritage item, including the identified tank traps; (b) include: <input type="checkbox"/> archival recording of the tank traps, in accordance with the requirements and guidelines of the Heritage Branch; <input type="checkbox"/> a protocol for the investigation, removal and storage of the tank traps, and for their reinstallation following quarrying operations; and <input type="checkbox"/> a description of the measures that would be implemented if any new heritage objects or items are discovered during the project.	Non-Indigenous Heritage Plan Provided as Appendix 7 of the Environmental Management Strategy. Approved 7/01/11. The plan addresses all required elements	Y	
TRAFFIC AND TRANSPORT					
Road Upgrades					
45.	31	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, within 6 months of the commencement of quarrying operations on Lot 218, unless otherwise agreed by the Director-General.	Works have not commenced in Lot 218	N/A	
Traffic Restrictions					
46.	32	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 Director-General. <i>Note: The Director-General 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.</i>	Records sighted show that less than 10 truck movements per hour per night were occurring	Y	
Road Haulage					
47.	33	The Proponent shall ensure that: (a) all loaded vehicles entering or leaving the site are covered; and (b) all loaded vehicles leaving the site are cleaned of materials that may fall on the road, before they leave the site.	Loads sighted during the site visit were noted to be covered. Requirement included in site safety rules	Y	
Audit Report AQ1228-01 - Rev 1		13/01/12 Audit Compliance Codes: Y: Compliance achieved; N: Non-compliance; P: Partial compliance; NA: not applicable at time of audit; OI: Opportunity for Improvement			

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
Parking					
48.	34	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 Director-General.	Parking for Lot 220 appropriate	Y	
VISUAL					
Visual Amenity					
49.	35	The Proponent shall minimise the visual impacts of the project to the satisfaction of the Director- General.	Buffer zones have been established. No complaints have been received	Y	
Lighting Emissions					
50.	36	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 <i>Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting</i> , to the satisfaction of the Director-General.	No lighting had been installed at this stage of the project.	N/A	
Advertising					
51.	37	The Proponent shall not erect or display any advertising structure(s) or signs on the site without the written approval of the Director-General. <i>Note: This does not include traffic management and safety or environmental signs.</i>	No advertising signs have been installed at the sites.	N/A	
WASTE MANAGEMENT					
Waste Minimisation					
52.	38	The Proponent shall minimise the amount of waste generated by the project to the satisfaction of the Director-General.	No waste generated on site. Existing Mackas site office and amenities used.	Y	

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
EMERGENCY AND HAZARDS MANAGEMENT					
Dangerous Goods					
53.	39	The Proponent shall ensure that the storage, handling, and transport of fuels and dangerous goods are conducted in accordance with the relevant <i>Australian Standards</i> , particularly AS1940 and AS1596, and the <i>Dangerous Goods Code</i> .	No dangerous goods or fuels stored on site.	N/A	
Safety					
54.	40	The Proponent shall secure the project to ensure public safety to the satisfaction of the Director- General.	Access to the site through the main entry is secured to prevent unauthorised access. Access through unauthorised tracks has not been restricted. It was reported that attempts to prevent access had been implemented, however these had been unsuccessful. Local land owner had removed concrete blocks installed to prevent access.	P	03
Bushfire Management					
55.	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.	Fire extinguishers and water cart available on site. Reported that a relationship has been established with local fire brigades (Williamstown and Salt Ash). Reported that equipment on site (front end loader) has been made available to fire fighting crew.	Y	
PRODUCTION DATA					
56.	42	The Proponent shall: (a) provide annual production data to the DII using the standard form for that purpose; and (b) include a copy of this data in the AEMR.	Completed 2010-2011 form sighted. Copy included in the AEMR	Y	

Schedule 4 – Additional Procedures

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
NOTIFICATION OF LANDOWNERS					
57.	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 8 of schedule 3 at any stage during the project, if the residence is habitable in the opinion of the Director-General.	Residence R1 is not consider habitable in accordance with Schedule 4, Condition 1 of Project approval 08_0142. Notification not required	N/A	
58.	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 Director-General, 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.	Results available do not identify that impacts generated by the project are greater than the relevant impact assessment criteria.	Y	
INDEPENDENT REVIEW					
59.	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 Director-General in writing for an independent review of the impacts of the project on his/her land.	Independent reviewed not requested	N/A	
60.	4	If the Director-General is satisfied that an independent review is warranted, the Proponent shall within 2 months of the Director-General's decision: (a) consult with the landowner to determine his/her concerns; (b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to conduct monitoring on the land, to: <input type="checkbox"/> determine whether the project is complying with the relevant impact assessment criteria in schedule 3; and <input type="checkbox"/> identify the source(s) and scale of any impact on the land, and the project's contribution to this impact; and (c) give the Director-General and landowner a copy of the independent review.	Independent reviewed not requested	N/A	
61.	5	If the independent review 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 Director-General. If the independent review determines that the project is not complying with the relevant impact assessment criteria in schedule 3, then the Proponent shall:	Independent reviewed not requested.	N/A	

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
		(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 Director-General. If the further monitoring referred to under paragraph (a) above determines that the project is complying with the relevant impact assessment criteria, then the Proponent may discontinue the independent review with the approval of the Director-General.			
LAND ACQUISITION					
	6	<p>Within 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> <p>(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:</p> <ul style="list-style-type: none"> <input type="checkbox"/> existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and <input type="checkbox"/> 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 8 of schedule 3; <p>(b) the reasonable costs associated with:</p> <ul style="list-style-type: none"> <input type="checkbox"/> relocating within the Port Stephens local government area, or to any other local government area determined by the Director-General; <input type="checkbox"/> obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and <i>NSW Government 14 Department of Planning</i> <p>(c) reasonable compensation for any disturbance caused by the land acquisition process.</p> <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 Director-General for resolution.</p> <p>Upon receiving such a request, the Director-General 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; 	No request for land acquisition received	N/A	

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
		<p>(c) prepare a detailed report setting out the reasons for any determination; and</p> <p>(d) provide a copy of the report to both parties.</p> <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> <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 Director-General for review.</p> <p>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 Director-General 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.</p> <p>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 Director-General'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 Director-General determines otherwise.</p>			
62.	7	The Proponent shall pay all reasonable costs associated with the land acquisition process described in condition 6 above.	No request for land acquisition received	N/A	
63.	8	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.	No request for land acquisition received	N/A	

SCHEDULE 5

ENVIRONMENTAL MANAGEMENT AND MONITORING CONDITIONS

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
ENVIRONMENTAL MANAGEMENT AND MONITORING CONDITIONS					
64.	1	<p>The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. This strategy must:</p> <ul style="list-style-type: none"> (a) be submitted to the Director-General for approval within 3 months of the date of this approval; (b) provide the strategic framework for environmental management of the project; (c) identify the statutory approvals that apply to the project; (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project; (e) describe the procedures that would be implemented to: <ul style="list-style-type: none"> <input type="checkbox"/> keep the local community and relevant agencies informed about the operation and environmental performance of the project; <input type="checkbox"/> receive, handle, respond to, and record complaints; <input type="checkbox"/> resolve any disputes that may arise during the course of the project; <input type="checkbox"/> respond to any non-compliance; and <input type="checkbox"/> respond to emergencies; and (f) include: <ul style="list-style-type: none"> <input type="checkbox"/> copies of the various strategies, plans and programs that are required under the conditions of this approval once they have been approved; and <input type="checkbox"/> a clear plan depicting all the monitoring currently being carried out within the project 	<p>Project approval – 20/09/2009 Submitted 23/12/09</p> <p>Environmental Management Strategy for Sand Extraction at Lot 218 and 220, Salt Ash, NSW, November 2011 available. Originally submitted to Dept of Planning and Infrastructure on 23 December 2009.</p> <p>Potential environmental emergencies identified were spills and bushfires.</p>	N	01
INCIDENT REPORTING					
65.	2	<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>	<p>Section 5.3 – Non-compliance requires reporting to DP&I, OEH and other relevant agencies within 7 days. Mackas Sands Non Compliance Reporting form requires form to be submitted within 6 days.</p>	Y	
66.	3	<p>Within 6 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> <ul style="list-style-type: none"> (a) describe the date, time, and nature of the exceedance/incident; (b) identify the cause (or likely cause) of the exceedance/incident; (c) describe what action has been taken to date; and (d) describe the proposed measures to address the exceedance/incident. 	<p>Mackas Sands Non Compliance Reporting form includes requires recording of all required information.</p>	Y	

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
ANNUAL REPORTING					
67.	4	<p>Within 12 months of the date of this approval, and annually thereafter, the Proponent shall submit an AEMR to the Director-General and relevant agencies. This report must:</p> <ul style="list-style-type: none"> (a) identify the standards and performance measures that apply to the project; (b) describe the works carried out in the last 12 months, and the works that will be carried out in the next 12 months; (c) include a summary of the complaints received during the past year, and compare this to the complaints received in previous years; (d) include a summary of the monitoring results for the project during the past year; (e) include an analysis of these monitoring results against the relevant: <ul style="list-style-type: none"> <input type="checkbox"/> impact assessment criteria/limits; <input type="checkbox"/> monitoring results from previous years; and <input type="checkbox"/> predictions in the EA; (f) identify any trends in the monitoring results over the life of the project; (g) identify any non-compliance during the previous year; and (h) describe what actions were, or are being, taken to ensure compliance. 	<p>AEMR sighted for 2010-2011. Date submitted – November 2011. Required to be submitted by 20/09/11. AEMR for 2011-2012 under preparation. To be submitted by 20/01/12.</p>	N	01
INDEPENDENT ENVIRONMENTAL AUDIT					
68.	5	<p>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:</p> <ul style="list-style-type: none"> (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, <i>NSW Government 16 Department of Planning</i> (e) recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under this approval. 	<p>Independent Auditor (AQUAS) engaged. Quarrying operations reported to have commenced 23/09/2009. Audit undertaken 13/01/2012. Audit not undertaken within 2 years of commencement of quarrying operations.</p>	N	02
69.	6	<p>Within 1 month of completion of each Independent Environmental Audit, the Proponent shall submit a copy of the audit report to the Director-General and relevant agencies, with a response to any of the recommendations in the audit report.</p>	Not applicable at this stage	N/A	

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
70.	7	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: <input type="checkbox"/> effects of inflation; <input type="checkbox"/> changes to the total area of disturbance; and <input type="checkbox"/> performance of the rehabilitation against the completion criteria of the Landscape Management Plan, to the satisfaction of the Director-General.	Not applicable at this stage	N/A	
COMMUNITY CONSULTATIVE COMMITTEE					
71.	8	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 Director-General, in accordance with the Department's <i>Guideline for Establishing and Operating Community Consultative Committees for Mining Projects</i> .	A community consultative committee has been established in September 2010. While the committee was required to be established within 3 months of commencement of quarrying operations, this was not achieved due to a lack of interest from the public. Records were sighted showing the proponent had called for expressions of interest on two occasions in December 2009 and August 2010.	Y	
ACCESS TO INFORMATION					
72.	9	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 AEMR 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.	Website accessed 11/01/12. Soil and Water Management Plan Unexploded Ordnance Management Plan Plans were not available on website at time of audit. Results up to August 2011 available	N	01
73.	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).	Results up to August 2011 available. Subsequent results not available on website.	N	01

APPENDIX 2 STATEMENT OF COMMITMENTS

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
Operational Controls					
74.	1.1.1	All activities will be undertaken generally in accordance with the EA.	Audit finding show that activities have generally been undertaken in accordance with the requirements of the EA.	Y	
75.	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.	Sand extraction on Lot 220 only during the period 6am to 5pm. No extraction has occurred within 250m of the Hufnagl residence.	Y	
76.	1.1.3	Transport activities will be undertaken between 5.00 am and 10.00 pm, seven days per week for transport associated with operations at Lot 220 and between 6.00 am and 10.00 pm for transport associated with operations at Lot 218.	Sand extraction on Lot 220 only during the period 6am to 5pm.	Y	
77.	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 DII.	Sand Production from Lot 220 - September 2010 to August 2011 341403.49 tonnes. No extraction from Lot 218	Y	
78.	1.1.5	The final landform for Lot 220 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.	Maximum predicted groundwater level has been determined and sand extraction levels determined. It was reported that the dozer driver regularly checks levels using survey equipment provided. However, no records of survey checks have been maintained	OFI	01
Ecology					
79.	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.	Requirements for the clearance of vegetation are identified in Section 3.7 of the Rehabilitation Management Plan. Section 3.7.11 of the Landscape Management Plan, including details for the management of	Y	

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
			weeds. Reported to be approved by DP&I on 5 November 2009.		
80.	1.2.2	A comprehensive Biodiversity Monitoring Program will be developed prior to any vegetation clearing being undertaken for the proposal.	Biodiversity Monitoring Program was included in the Mackas Sand Ecological Monitoring Program for Lot 220 DP 1049608. Does not appear to have been completed prior to vegetation clearance being conducted	P	05
81.	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.	Limited clearance has occurred. It was reported that clearing was undertaken as required to minimise disturbed areas.	Y	
82.	1.2.4	A Feral Animal Control Management Plan will be developed and implemented prior to any clearing activities being undertaken for the proposal.	Section 3.7.11 of the Landscape Management Plan includes details for the management of Feral pests. No known feral animals on the site. Reported to be approved by DP&I on 5 November 2009.	Y	
83.	1.2.5	A Weed Management Plan will be developed and implemented prior to any clearing activities being undertaken for the proposal.	Section 3.7.11 of the Landscape Management Plan includes details for the management of weeds. It was reported that no weeds that currently require a control program were present on site. Reported to be approved by DP&I on 5 November 2009.	Y	
84.	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: <ul style="list-style-type: none"> 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; 	Rehabilitation Plan has been included as part of the Landscape Management Plan.	Y	

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
		<ul style="list-style-type: none"> control of public access; monitoring; and funding. 			
85.	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.	Section 3.4.1 of the Landscape Management plan requires a vegetative bund to be established along the western edge of lot 218 extraction area.	Y	
Aboriginal Heritage					
86.	1.3.1	<p>An Aboriginal Cultural Heritage Management Plan (ACHMP) will be developed in consultation with the relevant Aboriginal stakeholders and DECCW prior to the commencement of any clearing activities. The ACHMP will include:</p> <ul style="list-style-type: none"> <input type="checkbox"/> a protocol to assess significance of Aboriginal objects; <input type="checkbox"/> appropriate remedial actions etc. at end of life of operations. These will be drawn from the Rehabilitation and Decommissioning Plan; <input type="checkbox"/> identification of an 'in perpetuity' a keeping place with the requirement for 'in perpetuity' being resolved with the Aboriginal community; <i>NSW Government 21 Department of Planning</i> <input type="checkbox"/> establishment of a Management Group that includes an invitation to all stakeholders and an archaeologist; <input type="checkbox"/> a commitment to lodging site cards for any Aboriginal objects identified; <input type="checkbox"/> 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 DECCW and Police before work resumes; <input type="checkbox"/> development of an Aboriginal Cultural Education program for use as part of the induction for workers; and <input type="checkbox"/> protocols for extraction of sand on Lot 218 from below the 1945 land surface including test pitting procedures as set out in the EA and survey and clearance of unexploded ordnance (UXO) should UXO be identified in the extraction area. 	<p>Aboriginal Cultural Heritage Management Plan (October 2009) prepared as per requirements.</p> <p>An in perpetuity' has not been identified. However, Section 5.11 requires the AHMG to be determine the reburial site(s) for archaeological material.</p>	Y	
87.	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.	Aboriginal Heritage Management Group has been established, which includes representatives from all stakeholders and Nicola Roche, Senior Archaeologist from Umwelt.	Y	

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
88.	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.	Lot 218 operations have not commenced.	N/A	
89.	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.	Visit conducted February 2011.	Y	
90.	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.	Samples of reject material were sighted. Daily samples were reported to be compiled into a single monthly sample provided to the Aboriginal Cultural Heritage Management Group.	Y	
Historic Heritage					
91.	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.	Survey records and photographs available. Reported to have been mailed to DP&I 18/08/2010	Y	
92.	1.4.2	Any disturbed tank traps will be replaced along the original alignment of the Northern Defence Line.	Non-Indigenous Heritage Management Plan Section 5.2 requires tank traps to be replaced along the original alignment.	Y	
Traffic and Access					
93.	1.4.1	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.	A contribution of 4.0 cents per tonne has been agreed and paid to PSC on a quarterly basis.	Y	
94.	1.4.2	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.	Work in Lot 218 is yet to commence	N/A	

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
Noise					
95.	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 (Hufnagl Residence).	Noise Management Plan for Sand Extraction Operations, Lot 218 and Lot 220, Nelson Bay Road Salt Ash, NSW, December 2009 available. Section 4.5 specifically addresses impacts at the Hufnagl residence.	Y	
96.	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.	Sand extraction within 250m of the Hufnagl residence is not expected to occur until December 2014.	Y	
97.	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.	Noise Management Plan for Sand Extraction Operations, Lot 218 and Lot 220, Nelson Bay Road Salt Ash, NSW, December 2009 includes traffic noise management.	Y	
Air Quality					
98.	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.	Water carts used to suppress dust along access road to Lot 220. Sighted in use. No work on lot 218.	Y	
Groundwater					
99.	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 DECCW. 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.	Included in the Soil and Water Management Plan – Section 6.0. Monthly levels , quarterly water quality variables monitored. SP 6 has been replaced by HWC 158, due to sand movement covering SP 6.	Y	

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
100.	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.	Requirement identified in Section 5.4 of the Environmental Management Strategy. All maintenance reported to be conducted offsite.	Y	
101.	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.	No sand washing has been proposed for the site.	N/A	
Surface Water					
102.	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).	Appropriate drainage has been installed.	Y	
103.	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 DECCW 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.	Soil and Water Management plan submitted 23/12/09. It is identified in the EMS that no refuelling or storage of chemicals will be undertaken on site.	Y	
Public Safety					
104.	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.	Not applicable at this stage. Work has not commenced in Lot 218	N/A	
105.	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.	It was reported that access trails to Lot 220 had been blocked, however this had not been successful. Additional methods to block recreational vehicles to 220 have not been employed. Work has not commenced in Lot 218	P	03
106.	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.	Work has not commenced in Lot 218. No inspections of controls have been documented for Lot 220	P	06

AQUAS Audit Ref No	Cond. No.	Condition	Documents	Compliance rating	Assessment Issue #
Visual					
107.	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	Buffer zones have been identified (taping of trees along buffer zone). 30m buffer zone has been maintained along the northern boundary of lot 220.	Y	
108.	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.	Reported that supplemental planting is scheduled to take place in the autumn of 2012..	Y	
Greenhouse Gases					
109.	1.12.1	Mackas Sand will seek to achieve continuous improvement in energy efficiency in sand extraction and processing operations.	Impact mitigation measures have been identified in Section 6.9.2 of the Environmental Management Strategy	Y	
Environmental Management, Monitoring and Auditing					
110.	1.13.1	Mackas Sand will obtain an Environmental Protection Licence for the proposal in accordance with the <i>Protection of the Environment Operations Act 1997</i> .	EPL 13218 obtained.	Y	
111.	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.	Current audit	N/A	
112.	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 DECCW and any relevant agency. The report will: <input type="checkbox"/> describe the date, time and nature of the exceedance/incident; <input type="checkbox"/> identify the cause (or likely cause) of the exceedance/incident; <input type="checkbox"/> describe what action has been taken to date; and <input type="checkbox"/> describe the proposed measures to address the exceedance/incident.	Requirement to report exceedances has been included in the EMS. Information required is identified on the Mackas Sands Non Compliance Reporting form	Y	
113.	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 DECCW with a copy of the enquiries register on an annual basis.	Telephone number has been publicised through on site signage and on company website. Number has not been listed with a telephone company.	P	07