

GALES-KINGSCLIFF

PTY LTD
ABN: 75 093 540 080

Annual Review

for the

Cudgen Lakes Sand Quarry

1 July 2012 to 30 June 2013

Compiled by:



R.W. CORKERY & CO. PTY. LIMITED

GALES-KINGSCLIFF

PTY LTD
ABN: 75 093 540 080

Annual Review

for the

Cudgen Lakes Sand Quarry

Compiled for:

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Ref No. 617/27

12 September 2016



R. W. CORKERY & CO. PTY. LIMITED

TITLE BLOCK

Name of Operation	Cudgen Lakes Sand Quarry
Name of Operator	Not operational
Development consent / project approval #	Project Approval 05_0103
Name of holder of development consent / project approval	Gales-Kingscliff Pty Ltd
Mining Lease #	Not Applicable
Name of holder of mining lease	Not Applicable
Water licence #	30BL179511
Name of holder of water licence	Gales-Kingscliff Pty Ltd
MOP/RMP start date	Not Applicable
MOP/RMP end date	Not Applicable
Annual Review start date	01/07/12
Annual Review end date	30/06/13
<p>I, Stephen Segal, certify that this audit report is a true and accurate record of the compliance status of the Cudgen Lakes Sand Quarry for the period 1 July 2012 to 30 June 2013 and that I am authorised to make this statement of behalf of Gales-Kingscliff Pty Ltd.</p> <p><i>Note.</i></p> <p>a) <i>The Annual Review is an 'environmental audit' for the purposes of section 122B(2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000.</i></p> <p>b) <i>The Crimes Act 1900 contains other offences relating to false and misleading information: Section 192G (Intention to defraud by false or misleading statement – maximum penalty 5 years imprisonment); Section 307A, 307B and 307C (false or misleading application/information/documents – maximum penalty 2 years imprisonment or \$22,000, or both).</i></p>	
Name of authorised reporting officer	Stephen Segal
Title of authorised reporting officer	Managing Director
Signature of authorised reporting officer	
Date	12 September 2016

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1. STATEMENT OF COMPLIANCE

The compliance status of relevant approvals was reviewed for the reporting period and is summarised in **Table 1.1**. It was determined that there were three non-compliances during the reporting period. The non-compliances recorded during the reporting period have been ranked according to the risk matrix included in **Table 1.2**.

Table 1.1
Statement of Compliance

Were all conditions of the relevant approval(s) complied with?	Yes / No
Project Approval 05_0103	No
Environment Protection Licence 12385	Yes
Water Licence 30BL179511	Yes

Table 1.2
Non-compliances

Relevant Approval	Condition	Condition Description (summary)	Compliance Status	Comment	Where Addressed in Annual Review
PA 05_0103	2(3)	Surrender existing approvals within 18 months of Project Approval.	Non-compliant	DA 96/518 surrendered to (then) DP&I within 18 months. However, DA required to be surrendered to Council.	Section 11, Appendix 1
	5(5)	Submit AEMRs annually from date of Project Approval.	Non-compliant	The 2012/2013 Annual Review was not submitted within the required 12 month timeframe.	Section 11, Appendix 1
	5(10)	Within 1 month of the approval of any plans, audit or AEMR, provide a copy to Council and relevant agencies and make available on Company website.	Non-compliant	The approved 2009/2010 AEMR was not placed on the Company website within 1 month of approval.	Section 11, Appendix 1

Compliance Status Key

Risk level	Colour code	Description
High	Non-compliant	Non-compliance with potential for significant environmental consequences, regardless of the likelihood of occurrence.
Medium	Non-compliant	Non-compliance with: <ul style="list-style-type: none"> potential for serious environmental consequences, but is unlikely to occur; or potential for moderate environmental consequences, but is likely to occur.
Low	Non-compliant	Non-compliance with: <ul style="list-style-type: none"> potential for moderate environmental consequences, but is unlikely to occur; or potential for low environmental consequences, but is likely to occur.
Administrative non-compliance	Non-compliant	Only to be applied where the non-compliance does not result in any risk of environmental harm (e.g. submitting a report to government later than required under approval conditions).

2. INTRODUCTION

2.1 OVERVIEW OF OPERATIONS

The Cudgen Lakes Sand Quarry is located at Cudgen approximately 1km south of the Tweed River and 8km south of the New South Wales/Queensland Border (see **Figure 2.1**). Project Approval 05_0103 was granted 16 June 2009. The approved layout of the operations is shown in **Figure 2.2** whilst surrounding land ownership, residences and registered groundwater bores are shown in **Figure 2.3**. To date operations have not yet commenced.

2.2 SCOPE AND FORMAT

This Annual Review for the Cudgen Lakes Sand Quarry (“the Quarry”) has been compiled by R.W. Corkery & Co. Pty. Limited on behalf of Gales-Kingscliff Pty Ltd (“the Company”).

This is the third Annual Review submitted for the Quarry, following one Annual Environmental Management Report, and is applicable for the period 01 July 2012 to 30 June 2013 (“the reporting period”). The information presented within this Annual Review has been compiled based on information compiled by R.W. Corkery & Co. Pty. Limited and provided by the Company.

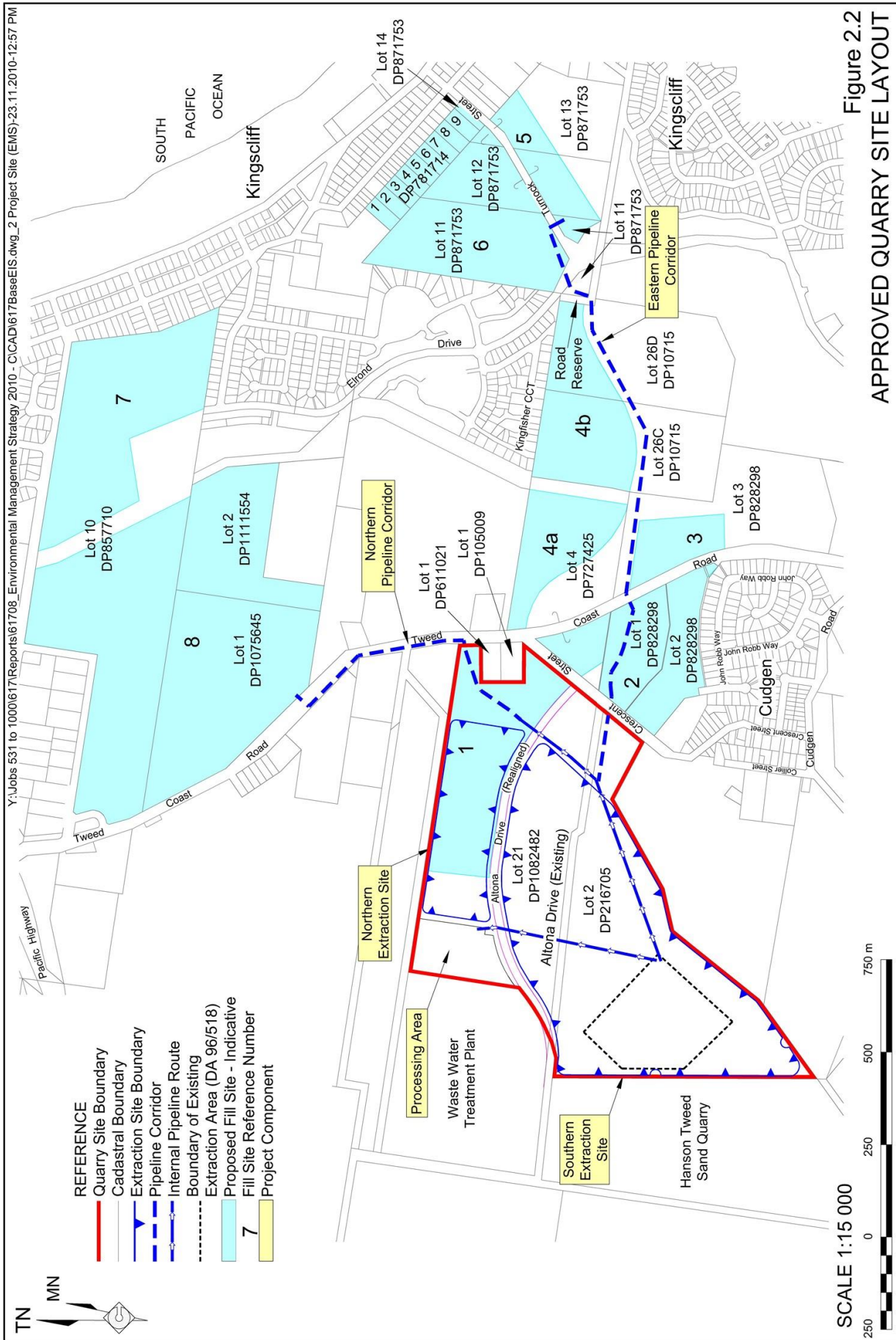
It should be noted that this Annual Review has been prepared based upon the approval and licencing requirements applicable for the reporting period, however, the report generally follows the format and content requirements identified in the *Annual Review Guideline* dated October 2015 since this applies at the time the report was actually prepared.

2.3 KEY PERSONNEL CONTACT DETAILS

The key personnel contact names, position and phone numbers are as follows.

Name	Position	24 Hour Contact
Stephen Segal	Managing Director	0414 322 455
Jeff Holloway	Site Caretaker	0402 427 938





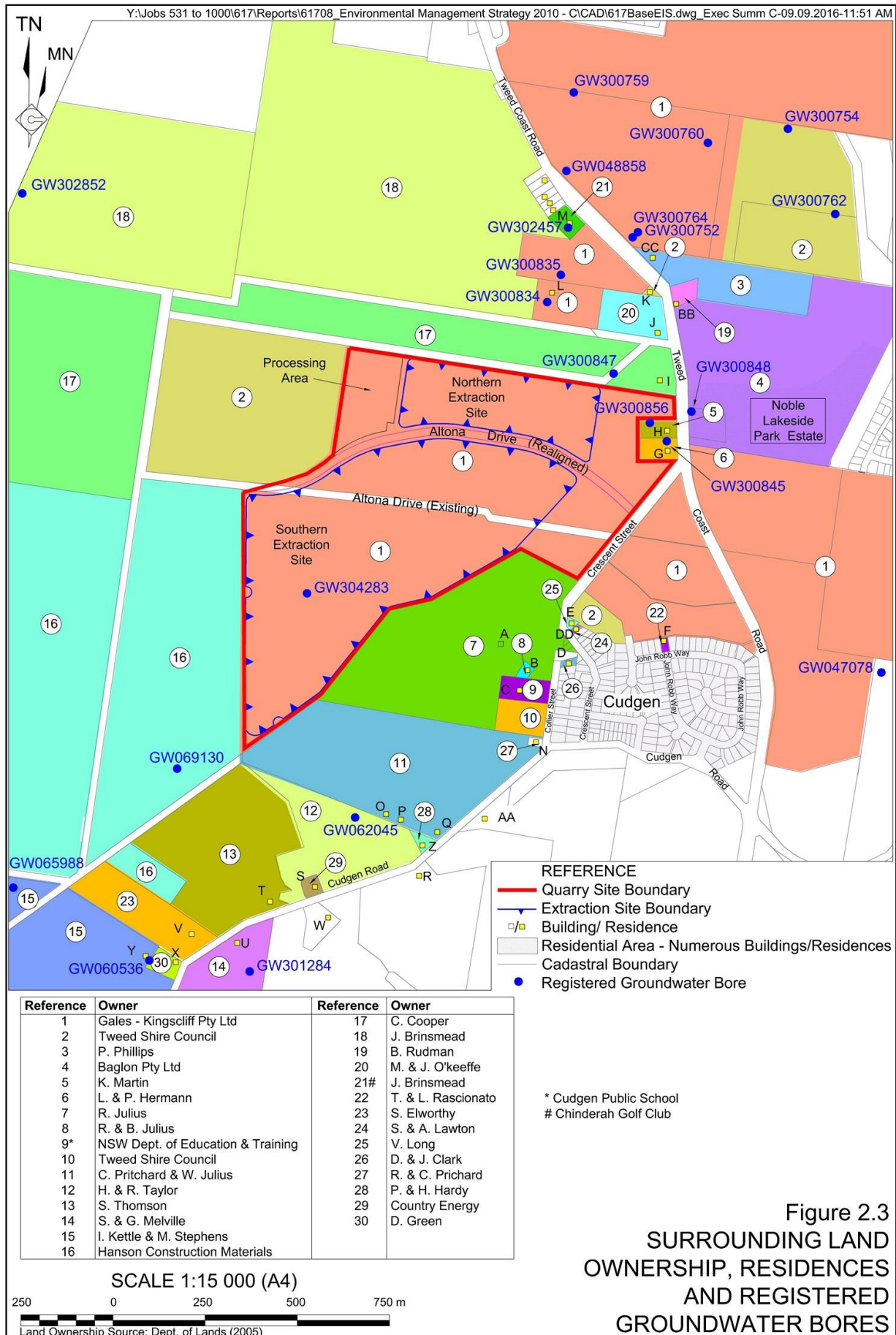


Figure 2.3
SURROUNDING LAND
OWNERSHIP, RESIDENCES
AND REGISTERED
GROUNDWATER BORES

3. APPROVALS

The Quarry will operate in accordance with the approvals listed in **Table 3.1**. There were no changes or modifications to these approvals during the reporting period.

Table 3.1
Cudgen Lakes Sand Quarry – Consents, Leases and Licences

Consent/Lease/Licence	Issue Date	Expiry Date	Details / Comments
Project Approval 05_0103	16/06/2009	01/07/2029	Issued by the (then) Department of Planning.
Environment Protection Licence 12385	18/11/2005	Not Applicable	Issued by NSW Environment Protection Authority. Renewed annually.
Water Licence 30BL179511	13/10/2008	12/10/2013	Issued by the (then) NSW Department of Water & Energy for DA 96/518.

4. OPERATIONS SUMMARY

4.1 EXTRACTION OPERATIONS

No extraction operations were undertaken during the reporting period. **Table 4.1** provides the production summary.

Table 4.1
Production Summary

Material	Approved limit (specify source)	Previous reporting period (actual)	This reporting period (actual)	Next reporting period (forecast)
Waste Rock / Overburden	NA	0	0	0
ROM Coal / Ore	NA	0	0	0
Coarse Reject	NA	0	0	0
Fine Reject (Tailings)	NA ¹	0	0	0
Saleable Product (transported by road)	300,000t [PA 05_0103 Condition 2(7)]	0	0	0
Total Extraction	650,000m ³ [PA 05_0103 Condition 2(6)]	0	0	0
Imported VENM	45,000t [PA 05_0103 Condition 2(8)]	0	0	0
Notes: 1. Whilst fines will be generated through sand washing and returned to the extraction ponds, there are no approval limits applicable to this material.				

4.2 OTHER OPERATIONS DURING THE REPORTING PERIOD

No other operational activities were undertaken during the reporting period.

Non-operational activities during the reporting period included quarterly water quality monitoring of the initial dredge pond (see Section 7). No management plans were finalised during the reporting period.

4.3 NEXT REPORTING PERIOD

Land Preparation and Construction

No land preparation or construction activities are planned during the next reporting period.

Extraction

No extraction activities are planned during the next reporting period.

Rehabilitation

No areas will become available for rehabilitation during the next reporting period.

Monitoring

Quarterly water quality monitoring of the initial dredge pond will continue in accordance with EPL 12385.

Community Consultation and Liaison

No specific community consultation or liaison activities are planned for the next reporting period.

Other Activities

Government agencies will be further consulted regarding the draft management plans with a view to finalising the management plans for approval by the Department of Planning and Infrastructure.

5. ACTIONS REQUIRED FROM PREVIOUS ANNUAL REVIEW

The 2012/2013 Annual Review was submitted concurrently with the 2011/2012 Annual Review. Therefore, no actions from the 2011/2012 Annual Review have been raised to date.



6. ENVIRONMENTAL PERFORMANCE

A summary of environmental performance for the principal environmental aspects is provided in **Table 6.1**. Given there were no operational activities, no complaints and no related monitoring of these aspects, no specific management measures were deemed necessary and no trends have been identified.

Table 6.1
Environmental performance

Aspect	Approval criteria / EIS prediction	Performance during the reporting period	Trend/key management implications	Implemented/proposed management actions
Noise	47dB(A) day & evening. 44dB(A) shoulder.	No operational activities were undertaken and no complaints were received.	No trends identifiable. Currently no management implications.	No specific management measures implemented or currently proposed.
Blasting	Blasting is not an approved activity.	No blasting undertaken.	Nil.	Nil.
Air Quality	PM ₁₀ 24hr = 50ug/m ³ PM ₁₀ Annual = 30ug/m ³ TSP Annual = 90ug/m ³ Dep Dust Annual = 4g/m ² /month	No operational activities were undertaken and no complaints were received.	No trends identifiable. Currently no management implications.	No specific management measures implemented or currently proposed.
Biodiversity	Establish rehabilitation bond. No significant impacts predicted.	No operational activities or activities relating to biodiversity aspects occurred.	No trends identifiable. Currently no management implications.	No specific management measures implemented or currently proposed.
Heritage	Prepare Aboriginal Cultural Heritage Management Plan. No items of heritage have been located.	No operational activities occurred and no heritage items were identified or disturbed.	No trends identifiable. Currently no management implications.	No specific management measures implemented or currently proposed.

7. WATER MANAGEMENT

Water Licence 30BL179511 was issued under the *Water Act 1912* for operations approved under DA 96/518 and does not specify maximum water take / entitlement volumes. Given that no operational activities occurred during the reporting period and no water was actively removed from the initial dredge pond, no water take has occurred. It is noted that consultation with the NSW Office of Water as part of the Soil and Water Management Plan (prepared under PA 05_0103) confirms that evaporation is not required to be accounted for in the calculated water loss / entitlement for this operation.

Water quality monitoring within the initial dredge pond (EPL Point 1 – see **Figure 8.1**) continued during the reporting period in accordance with the requirements of EPL 12385. A summary of the monitoring results is provided in **Table 7.1** and displayed graphically in **Figure 7.1**.

Table 7.1
Water Quality Monitoring Results 2010 – 2013

(Date sampled)*	Dissolved Oxygen	pH	Redox Potential	Salinity	Temperature
Units	mg/L	-	millivolts	uS/cm	°C
EPL 12385 Limits	None Specified				
PA 05_0103 Objectives	>6	6.5-8.5	Not Specified	<3,000	Not Specified
21-Jan-10	8.71	8.13	61	471	25.7
06-Apr-10	7.01	7.71	-31	425	21.3
13-Aug-10	5.92	7.07	-73	392	18.3
22-Oct-10	6.13	7.83	-56	412	23.9
04-Feb-11	8.41	8.57	62	492	27.1
17-May-11	7.41	8.19	31	426	23.1
07-Jul-11	7.35	7.95	-10	397	19.7
17-Oct-11	6.05	7.8	18	310	24.7
16-Feb-12	7.17	8.91	77	336	28.7
01-May-12	6.53	7.91	62	371	22.8
23-Aug-12	7.21	8.37	83	420	21.7
30-Oct-12	7.36	8.46	71	322	26.2
23-Jan-13	8.90	8.00	81	379	29.2
02-Apr-13	6.20	7.60	68	356	23.7
21-Jun-13	6.18	7.90	57	389	21.7
Average	7.10	8.03	33	393	23.9
Minimum	5.92	7.07	-73	310	18.3
Maximum	8.90	8.91	83	492	29.2
Red values indicate exceedance of applicable limits.			*All samples are measured using field instrumentation		
Grey shaded results relevant to this reporting period					

During the reporting period all values remained within specified objectives.

There appears to be an approximately seasonal trend for all measured parameters, however, as no operations were undertaken, there is no influence on the parameters from quarry activities.

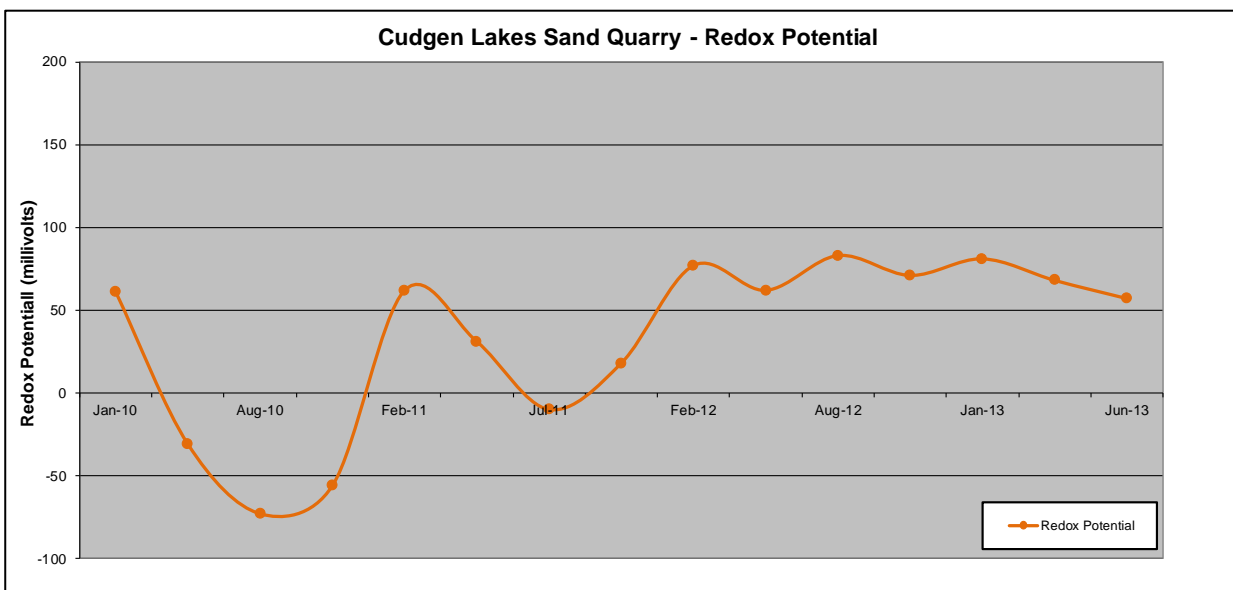
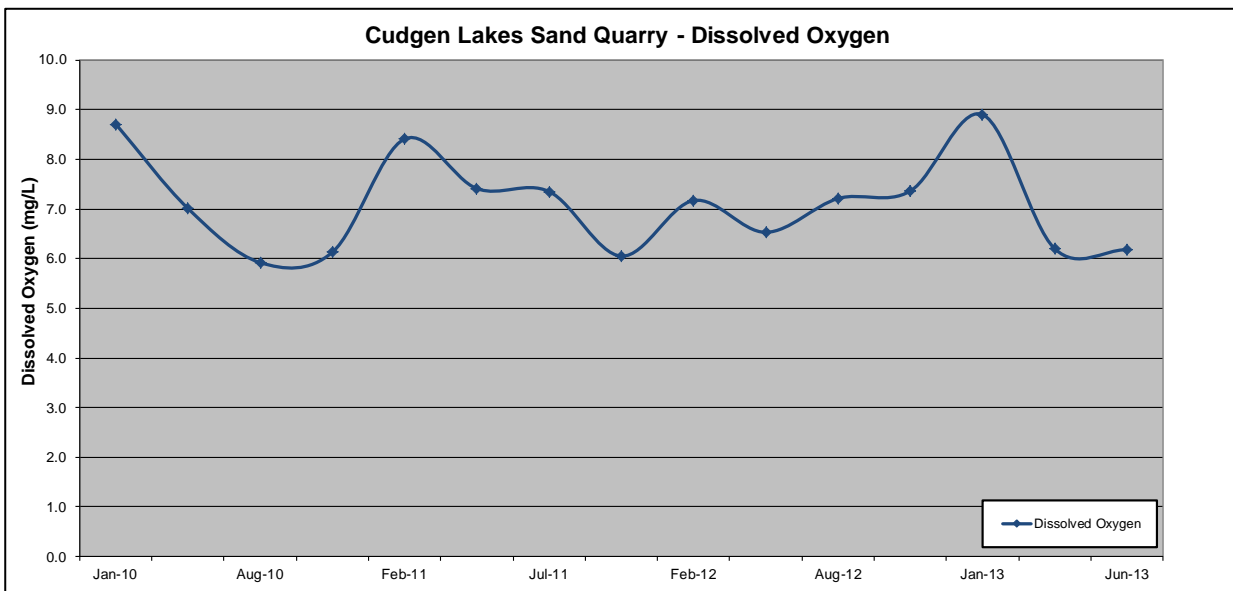
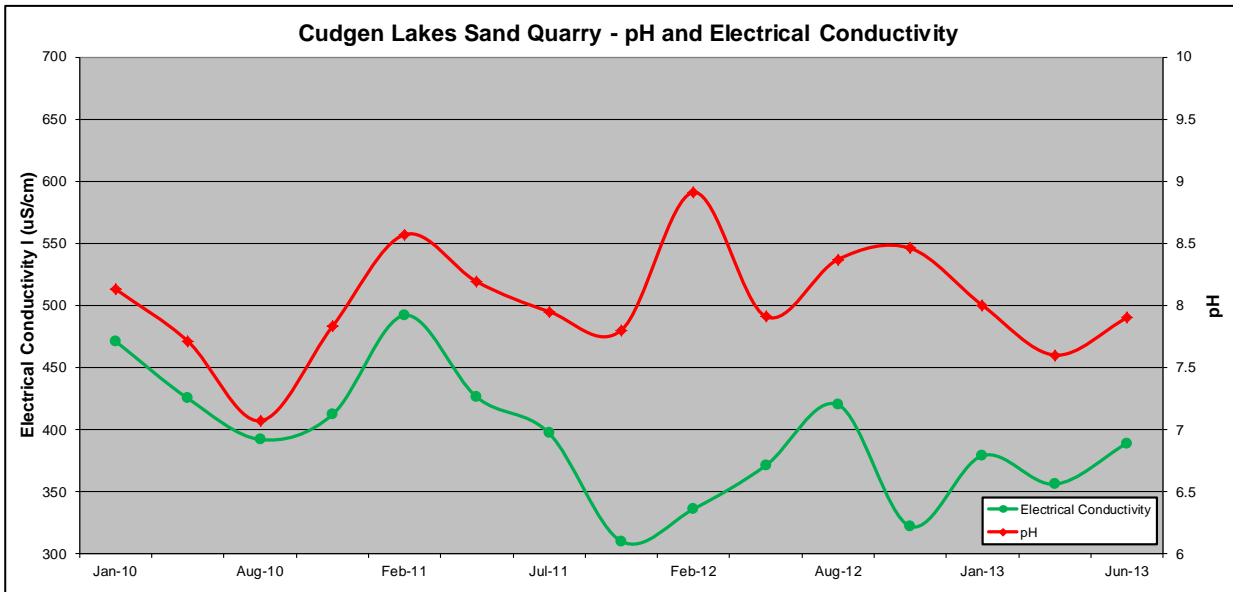


Figure 7.1 Water Quality Monitoring 2010 - 2013

8. REHABILITATION

8.1 REHABILITATION PERFORMANCE DURING THE REPORTING PERIOD

Figure 8.1 shows the status of disturbance and rehabilitation at the end of the reporting period whilst Table 8.1 provides a summary of the disturbance and rehabilitation areas.

Table 8.1
Rehabilitation Summary

Quarry Area Type	Previous Reporting Period (Actual)	This Reporting Period (Actual)	Next Reporting Period (Forecast)
	Year 3 (ha)	Year 4 (ha)	Year 5 (ha)
Total Quarry footprint	2.5 ¹	2.5 ¹	2.5 ¹
Total active disturbance	2.5 ¹	2.5 ¹	2.5 ¹
Land being prepared for rehabilitation	0	0	0
Land under active rehabilitation	0	0	0
Completed rehabilitation	0	0	0
Notes:			
1. Relates to initial dredge pond and grassed sand stockpile completed during 2006 under DA 96/518 (now surrendered).			

Disturbance on site currently consists of the initial dredge pond and grassed (temporarily rehabilitated) sand stockpile completed under DA 96/518. No temporary or permanent rehabilitation activities were undertaken during the reporting period. A small area of disturbance is also present in relation to the physical commencement of DA 05/1450 for the realignment of Altona Drive. As these works are managed under separate approval, they are not further discussed in this report.

8.2 ACTIONS FOR THE NEXT REPORTING PERIOD

No specific rehabilitation actions or trials are planned for the next reporting period and no areas will become available for final rehabilitation.

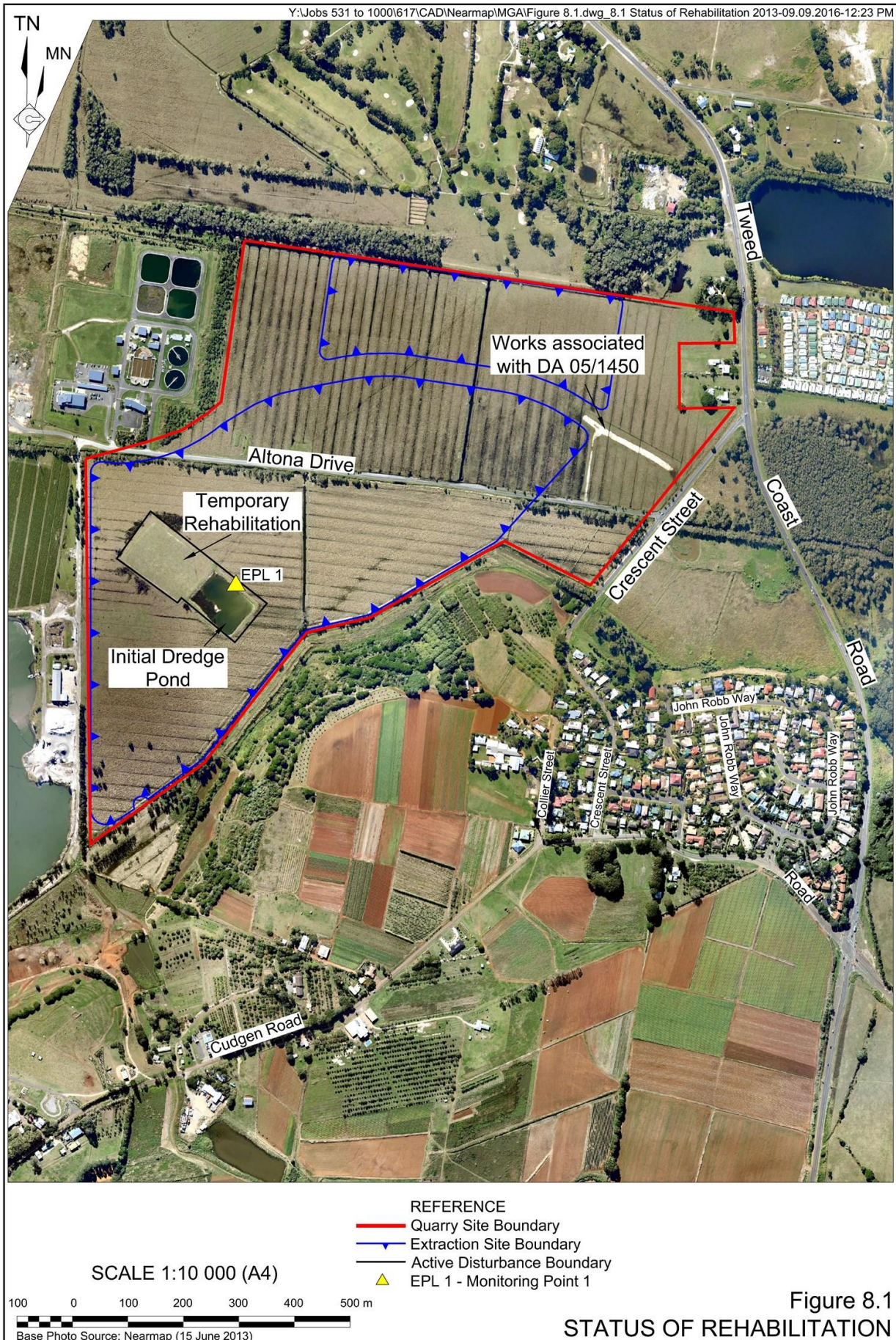


Figure 8.1
 STATUS OF REHABILITATION

9. COMMUNITY

No complaints were received during the reporting period and no complaints have been received in previous reporting periods.

No specific community engagement activities or actions occurred during the reporting period in relation to the Quarry.



10. INDEPENDENT AUDIT

No independent audit was undertaken during the reporting period. The first independent audit is required within 2 years of the commencement of quarrying operations. Quarry operations did not commence during the reporting period and are not planned to commence during the next reporting period.

11. INCIDENTS AND NON-COMPLIANCES DURING THE REPORTING PERIOD

During the reporting period there were no:

- reportable incidents or exceedances; or
- official cautions, warning letters, penalty notices or prosecution proceedings.

A total of three non-compliances were recorded against Project Approval 05_0103 (see **Table 1.2**). Further detail relating to these non-compliances is provided as follows.

Condition 2(3) – Surrender Existing Approvals

The Company surrendered DA 96/518 to the (then) NSW Department of Planning & Infrastructure on 14/12/10 (i.e. within the required 18 months). However, the Department requested that the development consent be surrendered to Tweed Shire Council. Correspondence from Council dated 07/09/16 confirms that Council holds no record of the development consent being surrendered and the Company held no record. Therefore the Company also formally surrendered DA 96/518 to Council on 12/09/16.

Condition 5(5) – Submit AEMRs Annually from Date of Approval

The 2012/2013 Annual Review (this report) was not submitted within the required 12 month timeframe. The report was submitted 12/09/16 and was formatted to comply with the October 2015 *Annual Review Guideline*.

Condition 5(10) – Circulation / Website Publishing of Approved Plans / Reports

The approved 2009/2010 AEMR was circulated within the required timeframe, however, it was not placed on the Company website within 1 month of approval. The report has now been placed on the Company website.

12. ACTIVITIES TO BE COMPLETED IN THE NEXT REPORTING PERIOD

As discussed in Section 4.3, no land preparation, construction, quarry operations, rehabilitation activities or community engagement activities are planned during the next reporting period.

Quarterly water quality monitoring of the initial dredge pond will continue in accordance with EPL 12385.

No other specific measures are currently deemed necessary to improve environmental or community performance.

Appendices

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Appendix 1: Compliance Review



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Appendix 1

Compliance Review

Table A: Project Approval 05_0103

Table B: Statement of Commitments

Table C: Environment Protection Licence 12385

Table D: Water Licence 30BL179511

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Table A (Cont'd)
Compliance Review – Project Approval 05_0103

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Cond. No.	Conditional Requirement	Compliance	Comments	Basis*																																		
SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)																																						
Cumulative Noise Criteria																																						
4.	<p>The Proponent shall take all reasonable and feasible measures to ensure that noise generated by the project combined with the noise generated by other industrial development does not exceed the following amenity criteria on any privately owned land, to the satisfaction of the Director-General:</p> <ul style="list-style-type: none"> • L_{Aeq} (11 hour) 50 dB(A) – Day; • L_{Aeq} (4 hour) 45 dB(A) – Evening; and • L_{Aeq}(9 hour) 40 dB(A) – Night. 	Not Yet Applicable	Operations have not yet commenced.	A, D																																		
Hours of Operation																																						
5.	<p>The Proponent shall comply with the operating hours in <i>Table 2</i>.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;"><i>Activity</i></th> <th style="text-align: center;"><i>Day</i></th> <th style="text-align: center;"><i>Time</i></th> </tr> </thead> <tbody> <tr> <td rowspan="3">Site establishment, sand or soil extraction by excavator, dry processing, product transport by road, VENM receipts, other quarry related activities, maintenance (if audible at neighbouring residences)</td> <td>Monday – Friday</td> <td>7:00am to 6:00pm</td> </tr> <tr> <td>Saturday</td> <td>7:00am to 1:00pm</td> </tr> <tr> <td>Sunday and Public Holidays</td> <td>Nil</td> </tr> <tr> <td rowspan="3">Sand extraction by dredging and pumping to the processing plant, wet processing.</td> <td>Monday – Friday</td> <td>7:00am to 10:00pm</td> </tr> <tr> <td>Saturday</td> <td>7:00am to 4:00pm</td> </tr> <tr> <td>Sunday and Public Holidays</td> <td>Nil</td> </tr> <tr> <td rowspan="3">Sand extraction by dredging and pumping to fill sites.</td> <td>Monday – Friday</td> <td>7:00am to 6:30pm</td> </tr> <tr> <td>Saturday</td> <td>7:00am to 1:00pm</td> </tr> <tr> <td>Sunday and Public Holidays</td> <td>Nil</td> </tr> <tr> <td rowspan="3">Operation of dredge to fill pipeline with water or pipeline flushing</td> <td>Monday – Friday</td> <td>6.30am to 7.00pm</td> </tr> <tr> <td>Saturday</td> <td>6.30am to 1.30pm</td> </tr> <tr> <td>Sunday and Public Holidays</td> <td>Nil</td> </tr> <tr> <td>Maintenance (if inaudible at neighbouring residences)</td> <td>Any day</td> <td>Any time</td> </tr> </tbody> </table> <p><i>Table 2: Operating Hours</i></p>	<i>Activity</i>	<i>Day</i>	<i>Time</i>	Site establishment, sand or soil extraction by excavator, dry processing, product transport by road, VENM receipts, other quarry related activities, maintenance (if audible at neighbouring residences)	Monday – Friday	7:00am to 6:00pm	Saturday	7:00am to 1:00pm	Sunday and Public Holidays	Nil	Sand extraction by dredging and pumping to the processing plant, wet processing.	Monday – Friday	7:00am to 10:00pm	Saturday	7:00am to 4:00pm	Sunday and Public Holidays	Nil	Sand extraction by dredging and pumping to fill sites.	Monday – Friday	7:00am to 6:30pm	Saturday	7:00am to 1:00pm	Sunday and Public Holidays	Nil	Operation of dredge to fill pipeline with water or pipeline flushing	Monday – Friday	6.30am to 7.00pm	Saturday	6.30am to 1.30pm	Sunday and Public Holidays	Nil	Maintenance (if inaudible at neighbouring residences)	Any day	Any time	Not Yet Applicable	Operations have not yet commenced.	A, D
<i>Activity</i>	<i>Day</i>	<i>Time</i>																																				
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Maintenance (if inaudible at neighbouring residences)	Any day	Any time																																				
Continuous Improvement																																						
6.	<p>The Proponent shall:</p> <ul style="list-style-type: none"> (a) implement all reasonable and feasible best practice noise mitigation measures; (b) investigate ways to reduce the noise generated by the project; and (c) report on these investigations and the implementation and effectiveness of these measures in the AEMR, to the satisfaction of the Director-General. 	Not Yet Applicable	Operations have not yet commenced.	A, D																																		

* D = Documentation sighted

A = Advised by Company

O = On-site Observation



Table A (Cont'd)
Compliance Review – Project Approval 05_0103

Cond. No.	Conditional Requirement	Compliance	Comments	Basis*																																																												
SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)																																																																
Water Quality Objectives (Cont'd)																																																																
11.	The Proponent shall aim to meet the water quality objectives in <i>Table 6</i> for water in the dredge pond and in groundwater adjacent the dredge pond, unless otherwise approved by the Director-General.	Compliant	Whilst slight exceedance of one sample pH was recorded within the existing initial dredge pond, it is considered that the intent of the condition, 'aiming' to meet the objectives, has been met.	D																																																												
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Pollutant</th> <th style="text-align: center;">Unit of Measure</th> <th style="text-align: center;">Water Quality Objectives</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">Turbidity</td><td style="text-align: center;">NTU</td><td style="text-align: center;">5 - 20</td></tr> <tr><td style="text-align: center;">pH</td><td style="text-align: center;">pH</td><td style="text-align: center;">6.5 – 8.5</td></tr> <tr><td style="text-align: center;">Oil and Grease</td><td style="text-align: center;">mg/L</td><td style="text-align: center;">10</td></tr> <tr><td style="text-align: center;">Salinity</td><td style="text-align: center;">µS/cm</td><td style="text-align: center;"><3,000</td></tr> <tr><td style="text-align: center;">Dissolved oxygen</td><td style="text-align: center;">mg/L</td><td style="text-align: center;">>6</td></tr> <tr><td style="text-align: center;">Chlorophyll-a</td><td style="text-align: center;">µg/L</td><td style="text-align: center;">2-10</td></tr> <tr><td style="text-align: center;">Faecal coliforms</td><td style="text-align: center;">Median No./100mL</td><td style="text-align: center;"><1000</td></tr> <tr><td style="text-align: center;">Enterococci</td><td style="text-align: center;">Median No./100mL</td><td style="text-align: center;"><230</td></tr> <tr><td style="text-align: center;">Algae and blue-green algae</td><td style="text-align: center;">No. of cells/mL (M.aeruginosa)</td><td style="text-align: center;"><50,000</td></tr> <tr><td></td><td style="text-align: center;">mm³/L (total biovolume)</td><td style="text-align: center;"><4</td></tr> <tr><td style="text-align: center;">Sodium</td><td style="text-align: center;">mg/L</td><td style="text-align: center;"><500</td></tr> <tr><td style="text-align: center;">Potassium ion</td><td style="text-align: center;">mg/L</td><td style="text-align: center;"><40</td></tr> <tr><td style="text-align: center;">Magnesium ion</td><td style="text-align: center;">mg/L</td><td style="text-align: center;"><100</td></tr> <tr><td style="text-align: center;">Chloride ion</td><td style="text-align: center;">mg/L</td><td style="text-align: center;"><1000</td></tr> <tr><td style="text-align: center;">Sulphate ion</td><td style="text-align: center;">mg/L</td><td style="text-align: center;"><800</td></tr> <tr><td style="text-align: center;">Bicarbonate ion</td><td style="text-align: center;">mg/L</td><td style="text-align: center;"><400</td></tr> <tr><td style="text-align: center;">Soluble Iron ion</td><td style="text-align: center;">mg/L</td><td style="text-align: center;"><20</td></tr> <tr><td style="text-align: center;">Soluble aluminium ion</td><td style="text-align: center;">mg/L</td><td style="text-align: center;"><0.5</td></tr> <tr><td style="text-align: center;">Ammonium ion</td><td style="text-align: center;">mg/L</td><td style="text-align: center;"><20</td></tr> </tbody> </table>					Pollutant	Unit of Measure	Water Quality Objectives	Turbidity	NTU	5 - 20	pH	pH	6.5 – 8.5	Oil and Grease	mg/L	10	Salinity	µS/cm	<3,000	Dissolved oxygen	mg/L	>6	Chlorophyll-a	µg/L	2-10	Faecal coliforms	Median No./100mL	<1000	Enterococci	Median No./100mL	<230	Algae and blue-green algae	No. of cells/mL (M.aeruginosa)	<50,000		mm ³ /L (total biovolume)	<4	Sodium	mg/L	<500	Potassium ion	mg/L	<40	Magnesium ion	mg/L	<100	Chloride ion	mg/L	<1000	Sulphate ion	mg/L	<800	Bicarbonate ion	mg/L	<400	Soluble Iron ion	mg/L	<20	Soluble aluminium ion	mg/L	<0.5	Ammonium ion	mg/L	<20
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<p><i>Table 6: Water Quality Objectives</i></p> <p>Notes:</p> <ul style="list-style-type: none"> The objectives for dissolved oxygen, turbidity and algae are relevant to surface water only. The Department acknowledges that short term exceedances of these objectives may occur during natural events such as heavy rainfall or flooding. The Department acknowledges that pre-existing water quality may not meet the objectives for some analytes, including salinity. The Proponent shall strive to meet the water quality objectives through implementation of the Soil and Water Management Plan (see condition 0 below), as far as is reasonable and feasible and within the Proponent's control, to the satisfaction of the Director-General. 																																																																
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Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)				
Management and Monitoring (Cont'd)				
21.	<p>The Erosion and Sediment Control Plan shall:</p> <p>a) be consistent with the relevant requirements of Managing Urban Stormwater: Soils and Construction, Volume 1, 4th Edition, 2004 (Landcom), and Council's codes including its Code of Practice for Soil and Water Management on Construction Sites, Development Design Specification D7 – Stormwater Quality and Tweed Urban Stormwater Quality Management Plan, except that should an inconsistency occur between these documents, the higher standard shall apply;</p> <p>b) identify activities that could cause soil erosion and generate sediment;</p> <p>c) describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters;</p> <p>d) describe the location, function, and capacity of erosion and sediment control structures; and</p> <p>e) describe what measures would be implemented to maintain these structures over time.</p>	Compliant	<p>Section 3.3 of SWMP.</p> <p>Section 3.3 of SWMP.</p> <p>Section 3.3 of SWMP.</p> <p>Section 3.3 of SWMP.</p> <p>Section 3.4 of SWMP.</p>	D
22.	<p>The Acid Sulfate Soil Management Plan shall:</p> <p>a) be consistent with the NSW Acid Sulphate Soil Advisory Committee's Acid Sulfate Soil Manual; and</p> <p>b) define procedures for managing the potential acid sulfate soils on the site, including sample testing and procedures.</p>	Compliant	<p>Section 4.1 of SWMP.</p> <p>Sections 4.3 and 4.4 of SWMP.</p>	D
* D = Documentation sighted A = Advised by Company O = On-site Observation				

Table A (Cont'd)
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Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)				
Landscape Management Plan (Cont'd)				
	<p>c) detailed performance and completion criteria for the rehabilitation and stabilisation of the site;</p> <p>d) consideration of outcomes if VENM material received for backfilling is less than optimum;</p> <p>e) a detailed description of how the performance of the rehabilitation of the site would be monitored over time to achieve the stated objectives;</p> <p>f) a detailed description of what measures would be implemented over the next 5 years to rehabilitate and manage the landscape of the site and revegetation areas including the procedures to be implemented for:</p> <ul style="list-style-type: none"> • progressively rehabilitating and stabilising areas disturbed by quarrying; • implementing revegetation and regeneration within the disturbance areas; • protecting areas outside the disturbance areas, including vegetation adjoining pipelines; • managing impacts on fauna, including measures to enable Wallum Froglet to cross the eastern pipeline; • controlling terrestrial and aquatic weeds and pests; • controlling access; and • reducing the visual impacts of the project; <p>g) a description of the potential risks to successful rehabilitation and/or revegetation, and a description of the contingency measures that would be implemented to mitigate these risks; and</p> <p>h) details of who is responsible for monitoring, reviewing, and implementing the plan.</p>		<p>Section 2.5 of the Landscape Management Plan.</p> <p>Section 2.4.6 of the Landscape Management Plan.</p> <p>Section 2.6 of the Landscape Management Plan.</p> <p>Sections 2.3 & 2.4 of the Landscape Management Plan.</p> <p>Section 2.7 of the Landscape Management Plan.</p> <p>Section 2.8 of the Landscape Management Plan.</p>	
<p>* D = Documentation sighted A = Advised by Company O = On-site Observation</p>				

Table A (Cont'd)
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Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)				
Rehabilitation Bond (Cont'd)				
32.	<p>Within 6 months of each Independent Environmental Audit (see condition 6 of schedule 5) excluding the inaugural audit, unless the Director-General directs otherwise, the Proponent shall review, and if necessary revise, the sum of the rehabilitation bond to the satisfaction of the Director-General. This review must consider:</p> <p>a) the effects of inflation;</p> <p>b) any changes to the total area of disturbance; and</p> <p>c) the performance of the rehabilitation and revegetation to date.</p>	Not Yet Applicable	No independent audits have been completed to date.	A
ABORIGINAL CULTURAL HERITAGE				
Aboriginal Cultural Heritage Management Plan				
33.	<p>The Proponent shall prepare and implement an Aboriginal Cultural Heritage Management Plan to the satisfaction of the Director-General. This plan must:</p> <p>a) be prepared in consultation with the relevant Aboriginal communities;</p> <p>b) be submitted to the Director-General for approval prior to carrying out any development; and</p> <p>c) include a:</p> <ul style="list-style-type: none"> • description of the Aboriginal cultural heritage induction protocol for employees; • description of the process for Aboriginal inspection of excavations for the northern pipeline corridor; • description of the measures that would be implemented if any new Aboriginal objects or skeletal remains are discovered during the project either within or beyond the area of disturbance; and • description of the process for identifying a long-term storage location should Aboriginal relics be discovered within the project site requiring salvage. 	Not yet Applicable	<p>Operations have not yet commenced.</p> <p>Prepared in consultation with Tweed-Byron LALC (correspondence dated 01/03/11).</p> <p>Aboriginal Cultural Heritage Management Plan (ACHMP) submitted to DoP 09/02/11.</p> <p>Section 7 of the ACHMP.</p> <p>Section 8 of the ACHMP.</p> <p>Section 10 and Appendix 1 of the ACHMP.</p> <p>Section 12 of the ACHMP.</p>	A, D
<p>* D = Documentation sighted A = Advised by Company O = On-site Observation</p>				

Table A (Cont'd)
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Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)				
TRAFFIC AND TRANSPORTATION				
Road Works				
34.	<p>Prior to despatch of sand by road, the Proponent shall:</p> <p>a) upgrade the intersection of Tweed Coast Road and Crescent Street for right turning vehicles to AUSTRROADS CHR treatment; and</p> <p>b) upgrade the intersection of Tweed Coast Road and Crescent Street for left turning vehicles to AUSTRROADS Figure 6.24 left turn treatment, to the satisfaction of Council.</p> <p><i>Note: In the event that the Tweed Coast Road is upgraded prior to the commencement of the despatch of sand by road, the Proponent shall pay \$105,000 (indexed annually by CPI) to Tweed Shire Council as a contribution to intersection works on Tweed Coast Road and Crescent Street for trucks entering onto Tweed Coast Road from Crescent Street.</i></p>	Not Yet Applicable	Product despatch has not yet commenced.	A
Road Haulage				
35.	<p>Trucks are not permitted to enter the site prior to 7.00am on any day.</p> <p><i>Note: 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 DECC and the affected residents as soon as possible, or within a reasonable period in the case of emergency.</i></p>	Not Yet Applicable	Road haulage has not yet commenced.	A
36.	<p>The Proponent shall prepare and implement a Traffic Safety Plan for the project to the satisfaction of the Director-General. This plan must:</p> <p>a) be prepared in consultation with the RTA and Tweed Shire Council;</p> <p>b) include measures to minimise the risk to other road users from project-related vehicles on public roads during construction and operation, including vehicles proceeding across Altona Drive between the southern and northern parts of the site;</p> <p>c) prohibit trucks departing the site from turning right from Crescent Street to Tweed Coast Road; and</p> <p>d) be submitted to the Director-General prior to commencing construction work.</p>	Not Yet Applicable	Construction works have not yet commenced.	A
<p>* D = Documentation sighted A = Advised by Company O = On-site Observation</p>				

Table A (Cont'd)
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Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
SCHEDULE 4 ADDITIONAL PROCEDURES (Cont'd)				
Independent Review				
2.	<p>If a landowner considers that the project is exceeding the impact assessment criteria in Director-General in writing for an independent review of the impacts of the project on his/her land.</p> <p>If the Director-General is satisfied that an independent review is warranted, the Proponent shall within 3 months of the Director-General advising that an independent review is warranted:</p> <p>a) consult with the landowner to determine his/her concerns;</p> <p>b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General to conduct monitoring on the land, to determine whether the project is complying with the relevant criteria in schedule 3, and identify the source(s) and scale of any impact on the land, and the project's contribution to this impact; and</p> <p>c) give the Director-General and landowner a copy of the independent review.</p>	Not Yet Applicable	Request for independent review has not been received to date.	A
3.	<p>If the independent review determines that the project is complying with the relevant criteria in schedule 3, then the Proponent may discontinue the independent review with the approval of the Director-General.</p>	Not Yet Applicable	Request for independent review has not been received to date.	A
4.	<p>If the independent review determines that the project is not complying with the relevant criteria in schedule 3, and that the project is primarily responsible for this non-compliance, then the Proponent shall:</p> <p>a) implement all reasonable and feasible measures, in consultation with the landowner, to ensure that the project complies with the relevant criteria; and</p> <p>b) conduct further monitoring to determine whether these measures ensure compliance; or</p> <p>c) secure a written agreement with the landowner to allow exceedances of the relevant criteria in schedule 3, to the satisfaction of the Director-General.</p>	Not Yet Applicable	Request for independent review has not been received to date.	A
* D = Documentation sighted A = Advised by Company O = On-site Observation				

Table A (Cont'd)
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Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
SCHEDULE 5 ENVIRONMENTAL MANAGEMENT AND MONITORING CONDITIONS (Cont'd)				
Annual Reporting				
5.	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 including Council. This report must: <ol 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; c) describe the works that will be carried out in the next 12 months; d) include a summary of the complaints received during the past year, and compare this to the complaints received in previous years; e) include a summary of the monitoring results for the project during the past year; f) include an analysis of these monitoring results against the relevant: <ul style="list-style-type: none"> • impact assessment criteria/limits; • monitoring results from previous years; and • predictions in the EA; g) identify any trends in the monitoring results over the life of the project; h) identify any non-compliance during the previous year; i) describe what actions were, or are being, taken to ensure compliance; and j) list the sources of VENM material received at the site and the tonnage of materials received from each source during the period to which the AEMR refers. 	Administrative Non-Compliance	The first AEMR was submitted 15/06/10 (i.e. within 12 months of this approval 16/06/09). This AEMR was accepted by DP&I on 28/06/10. The 2012/2013 Annual Review was submitted 12/09/16, i.e. exceeding the annual requirement. Notably, no operations were undertaken during that Annual Review period.	D
* D = Documentation sighted A = Advised by Company O = On-site Observation				

Table A (Cont'd)
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Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
SCHEDULE 5 ENVIRONMENTAL MANAGEMENT AND MONITORING CONDITIONS (Cont'd)				
Community Consultative Committee				
9.	<p>Prior to starting quarrying operations on the site, the Proponent shall establish a CCC for the project. This CCC must be established and operated in accordance with the <i>Guideline for Establishing and Operating Community Consultative Committees for Mining Developments</i>, and to the satisfaction of the Director-General.</p> <p><i>Note: With the approval of the Director-General, the Proponent may combine the CCC with the CCC for the Hanson Tweed sand extraction operation.</i></p>	Not Yet Applicable	Quarrying operations have not yet commenced.	A, D
Access to Information				
10.	<p>Within 1 month of the approval of any plan/strategy/program required under this approval (or any subsequent revision of these plans/strategies/programs), or the completion of any independent environmental audit or AEMR the Proponent shall:</p> <p>a) provide a copy of the relevant document/s to Council and relevant agencies; and</p> <p>b) ensure that a copy of the relevant document/s is made publicly available on site and/or at the Proponent's regional office and on the Proponent's website, to the satisfaction of the Director-General.</p>	Administrative Non-Compliance	<p>The approved 2009/2010 AEMR was not made available on the Company website within 1 month of approval.</p> <p>A copy was subsequently uploaded.</p>	D
11.	<p>During the project, the Proponent shall:</p> <p>a) make a summary of monitoring results required under this approval publicly available at the Proponent's regional office and on the Proponent's website; and</p> <p>b) update these results regularly (at least every 3 months), to the satisfaction of the Director-General.</p>	Not Yet Applicable	<p>Monitoring as outlined within Schedule 3 has not yet commenced.</p> <p>It is noted that quarterly water quality monitoring undertaken in accordance with EPL 12385 is updated annually on the Company website.</p>	A
* D = Documentation sighted A = Advised by Company O = On-site Observation				

Table B (Cont'd)
Compliance Review – Statement of Commitments

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SoC No.	Commitment	Compliance	Comments	Basis*
Rehabilitation				
5.1	Progressively backfill the northern extraction pond to the natural ground level.	Not Yet Applicable	Operations have not yet commenced.	A, D
5.2	Progressively backfill selected finalised sections of the southern extraction pond to create wetland areas.	Not Yet Applicable	Operations have not yet commenced.	A, D
5.3	Stabilise all earthworks and disturbed areas no longer required for Project-related activities in order to minimise erosion and sedimentation, dust lift-off and to reduce visual intrusion.	Not Yet Applicable	Operations have not yet commenced.	A, D
5.4	Conduct ongoing annual rehabilitation monitoring and maintenance.	Not Yet Applicable	Operations have not yet commenced.	A, D
5.5	Cross-rip all unsealed roads and remove all buildings and structures not required for the final land use.	Not Yet Applicable	Operations have not yet commenced.	A, D
5.6	Prepare a Rehabilitation Management Plan.	See Table A Schedule 3 Condition 29.		
Flooding and Drainage				
6.1	Construct and maintain shallow spillways (approximate elevation 1.3m AHD) within the bunds surrounding the extraction ponds at the eastern and western extent of the bunding adjacent the deepest part of the extraction pond.	Not Yet Applicable	Operations have not yet commenced.	A, D
6.2	Remove sections of bunding once floodwaters have peaked to allow floodwaters trapped behind the bunds to drain freely to the western drainage channel as the flood recedes.	Not Yet Applicable	Operations have not yet commenced.	A, D
6.3	Fill the processing area approximately 0.75m to 1.0m above natural ground level (1.55m AHD to 1.8m AHD) to prevent inundation of the processing area during local catchment floods.	Not Yet Applicable	Operations have not yet commenced.	A, D
6.4	Block the entrance to the processing area with sand relocated from on-site stockpiles prior to a forecast Tweed River overbank flood to reduce the level of inundation within the processing area.	Not Yet Applicable	Operations have not yet commenced	A, D
6.5	Maintain drainage paths outside of the bunded and filled areas to allow floodwaters to drain freely.	Not Yet Applicable	Operations have not yet commenced.	A, D
6.6	Prepare a flood evacuation plan to ensure that personnel respond appropriately to a warning of an imminent Tweed River overbank flood.	Not Yet Applicable	Operations have not yet commenced.	A, D
6.7	Realign the western drainage channel parallel to and south of Altona Drive to provide a more efficient drain and allow faster drainage of floodwaters towards the Tweed River.	Not Yet Applicable	Altona Drive has not yet been realigned.	A, D
* D = Documentation sighted A = Advised by Company O = On-site Observation				

Table B (Cont'd)
Compliance Review – Statement of Commitments

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SoC No.	Commitment	Compliance	Comments	Basis*
Groundwater				
7.1	Commence extraction within the southern extraction pond at an equivalent rate of 100 000m ³ per year and progressively ramp up in increments of up to 100 000m ³ .	Not Yet Applicable	Operations have not yet commenced.	A, D
7.2	Ensure the maximum extraction rate within the southern extraction pond does not exceed 450 000m ³ per year during the first two years of operations or until a sufficient size extraction pond is created to allow extraction at a rate of 650 000m ³ per year.	Not Yet Applicable	Operations have not yet commenced.	A, D
7.3	Adjust sand extraction rates to ensure that groundwater drawdown levels remain within the predicted limits.	Not Yet Applicable	Operations have not yet commenced.	A, D
7.4	Install a height gauge within the Southern Extraction Pond so that water levels can be monitored daily to m AHD.	Not Yet Applicable	Operations have not yet commenced.	A, D
7.5	Undertake standard monitoring for pH, EC, temperature, REDOX potential and groundwater level (m AHD) at the monitoring locations nominated in the Groundwater Monitoring Plan.	Not Yet Applicable	Operations have not yet commenced. A Groundwater Monitoring Plan has been included in the SWMP.	A, D
7.6	Undertake comprehensive monitoring for pH, EC, temperature, REDOX potential, groundwater level (m AHD), dissolved oxygen, calcium, magnesium, sodium, potassium, bicarbonate, sulfate, chloride, filterable iron, aluminium and arsenic. Monitoring will be undertaken by a suitably qualified or trained person at the monitoring locations nominated in the Groundwater Monitoring Plan and analysis undertaken at a NATA accredited laboratory.	Not Yet Applicable	Operations have not yet commenced. A Groundwater Monitoring Plan has been included in the SWMP.	A, D
7.7	Continue groundwater monitoring following the cessation of extraction and placement of VENM.	Not Yet Applicable	Operations have not yet commenced.	A, D
7.8	Regularly review monitoring data.	Not Yet Applicable	Operations have not yet commenced.	A, D
7.9	Provide a summary of the monthly / quarterly data relevant to each bore to the respective landowners.	Not Yet Applicable	Operations have not yet commenced.	A, D
7.10	Compile an annual summary of all monitoring results and forward to DWE as part of the annual return for the site.	Not Yet Applicable	Operations have not yet commenced.	A, D
7.11	Coordinate all monitoring activities with those already underway by Hanson Construction Materials and Australian Bay Lobster to ensure meaningful analyses can be obtained from all monitoring on the flood plain.	Not Yet Applicable	Operations have not yet commenced.	A, D
7.12	Consult with each likely affected landowner and investigate complaints of poor water quality in neighbouring dams/bores.	Not Yet Applicable	Operations have not yet commenced.	A, D
7.13	Undertake a more detailed sampling and analysis program to identify the source of the drawdown or contamination in the event the following is detected. <ul style="list-style-type: none"> • Deterioration in groundwater quality outside of the effects of drought or flood due to on-site activities. • Significant variations in groundwater level outside drought or flood conditions due to on-site activities. • Formation of a cone of depression or a groundwater mound that extends beyond the site boundary. 	Not Yet Applicable	Operations have not yet commenced.	A, D
* D = Documentation sighted A = Advised by Company O = On-site Observation				

Table B (Cont'd)
Compliance Review – Statement of Commitments

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SoC No.	Commitment	Compliance	Comments	Basis*
Groundwater (Cont'd)				
7.14	Negotiate an agreement with each affected landholder in the event water quality or quantity is adversely affected to either: <ul style="list-style-type: none"> • deepen the existing bore or install a replacement bore; • pay a cash compensation equal to the assessed cost of deepening the bore; • provide an alternative water supply, such as from the extraction ponds or groundwater bore registered to the Proponent; or • provide an appropriately sized rainwater storage tank to enhance property water storage. 	Not Yet Applicable	Operations have not yet commenced.	A, D
7.15	Investigate and secure a suitable alternative water supply (or other form of compensation) for R.W. Julius commensurate with the agreed legal water usage from groundwater supplies from Lot 1 DP598073.	Not Yet Applicable	Operations have not yet commenced.	A, D
7.16	Monitor, using data loggers, water levels and water usage rates within the dams on the R. Julius property that would potentially be affected.	Not Yet Applicable	Operations have not yet commenced.	A, D
7.17	Implement the provision of an alternative water supply or other agreed compensation.	Not Yet Applicable	Operations have not yet commenced.	A, D
7.18	Provide copies of any negotiated agreements to the Department of Planning and Department of Water and Energy for their records.	Not Yet Applicable	Operations have not yet commenced.	A, D
Surface Water				
8.1	Reduce sand extraction and temporarily cease VENM placement if a significant deterioration in extraction pond water quality occurs, until the source is identified and appropriate amelioration measures are implemented.	Not Yet Applicable	Operations have not yet commenced.	A, D
8.2	Regularly monitor surface water to provide an accurate assessment of the adequacy of practices implemented as part of the operation.	Not Yet Applicable	Operations have not yet commenced.	A, D
Acid Sulfate Soils and Sediments, Soil Contamination and Agricultural Suitability				
9.1	Convey return water (from both the wash plant and fill sites) in a manner which ensures fines / silts remain in suspension and do not settle in the return pipelines. If a pipeline is not used, undertake sluicing in a manner that ensures turbulent flow and sufficient velocity to prevent the deposition of fines material within the drainage line.	Not Yet Applicable	Operations have not yet commenced.	A, D
9.2	Return all separated fines to the extraction ponds for final placement with the return outlet located at a minimum 3m below the water surface within the extraction ponds.	Not Yet Applicable	Operations have not yet commenced.	A, D
9.3	Settle silts/fines arising from processing a minimum depth (typically 8m) below the surface of the southern extraction pond.	Not Yet Applicable	Operations have not yet commenced.	A, D
* D = Documentation sighted A = Advised by Company O = On-site Observation				

Table B (Cont'd)
Compliance Review – Statement of Commitments

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SoC No.	Commitment	Compliance	Comments	Basis*
Acid Sulfate Soils and Sediments, Soil Contamination and Agricultural Suitability (Cont'd)				
9.12	Ensure verification of neutralising agent application volumes and verification results are available.	Not Yet Applicable	Operations have not yet commenced.	A, D
9.13	Treat stripped topsoil/loam at determined rates prior to use in earth bunds or rehabilitation.	Not Yet Applicable	Operations have not yet commenced.	A, D
9.14	Treat and validate washed sand where required.	Not Yet Applicable	Operations have not yet commenced.	A, D
9.15	Collect and analyse soil samples at a rate of 4 per hectare.	Not Yet Applicable	Operations have not yet commenced.	A, D
9.16	Incorporate an alkaline amendment into the topsoil / loam at the calculated rate (based on the results of sampling).	Not Yet Applicable	Operations have not yet commenced.	A, D
9.17	Complete the validation sampling of treated soil at a rate one sample per 1 000m ³ .	Not Yet Applicable	Operations have not yet commenced.	A, D
9.18	Construct bunding around the extraction and processing areas to control drainage.	Not Yet Applicable	Operations have not yet commenced.	A, D
9.19	Ensure all surface water and runoff from the extraction and processing areas drains or is pumped into the extraction ponds.	Not Yet Applicable	Operations have not yet commenced.	A, D
9.20	Process extracted material via a hydrocyclone (such as would be used within the wash plant) or similar to hydraulically separate the fines (potentially containing pyrite) from the sand resource (except when material has been treated to ameliorate acid potential).	Not Yet Applicable	Operations have not yet commenced.	A, D
9.21	Treat all material not processed using a hydrocyclone or similar with alkaline amendments.	Not Yet Applicable	Operations have not yet commenced.	A, D
9.22	Undertake validation testing of extracted sand and stripped topsoil/loam as described in Table 4.9 of the Environmental Assessment and in accordance with the NSW ASS Manual (ASSMAC, 1998) and amended laboratory methods.	Not Yet Applicable	Operations have not yet commenced.	A, D
9.23	Audit the effectiveness of the operational safeguards and monitoring by an external environmental consultant.	Not Yet Applicable	Operations have not yet commenced.	A, D
9.24	Test the pH of the water into which the VENM(b) is placed to ensure it is not less than 6.5 at any time.	Not Yet Applicable	Operations have not yet commenced.	A, D
9.25	Undertake monitoring as outlined in Table 4.10 of the Environmental Assessment in relation to VENM(b) receipt and processing / internment.	Not Yet Applicable	Operations have not yet commenced.	A, D
9.26	Test the pH of the VENM(b) immediately prior to under-water disposal / backfilling to ensure the pH is not less than 5.5.	Not Yet Applicable	Operations have not yet commenced.	A, D
9.27	Undertake a internal environmental audits of VENM(b) receipt and treatment during the initial stages of the operation to ensure appropriate treatment is being conducted and records are up to date.	Not Yet Applicable	Operations have not yet commenced.	A, D

* D = Documentation sighted

A = Advised by Company

O = On-site Observation

Table B (Cont'd)
Compliance Review – Statement of Commitments

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SoC No.	Commitment	Compliance	Comments	Basis*
Acid Sulfate Soils and Sediments, Soil Contamination and Agricultural Suitability (Cont'd)				
9.28	<p>Complete the following in the event that validation or monitoring criteria are exceeded for topsoil, loamy sand or sand.</p> <ul style="list-style-type: none"> • Test the acid neutralising capacity of the stripped topsoil or hydraulically separated sands. • Incorporate alkaline amendments at the appropriate rate if the measured acid neutralising capacity is insufficient to neutralise the existing and potential acidity. <p>Undertake validation testing following treatment of loamy sand and unprocessed sand and apply additional alkaline amendments as required. Repeat process until compliance with action criteria is met.</p>	Not Applicable	Operations have not yet commenced.	A, D
9.29	<p>Terminate VENM(b) receipt at the premises if the pH of the water falls below accepted levels, until approval to continue is received in writing from the DECC(EPA).</p>	Not Applicable	Operations have not yet commenced.	A, D
9.30	<p>Complete the following in the event monitoring criteria are exceeded for imported VENM(b).</p> <ul style="list-style-type: none"> • Sample at the maximum rate of one sample / 1 000m³ and test for SCR and total actual acidity. • Treat the material with the calculated amount of alkaline amendment if any records indicate SCR >0.03% or total actual acidity >18mol H+/t. • Treat the material with the calculated amount of alkaline amendment. Undertake verification testing at the rate of 1 sample/per 1 000m³ to confirm SCR <0.03% and total actual acidity <18mol H+/t prior to final placement or further processing 	Not Applicable	Operations have not yet commenced.	A, D
9.31	<p>Undertake the following as soon as possible after becoming aware that any waste/material accepted at the premises is not VENM.</p> <ul style="list-style-type: none"> • Notify the EPA in writing. • Remove the material/waste from the premises and dispose of it at a facility licensed to take such waste. • Implement a procedure to audit all further incoming loads from that waste origin site prior to accepting any further waste, until such time as the results of such audits demonstrate that the waste origin site's screening and assessment procedures have been corrected to prevent further miss-classification of waste. 	Not Applicable	Operations have not yet commenced.	A, D
9.32	<p>Introduce hydrated lime at the appropriate rate if the extraction pond water quality fails accepted levels and ensure target pH level of 6.5 to 8.5 is not "overshot" leading to severely alkaline conditions (pH>9.0).</p>	Not Applicable	Operations have not yet commenced.	A, D
* D = Documentation sighted A = Advised by Company O = On-site Observation				

Table B (Cont'd)
Compliance Review – Statement of Commitments

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SoC No.	Commitment	Compliance	Comments	Basis*
Noise				
13.1	Acoustically treat the dredge including the enclosure of the engine with acoustic louvres and install a high performance muffler.	Not Yet Applicable	Extraction operations have not yet commenced.	A, D
13.2	Undertake a series of tests prior to commissioning the sand processing plant to ensure compliance with the noise limits at all locations and confirm that the equipment to be used on the Project Site have sound power levels comparable to those used within the noise modelling assessment.	Not Yet Applicable	Processing operations have not yet commenced.	A, D
13.3	Install an acoustic fence on the processing area bund (see Figure 2.6) to increase the height of the noise barrier on the southern side of the processing area.	Not Yet Applicable	Operations have not yet commenced.	A, D
13.4	Enclose the noisier components of the equipment to promote noise reduction of the plant.	Not Yet Applicable	Operations have not yet commenced.	A, D
13.5	Fit all mobile vehicles on the site with broadband type reversing beepers or alternative safety devices such as strobe lights and / or cameras.	Not Yet Applicable	Operations have not yet commenced.	A, D
13.6	Regularly service all equipment on site to ensure sound power levels of each item remains at or below that nominated for noise modelling purposes.	Not Yet Applicable	Operations have not yet commenced.	A, D
13.7	Maintain the internal road network to an acceptable standard to limit body noise from empty trucks.	Not Yet Applicable	Operations have not yet commenced.	A, D
13.8	Strictly adhere to all approved hours of operation.	Not Yet Applicable	Operations have not yet commenced.	A, D
13.9	Undertake a program of noise monitoring to confirm that noise emission levels from the site establishment and construction period are within acceptable limits at the surrounding assessment locations.	Not Yet Applicable	Operations have not yet commenced.	A, D
13.10	Undertake an ongoing monitoring program to demonstrate that noise emissions from the Project Site are within the Project specific noise limits at the surrounding assessment locations.	Not Yet Applicable	Operations have not yet commenced.	A, D
13.11	Regularly review the extent of noise monitoring throughout the life of the Project to ensure meaningful data is being collected.	Not Yet Applicable	Operations have not yet commenced.	A, D
Air Quality				
14.1	Install water sprays to control dusts generated during screening and dry processing.	Not Yet Applicable	Processing operations have not yet commenced.	A, D
14.2	Undertake progressive rehabilitation / stabilisation of available areas of disturbance (e.g. finalised sections or backfilled areas of the extraction ponds).	Not Yet Applicable	Extraction operations have not yet commenced.	A, D
14.3	Clean accumulated tracked road mud, dry dusts, sand or spillages on Altona Drive using a street sweeper.	Not Yet Applicable	Transport operations have not yet commenced.	A
14.4	Cover product trucks loads to prevent wind-borne losses and spillages.	Not Yet Applicable	Transport operations have not yet commenced.	A
* D = Documentation sighted A = Advised by Company O = On-site Observation				

Table B (Cont'd)
Compliance Review – Statement of Commitments

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SoC No.	Commitment	Compliance	Comments	Basis*
Visibility (Cont'd)				
16.4	Maintain the Project Site in a clean and tidy condition at all times.	Compliant	Quarry Site, although not operational, is maintained in a clean and tidy condition.	A
16.5	Implement air quality controls (see Commitment No. 14).	See Table B Commitment No. 14		
16.6	Position and direct floodlights or other lighting to minimise light emissions, with lighting not required at any given time not used.	Not Yet Applicable	Operations have not yet commenced.	A, D
* D = Documentation sighted A = Advised by Company O = On-site Observation				

Table C (Cont'd)
Compliance Review – Environmental Protection Licence 12385

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Cond. No.	Commitment	Compliance	Comments	Basis*
6 Reporting Conditions (Cont'd)				
R3 Written report (Cont'd)				
R3.2	The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.	Not Applicable	No requests received.	A
R3.3	The request may require a report which includes any or all of the following information: a) the cause, time and duration of the event; b) the type, volume and concentration of every pollutant discharged as a result of the event; c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort; e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants; f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and g) any other relevant matters.	Not Applicable	No requests received.	A
R3.4	The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.	Not Applicable	No requests received.	A
7 General Conditions				
G1 Copy of licence kept at the premises or plant				
G1.1	A copy of this licence must be kept at the premises to which the licence applies.	Yes	A copy is retained by the site caretaker.	A
G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.	Not Applicable	No requests received.	A
G1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.	Yes	A copy is retained by the site caretaker and is available upon request.	A
* D = Documentation sighted A = Advised by Company O = On-site Observation				

Table D
Compliance Review – Water Licence 30BL179511

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Cond. No.	Commitment	Compliance	Comments	Basis*
1.	The licensee must allow authorised officers to the department of water and energy, and its authorised agents reasonable access to the licensed works with vehicles and equipment at any time for the purposes of: <ul style="list-style-type: none"> Inspecting the said work. Taking samples of any water or material in the work and testing the samples. 	Compliant	No access known to have occurred during reporting period.	A
2.	If the licensee proposes to cease using the work, they must notify the department of water and energy of their intention to do so, in writing at least three months in advance.	Not Applicable	The Company did not propose to cease using the work during the reporting period.	A
3.	In the event that any notice is given pursuant to Condition 2, the licensee must submit a proposal to the department indicating how the licensed work is to be sealed and rendered safe.	Not Applicable	As above	A
4.	The licensee must carry out any works directed to be carried out by the Department of Water and Energy for remediation of the site caused by contamination of soil/groundwater, or changes to the works structure, including: capping, slope, bank stabilisation and revegetation upon completion of filling operations. Monitoring of the site is required for a period of 3 years or a period as may be agreed to by the department of water and energy.	Not Applicable	No directions received during the reporting period.	A
5.	The authorised work shall not be used for the discharge of polluted water into a river or lake otherwise than in accordance with the conditions of a licence granted under the <i>Protection of the Environment Operations Act 1997</i> . A copy of the licence to discharge is to be provided to the department of water and energy.	Compliant	The initial dredge pond has not been used to discharge polluted water.	A
6.	The licensee must not enlarge the work extension beyond the following dimensions: 270 metres long, 200 metres wide and 8.5 metres in depth. The location of the licensed work is shown on Figure 2 of the Gilbert & Sutherland correspondence dredge pond detail held at the Department's Grafton office.	Compliant	The initial dredge pond is less than the maximum allowable dimensions.	D
7.	The licensee must manage the work in such a way that the natural water levels are maintained in the acid sulfate soils of the surrounding environment.	Compliant	No dredging or other water extracting operations occurred during the reporting period.	A
8.	The licensee must manage the work in such a way that by-products from any acid sulfate soils placed in the work do not escape into the groundwater systems surrounding the work.	Compliant	No acid sulfate soils were placed within the initial dredge pond during the reporting period.	A
9.	The licensed work must not be filled with silts and fines from the sand mining operation to a level higher than 6.5 metres below 0.0 AHD (Australian Height Datum).	Compliant	No silts or fines have been placed within the initial dredge pond.	A
10.	At all times, the silts and fines in the excavated work must be covered by at least 6.5 metres of water	Not Applicable	No silts or fines have been placed within the initial dredge pond.	A

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Table D (Cont'd)
Compliance Review – Water Licence 30BL179511

Cond. No.	Commitment	Compliance	Comments	Basis*
11.	The licensee must manage the work in such a way that the quality of the surrounding groundwater is not diminished.	Compliant	Given no operational activities were undertaken and the sand stockpile has been grassed, it is considered that compliance will have been achieved.	A
12.	The licensee must ensure that any silts and fines that are put into the licensed work enter the said work at least 3 metres below the surface of any water in the said work.	Not Applicable	No silts or fines have been placed within the initial dredge pond.	A
13.	The licensee must take measurements of groundwater field parameters at one location within the excavation as follows: Every week groundwater parameters are to be measured at 0.5 metres below the surface water level for pH, EC(electrical conductivity), DO (dissolved oxygen), EH (redox potential) once. Should the pH fall below 5.0 then lime should be immediately added to the water in the excavation until the pH is restored to approximately 7 pH. Every three months groundwater parameters are to be recorded at 1 metre vertical intervals measured from the water surface to the base of the licensed work (excavation) for pH, EC (electrical conductivity), do (dissolved oxygen), eh (redox potential) once. Provide copies of the instrument calibration at the time the readings were undertaken to the department of water and energy with the annual report as outlined in condition 16.	Not Applicable	Operational dredging has not yet commenced.	A, D
14.	The licensee must test the water from five (5) monitoring bores (excavation as defined in Figure 2 Coffey report) and at one location from within the licensed work (at a sample depth of 0.5m) on a monthly basis during the sand extraction period and on a quarterly basis post mining. The locations of these bores are as follows: 1) South west of the excavation (MB 1) 2) West of the excavation (MB2) 3) North west of the excavation (MB3) 4) North east of the excavation (MB4) 5) East of the excavation (MB5).	Not Yet Applicable	Operational dredging has not yet commenced.	A
* D = Documentation sighted A = Advised by Company O = On-site Observation				

Table D (Cont'd)
Compliance Review – Water Licence 30BL179511

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Cond. No.	Commitment	Compliance	Comments	Basis*
14. (cont'd)	<p>The following analytes are to be tested from these bores:</p> <p>(A) Cations / Anions (CA, MG, NA, KLHC03, S04, CL)</p> <p>(B) Dissolved Iron (Fe)</p> <p>(C) Dissolved Arsenic (As)</p> <p>(D) Dissolved Aluminium (Al)</p> <p>(E) Dissolved Manganese (Mn)</p> <p>As well as the following field parameters:</p> <p>(A) pH</p> <p>(B) Electrical Conductivity (EC)</p> <p>(C) Dissolved Oxygen (DO)</p> <p>(d) Redox Potential (Eh)</p> <p>This information is to be included in the annual report as outlined in condition 16. The licensee must with the annual report furnish to the department of water and energy analysis certificates prepared by a NATA registered laboratory.</p>			
15.	The licensee shall record the groundwater levels in the sand excavation and the monitoring bores at monthly intervals and determined groundwater flow contours (relative to AHD) to show the groundwater flow directions on the site. This information is to be included in the annual report as outlined in condition 16.	Not Yet Applicable	Operational dredging has not yet commenced.	A
16.	The licensee shall engage a qualified consultant to prepare a groundwater management report based on the data collected on a yearly basis and both a hard copy and digital copy forwarded to the department of water and energy hydrogeology section in Grafton. In the event that a groundwater mound is found to be forming beneath the work or groundwater around the work has been contaminated, the licensee must inform this department within 14 days of the event being ascertained.	Not Yet Applicable	Operational dredging has not yet commenced.	A
17.	A buffer of 30 metres shall be maintained as a minimum from any crown lands.	Compliant	No activities have been undertaken within 30m of crown lands.	D
18.	Security is to be given and provided for the purpose of ensuring the due and proper compliance with the conditions of the licence. The licensee shall lodge with the department prior to the grant of this licence a security deposit in the form of the document attached as form SGL.	Compliant	A \$100,000 security bond has been lodged with the Department.	A
* D = Documentation sighted A = Advised by Company O = On-site Observation				

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