

GALES-KINGSCLIFF

PTY LTD  
ABN: 75 093 540 080

## Annual Review

for the

## Cudgen Lakes Sand Quarry

1 July 2016 to 30 June 2017

*Compiled by:*



**R.W. CORKERY & CO. PTY. LIMITED**

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ABN: 75 093 540 080

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1 July 2016 to 30 June 2017

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**Compiled for:**

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Ref No. 617/32

August 2017



R. W. CORKERY & CO. PTY. LIMITED

## TITLE BLOCK

<b>Name of Operation</b>	Cudgen Lakes Sand Quarry
<b>Name of Operator</b>	Neumann Contractors
<b>Development consent / project approval #</b>	Project Approval 05_0103B
<b>Name of holder of development consent / project approval</b>	Gales-Kingscliff Pty Ltd
<b>Mining Lease #</b>	Not Applicable
<b>Name of holder of mining lease</b>	Not Applicable
<b>Water licence #</b>	WAL 40902 / 30CA321269
<b>Name of holder of water licence</b>	Gales-Kingscliff Pty Ltd
<b>MOP/RMP start date</b>	Not Applicable
<b>MOP/RMP end date</b>	Not Applicable
<b>Annual Review start date</b>	01/07/16
<b>Annual Review end date</b>	30/06/17
<p><b>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 2016 to 30 June 2017 and that I am authorised to make this statement of behalf of Gales-Kingscliff Pty Ltd.</b></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>	
<b>Name of authorised reporting officer</b>	Stephen Segal
<b>Title of authorised reporting officer</b>	Managing Director
<b>Signature of authorised reporting officer</b>	
<b>Date</b>	31 August 2017

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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 was one non-compliance during the reporting period. The non-compliance recorded during the reporting period has 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_0103B	No
Environment Protection Licence 12385	Yes
Water Supply Works and Use Approval 30CA321269	Yes

**Table 1.2**  
**Non-compliances**

Relevant Approval	Condition	Condition Description (summary)	Compliance Status	Comment	Where Addressed in Annual Review
PA 05_0103B	Statement of Commitment 9.13	Treat stripped topsoil/loam at determined rates prior to use in earth bunds or rehabilitation. Timing – during soil stripping.	Non-compliant	Alkaline amendments were not applied during stripping but were applied after stripping of the upper 250mm of soil during physical commencement. Subsequent applications have been <u>prior</u> to stripping. Validation testing confirmed treatment post application was as effective as if it was applied prior to stripping.	11 and <b>Appendix 1</b>

### 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"> <li>• potential for serious environmental consequences, but is unlikely to occur; or</li> <li>• potential for moderate environmental consequences, but is likely to occur.</li> </ul>
Low	Non-compliant	Non-compliance with: <ul style="list-style-type: none"> <li>• potential for moderate environmental consequences, but is unlikely to occur; or</li> <li>• potential for low environmental consequences, but is likely to occur.</li> </ul>
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 (the 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\_0103B was granted 16 June 2009 and modified 19 February 2016. The modified operations include the inclusion of an initial processing area with operations planned to remain south of the existing alignment of Altona Drive for a period of at least 5 years from commencement. 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**.

Operations at the Quarry were physically commenced on 13 September 2016 and site establishment activities commenced on 26 June 2017, however, extraction operations have not yet commenced. The approval for the realignment of Altona Drive (DA05/1450) was physically commenced in 2011 through the placement of sub-base material in the eastern section of the road realignment. No further works have been undertaken or are currently planned. Further details on these activities are provided in Section 4.

### 2.2 SCOPE AND FORMAT

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

This is the eighth Annual Review submitted for the Quarry, following one Annual Environmental Management Report, and is applicable for the period 01 July 2016 to 30 June 2017 (“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 Gales-Kingscliff Pty Limited and Neumann Contractors.

The report generally follows the format and content requirements identified in the *Annual Review Guideline* dated October 2015 and the approval and licencing requirements, as applicable for the reporting period.

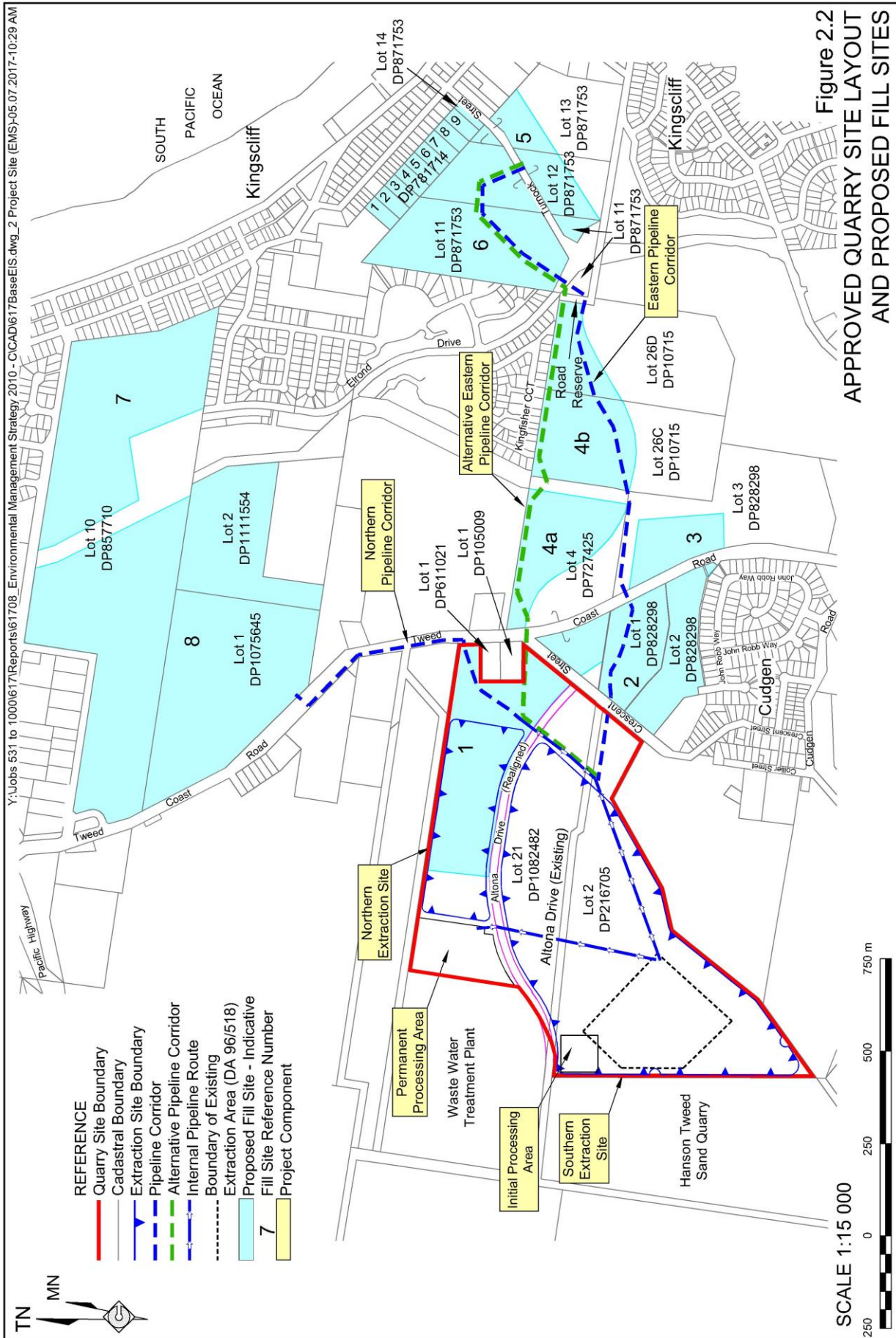
### 2.3 KEY PERSONNEL CONTACT DETAILS

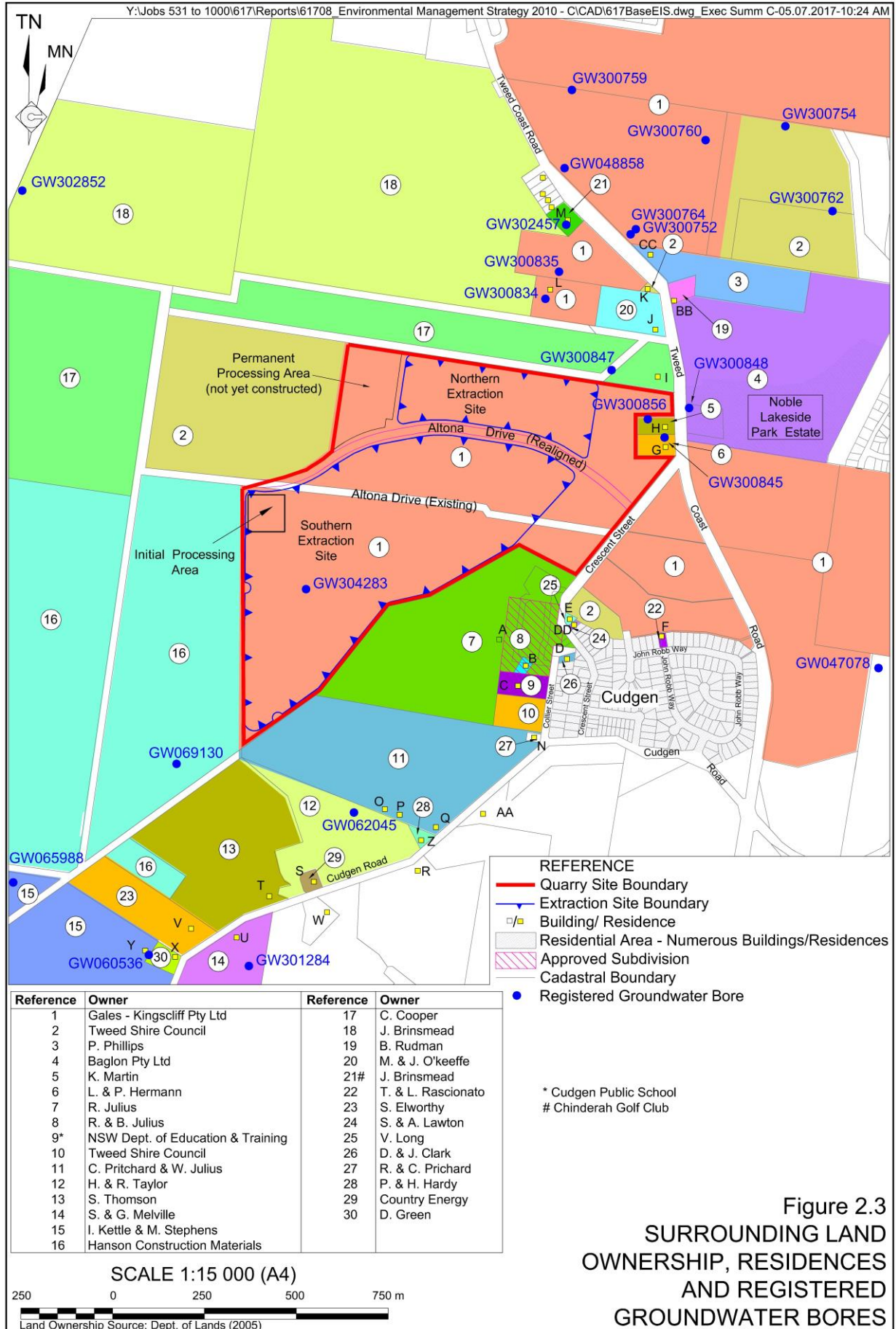
The key personnel contact names, position and phone numbers are as follows.

<b>Name</b>	<b>Company</b>	<b>Position</b>	<b>24 Hour Contact</b>
Gareth Brown	Neumann Contractors	Contracts Manager	0409 346 555
Stephen Segal	Gales-Kingscliff	Managing Director	0414 322 455
Jeff Holloway	-	Site Caretaker	0402 427 938









### 3. APPROVALS

The Quarry operates in accordance with the approvals listed in **Table 3.1**.

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

Consent/Lease/Licence	Issue Date	Expiry Date	Details / Comments
Project Approval 05_0103B	16/06/2009 MOD1 - 19/02/2016	01/07/2029	Issued by the (then) Department of Planning.
Environment Protection Licence 12385	18/11/2005 (licence version date 6 September 2016)	Not Applicable	Issued by NSW Environment Protection Authority. Renewed annually. Variation pending.
Water Access Licence 40902	09/11/2016	Not Applicable	Issued by Water NSW. Includes 700ML water allocation. Nominated works 30CA321269.
Water Supply Works and Use Approval 30CA321269	01/07/2016	28/02/2021	Issued by Water NSW at commencement of <i>Water Sharing Plan for the North Coast Coastal Sands Groundwater Sources 2016</i> .
DA 05/1450	18/08/2006	Not Applicable	Issued by Tweed Shire Council for the realignment of Altona Drive.

The *Water Sharing Plan for the North Coast Coastal Sands Groundwater Sources 2016* commenced on 1 July 2016, i.e. the first day of the reporting period. This resulted in the issue of Water Supply Works and Use Approval 30CA321269 which replaced Water Licences 30BL207142 and 30BL207145 previously issued under the *Water Act 1912*. Water Access Licence 40902 was also issued in accordance with the legislative requirements of the *Water Management Act 2000*.

A variation to Environment Protection Licence 12385, previously lodged on 18 December 2015 was approved on 6 September 2016. This variation provided for the update of the licence conditions to reflect the operations as approved by Project Approval 05\_0103B. A further variation was also submitted on 21 February 2017 at the request of EPA for the inclusion of further information relating to the fill sites to which sand will be hydraulically transferred. Processing of this variation was not completed during the reporting period.

The compliance review included in **Appendix 1** reflects the conditions relevant as at the end of this reporting period.

Two S138 Road Permits, DWY16\_0349 and DWY16\_0366, were also issued by Tweed Coast Council during the reporting period for the widening of the western site access from Altona Drive and for the installation of the pipeline crossing beneath Crescent Street. These permits do not contain any conditions relevant to the ongoing operation of the Quarry.

## 4. OPERATIONS SUMMARY

### 4.1 EXTRACTION OPERATIONS

No extraction operations were undertaken and no Virgin Excavated Natural Material (VENM) was imported onto the Quarry Site 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 <sup>1</sup>	NA	0	0	0
ROM <sup>1</sup>	NA	0	0	0
Coarse Reject <sup>2</sup>	NA	0	0	0
Fine Reject <sup>2</sup>	NA	0	0	0
Saleable Product <sup>3</sup> (transported by road)	300,000t [PA 05_0103B Condition 2(7)]	0	0	0
Total Extraction	650,000m <sup>3</sup> [PA 05_0103B Condition 2(6)]	0	0	300,000m <sup>3</sup>
Imported VENM	45,000t [PA 05_0103B Condition 2(8)]	0	0	0
Notes: 1. The Quarry does not generate waste rock / overburden or 'Run of Mine' material. 2. Whilst some coarse materials and fines will be generated through sand washing and returned to the extraction ponds, there are no approval limits applicable to these materials. 3. 300 000t is equivalent to approximately 200 000m <sup>3</sup> .				

### 4.2 OTHER OPERATIONS DURING THE REPORTING PERIOD

During the reporting period, the Quarry was physically commenced which included site survey and marking of the property and extraction boundaries and partial formation of the water management bunding around the Stage 1 extraction area. Further details of these activities were provided within the Evidence of Physical Commencement report submitted to DPE on 24 October 2016.

Site establishment and construction activities were later commenced on 26 June 2017. During the reporting period, site establishment and construction activities included the following.

- Site access improvement works, including extension of the culvert and widening of the access point onto Altona Drive (in accordance with S138 Road Permit DWY\_16/0349).
- Testing of topsoil for potentially acid sulfate soil (PASS), and the application of a liming agent to neutralise existing acidity.
- Stripping of topsoil from the Initial Processing Area and commencement of construction of the bunding along the southern boundary of the Initial Processing Area.
- Commencement of construction of an internal access road to the Stage 1 extraction area and dredge launch area.
- Commencement of the extension of the water management bunding around the southern extraction area.

**Figure 4.1** presents the activity locations whilst **Plates 4.1 to 4.4** provide a snapshot of these activities. It is noted that the site establishment and construction activities remained in-progress at the end of the reporting period.

Non-operational activities were also undertaken during the reporting period, including the following.

### Monitoring

Quarterly water quality monitoring of the initial dredge pond continued in accordance with the conditions of EPL 12385 applicable at that time. Results of this monitoring are presented in Section 7. Acid sulfate soil testing was also completed for the soil stripping activities associated with the physical commencement and site establishment works with agricultural lime applied in both instances. Further discussion regarding acid sulfate soil management is presented in Section 6.6.

Agreements with surrounding landholders were also sought during the reporting period to enable commencement of off-site compliance monitoring of groundwater, deposited dust, and noise. This monitoring commenced in July 2017, i.e. shortly after the 2016/2017 reporting period, and will be reported within the 2017/2018 Annual Review.

### Other Activities

All management plans, strategies and programs required by Project Approval 05\_0103B were either prepared or reviewed and updated during the reporting period and approved by DPE. Copies of the updated plans are available on the Company's website ([http://www.galeskingscliff.com.au/programs\\_and\\_plans.htm](http://www.galeskingscliff.com.au/programs_and_plans.htm)). Further details on the status and approval of the management plans is provided in the compliance review (see **Appendix 1**).

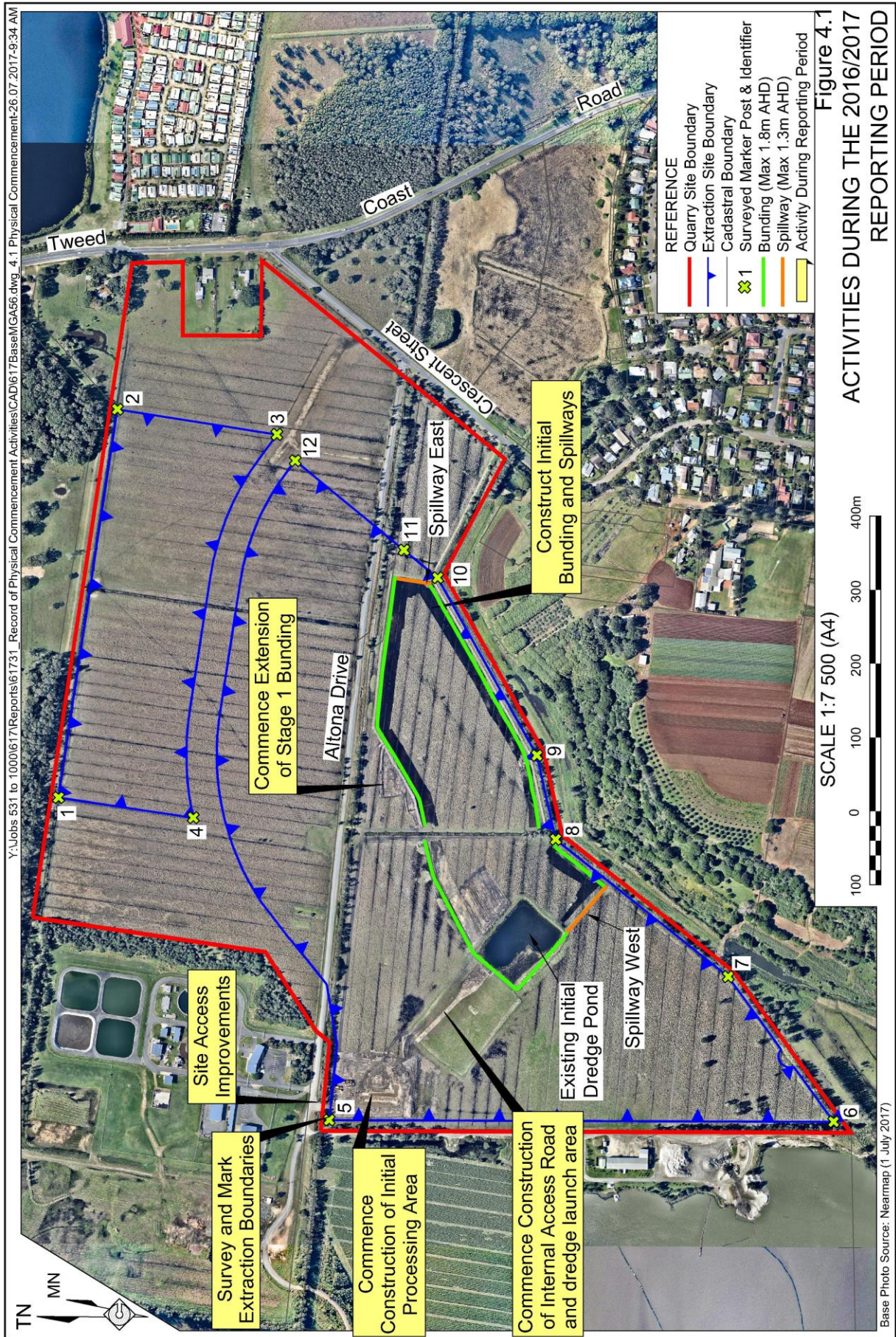
No works associated with the realignment of Altona Drive were undertaken during the reporting period.

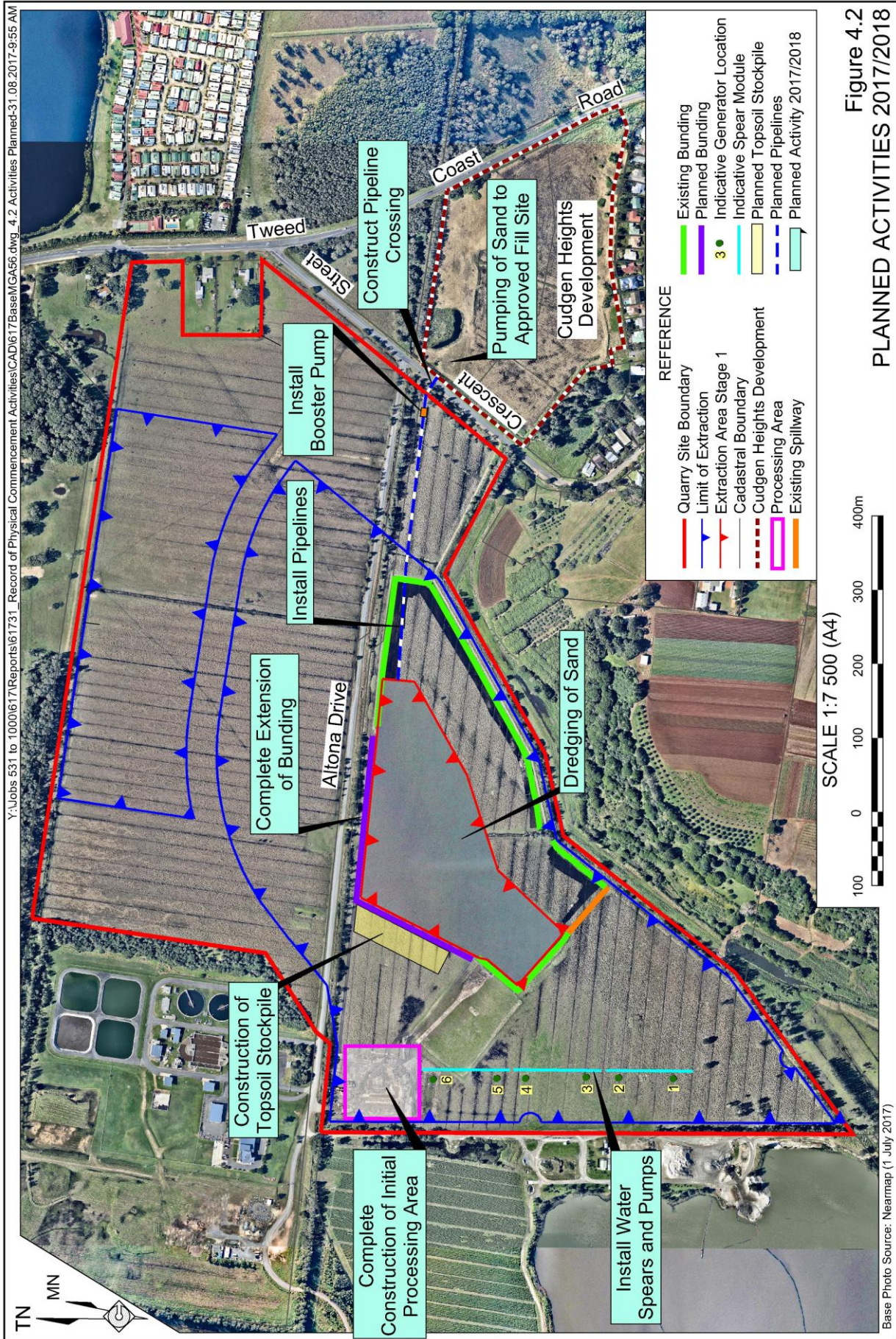
## 4.3 NEXT REPORTING PERIOD

### Site Establishment and Construction

Site establishment and construction activities planned during the next reporting period include the following.

- Completion of the bunding surrounding the Stage 1 extraction area within the Southern Extraction Site (see **Figure 4.2**).
- Completion of the construction of the Initial Processing Area and associated bunding.
- Installation of the pipeline section to the Cudgen Heights Estate (Fill Site 2 on **Figure 2.2**), including the crossing of Crescent Street, in accordance with S138 Road Permit DWY16\_0366.
- Assembly and commissioning of the dredge.
- Installation of spears in the western section of the Southern Extraction Area to transfer water to the dredge pond during initial dredging to buffer water levels.

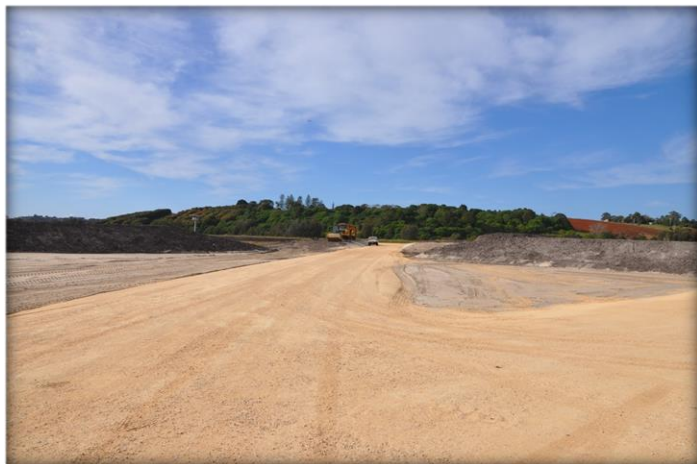








**Plate 4.1 Initial Processing Area Under Construction (left is south, right is east)**  
(Photos E617G\_002, 003 & 004)



**Plate 4.2 Access Road to Initial Dredge Pond**  
(Photo E617G\_001)

**Plate 4.3 Grassed Bunding to 1.8m AHD  
(formed September 2016)**  
(Photo E617G\_048)



**Plate 4.4 Stage 1 Extraction Area & Extension to Bunding (right) In Progress**  
(Photo E617G\_069))

## Extraction

Dredging from the Stage 1 extraction area is to commence in late September 2017. Sand will be pumped to the Cudgen Heights Estate (Fill Site 2 on **Figure 2.2**). In the order of 300 000m<sup>3</sup> is planned to be dredged for this filling campaign. Filling will be completed in accordance with separate approvals for the Cudgen Heights Estate.

Sand processing and transportation may commence during the next reporting period subject to customer demand and suitable arrangements with the operating contractor.

## Rehabilitation

No areas will become available for final rehabilitation during the next reporting period. However, landscaping along the southern and eastern boundary of the Initial Processing Area will be completed as well as general property maintenance, including weed control and slashing, as required. Additionally, supplementary planting will be undertaken by Bushland Restoration Services within the vegetation screen north of Altona Drive.

Given the previous success of placing topsoil material with the existing grass cover over the bunding constructed during physical commencement, this will be continued for future bund construction. Therefore, it is not expected any temporary rehabilitation / stabilisation will be required. However, if the grass cover does not adequately establish, supplementary seeding with pasture species will be undertaken.

## Monitoring

Surface water, groundwater, deposited dust, and noise monitoring will be undertaken in accordance with the conditional requirements of Project Approval 05\_0103B and the approved management plans.

## Other Activities

Following the completion of the initial dredging campaign, it is planned to undertake a review of the Soil and Water Management Plan in light of the water monitoring results, and to commission a review / audit of the acid sulfate soil monitoring and management measures to ensure that they remain appropriate and meaningful for ongoing operations. Any proposed changes to the management or monitoring practices will be submitted to the Department of Planning and Environment for review and approval.

No works are planned in relation to the realignment of Altona Drive during the next reporting period. However, as part of ongoing consultation with Council relating to the Kingscliff Locality Plan, the alignment of Altona Drive may be adjusted further north than previously planned and land use developments north of the realignment commenced prior to completion of Quarry operations. Consequently, consideration will also be given to the submission of a S75W modification to further rationalise the extraction and processing operations, including proposed changes to the final lake batters, removal of the northern extraction area and increase in size of the southern extraction area (subject to a planned change in the approved alignment of Altona Drive).

## 5. ACTIONS REQUIRED FROM PREVIOUS ANNUAL REVIEW

The 2015/2016 Annual Review was submitted to DPE on 13 September 2016 and feedback was received 3 November 2016. **Table 5.1** summarises the actions arising from the 2015/2016 Annual Review and the actions taken by the Operator.

**Table 5.1**  
**Actions from the previous Annual Review**

Action required from previous Annual Review	Requested by	Action taken by the Operator	Where discussed in Annual Review
List Council approval DA05/1450 for Altona Drive realignment works in Table 3.1.	DPE	DA 05/1450 has been included in <b>Table 3.1</b> .	<b>Table 3.1</b>
A discussion of the previous and planned realignment works of Altona Drive.	DPE	DA 05/1450 was physically commenced in 2011, however, no further works have been undertaken or are planned.	Section 2.1
Re-tabulate monitoring data to allow for easy comparison of current reporting period against previous years data (minimum, maximum, average) and EA predictions (minimum, maximum, average).	DPE	The monitoring data has been re-tabulated to separate previous reporting periods from the current reporting period. Comparisons of minimum, maximum and averages are also made and the relevant quality objectives presented. The EA did not include water quality predications.	Section 7.2
Water monitoring results in Appendix 2 should be displayed in Section 7 of this report, alongside the other water monitoring data.	DPE	The full range of parameters analysed during baseline water quality monitoring has been presented in Section 7.2.	Section 7.2
A table that outlines actions requested by the Department, and details the status of the actions.	DPE	A table of actions has been included in 2016/2017 Annual Review.	<b>Table 5.1</b> (this table)

## 6. ENVIRONMENTAL PERFORMANCE

### 6.1 SUMMARY OF ENVIRONMENTAL PERFORMANCE

A summary of environmental performance for the principal environmental aspects is provided in **Table 6.1**. Further detail regarding specific environmental aspects is also provided in the following subsections. Environmental performance relating to water is discussed in Section 7.

**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 complaints were received.	No trends identifiable. Currently no management implications.	Hours of operation were strictly complied with. No other specific management measures were required during the reporting period.  Monitoring of site establishment and operational activities commenced 10 July 2017.
Blasting	Blasting is not an approved activity.	No blasting undertaken.	Nil.	Nil.
Air Quality	PM <sub>10</sub> 24hr = 50ug/m <sup>3</sup> PM <sub>10</sub> Annual = 30ug/m <sup>3</sup> TSP Annual = 90ug/m <sup>3</sup> Dep Dust Annual = 4g/m <sup>2</sup> /month	No complaints were received.	No trends identifiable. Currently no management implications.	Due to previous rainfall, no dust suppression was required during the reporting period.  Deposited dust monitoring commenced 11 July 2017.  PM <sub>10</sub> monitoring to commence prior to road transportation.  No other specific management measures currently proposed.
Biodiversity	Establish rehabilitation bond. No significant impacts predicted.	No native vegetation was disturbed.	No trends applicable. Currently no management implications.	The rehabilitation bond for \$163,375 was lodged and accepted by DPE 12/04/17.  No further specific management measures currently proposed.
Heritage	Prepare Aboriginal Cultural Heritage Management Plan. No items of heritage have been located.	No heritage items were identified or disturbed.	No trends applicable. Currently no management implications.	Induction by Tweed LALC completed.  No further specific management measures currently proposed.
Acid Sulfate Soils	Manage acid sulfate soils in accordance with an Acid Sulfate Soil Management Plan.	No exceedance of Scr criteria was recorded for stripped topsoil.  Existing soil acidity successfully limed in accordance with management plan.	Stripped topsoil was limed at required rates to treat existing acidity levels.	Continue implementation of Acid Sulfate Soil Management Plan.  The need to lime topsoil material to be further considered and the management plan amended, if applicable.

## 6.2 NOISE

### Environmental Management

Site establishment activities commenced on 26 June 2017 and involved soil stripping and commencement of construction of the amenity bund around the southern and eastern boundary of the Initial Processing Area and water management bunding around the Stage 1 extraction area. All site establishment and construction activities were undertaken within the approved hours of operation utilising appropriately sized and maintained equipment. No further noise management measures were able to feasibly be implemented during the reporting period.

Access agreements to undertake noise monitoring were also sought during the reporting period with noise monitoring undertaken on 10 July 2017 (i.e. slightly beyond this reporting period).

### Environmental Performance

No complaints have been received and residents expressed no concerns during consultation for the written access agreements for monitoring activities. Noise monitoring undertaken on 10 July 2017 recorded compliance. This noise monitoring is available on the Company website and will be fully reported as part of the next Annual Review.

### Reportable Incidents and Further Improvements

No reportable noise incidents occurred during the reporting period and no further improvements or management measures are currently planned.

## 6.3 AIR QUALITY

### Environmental Management

Due to substantial rainfall prior to site activities, the soil material has been sufficiently moist so as not to require any specific dust control measures. Access agreements to commence deposited dust monitoring were sought during the reporting period with deposited dust monitoring commencing on 11 July 2017 (i.e. slightly beyond this reporting period).

### Environmental Performance

No complaints have been received and residents expressed no concerns during consultation for the written access agreements for monitoring activities. Deposited dust monitoring has commenced, as required, prior to commencement of extraction. Results will be updated on the Company website on an approximately 3 monthly basis and will be fully reported as part of the next Annual Review.

### Reportable Incidents and Further Improvements

No reportable air quality incidents occurred during the reporting period and no further improvements or management measures are currently planned. In the event that road transportation is planned to occur during the next reporting, PM<sub>10</sub> monitoring will also commence in accordance with the Air Quality Monitoring Program.

## 6.4 BIODIVERSITY

The rehabilitation bond for \$163,375 was lodged and accepted by DPE on 12 April 2017. No disturbance of native vegetation was required during the reporting period and no specific biodiversity management measures or monitoring was deemed necessary. No incidents occurred during the reporting period and no further improvements are currently planned.

## 6.5 HERITAGE

### Environmental Management

The Contracts Manager for Neumann Contractors, the approved Quarry Operator for the Cudgen Lakes Sand Quarry, was inducted by the Tweed Local Aboriginal Land Council on 2 September 2016 in accordance with the approved Aboriginal Cultural Heritage Management Plan. The Contracts Manager has subsequently inducted all employees undertaking ground disturbing activities.

### Environmental Performance, Reportable Incidents, and Further Improvements

No Aboriginal heritage sites were identified during the reporting period and no further improvements were deemed necessary. No reportable incidents occurred during the reporting period.

## 6.6 ACID SULFATE SOILS

Topsoil stripped during the reporting period was managed in accordance with the Acid Sulfate Soils Management Plan which included sampling and application of lime at rates calculated in accordance with the sample results.

A total of 32 soil samples were taken during the reporting period for comparison against the action criteria for chromium reducible sulfur content (Scr) of >0.03% and for Total Actual Acidity (TAA) of >18mol H<sup>+</sup>/t. All samples recorded a Scr of 0.01% or less, except for one sample which recorded an Scr of 0.02%. These results indicate that the soil has extremely limited potential for any further acidification as result of pyritic material and was therefore not considered potentially acid sulfate soil. As the topsoil (the upper 25cm of the soil profile) is well above the water table and the associated reducing conditions, no potential acid sulfate soil is expected to be encountered within the topsoil material.

The existing TAA ranged between 0 and 83mol H<sup>+</sup>/t and averaged 43mol H<sup>+</sup>/t, exceeding the >18mol H<sup>+</sup>/t action criteria. Due to the existing acidity, lime was added at the recommended liming rate (~26t/ha) to reduce the TAA. Validation testing completed during the reporting period confirmed that, as a result of liming, the TAA was reduced to nil with no further liming required.

Given that the soils naturally have existing acidity, as also occurs in non-acid sulfate soils, and no samples recorded chromium reducible sulfur concentrations near the action criteria, it is intended to review the need for ongoing sampling and liming of the topsoil material. The outcomes of this review will be presented within the next Annual Review.

No other specific acid sulfate soil management measures were required during the reporting period and no reportable incidents occurred.

## 7. WATER MANAGEMENT

### 7.1 WATER TAKE

As discussed in Section 3, due to the commencement of the *Water Sharing Plan for the North Coast Coastal Sands Groundwater Sources 2016* on 1 July 2016, the previously issued water licences have been replaced by Water Supply Works and Use Approval 30CA321269 and Water Access Licence (WAL) 40902, which has a water share component of 700ML. Given that no extraction 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 previous consultation with DPI-Water confirms that evaporation is not required to be accounted for in the calculated water loss / entitlement for this operation.

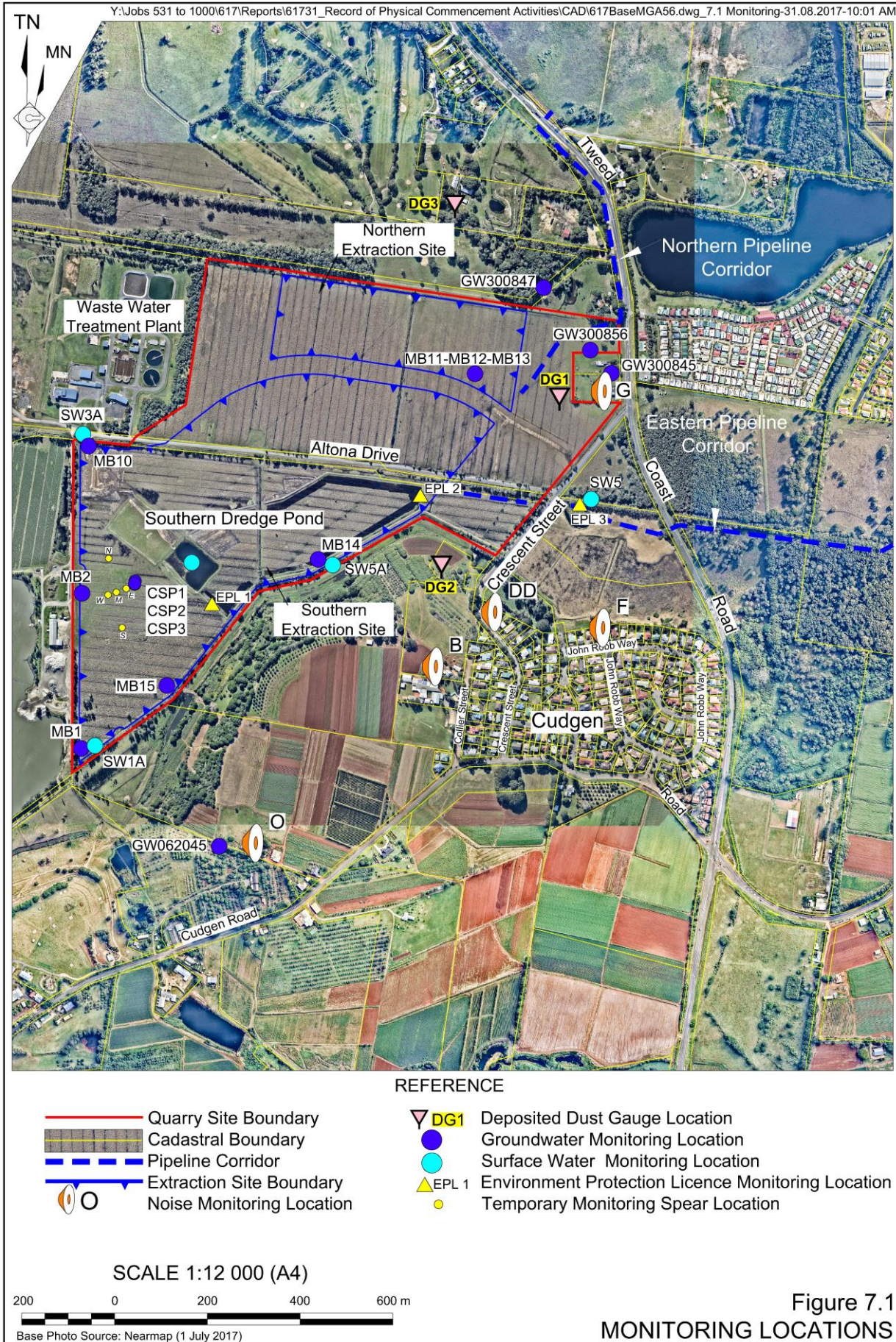
### 7.2 SURFACE WATER

Water quality monitoring within the initial dredge pond (EPL Point 1 – see **Figure 7.1**) 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 7.2**.

During the reporting period, all values remained within the objective ranges except for a slight (0.33) exceedance of the upper pH objective and dissolved oxygen values (0.95mg/L and 1.08mg/L) below the dissolved oxygen objective. These slight exceedances are not considered likely to have resulted in any adverse environmental effects and are within the ranges for pH (5.98 to 9.3) and dissolved oxygen (0.36mg/L to 13.3mg/L) previously recorded in surrounding surface water drains. Given that the intent is to aim to meet these objectives and no activities occurred in the period leading up to these sampling events, no action other than continued monitoring is currently considered necessary.

Overall, there appears to be an approximately seasonal trend for all measured parameters. This trend should be considered when reviewing future monitoring results once extraction operations commence.

Water quality monitoring at the off-site monitoring locations did not occur during the reporting period (as extraction operations had not yet commenced) but commenced shortly following the 2016/2017 reporting period). Additional baseline water quality monitoring was previously undertaken at all monitoring locations as presented in the 2015/2016 Annual Review. As requested by DPE, the minimum, maximum and average for all parameters analysed is provided in **Table 7.2**. A copy of the baseline results is also included in the approved Soil and Water Management Plan and will be referred to in future Annual Reviews as relevant for the interpretation of monitoring results. In summary, the baseline water quality monitoring confirmed the previous background water quality monitoring results with generally low dissolved oxygen levels and, at times, elevated salinity levels indicating tidal influences within the drains. The pH within the surface water drains is generally lower than the initial dredge pond with values as low as pH 6 recorded, which is again consistent with previous background water quality monitoring.





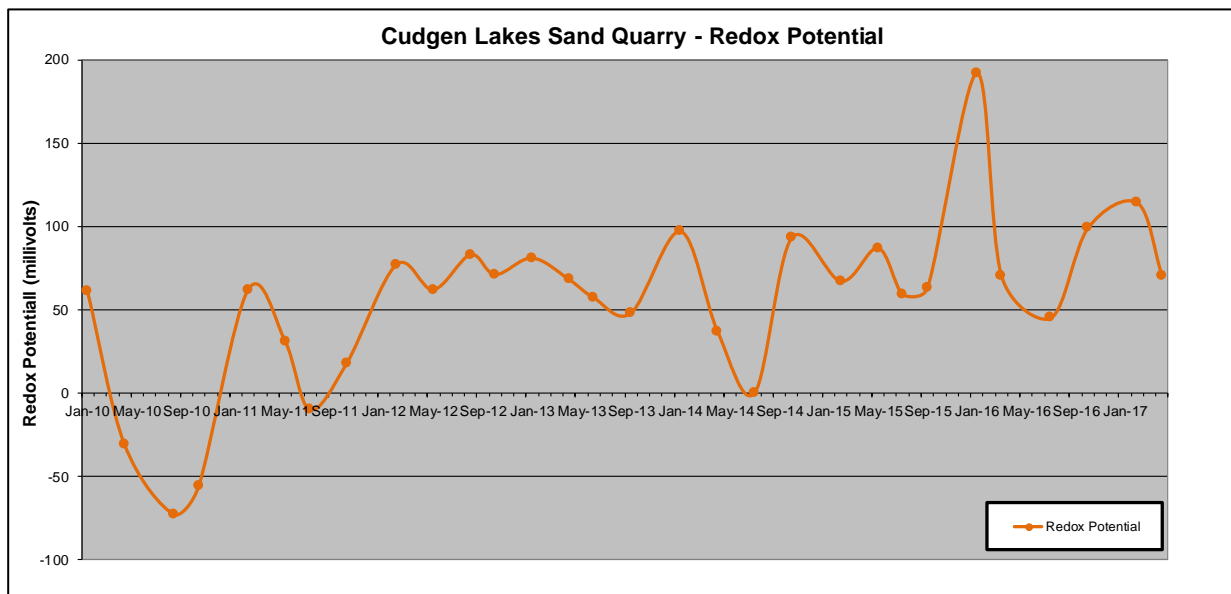
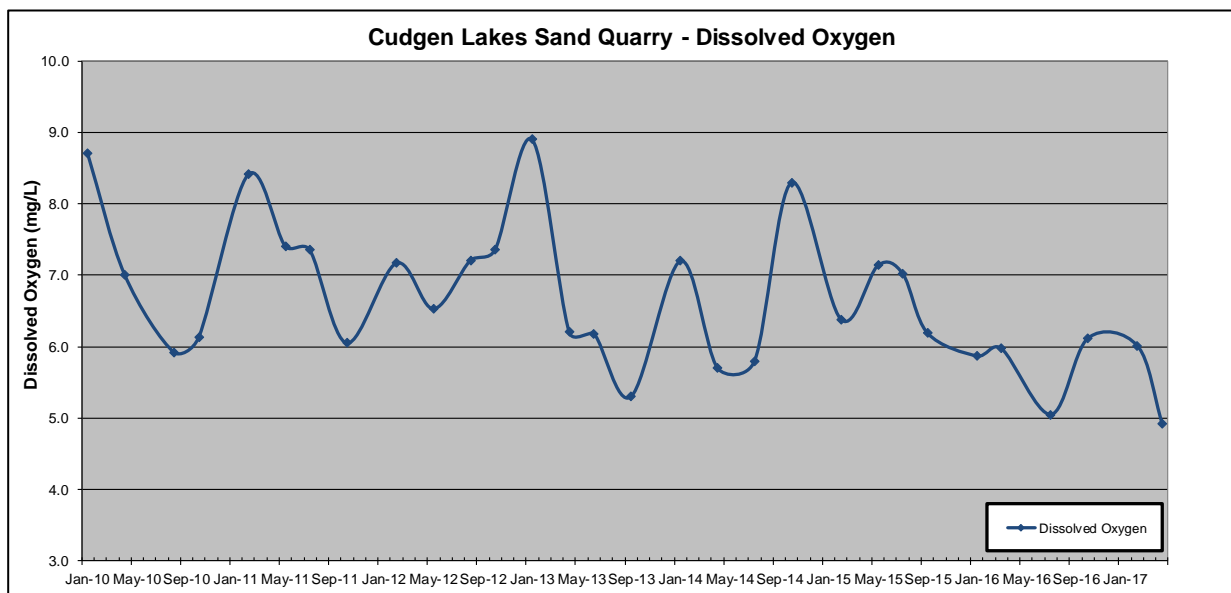
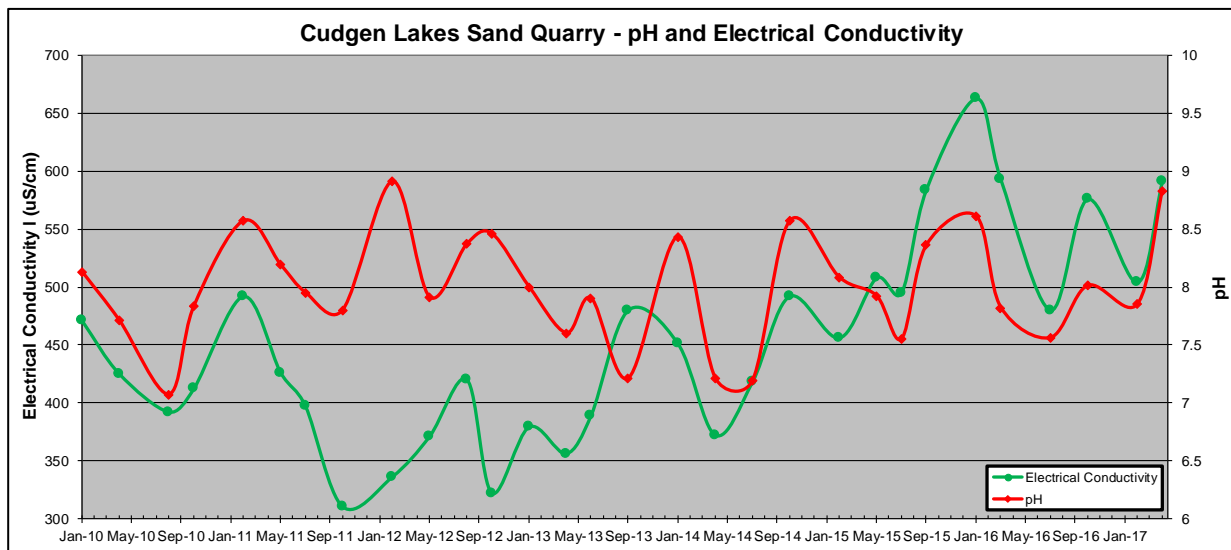


Figure 7.2 Water Quality Monitoring 2010 - 2017



Table 7.1  
Water Quality Monitoring Results 2010 – 2017

	(Date sampled)*	Dissolved Oxygen	pH	Redox Potential	Salinity	Temperature	
	Units	mg/L	-	millivolts	µS/cm	°C	
2010-2016	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	
	25-Sep-13	5.30	7.21	48	480	24.6	
	21-Jan-14	7.2	8.43	97	451	28.3	
	07-Apr-14	5.7	7.21	37	372	25.7	
	14-Jul-14	5.8	7.19	^	418	20.1	
	20-Oct-14	8.3	8.57	93	492	27.6	
	05-Feb-15	6.38	8.08	67	456	28.7	
	20-May-15	7.14	7.92	87	508	24.8	
	06-Jul-15	7.02	7.55	59	495	21.5	
	29-Sep-15	6.19	8.36	63	584	26.4	
	26-Jan-16	5.87	8.61	192	663	27.3	
	17-Mar-16	5.97	7.82	70	593	26.8	
	<b>Average</b>	<b>6.82</b>	<b>7.98</b>	<b>53</b>	<b>439</b>	<b>24.6</b>	
	<b>Minimum</b>	<b>5.30</b>	<b>7.07</b>	<b>-73</b>	<b>310</b>	<b>18.3</b>	
	<b>Maximum</b>	<b>8.90</b>	<b>8.91</b>	<b>192</b>	<b>663</b>	<b>29.2</b>	
2016/2017	13-Jul-16	5.05	7.56	45	480	21.7	
	12-Oct-16	6.12	8.01	99	576	26.4	
	02-Feb-17	6.01	7.85	114	504	27.8	
	07-Apr-17	4.92	8.83	70	591	25.5	
		<b>Average</b>	<b>5.53</b>	<b>8.06</b>	<b>82</b>	<b>538</b>	<b>25.4</b>
		<b>Minimum</b>	<b>4.92</b>	<b>7.56</b>	<b>45</b>	<b>480</b>	<b>21.7</b>
	<b>Maximum</b>	<b>6.12</b>	<b>8.83</b>	<b>114</b>	<b>591</b>	<b>27.8</b>	
<b>PA 05_0103B Objectives</b>		<b>&gt;6</b>	<b>6.5-8.5</b>	<b>Not Specified</b>	<b>3000</b>	<b>Not Specified</b>	

Red values indicate exceedance of applicable objectives.

\*All samples are measured using field instrumentation

^No sample – equipment failure.

**Table 7.2**  
**Additional Baseline Water Quality Monitoring Results – 2015/2016**

Parameters	Objective <sup>1</sup>	SW1A	SW3A	SW5A	SW5	Initial DP (Surface)	Initial DP (Depth)	
Physical Parameters	Temp (°C)	-	23 – 26.8 (24.6)	23 – 30 (27)	23 – 27 (24)	24 – 28 (25)	25 – 27 (26)	24 – 27 (26)
	pH	6.5-8.5	6.5 – 7.2 (6.8)	<b>6.0 – 8.0</b> (7.0)	6.5 – 7.0 (6.7)	<b>6.3 – 7.3</b> (6.9)	7.8 – <b>9.0</b> (8.5)	7.8 – <b>8.6</b> (8.2)
	EC (µS/cm)	<3000	234 – 652 (433)	552 – <b>5470</b> (2636)	129 – 369 (292)	267 – 1808 (1069)	591 – 663 (612)	613 – 663 (630)
	DO (mg/L)	>6	<b>0.24 – 5.22</b> (2.01)	<b>1.47 – 9.00</b> (5.32)	<b>0.39 – 4.21</b> (1.60)	<b>0.15 – 3.12</b> (1.19)	<b>5.87 – 6.12</b> (6.00)	3.43 – 8.87 (4.35)
	Redox (mV)	-	163 – 196 (180)	180 – 198 (189)	164 – 199 (182)	174 – 197 (186)	148 – 192 (170)	82 – 194 (133)
	TSS (mg/L)	50	23 – <b>57</b> (35)	18 – <b>130</b> (47)	9 – 17 (13)	14 – <b>58</b> (38)	2 – 9 (5)	4 – 9 (6)
	Turbidity (NTU)	5-20	14 – <b>32</b> (21)	11 – 17 (14)	<b>5 – 26</b> (11)	<b>11 – 25</b> (17)	<b>2 – 6</b> (4)	<b>4 – 5</b> (4)
	Oil & Grease (mg/L)	10	<4	<4	<4	<4	<4	<4
Major Cations & Anions	Sodium (mg/L)	<500	17 – 51 (37)	76 – <b>808</b> (347)	13 – 37 (29)	29 – 255 (147)	64 – 69 (66)	64 – 67 (65)
	Calcium (mg/L)	-	14 – 26 (21)	13 – 161 (82)	6 – 19 (14)	14 – 32 (29)	24 – 26 (25)	25 – 27 (26)
	Magnesium (mg/L)	<100	5 – 11 (9)	9 – 108 (51)	3 – 9 (7)	6 – 31 (20)	11 – 12 (12)	12
	Potassium (mg/L)	<40	7 – 9 (8)	5 – 31 (17)	<5	7 – 14 (10)	7 – 8 (8)	7 – 8 (8)
	Chloride (mg/L)	<1000	29 – 120 (75)	110 – <b>1700</b> (695)	16 – 73 (49)	44 – 410 (234)	110 – 120 (118)	110 – 120 (117)
	Sulphate (mg/L)	<800	3 – 14 (7)	15 – 148 (55)	6 – 11 (8)	15 -28 (23)	14 -20 (16)	14 – 16 (15)
	Bicarbonate (mg/L)	<400	45 – 94 (80)	51 – 350 (228)	20 – 94 (64)	32 – 250 (163)	57 – 92 (71)	94 – 96 (95)
Metals	Aluminium (mg/L)	<0.5	0.02 – 0.45 (0.17)	0.01 – <b>0.75</b> (0.21)	0.01 – <b>1.18</b> (0.31)	0.02 – 0.38 (0.22)	0.04 – 0.19 (0.12)	0.05 – 0.10 (0.07)
	Arsenic (mg/L)	<0.42	0.001 - 0.002 (0.001)	0.001 - 0.005 (0.003)	0.001	0.001 - 0.002 (0.001)	0.001 - 0.002 (0.001)	0.001 - 0.002 (0.001)
	Iron (filterable) (mg/L)	<20	0.7 – 1.9 (1.3)	0.3 – 0.9 (0.6)	0.2 – 1.1 (0.6)	0.3 – 1.4 (0.7)	0.01 – 0.02 (0.01)	0.01 – 0.07 (0.04)
Nutrients	Total P (mg/L)	0.01	<b>0.15 – 0.56</b> (0.34)	<b>0.23 – 0.64</b> (0.47)	<b>0.11 – 0.26</b> (0.17)	<b>0.16 – 0.45</b> (0.26)	<b>0.03 – 0.05</b> (0.04)	<b>0.04 – 0.05</b> (0.04)
	OrthoPhosphate P (mg/L)	0.005	<b>&lt;0.02 - 0.12</b> (0.45)	<b>0.07 – 0.21</b> (0.14)	<b>0.02 – 0.04</b> (0.03)	<b>0.02 – 0.14</b> (0.06)	<b>&lt;0.02</b>	<b>&lt;0.02</b>
	Total N (mg/L)	0.35	<b>1.1 – 4.3</b> (2.3)	<b>1.6 – 2.7</b> (2.2)	<b>0.9 – 1.9</b> (1.3)	<b>1.4 – 3.4</b> (2.4)	<b>0.81 – 0.86</b> (0.84)	<b>0.82 – 0.94</b> (0.89)
	TKN (mg/L)	-	1.1 – 4.3 (2.3)	1.6 – 2.7 (2.2)	0.9 – 1.9 (1.3)	1.4 – 3.4 (2.4)	0.81 – 0.86 (0.84)	0.82 – 0.94 (0.89)
	Ammonia (mg/L)	<20	<0.02 – 0.08 (0.04)	<0.02	<0.02	0.02 – 0.33 (0.10)	<0.02	<0.02
	Faecal coliforms (cells/mL)	<1000/100	180 – <b>2040</b> (745)	270 – <b>2410</b> (980)	100 – 960 (575)	10 – 430 (203)	128 – <b>4800</b> (1515)	128 – 150 (140)
	Enterococci (cells/mL)	<230/100	<b>270 – 4160</b> (2038)	<b>250 – 3880</b> (1303)	<b>970 – 3120</b> (2238)	80 – <b>1760</b> (620)	174 – <b>860</b> (554)	50 – <b>340</b> (188)

Note: 1. See Section 6.4

DP = Dredge Pond

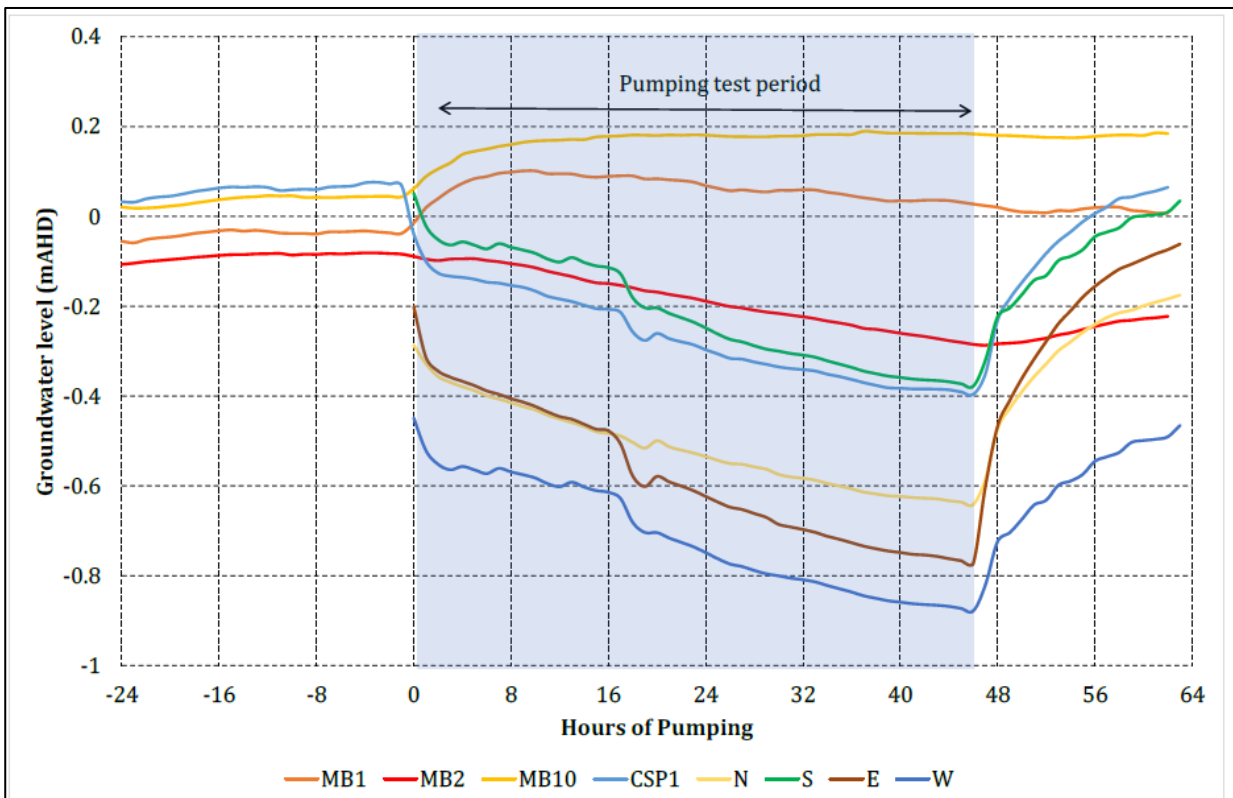
**Bold** values indicate exceedance of applicable objectives.

### 7.3 GROUNDWATER

As discussed in Section 7.1, no water take occurred during the reporting period and groundwater monitoring as outlined within the SWMP had not yet commenced. Monitoring in accordance with the SWMP will be implemented prior to the commencement of dredging and reported in the next Annual Review.

However, for the purposes of undertaking a pumping trial, groundwater level loggers were installed within four bores, namely MB1, MB2, MB10 and CSP1 and four temporary spears (see **Figure 7.1**) on 27 February 2017. The pumping trial was undertaken in consultation with Water NSW to assess whether shallow spears placed within the extraction footprint could provide ‘internal’ make-up water for buffering water levels within the dredge pond during the initial dredging. By buffering the water level within the dredge pond, the pumping rate of the dredge should be able to be maintained at a steady rate rather than intermittently ceasing dredging until a larger pond is created. Essentially, the use of spears within the extraction footprint emulates a larger pond.

The pumping occurred over a 48hr period with the recovery monitored over a further 16 hours. The results confirmed that use of spears could supply adequate volumes of ‘internal’ make-up water without causing drawdown beyond -1.5m AHD (the target level to ensure drawdowns remain less than those previously predicted). The water quality during the pumping trial also remained almost constant with an electrical conductivity of 510µS/cm and pH of 7.2. The hydrograph of the water levels during the pumping trial assessment period is presented in **Figure 7.3**.



Source: AGECC

Figure 7.3 Pumping Trial – Hydrograph

## 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 7 (ha)	Year 8 (ha)	Year 9 (ha)
Total Quarry footprint	2.5 <sup>1</sup>	5.7 <sup>2</sup>	8.1 <sup>3</sup>
Total active disturbance	2.5 <sup>1</sup>	5.7 <sup>2</sup>	8.1 <sup>3</sup>
Land being prepared for rehabilitation	0	0	0
Land under active rehabilitation	0	0	0
Completed rehabilitation	0	0	0

Notes:

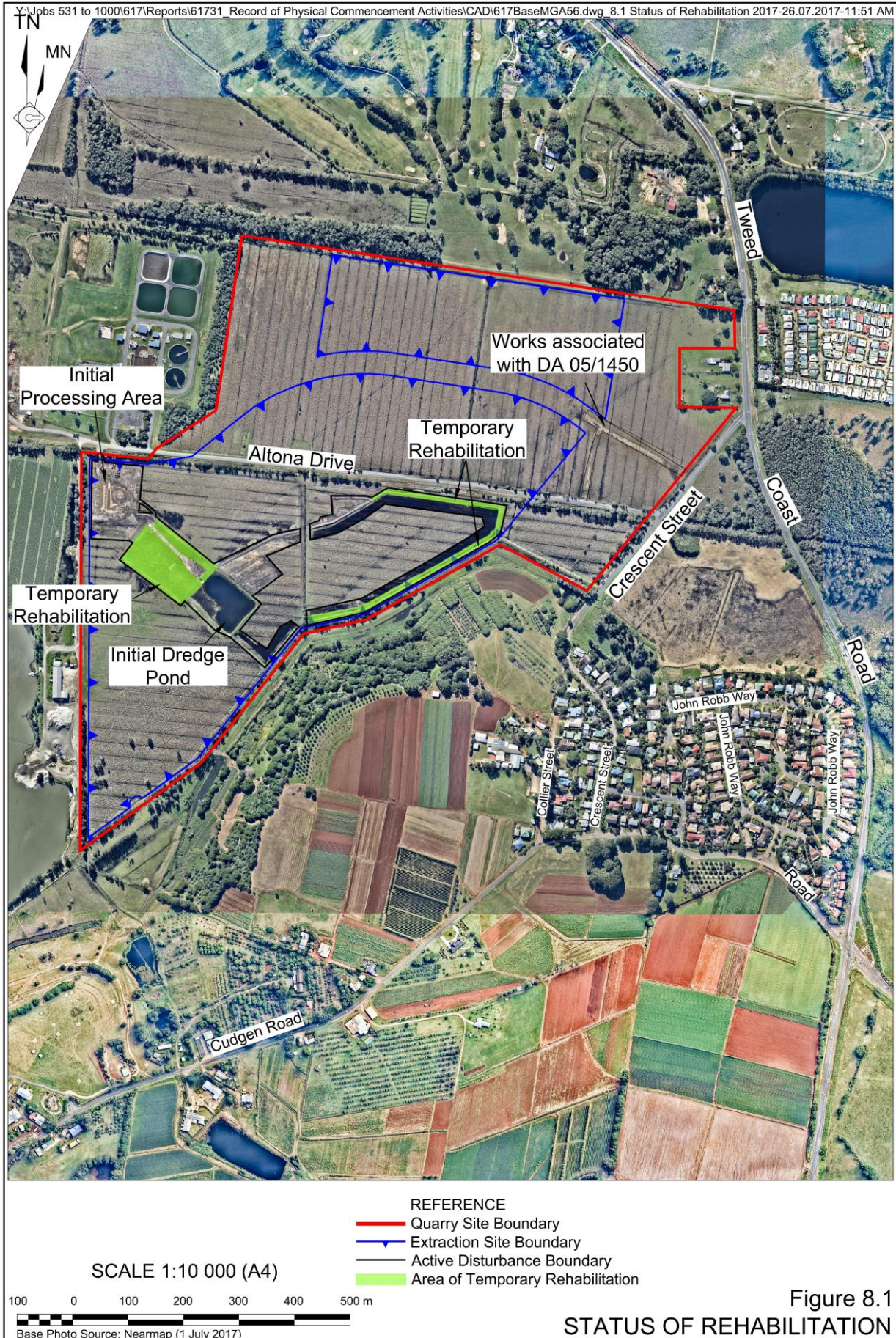
1. Relates to initial dredge pond and grassed sand stockpile completed during 2006 under DA 96/518 (now surrendered).
2. Includes approximately 1.2ha of temporary rehabilitation.
3. Estimate pending commencement and extent of operation dredging during next reporting period.

During the reporting period, the total active disturbance area increased to 5.7ha as a result of the commencement of site establishment activities. As part of the bund construction, topsoil with the existing grass cover was placed on the top of the bunding resulting in grass establishment on those completed sections. As this bunding will continue to be extended over the life of the Quarry, this is considered to be temporary rehabilitation. Previous disturbances also include the initial dredge pond and grassed (temporarily rehabilitated) sand stockpile completed under DA 96/518 (which is providing the sand required to raise the elevation of the Initial Processing Area). In total, approximately 1.2ha was considered to be temporarily rehabilitated at the end of the reporting period.

A small area (approximately 0.5ha) of disturbance is also present in relation to the physical commencement of DA 05/1450 for the realignment of Altona Drive. No rehabilitation works for this area are planned until following the realignment of Altona Drive. As these works are managed under separate approval, these areas are not included in Table 8.1.

### 8.2 ACTIONS FOR THE NEXT REPORTING PERIOD

No specific rehabilitation actions or trials are planned during the next reporting period and no areas will become available for final rehabilitation. As discussed in Section 4.3, given it is planned to place topsoil material with the existing grass cover over the bunding to be constructed, it is not expected any temporary rehabilitation / stabilisation will be required. However, if the grass material does not adequately establish, supplementary seeding with pasture species will be undertaken.



## 9. COMMUNITY

### 9.1 COMMUNITY COMPLAINTS

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

### 9.2 COMMUNITY LIASION

The Community Consultative Committee (CCC) was established during the reporting period. During the reporting period, the CCC consisted of the following members.

- The CCC Chairperson - Mr John Griffin who was approved as the chairperson by DPE on 8 July 2016.
- Community members – Ms Felicia Cecil and Mr Barrie Green who were approved by DPE on 14 November 2016.
- Company representatives – Dr Stephen Segal of Gales Kingscliff and Mr Gareth Brown of Neumann Contractors.
- Tweed Shire Council representatives – Ms Denise Galle, Team Leader Development Assessment, Mr Ray Clark, Traffic Engineer, and Mr Mark Longbottom, Environmental Health Officer.

The CCC held their inaugural meeting on 7 April 2017. No specific issues were raised with Company representatives principally providing an overview of the approved operations and activities planned this year. A meeting with the broader community was also suggested, principally in relation to the development occurring at the fill sites receiving the sand from the Quarry, as opposed to the Quarry itself. As a result, the Company will pursue broader consultation with the community as part of the fill site developments. In relation to the Quarry, continued CCC meetings will be undertaken at times set by the CCC with the minutes from these meetings placed on the Company website and reported through the respective Annual Review.

Informal consultation was also undertaken as part of organising written access agreements for compliance monitoring. A total of seven landholders were contacted. No concerns were raised by the landholders.

## **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. Extraction operations did not commence during the reporting period, however, site establishment activities did commence on 26 June 2017. With confirmation from DPE, it is proposed that the first independent audit be undertaken in July 2019 and address the period to 30 June 2019 to coincide with the Annual Review reporting periods.



## 11. INCIDENTS AND NON-COMPLIANCES DURING THE REPORTING PERIOD

During the reporting period, there were no reportable incidents or exceedances. However, a penalty infringement notice was issued by DPE on 5 December 2016 for failing to establish and maintain the vegetation screen around the extraction area. Upon appeal and provision of further information, the penalty infringement notice was retracted and an official caution issued with a voluntary undertaking which included planting of additional trees and shrubs by 30 September 2017. Additionally, as part of the voluntary undertaking, it was agreed to supplement the extraction boundary markers with 2m or longer orange conduits to improve the visibility of these markers. Notably, no extraction or processing operations had commenced and, in the area of the vegetation screen to be improved, no extraction is planned for more than 5 years. As a result, no environmental or community impacts occurred.

A total of one administrative non-compliance was recorded against Project Approval 05\_0103 during the reporting period (see **Table 1.2**). Further detail relating to this non-compliance is provided as follows.

### **Statement of Commitments – Commitment 9.13 – Application of Alkaline Amendment**

Lime was not applied prior to the commencement of soil stripping, as proposed, but was applied following stripping. As discussed in Section 6.6, testing of the topsoil material confirmed that the topsoil has extremely limited potential for any further acidification as result of pyritic material and was therefore not considered potentially acid sulfate soil. However, due to the existing acidity lime was required to be added. Despite being added after stripping, validation testing confirmed that, as a result of liming, the total actual acidity (TAA) was reduced to nil with no further liming required. As a result, treatment post application was as effective as if it was applied prior to stripping. Given that there was no potential for further acidification and the fact that the soil is naturally acidic, the application of lime following stripping did not change the outcomes of the liming nor result in any environmental impacts as confirmed by water monitoring (see Section 7.2).

As also discussed in Section 6.6, given no topsoil samples recorded chromium reducible sulfur contents near the action criteria, and the fact that topsoil material is located above the natural water table fluctuations (i.e. in oxidising conditions), the need for ongoing sampling and liming of topsoil material (the upper 25cm of soil) will be reviewed as part of an 'audit' by a suitably qualified person. The proposed amendments to the sampling and liming process will be submitted as part of an updated SWMP for review by relevant government agencies and approval of DPE.

## 12. ACTIVITIES TO BE COMPLETED IN THE NEXT REPORTING PERIOD

The activities planned for the 2017/2018 reporting period are summarised as follows.

### Site Establishment and Construction

It is planned to complete the construction of the Initial Processing Area, bunding around the Stage 1 extraction area and pipelines to the Cudgen Heights fill site, which includes a crossing of Crescent Street. A range of other establishment activities will also be undertaken including the assembly and launch of the dredge, installation of a water level gauge, and spear points within the extraction footprint in order to supply 'internal' make up water during the initial dredging campaign.

### Extraction

It is planned to commence an approximately 10 to 13 week dredging campaign, likely from late September 2017 to pump approximately 300 000m<sup>3</sup> of sand to the Cudgen Heights fill site. Currently, no further extraction is planned during the reporting period, subject to construction sand requirements.

### Processing and Road Transportation

No processing or transportation of sand by road is currently planned during the next reporting period.

### Rehabilitation

No specific rehabilitation works nor importation of VENM are currently planned during the next reporting period. However, improvement of the existing tree screen on eastern Quarry boundary north of Altona Drive will be undertaken together with landscaping of the eastern and southern boundary of the Initial Processing Area.

### Monitoring

The following monitoring is planned to be undertaken during the next reporting period.

- Air Quality – commencement of monthly deposited dust monitoring.
- Noise – commencement of quarterly noise monitoring, during operational activities.
- Surface water – commencement of regular surface water monitoring in accordance with the approved SWMP. Monitoring will include analytes relevant to Blue-Green Algae.
- Groundwater – commencement of regular groundwater monitoring in accordance with the approved SWMP, including installation of two replacement monitoring sites, MB14 and MB15.
- Acid sulfate soils – sampling of hydraulically transferred sand (to Cudgen Heights).
- Meteorological – on-site monitoring of rainfall data to complement data recorded at BOM Station 58056 (Tweed Heads Golf Club) & Station 94592 (Coolangatta).

### **Community Consultation and Liaison**

Formal community consultation relating to the operation of the Quarry will continue to be undertaken through the Community Consultative Committee. The 24hr complaints line will also be maintained and a register retained of any complaints received. Informal consultation will also continue through discussion with surrounding landholders.

### **Other**

As discussed in Section 4.3, following the completion of the initial dredging campaign, it is planned to undertake a review of the Soil and Water Management Plan in light of the water monitoring results, and to commission a review / audit of the acid sulfate soil monitoring and management measures to ensure that they remain appropriate and meaningful for ongoing operations. Any proposed changes to the management or monitoring practices will be submitted to the Department of Planning and Environment for review and approval.

As also discussed in Section 4.3, S75W modification is also planned to be submitted to further rationalise the extraction and processing operations, including proposed changes to the final lake batters, removal of the northern extraction area and increase in size of the southern extraction area (subject to a planned change in the approved alignment of Altona Drive).

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# Appendix 1

## Compliance Review

Table A: Project Approval 05\_0103B

Table B: Statement of Commitments

Table C: Environment Protection Licence 12385

Table D: Water Supply & Use Approval 30CA321269

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**Table A**  
**Compliance Review – Project Approval 05\_0103B**

Page 1 of 25

Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
<b>SCHEDULE 2 ADMINISTRATIVE CONDITIONS</b>				
<b>Obligation to Minimise Harm to the Environment</b>				
1.	The Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the project.	Compliant	All reasonable and feasible measures to minimise potential for harm during the reporting period.	A, D
<b>Surrender of Consents</b>				
2.	Within 18 months of the date of this approval, or as otherwise approved by the <b>Secretary</b> , the Proponent shall surrender all previous development consents for sand extraction on Lot 2 DP 216705 and Lot 21 DP 1082482, to the satisfaction of the <b>Secretary</b> .	No Longer Applicable	PA 05_0103 issued 16/06/09. Correspondence dated 14/12/10 to the, then, NSW Department of Planning & Infrastructure surrendering DA 96/518 (within 18 months). DP&I requested DA to be surrendered to Council. Further correspondence to Council dated 12/09/16 also surrendering DA 96/518 to Council. Actions occurred prior this reporting period.	D
<b>Terms of Approval</b>				
3.	<p><b>The Proponent shall:</b></p> <p>a) carry out the project generally in accordance with the EA, MOD 1 EA and the Project Layout Plans; and</p> <p>b) comply with the conditions of this approval and the Statement of Commitments.</p> <p>Notes</p> <ul style="list-style-type: none"> <li>• The Project Layout Plans are shown in Appendix 1.</li> <li>• The Statement of Commitments is reproduced in Appendix 2.</li> </ul>	Compliant	The works completed during the reporting period are considered to be generally consistent these documents and in compliance with this approval and commitments	A, D
3A	If there is any inconsistency between the documents in condition 3, the most recent documents shall prevail to the extent of any inconsistency. The conditions of this approval shall prevail over documents in condition 3(a) to the extent of any inconsistency	Noted	-	-
4.	The Proponent shall comply with any reasonable requirement/s of the <b>Secretary</b> arising from the Department's assessment of: <p>a) any reports, plans, programs or correspondence that are submitted in accordance with this approval; and</p> <p>b) the implementation of any actions or measures contained in these reports, plans, programs or correspondence.</p>	Compliant	Comments provided by the Department on draft management plans required by this approval were incorporated into the final approved management plans to the Department's satisfaction.	D
<p><b>Red text reflects Modification 'MOD1' approved February 2011</b></p> <p>* D = Documentation sighted                      A = Advised by Company                      O = On-site Observation</p>				



**Table A (Cont'd)**  
**Compliance Review – Project Approval 05\_0103B**

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Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
<b>SCHEDULE 2 ADMINISTRATIVE CONDITIONS (Cont'd)</b>				
<b>Limits on Approval</b>				
5.	Sand extraction operations may take place until 1 July 2029. <i>Note: Under this Approval, the Proponent is required to rehabilitate and revegetate the site to the satisfaction of the Secretary. Consequently this approval will continue to apply in all other respects other than the right to conduct quarrying operations until the site has been rehabilitated and revegetated to a satisfactory standard</i>	Noted	-	-
6.	The Proponent shall not remove from the extraction area, by any means, more than 650,000 cubic metres of material a year.	Compliant	Extraction operations have not yet commenced.	A,D
7.	The Proponent shall not transport from the extraction area by road more than 300,000 tonnes of material per year.	Compliant	Road transportation operations have not yet commenced.	A, D
8.	The Proponent shall not import to the extraction area more than 45,000 tonnes per year of VENM. The Proponent shall ensure that material imported in compliance with this condition does not contain waste.	Compliant	Importation of VENM has not yet commenced.	A
<b>Management Plans/Monitoring Programs</b>				
9.	With the prior approval of the Secretary, the Proponent may submit any management plan or monitoring program required by this approval on a progressive basis.	Compliant	Approval for the staged submission of the Traffic Safety Plan was issued by DPE on 9 September 2016.	D
<b>Protection of Public Infrastructure</b>				
10.	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 where such costs have already been provided by the Proponent through applicable road contribution or S94 plans (see Condition 14 below).</i>	Not Applicable	No repairs or relocations of infrastructure have been required to date.	A
<b>Compliance with Relevant Legislation and Other Approvals</b>				
11.	The Proponent shall comply with all relevant Australian Standards and Codes (including Building Code of Australia) and obtain all necessary approvals required by State and Commonwealth legislation in undertaking the project. <i>Notes:</i> • Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for any proposed building works. • Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.	Not Yet Applicable	Only portable amenities utilised during the reporting period which did not require approval or assessment against the Building Code of Australia.	A, D
<b>Red text reflects Modification 'MOD1' approved February 2016</b>				
* D = Documentation sighted                      A = Advised by Company                      O = On-site Observation				



Table A (Cont'd)  
Compliance Review – Project Approval 05\_0103B

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Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
<b>SCHEDULE 2 ADMINISTRATIVE CONDITIONS (Cont'd)</b>				
<b>Demolition</b>				
12.	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.	Not Yet Applicable	No demolition work has been required to date.	A
<b>Operation of Plant and Equipment</b>				
13	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 manner.	Compliant	No issues with equipment maintenance or operation arose during the reporting period.	A
<b>Section 94 Contributions</b>				
14.	Prior to carrying out any development, or as otherwise agreed by Council, the Proponent shall pay Council \$91,761.00 in accordance with Section 7.1 of Council's <i>Tweed Road Contribution Plan No.4 Version 5.1</i> and \$399.40 in accordance with Council's <i>Section 94 Plan No. 18</i> .	Not Yet Applicable	Correspondence from Council dated 7 September 2016 confirms Council's acceptance that the contribution be paid prior to receipt of VENM to the site.	A, D
15.	After submission of each <b>Annual Report</b> and on receipt of an invoice from Council, the Proponent shall pay to Council an amount calculated by Council to be the Proponent's contribution under Section 7.2 of Council's <i>Tweed Road Contribution Plan No.4 Version 5.1</i> in respect of the heavy haulage of VENM to the site.	Not Yet Applicable	No VENM received to date.	A
<b>SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS</b>				
<b>GENERAL EXTRACTION AND PROCESSING PROVISIONS</b>				
<b>Identification of Boundaries</b>				
1.	Within 1 month of the date of approval of the Landscape Management Plan (see condition 28 below), the Proponent shall: a) engage a registered surveyor to mark out the boundaries of the approved limits of extraction; b) submit a survey plan of these boundaries to the <b>Secretary</b> ; and c) ensure that these boundaries are clearly marked at all times in a permanent manner that allows operating staff and inspecting officers to clearly identify those limits.  <i>Note: The limit of extraction includes the areas described in the EA and shown conceptually on the plans in Appendix 1.</i>	Compliant	The Landscape Management Plan was approved 13 July 2016. A registered surveyor completed marking of the extraction boundary and prepared survey plan which was submitted to DPE 12 August 2016 (i.e. within 1 month of LMP approval).  In accordance with a voluntary undertaking with DPE, the survey markers were also supplemented with 2m high orange electrical conduit to enhance the visibility of the markers.	D
Red text reflects Modification 'MOD1' approved February 2011				
* D = Documentation sighted		A = Advised by Company		O = On-site Observation

**Table A (Cont'd)**  
**Compliance Review – Project Approval 05\_0103B**

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Cond. No.	Conditional Requirement	Compliance	Comments	Basis*						
<b>SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)</b>										
<b>Pipeline Corridor</b>										
2.	<p>Prior to commencing work to install pipelines in the pipeline corridors (shown conceptually in Appendix 1), the Proponent shall submit for the approval of the <b>Secretary</b>:</p> <p>a) a survey plan of the route of the pipeline;</p> <p>b) evidence that this route does not require native vegetation clearing;</p> <p>c) evidence that the fill sites have approval for filling; and</p> <p>d) in relation to the eastern pipeline:</p> <p>(i) evidence that any vegetation cleared from the eastern pipeline corridor following the date of this approval has been lawfully carried out in accordance with another approval;</p> <p>(ii) details of proposed measures to protect vegetation during pipeline installation, operation and removal; and</p> <p>(iii) details of measures, developed in consultation with DECC, to provide opportunities for the Wallum Froglet to cross the eastern pipeline.</p>	Not Yet Applicable	Works to install the pipelines did not occur during the reporting period.	A, D						
<b>NOISE</b>										
<b>Impact Assessment Criteria</b>										
3.	<p>The Proponent shall ensure that the noise generated by the project during the operating hours specified in Condition 5, does not exceed the noise impact assessment criteria in <i>Table 1</i>.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Receiver Location</th> <th style="width: 30%;">Day &amp; Evening LA<sub>eq</sub>(15 min) dB(A)</th> <th style="width: 30%;">Shoulder LA<sub>eq</sub>(15 min) dB(A)</th> </tr> </thead> <tbody> <tr> <td>Residences on privately owned land</td> <td style="text-align: center;">47</td> <td style="text-align: center;">44</td> </tr> </tbody> </table> <p><i>Table 1: Noise Impact Assessment Criteria</i></p> <p>Notes:</p> <ul style="list-style-type: none"> <li>Noise generated by the project is to be measured in accordance with the relevant requirements of the NSW Industrial Noise Policy.</li> <li>The noise limits do not apply if the Proponent has an agreement with the relevant owner/s of the residence/land to generate higher noise levels, and the Proponent has advised the department in writing of the terms of the agreement.</li> </ul>	Receiver Location	Day & Evening LA <sub>eq</sub> (15 min) dB(A)	Shoulder LA <sub>eq</sub> (15 min) dB(A)	Residences on privately owned land	47	44	Compliant	Site construction and establishment works commenced 26 June 2017 with monitoring undertaken on 10 July 2017 (slightly outside of this reporting period). Monitoring confirms compliance. Further monitoring is also planned to be undertaken following the commencement of extraction.	A, D
Receiver Location	Day & Evening LA <sub>eq</sub> (15 min) dB(A)	Shoulder LA <sub>eq</sub> (15 min) dB(A)								
Residences on privately owned land	47	44								
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**Table A (Cont'd)**  
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Cond. No.	Conditional Requirement	Compliance	Comments	Basis*																																		
<b>SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)</b>																																						
<b>Cumulative Noise Criteria</b>																																						
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 <b>Secretary</b>:</p> <ul style="list-style-type: none"> <li>• L<sub>Aeq</sub> (11 hour) 50 dB(A) – Day;</li> <li>• L<sub>Aeq</sub> (4 hour) 45 dB(A) – Evening; and</li> <li>• L<sub>Aeq</sub>(9 hour) 40 dB(A) – Night.</li> </ul>	Compliant	As above.	A, D																																		
<b>Hours of Operation</b>																																						
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;">Activity</th> <th style="text-align: center;">Day</th> <th style="text-align: center;">Time</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>	Activity	Day	Time	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	Compliant	All activities were undertaken in accordance with the relevant hours of operation.	A
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Maintenance (if inaudible at neighbouring residences)	Any day	Any time																																				
<b>Continuous Improvement</b>																																						
6.	<p>The Proponent shall:</p> <ol style="list-style-type: none"> <li>a) implement all reasonable and feasible best practice noise mitigation measures;</li> <li>b) investigate ways to reduce the noise generated by the project; and</li> <li>c) report on these investigations and the implementation and effectiveness of these measures in the <b>Annual Report</b>, to the satisfaction of the <b>Secretary</b>.</li> </ol>	Compliant	All site establishment and construction activities were undertaken within the approved hours of operation utilising appropriately sized and maintained equipment. No further noise management measures were able to feasibly be implemented during the reporting period.	A, D																																		
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**Compliance Review – Project Approval 05\_0103B**

Cond. No.	Conditional Requirement	Compliance	Comments	Basis*																							
<b>SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)</b>																											
<b>Noise Monitoring Program</b>																											
7.	<p>The Proponent shall prepare and implement a Noise Monitoring Program for the project to the satisfaction of the <b>Secretary</b>. This program must:</p> <p>a) be submitted to the <b>Secretary</b> for approval prior to carrying out any development on the site;</p> <p>b) provide details of how the noise performance of the project would be monitored, including monitoring at the following locations:</p> <ul style="list-style-type: none"> <li>• Residence G;</li> <li>• Residence DD;</li> <li>• Residence F;</li> <li>• Residence B; and</li> <li>• Residence O, and</li> </ul> <p><b>The Proponent shall implement the approved monitoring program as approved from time to time by the Secretary.</b></p> <p><i>Note: For more information on the monitoring locations see Appendix 3.</i></p>	Compliant	<p>The Noise Monitoring Program has been implemented as applicable to activities during the reporting period.</p> <p>The Noise Monitoring Program was originally approved by the Department 14/05/14. An update to the program was also approved by the Department 28/04/17, Section 4 of the Noise Monitoring Program.</p> <p>Section 5 of the Noise Monitoring Program.</p>	A, D																							
<b>AIR QUALITY</b>																											
<b>Impact Assessment Criteria</b>																											
8.	<p>The Proponent shall ensure that dust generated by the project does not cause exceedances of the criteria listed in <i>Tables 3 to 5</i> at any privately owned land.</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th>Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter &lt;10µm (PM<sub>10</sub>)</td> <td>24 hour</td> <td>50µg/m<sup>3</sup></td> </tr> </tbody> </table> <p><i>Table 3: Short Term Impact Assessment Criteria for Particulate Matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Criterion</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulate (TSP) matter</td> <td>Annual</td> <td>90µg/m<sup>3</sup></td> </tr> <tr> <td>Particulate matter &lt; 10 µm (PM<sub>10</sub>)</td> <td>Annual</td> <td>30µg/m<sup>3</sup></td> </tr> </tbody> </table> <p><i>Table 4: Long Term Impact Assessment Criteria for Particulate Matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Maximum increase in deposited dust level</th> <th>Maximum total deposited dust level</th> </tr> </thead> <tbody> <tr> <td>Deposited dust</td> <td>Annual</td> <td>2 g/m<sup>2</sup>/month</td> <td>4 g/m<sup>2</sup>/month</td> </tr> </tbody> </table> <p><i>Table 5: Long Term Impact Assessment Criteria for Deposited Dust</i></p>	Pollutant	Averaging Period	Criterion	Particulate matter <10µm (PM <sub>10</sub> )	24 hour	50µg/m <sup>3</sup>	Pollutant	Averaging period	Criterion	Total suspended particulate (TSP) matter	Annual	90µg/m <sup>3</sup>	Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	30µg/m <sup>3</sup>	Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level	Deposited dust	Annual	2 g/m <sup>2</sup> /month	4 g/m <sup>2</sup> /month	Compliant	<p>Deposited dust gauges were installed on 11 July 2017 (slightly beyond this reporting period) as required, prior to commencement of extraction.</p> <p>The high volume air sampler (HVAS) for monitoring of PM<sub>10</sub> will be installed prior to the commencement of road transportation or importation of VENM.</p> <p>No complaints or incidents occurred during the reporting period indicating compliance was achieved.</p>	A, D
Pollutant	Averaging Period	Criterion																									
Particulate matter <10µm (PM <sub>10</sub> )	24 hour	50µg/m <sup>3</sup>																									
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Table A (Cont'd)  
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Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
<b>SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)</b>				
<b>AIR QUALITY</b>				
<b>Impact Assessment Criteria (Cont'd)</b>				
	<i>Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia AS/NZS 3580.10.1-2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method.</i>	-	-	
<b>Dust Monitoring Program</b>				
9.	<p>The Proponent shall prepare and implement a Dust Monitoring Program for the project to the satisfaction of the <b>Secretary</b>. This program must:</p> <p>a) be submitted to the <b>Secretary</b> for approval prior to carrying out any development on the site; and</p> <p>b) include details of how the air quality performance of the project would be monitored, and include a protocol for evaluating compliance with the relevant air quality criteria in this approval.</p> <p>The Proponent shall implement the approved monitoring program as approved from time to time by the Secretary.</p>	Compliant	<p>The Air Quality Monitoring Program has been implemented as applicable to activities during the reporting period.</p> <p>The Air Quality Monitoring Program was initially approved by the Department 14/05/14. An updated program was approved by the Department 28/04/17.</p> <p>Sections 3, 5 and 6 of the Air Quality Monitoring Program.</p>	A, D
<b>SOIL AND WATER</b>				
<b>Discharges</b>				
10.	<p>Except as may be expressly provided for by an EPL, the Proponent shall not discharge any water from the project or ancillary operational areas. The Proponent shall ensure that the extraction pits subject to sand excavation are maintained and operated to prevent discharges of any surface water.</p>	Compliant	<p>No discharges have occurred from the initial dredge pond created under former DA 96/518. No further extraction operations have occurred to date.</p>	A
<p><b>Red</b> text reflects Modification 'MOD1' approved February 2011</p> <p>* D = Documentation sighted                      A = Advised by Company                      O = On-site Observation</p>				

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<b>SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)</b>																																																															
<b>Water Quality Objectives (Cont'd)</b>																																																															
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 <b>Secretary</b> .	Compliant	Whilst slight exceedance of one sample pH and two dissolved oxygen was recorded within the existing initial dredge pond, these are within previously recorded levels and not linked to any Quarry activities. 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="width: 33%;">Pollutant</th> <th style="width: 33%;">Unit of Measure</th> <th style="width: 34%;">Water Quality Objectives</th> </tr> </thead> <tbody> <tr><td>Turbidity</td><td>NTU</td><td>5 - 20</td></tr> <tr><td>pH</td><td>pH</td><td>6.5 – 8.5</td></tr> <tr><td>Oil and Grease</td><td>mg/L</td><td>10</td></tr> <tr><td>Salinity</td><td>µS/cm</td><td>&lt;3,000</td></tr> <tr><td>Dissolved oxygen</td><td>mg/L</td><td>&gt;6</td></tr> <tr><td>Chlorophyll-a</td><td>µg/L</td><td>2-10</td></tr> <tr><td>Faecal coliforms</td><td>Median No./100mL</td><td>&lt;1000</td></tr> <tr><td>Enterococci</td><td>Median No./100mL</td><td>&lt;230</td></tr> <tr><td rowspan="2">Algae and blue-green algae</td><td>No. of cells/mL (<i>M.aeruginosa</i>)</td><td>&lt;50,000</td></tr> <tr><td>mm<sup>3</sup>/L (total biovolume)</td><td>&lt;4</td></tr> <tr><td>Sodium</td><td>mg/L</td><td>&lt;500</td></tr> <tr><td>Potassium ion</td><td>mg/L</td><td>&lt;40</td></tr> <tr><td>Magnesium ion</td><td>mg/L</td><td>&lt;100</td></tr> <tr><td>Chloride ion</td><td>mg/L</td><td>&lt;1000</td></tr> <tr><td>Sulphate ion</td><td>mg/L</td><td>&lt;800</td></tr> <tr><td>Bicarbonate ion</td><td>mg/L</td><td>&lt;400</td></tr> <tr><td>Soluble Iron ion</td><td>mg/L</td><td>&lt;20</td></tr> <tr><td>Soluble aluminium ion</td><td>mg/L</td><td>&lt;0.5</td></tr> <tr><td>Ammonium ion</td><td>mg/L</td><td>&lt;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 ( <i>M.aeruginosa</i> )	<50,000	mm <sup>3</sup> /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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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 ( <i>M.aeruginosa</i> )	<50,000																																																													
	mm <sup>3</sup> /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																																																													
<p><i>Table 6: Water Quality Objectives</i></p> <p>Notes:</p> <ul style="list-style-type: none"> <li>The objectives for dissolved oxygen, turbidity and algae are relevant to surface water only.</li> <li>The Department acknowledges that short term exceedances of these objectives may occur during natural events such as heavy rainfall or flooding.</li> <li>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 <b>Secretary</b>.</li> </ul>																																																															
<p><b>Red</b> text reflects Modification 'MOD1' approved February 2011</p>																																																															
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Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
<b>SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)</b>				
<b>PASS Fines Management</b>				
12.	The Proponent shall ensure that all excavated PASS fines material is returned to below the watertable as soon as possible to prevent oxidation, unless adequately neutralised in accordance with methods approved under the Soil and Water Management Plan (see condition 14 below).	Not Yet Applicable	Extraction operations have not yet commenced.	A, D
13.	The Proponent must not remove material from the site that: a) has a Chromium reducible Sulfur level exceeding 0.03% Sulfur; or b) contains a pH less than 5.5 in 1:5 water suspension.	Not Yet Applicable	Extraction operations have not yet commenced.	A, D
14.	The Proponent shall ensure that PASS material to be interred in the excavation is discharged into the pond at a depth of no less than 3 metres from the water surface, and that all fines are deposited to a final depth of at least 8 metres below the water surface, unless an alternative method is approved by <b>DPI-Water</b> and the <b>Secretary</b> . <i>Note: Material that would settle to a depth of at least 8 metres may be placed in the pond at a depth of less than 3 metres by excavator or similar equipment.</i>	Not Yet Applicable	Extraction and internment operations have not yet commenced.	A, D
<b>Flood Management</b>				
15.	All earthworks, including drainage and bunding works, shall be contained wholly within the site.	Compliant	The existing dredge pond and associated bunding is contained wholly within the site.	O, D
16.	The Proponent shall cease sand extraction and processing activities not less than 24 hours prior to the commencement of overflow from any extraction pond or as soon as notification is received of an impending flood, if notification is provided less than 24 hours prior. No sand extraction or processing shall occur while an extraction pond is overflowing.	Not Yet Applicable	No dredging or processing occurred during the reporting period.	A, D
17.	The Proponent shall ensure that the flood storage capacity of the site is not less than the pre-existing flood storage capacity at all stages of the project. Details of the available flood storage capacity shall be reported in each <b>Annual Report</b> .	Compliant	As no material has been removed from below the water table and placed on the surface and no VENM has been imported, the flood storage capacity has not been altered during the reporting period.	A, D
18.	The top of the earth bunding around the northern and southern extraction ponds shall not exceed 1.8 m AHD. Spillways shall be provided at the eastern and western extents of each bund and shall be a minimum of 50 m wide and not exceed 1.3 m AHD. Bunds and spillways shall be suitably surfaced (for example grassed or rock lined) to avoid scour and erosion during storm and flood events.	Compliant	All bunding surrounding the extraction area has been constructed in accordance with these requirements.	A, D
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**Table A (Cont'd)**  
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Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
<b>SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)</b>				
<b>Management and Monitoring (Cont'd)</b>				
21.	The Erosion and Sediment Control Plan shall: a) be consistent with the relevant requirements of Managing Urban Stormwater: Soils and Construction, Volume 1, 4 <sup>th</sup> 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; 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 to downstream waters; d) describe the location, function, and capacity of erosion and sediment control structures; and e) describe what measures would be implemented to maintain these structures over time.	Compliant	Section 3.3 of SWMP.  Section 3.3 of SWMP.  Section 3.3 of SWMP.  Section 3.3 of SWMP.  Section 3.4 of SWMP.	D
22.	The Acid Sulfate Soil Management Plan shall: a) be consistent with the NSW Acid Sulphate Soil Advisory Committee's Acid Sulfate Soil Manual; and b) define procedures for managing the potential acid sulfate soils on the site, including sample testing and procedures.	Compliant	Section 4.1 of SWMP.  Sections 4.3 and 4.4 of SWMP.	D
23.	The Blue-Green Algae Management Plan shall: a) be prepared by a suitably qualified blue-green algae expert, whose appointment has been approved by the Director-General; b) be consistent with extant guidelines for blue-green algae management including the NHMRC's Guidelines for Managing Risks in Recreational Water; c) describe the measures that would be implemented to prevent and control the sources of algal blooms over the short, medium and long term; and d) define procedures for the management and notification of identified algal blooms.	Compliant	The Blue-Green Algae Management Plan was prepared in conjunction with Dr John Runcie, who was approved by DP&I on 03/02/11.  Section 5.3 of the SWMP.  Section 5.8 of the SWMP.  Sections 5.5, 5.6, 5.7, 5.8 and 5.10 of the SWMP.	D
<p><span style="color: red;">Red</span> text reflects MOD1 Modification - February 2016</p> <p>* D = Documentation sighted      A = Advised by Company      O = On-site Observation</p>				

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Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
<b>SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)</b>				
<b>Management and Monitoring (Cont'd)</b>				
24.	The Surface Water Monitoring Program shall include: a) detailed baseline data on surface water quality; b) surface water impact assessment criteria; c) a program to monitor surface water levels and quality; d) a program to manage any water releases from the site; e) a program to monitor bank and bed stability; and f) a protocol for the investigation, notification and mitigation of identified exceedances of the surface water impact assessment criteria.	Compliant	Section 6.3 of the SWMP.  Section 6.4 of the SWMP. Sections 6.5 and 6.6 of the SWMP.  Section 6.8 of the SWMP.  Section 3.4 of the SWMP.  Sections 6.7 and 6.9 of the SWMP.	D
25.	The Groundwater Monitoring Program shall include: a) detailed baseline data on groundwater levels and quality, based on statistical analysis; b) groundwater impact assessment criteria; c) a program to monitor groundwater levels and quality; d) a program to monitor groundwater level effects on groundwater dependent vegetation, and on groundwater supply to adjoining properties; e) a protocol for the investigation, notification and mitigation of identified exceedances of the groundwater impact assessment criteria; and f) a protocol for making good any adverse effect of changes to groundwater levels or quality associated with the project on water use on surrounding properties.	Compliant	Section 7.3 of the SWMP.  Section 7.4 of the SWMP. Section 7.5 of the SWMP.  Section 7.5 of the SWMP.  Section 7.6 of the SWMP.  Section 7.6 of the SWMP.	D
<b>Pipeline Management</b>				
26.	For the life of the pipelines, the Proponent shall maintain the pipelines, ensuring that any leaks or maintenance issues are detected and repaired to the satisfaction of the <b>Secretary</b> .	Not Yet Applicable	Pipelines not yet installed	A, D
<b>REHABILITATION AND LANDSCAPING</b>				
<b>Rehabilitation</b>				
27.	The Proponent shall progressively rehabilitate the site to the satisfaction of the <b>Secretary</b> .	Not Yet Applicable	No areas for permanent rehabilitation have become available to date. Temporary stabilisation of soil bunding has been achieved through retention of grass during stripping and natural regeneration.	A, O
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Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
<b>SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)</b>				
<b>Landscape Management Plan</b>				
28.	<p>The Proponent shall prepare and implement a Landscape Management Plan for the project to the satisfaction of the <b>Secretary</b>. This plan must:</p> <p>a) be prepared:</p> <ul style="list-style-type: none"> <li>• by suitably qualified consultants, including a specialist hydrologist, coastal engineer, wetlands ecologist and landscape architect;</li> <li>• in consultation with Council, <b>DPI-Water</b> and DPI-Fisheries; and</li> <li>• in accordance with extant guidelines including the <b>DPI-Water's</b> Constructed Wetlands Manual, Volumes 1 and 2 and the DPI's Policy and Guidelines: Aquatic Habitat Management, 1999;</li> </ul> <p>b) be submitted to the Director-General prior to starting quarrying operations on the site; and</p> <p>c) include a:</p> <ul style="list-style-type: none"> <li>• Rehabilitation Management Plan; and</li> <li>• Long Term Management Strategy.</li> </ul> <p><b>The Proponent shall implement the approved management plan as approved from time to time by the Secretary.</b></p> <p><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></p>	Compliant	<p>The Landscape Management Plan has been implemented as applicable to activities during the reporting period.</p> <p>Plan prepared in conjunction with Knobel Consulting and Wetland Care Australia. The Strategic Development Plan was developed in conjunction with Allen Jack and Cottier</p> <p>The draft plan was submitted to Council, DWE and DPI Fisheries for review and comment on 09/02/11 and a revised version on 10/08/11.</p> <p>The Landscape Management Plan was prepared generally in accordance with the relevant guidelines (Section 1).</p> <p>The Landscape Management Plan was approved by DPE 13 July 2016.</p> <p>Sections 2 and 3 of the Landscape Management Plan.</p>	A, D
29.	<p>The Rehabilitation Management Plan must include:</p> <p>a) the rehabilitation objectives for the site and pipeline corridors;</p> <p>b) a description of the short, medium, and long term measures that would be implemented to:</p> <ul style="list-style-type: none"> <li>• rehabilitate and stabilise the site and pipeline corridors; and</li> <li>• manage the restored vegetation and wetland habitat established on the site;</li> </ul>	Compliant	<p>Section 2.2 of the Landscape Management Plan.</p> <p>Section 2.3 of the Landscape Management Plan.</p>	D
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Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
<b>SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)</b>				
<b>Landscaping Management Plan</b>				
30.	The Long Term Management Strategy must: a) define the objectives and criteria for quarry closure and post-extraction management; b) investigate options for the future use of the site; c) describe the measures that would be implemented to minimise or manage the ongoing environmental effects of the project; and d) describe how the performance of these measures would be monitored over time.	Compliant	Section 3.2 of the Landscape Management Plan.  Section 3.3 of the Landscape Management Plan.  Section 3.4 of the Landscape Management Plan.  Section 3.5 of the Landscape Management Plan.	D
<b>Rehabilitation Bond</b>				
31.	Prior to starting quarrying operations on the site, the Proponent shall lodge a rehabilitation bond for the project with the <b>Secretary</b> . The sum of the bond shall be calculated at: a) \$2.50/m <sup>2</sup> for the total area to be disturbed and/or revegetated in each 5 year review period (see condition 28 below); and b) \$1.50/m <sup>2</sup> for the total area of land previously disturbed and/or rehabilitated by the project, to the satisfaction of the <b>Secretary</b> .  <i>Notes:</i> • If the rehabilitation and revegetation works are completed to the satisfaction of the <b>Secretary</b> , the <b>Secretary</b> will release the rehabilitation bond. • If the rehabilitation and revegetation works are not completed to the satisfaction of the <b>Secretary</b> , the <b>Secretary</b> will call in all or part of the rehabilitation bond, and arrange for the satisfactory completion of the relevant works.	Compliant	Correspondence from DPE dated 12/04/17 confirms receipt of bank guarantee for the agreed rehabilitation bond of \$163,375.	A, D
32.	Within 6 months of each Independent Environmental Audit (see condition 6 of schedule 5) excluding the inaugural audit, unless the <b>Secretary</b> directs otherwise, the Proponent shall review, and if necessary revise, the sum of the rehabilitation bond to the satisfaction of the <b>Secretary</b> . This review must consider: a) the effects of inflation; b) any changes to the total area of disturbance; and c) the performance of the rehabilitation and revegetation to date.	Not Yet Applicable	No independent audits have been completed to date.	A
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Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
<b>SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)</b>				
<b>ABORIGINAL CULTURAL HERITAGE</b>				
<b>Aboriginal Cultural Heritage Management Plan</b>				
33.	<p>The Proponent shall prepare and implement an Aboriginal Cultural Heritage Management Plan to the satisfaction of the <b>Secretary</b>. This plan must:</p> <p>a) be prepared in consultation with the relevant Aboriginal communities;</p> <p>b) be submitted to the <b>Secretary</b> for approval prior to carrying out any development; and</p> <p>c) include a:</p> <ul style="list-style-type: none"> <li>• description of the Aboriginal cultural heritage induction protocol for employees;</li> <li>• description of the process for Aboriginal inspection of excavations for the northern pipeline corridor;</li> <li>• 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</li> <li>• description of the process for identifying a long-term storage location should Aboriginal relics be discovered within the project site requiring salvage.</li> </ul> <p>The Proponent shall implement the approved management plan as approved from time to time by the Secretary.</p>	Compliant	<p>The Aboriginal Cultural Heritage Management Plan (ACHMP) was implemented as applicable during the reporting period.</p> <p>Prepared in consultation with Tweed-Byron LALC (correspondence dated 01/03/11) The ACHMP was submitted to DoP 09/02/11 and approved 14/05/14. An updated version was approved 05/07/17 (i.e. slightly beyond this reporting period).</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
<b>TRAFFIC AND TRANSPORTATION</b>				
<b>Road Works</b>				
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 AUSTROADS CHR treatment; and</p> <p>b) upgrade the intersection of Tweed Coast Road and Crescent Street for left turning vehicles to AUSTROADS Figure 6.24 left turn treatment,</p> <p>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
<p><i>Red text reflects Modification 'MOD1' approved February 2011</i></p> <p>* D = Documentation sighted    A = Advised by Company    O = On-site Observation</p>				



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Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
<b>SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)</b>				
<b>TRAFFIC AND TRANSPORTATION</b>				
<b>Road Works</b>				
34.	<p>Prior to despatch of sand by road, the Proponent shall:</p> <p>c) upgrade the intersection of Tweed Coast Road and Crescent Street for right turning vehicles to AUSTRROADS CHR treatment; and</p> <p>d) upgrade the intersection of Tweed Coast Road and Crescent Street for left turning vehicles to AUSTRROADS Figure 6.24 left turn treatment,</p> <p>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
<b>Road Haulage</b>				
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 <b>Secretary</b>. This plan must:</p> <p>a) be prepared in consultation with the <b>RMS</b> 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 <b>Secretary</b> prior to commencing construction work.</p> <p><b>The Proponent shall implement the approved safety plan as approved from time to time by the Secretary.</b></p>	Compliant	<p>Approval for the staged submission of the Traffic Safety Plan was issued by DPE 9 September 2016.</p> <p>The 'Stage 1' Traffic Management Plan, for physical commencement activities, was prepared in consultation with Council and RMS and approved by DPE 12/09/16.</p> <p>The 'Stage 2' Traffic Management Plan for works to enable commencement of dredging was prepared in consultation with Council and RMS and approved by DPE 25/05/17.</p> <p>These management plans were implemented as applicable during the reporting period.</p>	A, D
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Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
<b>SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)</b>				
<b>Road Haulage (Cont'd)</b>				
37.	Product and VENM trucks are not to utilise Altona Drive west of the site or Crescent Street south of Altona Drive, except for the purpose of delivery or collection local to those streets.	Not Yet Applicable	Product and VENM transportation has not yet commenced.	A
38.	The Proponent shall ensure that all loaded vehicles: a) entering or leaving the site have their loads covered; and b) leaving the site are cleaned of materials that may fall on the road before they are allowed to leave the site.	Not Yet Applicable	Product and VENM transportation has not yet commenced.	A
<b>Parking</b>				
39.	The Proponent shall provide sufficient parking on-site for all project-related traffic and visitors, in accordance with Council's parking codes and to the satisfaction of the <b>Secretary</b> . No on street parking shall be undertaken.	Compliant	No on-street parking occurred during the reporting period. On-site parking has occurred within or adjacent to the Initial Processing Area.	A
<b>VISUAL IMPACT</b>				
<b>Visual Amenity</b>				
40.	The Proponent shall minimise the visual impacts of the project to the satisfaction of the <b>Secretary</b> .	Compliant	The use of topsoil on the bundwalls containing the existing pasture species will ensure that the bundwall's groundcover is rapidly established. Planting of shrubs on the eastern and southern boundary of the Initial Processing Area will also be completed next reporting period following bund construction.	A, O
41.	The Proponent shall establish and subsequently maintain the vegetation screen around the extraction area within 12 months of the date of this approval. <i>Note: The vegetation screen shall be detailed in the Landscape Management Plan required under condition 28.</i>	Compliant	Vegetation screening was previously planted adjacent to Tweed Coast Road and Crescent Street, fencing installed to exclude cattle and slashing of grass undertaken within the fenced off area to assist tree growth. Ongoing maintenance and supplemental planting will be completed in accordance with a voluntary undertaking.	A
<b>Lighting Emissions</b>				
42.	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 <b>Secretary</b> .	Compliant	Operations to date have been daylight hours only. No external lighting has been installed on site.	A
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Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
<b>SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)</b>				
<b>Advertising</b>				
43.	The Proponent shall not erect or display any advertising structure(s) or signs on the site without the written approval of the <b>Secretary</b> . <i>Note: This does not include business identification, traffic management &amp; safety or environmental signs.</i>	Compliant	No advertising or signs have been erected within the Quarry Site.	A
<b>WASTE MANAGEMENT</b>				
44.	The Proponent shall minimise the amount of waste generated by the project to the satisfaction of the <b>Secretary</b> .	Compliant	Waste generation has been minimal, restricted to lunch waste and consumables.	A
<b>EMERGENCY AND HAZARDS MANAGEMENT</b>				
<b>Dangerous Goods</b>				
45.	The Proponent shall ensure that the storage, handling, and transport of dangerous goods are conducted in accordance with the relevant <i>Australian Standards</i> , particularly AS1940 and AS1596, and the <i>Dangerous Goods Code</i> .	Compliant	No dangerous goods were stored at the Quarry Site. Diesel for refuelling of mobile equipment was undertaken by a road-registered mobile refuelling tanker (which is required to meet the applicable standards in order to be registered).	A
<b>Safety</b>				
46.	The Proponent shall secure the project to ensure public safety to the satisfaction of the <b>Secretary</b> .	Compliant	The boundary of the Quarry Site is currently fenced with agricultural fencing and gates.	A
<b>Bushfire Management</b>				
47.	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.	Compliant	The dredge will be capable of pumping water to assist in responding to fires. Assistance would be provided wherever possible to emergency services in the event of a bushfire.	A, D
<b>PRODUCTION DATA</b>				
48.	The Proponent shall: a) provide annual production data to the DPI using the standard form for that purpose; and b) include a copy of this data in the <b>Annual Report</b> .	Not Yet Applicable	Extraction operations have not yet commenced.	A, D
<b>TEMPORARY PROCESSING AREA</b>				
49.	The Proponent shall ensure that the office facilities for the temporary processing area: a) are designed with ventilation emanating from the side facing away from the Kingscliff Waste Water Treatment Plant; and b) have air conditioning facilities installed prior to occupation.	Not Yet Applicable	Construction of the Initial Processing Area was not completed during the reporting period.	A
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Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
<b>SCHEDULE 4 ADDITIONAL PROCEDURES</b>				
<b>Notification of Landowners</b>				
1.	If the results of monitoring required in Schedule 3 identify that impacts generated by the project are greater than the relevant impact assessment criteria, then the Proponent shall notify the <b>Secretary</b> , affected landowners, and/or existing or future tenants accordingly, and provide quarterly monitoring results to each of these parties until the results show that the project is complying with the relevant criteria.	Not Yet Applicable	Whilst slight exceedances of the dissolved oxygen and pH objectives were recorded within the existing initial dredge pond, it is considered that the intent of the condition, 'aiming' to meet the objectives, has been met.  No other monitoring or exceedance.	A, D
<b>Independent Review</b>				
2.	If a landowner considers that the project is exceeding the impact assessment criteria in schedule 3, then he/she may ask the <b>Secretary</b> in writing for an independent review of the impacts of the project on his/her land. If the <b>Secretary</b> is satisfied that an independent review is warranted, the Proponent shall within 3 months of the Director-General advising that an independent review is warranted: a) consult with the landowner to determine his/her concerns; b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the <b>Secretary</b> to conduct monitoring on the land, to determine whether the project is complying with the relevant criteria in schedule 3, and identify the source(s) and scale of any impact on the land, and the project's contribution to this impact; and c) give the <b>Secretary</b> and landowner a copy of the independent review.	Not Yet Applicable	Request for independent review has not been received to date.	A
3.	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 <b>Secretary</b> .	Not Yet Applicable	Request for independent review has not been received to date.	A
4.	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: a) implement all reasonable and feasible measures, in consultation with the landowner, to ensure that the project complies with the relevant criteria; and b) conduct further monitoring to determine whether these measures ensure compliance; or c) secure a written agreement with the landowner to allow exceedances of the relevant criteria in schedule 3, to the satisfaction of the <b>Secretary</b> .	Not Yet Applicable	Request for independent review has not been received to date.	A
Red text reflects Modification 'MOD1' approved February 2011				
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**Table A (Cont'd)**  
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Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
<b>SCHEDULE 4 ADDITIONAL PROCEDURES (Cont'd)</b>				
<b>Independent Review (Cont'd)</b>				
	If the additional monitoring referred to above subsequently determines that the project is complying with the relevant criteria in schedule 3, or the Proponent and landowner enter into a negotiated agreement to allow these exceedances, then the Proponent may discontinue the independent review with the approval of the <b>Secretary</b> .			
5.	If the landowner disputes the results of the independent review, either the Proponent or the landowner may refer the matter to the <b>Secretary</b> for resolution.  If the matter cannot be resolved within 21 days, the <b>Secretary</b> shall refer the matter to an Independent Dispute Resolution Process (see Appendix 4).	Not Yet Applicable	Request for independent review has not been received to date.	A
<b>SCHEDULE 5 ENVIRONMENTAL MANAGEMENT AND MONITORING CONDITIONS</b>				
<b>Environmental Management Strategy</b>				
1.	The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. This strategy must:  a) be submitted to the Director-General prior to starting quarrying operations on the site;  b) provide the strategic context for environmental management of the project;  c) identify the statutory requirements that apply to the project;  d) describe in general how the environmental performance of the project would be monitored and managed;  e) describe the procedures that would be implemented to:  <ul style="list-style-type: none"> <li>• keep the local community and relevant agencies informed about the construction, operation and environmental performance of the project;</li> <li>• receive, handle, respond to, and record complaints;</li> <li>• resolve any disputes that may arise during the life of the project;</li> <li>• respond to any non-compliance;</li> <li>• manage cumulative impacts; and</li> <li>• respond to emergencies; and</li> </ul>		The Environmental Management Strategy (EMS) was implemented as applicable during the reporting period.  The EMS was originally approved 15/02/11. An updated version was approved 05/07/17 (i.e. slightly beyond the reporting period).  Section 1.2 of the EMS.  Section 3.0 of the EMS.  Section 5.0 of the EMS.  Section 6.1 of the EMS.  Section 6.2 of the EMS.  Section 6.3 of the EMS.  Section 7.0 of the EMS.  Section 8.0 of the EMS.  Section 9.0 of the EMS.	A, D
<b>Red</b> text reflects Modification 'MOD1' approved February 2011				
* D = Documentation sighted		A = Advised by Company		O = On-site Observation

**Table A (Cont'd)**  
**Compliance Review – Project Approval 05\_0103B**

Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
<b>SCHEDULE 5 ENVIRONMENTAL MANAGEMENT AND MONITORING CONDITIONS (Cont'd)</b>				
<b>Environmental Management Strategy (Cont'd)</b>				
1. Cnt'd	f) describe the role, responsibility, authority, and accountability of the key personnel involved in the environmental management of the project.  The Proponent shall implement the approved strategy as approved from time to time by the Secretary.		Section 4.0 and Appendix 2 of the EMS.	
<b>Environmental Monitoring Program</b>				
2.	The Proponent shall prepare an Environmental Monitoring Program for the project to the satisfaction of the Secretary. This program must be submitted to the Secretary prior to starting quarrying operations on the site, and consolidate the various monitoring requirements in Schedule 3 of this approval into a single document.	Compliant	The Environmental Monitoring Program was approved by the Department on 14/05/14. An updated version was approved 05/07/17 (i.e. slightly beyond the reporting period).	A, D
<b>Incident Reporting</b>				
3.	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.	Not Yet Applicable	No exceedances or incidents have been recorded to date.	A, D
4.	a) 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:  b) describes the date, time, and nature of the exceedance/incident;  c) identifies the cause (or likely cause) of the exceedance/incident;  d) describes what action has been taken to date; and  e) describes the proposed measures to address the exceedance/incident.	Not Yet Applicable	No exceedances or incidents have been recorded to date.	A, D
<b>Annual Reporting</b>				
5.	Within 12 months of the date of this approval, and annually thereafter, the Proponent shall submit an Annual Report to the Secretary and relevant agencies including Council. This report must:  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;	Compliant	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 2016/2017 Annual Review was submitted 31/08/17.	
Red text reflects Modification 'MOD1' approved February 2011				
* D = Documentation sighted		A = Advised by Company		O = On-site Observation

Table A (Cont'd)  
Compliance Review – Project Approval 05\_0103B

Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
<b>SCHEDULE 5 ENVIRONMENTAL MANAGEMENT AND MONITORING CONDITIONS (Cont'd)</b>				
<b>Annual Reporting (Cont'd)</b>				
5. Cnt'd	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"> <li>• impact assessment criteria/limits;</li> <li>• monitoring results from previous years; and</li> <li>• predictions in the EA;</li> </ul> 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 <b>Annual Report</b> refers.			D
<b>Independent Environmental Audit</b>				
6.	Within 2 years of the start of quarrying operations on site, and every 5 years thereafter, unless the <b>Secretary</b> directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must: <ol style="list-style-type: none"> <li>a) be conducted by a suitably qualified, experienced, and independent person(s) whose appointment has been approved by the <b>Secretary</b>;</li> <li>b) include consultation with the relevant agencies;</li> <li>c) assess the environmental performance of the project, and its effects on the surrounding environment;</li> <li>d) assess whether the project is complying with the relevant standards, performance measures and statutory requirements;</li> <li>e) review the adequacy of any strategy/plan/program required under this approval; and, if necessary,</li> <li>f) recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under this approval.</li> </ol>	Not Yet Applicable	Quarrying (extraction) operations commenced in July 2017.	A, D
Red text reflects Modification 'MOD1' approved February 2011 * D = Documentation sighted                      A = Advised by Company                      O = On-site Observation				

**Table A (Cont'd)**  
**Compliance Review – Project Approval 05\_0103B**

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Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
<b>SCHEDULE 5 ENVIRONMENTAL MANAGEMENT AND MONITORING CONDITIONS (Cont'd)</b>				
<b>Independent Environmental Audit</b>				
7.	Within 1 month of completion of each Independent Environmental Audit, the Proponent shall submit a copy of the audit report to the <b>Secretary</b> and relevant agencies, with a response to all of the recommendations in the audit report.	Not Yet Applicable	The inaugural independent audit is not required until July 2019.	A, D
8.	Following each Independent Environmental Audit, the Proponent shall review and if necessary revise each of the environmental management and monitoring strategies/plans/programs in schedules 3 and 5, to the satisfaction of the <b>Secretary</b> . The revised strategies/plans/programs shall be submitted to the <b>Secretary</b> within 6 months of completing the audit.	Not Yet Applicable	The inaugural independent audit is not required until July 2019.	A, D
<b>Community Consultative Committee</b>				
9.	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 <b>Secretary</b> . <i>Note: With the approval of the <b>Secretary</b>, the Proponent may combine the CCC with the CCC for the Hanson Tweed sand extraction operation.</i>	Compliant	The CCC was established in July 2017 with the approval of the Independent Chairperson by DPE 8 July 2017. Community and Council members of the CCC were approved by DPE 14 November 2016.  The inaugural CCC meeting was held 07/04/17.	A, D
<b>Access to Information</b>				
10.	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 <b>Annual Report</b> the Proponent shall: a) provide a copy of the relevant document/s to Council and relevant agencies; and 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 Secretary.	Compliant	Copies of updated management plans were provided to Council and relevant government agencies and updated on the Company website within 1 month of approval.	D
11.	During the project, the Proponent shall: 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 b) update these results regularly (at least every 3 months), to the satisfaction of the Secretary.	Not Yet Applicable	Monitoring as outlined within Schedule 3 commenced shortly following this reporting period.  It is noted that quarterly water quality monitoring undertaken in accordance with EPL 12385 is updated annually on the Company website. This monitoring will now transition to the SWMP monitoring.	A
<p style="text-align: center;"><b>Red text reflects Modification 'MOD1' approved February 2011</b></p> <p>* D = Documentation sighted    A = Advised by Company    O = On-site Observation</p>				

**Table B**  
**Compliance Review – Statement of Commitments (SoC)**

Page 1 of 12

SoC No.	Commitment	Compliance	Comments	Basis*
<b>Area of Activities</b>				
1.1	Survey and mark the boundaries of the areas of disturbance.	See Table A Schedule 3 Condition 1		
<b>Sand Extraction and Processing</b>				
2.1	Ensure extraction batters for all long-term boundaries are formed no steeper than 1:5 (V:H).	Not Yet Applicable	Extraction has not yet commenced	A, D
2.2	Ensure the extraction rate is contained to limit initial drawdown levels (see Commitments 7.1 and 7.3).	Not Yet Applicable	Extraction has not yet commenced	A, D
2.3	Ensure total extraction rates do not exceed 650 000m <sup>3</sup> per year.	See Table A Schedule 2 Condition 6		
2.4	Ensure no more than 200 000m <sup>3</sup> (300,000 tonnes) of sand is processed per year.	See Table A Schedule 2 Condition 7		
<b>Operating Hours</b>				
3.1	Undertake all site establishment activities between 7:00am and 6:00pm Monday to Friday and 7:00am to 1:00pm Saturdays.	See Table A Schedule 3 Condition 5		
3.2	Undertake all sand extraction (dredging to processing area) and processing between 7:00am and 10:00pm Monday to Friday and 7:00am to 4:00pm Saturdays.	See Table A Schedule 3 Condition 5		
3.3	Undertake all sand extraction (dredging to fill sites) between 7:00am to 6:30pm Monday to Friday and 7:00am to 1:00pm Saturdays.	See Table A Schedule 3 Condition 5		
3.4	Undertake all soil removal and sand extraction (excavation) between 7:00am and 6:00pm Monday to Friday and 7:00am to 1:00pm Saturdays.	See Table A Schedule 3 Condition 5		
3.5	Undertake all product distribution and VENM receipt between 7:00am and 6:00pm Monday to Friday and 7:00am to 1:00pm Saturdays.	See Table A Schedule 3 Condition 5		
3.6	Undertake audible site maintenance between 7:00am to 6:00pm Monday to Friday and 7.00am to 1:00pm Saturdays.	See Table A Schedule 3 Condition 5		
3.7	Undertake inaudible site maintenance at any time.	See Table A Schedule 3 Condition 5		
<b>Waste Management</b>				
4.1	Dispose all recyclables and general waste in appropriate waste receptacles.	Compliant	All waste generated on site was removed by the Quarry Operator to their local workshop and disposed of appropriately.	A
4.2	Place all oversize materials within the VENM(a) receival area.	Not Yet Applicable	Processing operations have not yet commenced.	A, D
4.3	Intern any oversize materials suspected of being acid generating to settle beneath at least 8m of water.	Not Yet Applicable	Processing operations have not yet commenced.	A, D
<b>Rehabilitation</b>				
5.1	Progressively backfill the northern extraction pond to the natural ground level.	Not Yet Applicable	Extraction within the northern extraction area has not yet commenced.	A, D
5.2	Progressively backfill selected finalised sections of the southern extraction pond to create wetland areas.	Not Yet Applicable	Extraction 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**

Page 2 of 12

SoC No.	Commitment	Compliance	Comments	Basis*
<b>Rehabilitation (Cont'd)</b>				
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.	Compliant	The use of topsoil on the bundwalls containing the existing pasture species ensured that the bundwall's groundcover was rapidly established.	A, D
5.4	Conduct ongoing annual rehabilitation monitoring and maintenance.	Not Yet Applicable	No areas have become available for final rehabilitation. Monitoring and reporting of temporary rehabilitation / stabilisation completed as part of this Annual Review (see Section 8).	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	No areas have become available for final rehabilitation.	A, D
5.6	Prepare a Rehabilitation Management Plan.	See <b>Table A Schedule 3 Condition 29.</b>		
<b>Flooding and Drainage</b>				
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.	Compliant	Spillways have been constructed to the required height.	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	During the reporting period, the bunding had not yet been completed (nor had extraction commenced) – i.e. the site remained free-draining.	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	The long-term processing area has not yet been constructed.	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	The long-term processing area has not yet been constructed.	A, D
6.5	Maintain drainage paths outside of the bundled and filled areas to allow floodwaters to drain freely.	Not Yet Applicable	No obstructions or works that would alter drainage paths outside of the approved extraction areas occurred during the reporting period.	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.	Compliant	The Quarry operator has prepared a flood evacuation plan.	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**

Page 3 of 12

SoC No.	Commitment	Compliance	Comments	Basis*
<b>Groundwater</b>				
7.1	Commence extraction within the southern extraction pond at an equivalent rate of 100 000m <sup>3</sup> per year and progressively ramp up in increments of up to 100 000m <sup>3</sup> .	Not Yet Applicable	Extraction operations have not yet commenced.	A, D
7.2	Ensure the maximum extraction rate within the southern extraction pond does not exceed 450 000m <sup>3</sup> 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 <sup>3</sup> per year.	Not Yet Applicable	Extraction 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	Extraction 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	Extraction 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	Extraction operations have not yet commenced.	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	Extraction operations have not yet commenced.	A, D
7.7	Continue groundwater monitoring following the cessation of extraction and placement of VENM.	Not Yet Applicable	Extraction operations and VENM placement has not permanently ceased (nor commenced).	A, D
7.8	Regularly review monitoring data.	Compliant	Monitoring data reviewed upon receipt and critically analysed annually.	A, D
7.9	Provide a summary of the monthly / quarterly data relevant to each bore to the respective landowners.	Not Yet Applicable	Copies of the data will be supplied upon receipt in accordance with agreements reached with the landholders.	A, D
7.10	Compile an annual summary of all monitoring results and forward to <b>DPI - Water</b> as part of the annual return for the site.	Compliant	A detailed monitoring summary has been included as part of this Annual Review which has been provided to Water NSW (as agreed with Water NSW).	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	Only pre-extraction monitoring has occurred to date. Initial consultation undertaken. Further consultation to be undertaken regarding opportunities to coordinate monitoring.	A, D
7.12	Consult with each likely affected landowner and investigate complaints of poor water quality in neighbouring dams/bores.	Not Yet Applicable	Extraction operations have not yet commenced. However, potentially affected landholders have been consulted in relation to completion of regular monitoring.	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*
<b>Groundwater (Cont'd)</b>				
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"> <li>Deterioration in groundwater quality outside of the effects of drought or flood due to on-site activities.</li> <li>Significant variations in groundwater level outside drought or flood conditions due to on-site activities.</li> <li>Formation of a cone of depression or a groundwater mound that extends beyond the site boundary.</li> </ul>	Not Yet Applicable	Extraction operations have not yet commenced.	A, 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"> <li>deepen the existing bore or install a replacement bore;</li> <li>pay a cash compensation equal to the assessed cost of deepening the bore;</li> <li>provide an alternative water supply, such as from the extraction ponds or groundwater bore registered to the Proponent; or</li> <li>provide an appropriately sized rainwater storage tank to enhance property water storage.</li> </ul>	Not Yet Applicable	Extraction 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.	Compliant	A signed agreement has been reached with R.W. Julius in relation to water use and compensatory supply.	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.	Compliant	Monitoring has previously been undertaken over a substantial period of time and an agreed water usage has been reached.	A, D
7.17	Implement the provision of an alternative water supply or other agreed compensation.	Not Yet Applicable	Extraction 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.	Compliant	The signed agreement with R.W. Julius has been provided to DPE and Water NSW (now the applicable agency).	A, D
<b>Surface Water</b>				
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	Extraction 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.	Compliant	Monitoring data reviewed upon receipt and critically analysed annually.	A, D
* D = Documentation sighted		A = Advised by Company		O = On-site Observation

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

SoC No.	Commitment	Compliance	Comments	Basis*
<b>Acid Sulfate Soils and Sediments, Soil Contamination and Agricultural Suitability</b>				
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.	Compliant	Extraction 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	Extraction 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	Extraction operations have not yet commenced.	A, D
9.4	Do not extract residual clay material from the base of the sand resource.	Not Yet Applicable	Extraction operations have not yet commenced.	A, D
9.5	Ensure a suitably qualified or trained person assesses imported material (VENM) in accordance with the ASSMAC guidelines and confirms its classification as VENM prior to acceptance at the Project Site.	Not Yet Applicable	Importation of VENM has not yet commenced.	A, D
9.6	Place VENM(b), received at the premises which is intended to be: <ul style="list-style-type: none"> <li>dredged or interned within the southern extraction pond to settle at a minimum of 8m below the surface water; or</li> <li>placed within the northern extraction area a minimum depth of -2.0m AHD;</li> </ul> within a nominated period.	Not Yet Applicable	Importation of VENM has not yet commenced.	A, D
9.7	Compile a site specific Acid Sulfate Soil and Sediment Management Plan for the Project in accordance with relevant legislation and in consultation with government agencies, in particular <b>DPI - Water</b> and DECC. Ensure the management plan covers both the management of acid generation during extraction operations and the management of potentially acid generating VENM(b).	See <b>Table A Schedule 3 Condition 22</b>		
9.8	Retain records of monitoring on site together with the application rates of the alkaline amendment used as neutralising agents. Provide these records to statutory authorities upon request.	Compliant	These monitoring records have been retained. A summary is provided in Section 6.6 of this report.	A, D
9.9	Obtain documentation for each truck load of VENM(b) received at the Project Site that demonstrates that the excavation of VENM(b) and its transport and handling has been conducted in accordance with the NSW ASS Manual to prevent the generation of acid.	Not Yet Applicable	Importation of VENM has not yet commenced.	A, D
9.10	Submit to the DECC(EPA) an annual return (in accordance with the issued Environment Protection Licence) which outlines the results of all required monitoring.	Not Yet Applicable	Importation of VENM has 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**

SoC No.	Commitment	Compliance	Comments	Basis*
<b>Acid Sulfate Soils and Sediments, Soil Contamination and Agricultural Suitability (Cont'd)</b>				
9.11	Retain documentation for each truck load of VENM(b) received at the site which indicates: <ul style="list-style-type: none"> <li>• the details of the originating site (name, address, owner and developer, contact details);</li> <li>• the details of the transportee (name, address, contact details, vehicle registration);</li> <li>• date and time of the extraction of the VENM(b);</li> <li>• pH of the VENM(b) at the time of its extraction, and at the time immediately prior to its placement underwater; and</li> <li>• the name of the person (certified practicing soil scientist) who assessed the material and classified it as VENM(b).</li> </ul>	Not Yet Applicable	Importation of VENM has not yet commenced.	A, D
9.12	Ensure verification of neutralising agent application volumes and verification results are available.	Not Yet Applicable	Importation of VENM has not yet commenced.	A, D
9.13	Treat stripped topsoil/loam at determined rates prior to use in earth bunds or rehabilitation.	<b>Administrative Non-compliance</b>	Alkaline amendments were not applied during stripping but were applied after stripping of the upper 250mm of soil during physical commencement. Subsequent applications have been <u>prior</u> to stripping.	A, D
9.14	Treat and validate washed sand where required.	Not Yet Applicable	Processing operations have not yet commenced.	A, D
9.15	Collect and analyse soil samples at a rate of 4 per hectare.	Compliant	Sampling has been completed at the required rate (see Section 6.6 of this report).	A, D
9.16	Incorporate an alkaline amendment into the topsoil / loam at the calculated rate (based on the results of sampling).	Compliant	Agricultural lime was applied to stripped soil material at the calculated rates (see Section 6.6 of this report).	A, D
9.17	Complete the validation sampling of treated soil at a rate one sample per 1 000m <sup>3</sup> .	Compliant	Validation samples were collected for the soil stripped during physical commencement.	A, D
9.18	Construct bunding around the extraction and processing areas to control drainage.	Not Yet Applicable	Extraction and processing operations have not yet commenced. Bund construction within the southern extraction area has 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	Extraction and operations have not yet commenced. The permanent processing area has not yet been constructed.	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*
<b>Acid Sulfate Soils and Sediments, Soil Contamination and Agricultural Suitability (Cont'd)</b>				
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	Processing 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	Processing 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	Extraction 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	Extraction 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	Importation of VENM has 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	Importation of VENM has 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	Importation of VENM has 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	Importation of VENM has not yet commenced.	A, D
9.28	Complete the following in the event that validation or monitoring criteria are exceeded for topsoil, loamy sand or sand. <ul style="list-style-type: none"> <li>Test the acid neutralising capacity of the stripped topsoil or hydraulically separated sands.</li> <li>Incorporate alkaline amendments at the appropriate rate if the measured acid neutralising capacity is insufficient to neutralise the existing and potential acidity.</li> </ul> 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.	Not Applicable	Validation testing results demonstrate that the chromium reducible sulfur and TAA were well below the action criteria.	A, D
9.29	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).	Not Applicable	Importation of VENM has not yet commenced.	A, D
9.30	Complete the following in the event monitoring criteria are exceeded for imported VENM(b). <ul style="list-style-type: none"> <li>Sample at the maximum rate of one sample / 1 000m<sup>3</sup> and test for SCR and total actual acidity.</li> <li>Treat the material with the calculated amount of alkaline amendment if any records indicate SCR &gt;0.03% or total actual acidity &gt;18mol H+/t.</li> <li>Treat the material with the calculated amount of alkaline amendment. Undertake verification testing at the rate of 1 sample/per 1 000m<sup>3</sup> to confirm SCR &lt;0.03% and total actual acidity &lt;18mol H+/t prior to final placement or further processing</li> </ul>	Not Applicable	Importation of VENM has 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*
<b>Acid Sulfate Soils and Sediments, Soil Contamination and Agricultural Suitability (Cont'd)</b>				
9.31	Undertake the following as soon as possible after becoming aware that any waste/material accepted at the premises is not VENM. <ul style="list-style-type: none"> <li>• Notify the EPA in writing.</li> <li>• Remove the material/waste from the premises and dispose of it at a facility licensed to take such waste.</li> <li>• 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.</li> </ul>	Not Applicable	Importation of VENM has not yet commenced.	A, D
9.32	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).	Not Applicable	Extraction operations have not yet commenced. Notwithstanding this, pre-extraction monitoring recorded pH levels above trigger action levels.	A, D
<b>Flora and Fauna</b>				
10.1	Progressively rehabilitate completed works within the Project Site to maximise cover of native vegetation in appropriate areas and minimise opportunities for erosion and weed invasion.	Not Yet Applicable	No final areas have become available for rehabilitation. The use of topsoil on the bundwalls containing the existing pasture species ensured that the bundwall's groundcover was rapidly established thereby minimising potential erosion.	A, D
10.2	Define and clearly mark vegetation for retention prior to the commencement of site establishment to ensure that native vegetation clearing is confined only to those areas required for Project operations.	Not Yet Applicable	Commitment relates to pipeline corridors – the pipelines have not yet been installed.	A, D
10.3	Control noxious weeds on the Project Site.	Compliant	Weed control is undertaken as part of the current cattle agistment.	A
10.4	Place pipelines within pipeline corridors so as to avoid the need to clear trees or shrubs, wherever possible.	Not Yet Applicable	The pipelines have not yet been installed.	A, D
10.5	Utilise local native plant species recommended by Idyll Spaces (2008) for rehabilitation and landscaping. Within and adjacent the final lake (Note: vegetation set back from the final lake would reflect the specific land use – e.g. sporting fields, gardens, etc).	Not Yet Applicable	No final areas have become available for rehabilitation.	A, D
10.6	Undertake replacement planting of the same tree species within the same area in the unlikely event that a small number of trees are required to be removed for the laying of the pipelines.	Not Yet Applicable	The pipelines have not yet been installed.	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*
<b>Traffic and Transport (Cont'd)</b>				
12.9	Construct the upgraded intersection of Altona Drive and Crescent Street together with a short section of road to link with the existing Altona Drive and an additional two passing bays along the existing alignment of Altona Drive.	Not Yet Applicable	Product transport operations or VENM receipt has not yet commenced.	A, D
12.10	Construct the four entrances to the Project Site from Altona Drive with the sealed carriageway of Altona Drive flared out to 9m wide for approximately 15m in advance of each access (from the right hand turn perspective) using a 25m transitional length. Ensure the access road is 10m wide at its intersection with Altona Drive providing a 15m inside radius for the left hand turn out.	Not Yet Applicable	The access to the temporary processing area was commenced during the reporting period. The remaining entrances are not yet required.	A, D
12.11	Implement appropriate management controls including the use of warning signs and manual traffic control during the laying of pipelines adjacent to Tweed Coast Road and during the underboring of the road crossings.	Not Yet Applicable	The pipelines have not yet been installed.	A, D
12.12	Establish a telephone complaints line, advertised in the local telephone directory, to enable any traffic-related incidents, unsafe operation or general concern to be reported. Investigate all complaints and act decisively on substantiated incidents.	Compliant	A telephone complaints line is advertised on the Company website (which is now the accepted practice).	A, D
12.13	Implement a truck driver's code of conduct required to be signed by all Company employed or contracted truck drivers. The code will outline each truck driver's responsibility and the process to be undertaken in the event of a complaint.	Not Yet Applicable	Product transport operations have not yet commenced.	A, D
<b>Noise</b>				
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. The dredge to be utilised has been assessed by Spectrum Acoustics and compliance at surrounding residences is predicted.	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	The permanent processing area has not yet been constructed.	A, D
13.4	Enclose the noisier components of the equipment to promote noise reduction of the plant.	Not Yet Applicable	The permanent processing area and plant has not yet been constructed / installed.	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.	Compliant	All equipment has been fitted with broadband reversing alarms.	A
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.	Compliant	All equipment was appropriately maintained.	A
* D = Documentation sighted                      A = Advised by Company                      O = On-site Observation				



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

<b>SoC No.</b>	<b>Commitment</b>	<b>Compliance</b>	<b>Comments</b>	<b>Basis*</b>
<b>Noise (Cont'd)</b>				
13.7	Maintain the internal road network to an acceptable standard to limit body noise from empty trucks.	Compliant	The internal road to the initial dredge pond has been appropriately surfaced.	A,O
13.8	Strictly adhere to all approved hours of operation.	Compliant	All activities during the reporting period were compliant with the approved hours.	A
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	Noise monitoring was undertaken 10 July 2017 (i.e. slightly beyond this reporting period).	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	Ongoing noise monitoring will be undertaken during active operations.	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	Noise monitoring was undertaken 10 July 2017 (i.e. slightly beyond this reporting period).	A, D
<b>Air Quality</b>				
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
14.5	Prepare an air monitoring program to ensure that DECC air quality goals for dust (TSP, PM <sub>10</sub> and deposited dust) are met.	See <b>Table A Schedule 3 Condition 9</b>		
14.6	Undertake monitoring in accordance to the DECC document <i>"Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales"</i> (DECC, 2005), and more specifically, in accordance with AS 2922-1987 <i>"Ambient Air – Guide for the Siting of Sampling Units"</i> (NSW DECC Method AM-1) and AS 3580.9.6-2003 <i>"Particulate Matter – PM<sub>10</sub> – high volume sampler with size-selective inlet"</i> .	Not Yet Applicable	Product transport / VENM receipt has not yet commenced (at which time PM <sub>10</sub> monitoring is required).	A, D
14.7	Annually review the dust monitoring program to ensure that the data being collected is meaningful.	Not Yet Applicable	The program has been approved and monitoring commenced 11 July 2017.	A, D
14.8	Ensure the screening and blending plant does not exceed a daily <u>average</u> processing rate greater than 100tph.	Not Yet Applicable	Processing 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*
<b>Aboriginal Heritage</b>				
15.1	Invite any Aboriginal stakeholders to observe during the burying of the pipelines within the northern pipeline corridor.	Not Yet Applicable	The pipelines have not yet been installed within the northern pipeline corridor.	A, D
15.2	Stop works at and adjacent to any Aboriginal sites or relics, if found.	Not Applicable	No Aboriginal sites have been identified.	A
15.3	Contact the regional archaeologist of the Coffs Harbour DECC and relevant Aboriginal Stakeholders if any Aboriginal sites or relics, if found.	Not Applicable	No Aboriginal sites have been identified.	A
15.4	Receive authorisation from the DECC and Tweed Byron LALC prior to proceeding with any works in the vicinity of any identified Aboriginal sites or relics, if found.	Not Applicable	No Aboriginal sites have been identified.	A
15.5	Prepare a simple Cultural Heritage Information booklet for use in induction of employees and contractors.	Compliant	The Aboriginal Cultural Heritage Management Plan will act as the induction manual. The Quarry Operator has also been 'inducted' by the Tweed LALC.	D
15.6	Undertake agency consultation with Aboriginal representatives in relation to the ongoing management of identified items of Aboriginal heritage.	Not Applicable	No Aboriginal sites have been identified.	A
<b>Visibility</b>				
16.1	Surround the processing area by a 3m high bund planted with native shrub species.	Not Yet Applicable	The permanent processing area has not yet been constructed.	A, D
16.2	Plant a visual screen between the eastern extent of the extraction sites and Tweed Coast Road providing visual screening from motorists on Tweed Coast Road.	See <b>Table A Schedule 3 Condition 41</b> .		
16.3	Progressively rehabilitate the Project Site such that non-vegetated areas would be minimised.	Not Yet Applicable	No final rehabilitation areas have become available.	A, D
16.4	Maintain the Project Site in a clean and tidy condition at all times.	Compliant	The Quarry Site is maintained in a clean and tidy condition.	A
16.5	Implement air quality controls (see Commitment No. 14).	See <b>Table B</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	No floodlights or lighting plant have been utilised during the reporting period.	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*								
<b>2 Discharges to Air and Water and Applications to Land</b>												
<b>P1 Location of monitoring/discharge points and areas</b>												
P1.1	The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.	Noted	-	-								
P1.2	The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area. Water and Land	Noted	Monitoring undertaken at this point.	D								
	<table border="1"> <thead> <tr> <th>EPA Id. No.</th> <th>Type of Monitoring Point</th> <th>Type of Discharge Point</th> <th>Location Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Water Quality Monitoring</td> <td></td> <td>Dredge Pond</td> </tr> </tbody> </table>	EPA Id. No.	Type of Monitoring Point	Type of Discharge Point	Location Description	1	Water Quality Monitoring		Dredge Pond			
EPA Id. No.	Type of Monitoring Point	Type of Discharge Point	Location Description									
1	Water Quality Monitoring		Dredge Pond									
<b>3 Limit Conditions</b>												
<b>L1 Pollution of waters</b>												
L1.1	Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.	Compliant	No pollution of waters is deemed to have occurred during the reporting period.	A, D								
<b>L2 Noise limits</b>												
L2.1	Noise from the dredge pond must not exceed an LA <sub>eq(15 minute)</sub> noise emission criterion of 46 dB(A) during 7am to 5pm Monday to Friday and 7am to 1pm on Saturdays. Where LA <sub>eq</sub> means the equivalent continuous noise level – the level of noise equivalent to the energy-average of noise levels occurring over a measurement period, except as expressly provided by this licence.	Compliant	Site construction and establishment works commenced 26 June 2017 with monitoring undertaken on 10 July 2017 (slightly outside of this reporting period). Monitoring confirms compliance.	A, D								
L2.2	Noise from the premises is to be measured at the nearest noise sensitive receiver to determine compliance with this condition.  Note: Noise generated from the fill site must be managed according to the licensee's Construction Noise Management Plan (Ron Rumble Pty Ltd, October 2005).	Not Applicable	Site construction and establishment works commenced 26 June 2017 with monitoring undertaken on 10 July 2017 (slightly outside of this reporting period).	A, D								
<b>L3 Hours of operation</b>												
L3.1	Activities covered by this licence must only be carried out between the hours of 0700 and 1800 Monday to Friday, and 0700 and 1300 Saturday, and at no time on Sundays and Public Holidays.	Compliant	All operations occurred within the approved hours.	A								
* 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*
<b>5. Monitoring and Recording Conditions</b>				
<b>M1 Monitoring records</b>				
M1.1	The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.	Compliant	The monitoring records have been retained as required.	D
M1.2	All records required to be kept by this licence must be: a) in a legible form, or in a form that can readily be reduced to a legible form; b) kept for at least 4 years after the monitoring or event to which they relate took place; and c) produced in a legible form to any authorised officer of the EPA who asks to see them.	Compliant	Monitoring has been retained in a legible form for more than 4 years. No requests from an EPA officer were received.	A, D
M1.3	The following records must be kept in respect of any samples required to be collected for the purposes of this licence: a) the date(s) on which the sample was taken; b) the time(s) at which the sample was collected; c) the point at which the sample was taken; and d) the name of the person who collected the sample.	Compliant	Monitoring records contain all required information.	D
<b>M2 Requirement to monitor concentration of pollutants discharged</b>				
M2.1	For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:	Compliant	Monitoring undertaken in accordance with these requirements.	D
M2.2	Water and/ or Land Monitoring Requirements.			
	<b>Pollutant</b>	<b>Units of measure</b>	<b>Frequency</b>	<b>Sampling Method</b>
	Dissolved Oxygen	milligrams per litre	Quarterly	In situ
	pH	pH	Quarterly	In situ
	Redox potential	millivolts	Quarterly	In situ
	Salinity	millisiemens per centimetre	Quarterly	In situ
	Temperature	degrees Celsius	Quarterly	In situ
M2.2		Compliant	All required analytes were sampled at the frequency required using in situ methods.	D
<b>M3 Testing methods - concentration limits</b>				
M3.1	Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.	Not Applicable	No discharges or application of water occurred during the reporting period.	A
* D = Documentation sighted                      A = Advised by Company                      O = On-site Observation				



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

Cond. No.	Commitment	Compliance	Comments	Basis*
<b>5 Monitoring and Recording Conditions (Cont'd)</b>				
<b>M4 Recording of pollution complaints</b>				
M4.1	The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	Not Applicable	No complaints received during the reporting period.	A, D
M4.2	The record must include details of the following: a) the date and time of the complaint; b) the method by which the complaint was made; c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; d) the nature of the complaint; e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and f) if no action was taken by the licensee, the reasons why no action was taken.	Not Applicable	No complaints received during the reporting period.	A, D
M4.3	The record of a complaint must be kept for at least 4 years after the complaint was made.	Not Applicable	No complaints received during the previous 4 years.	A, D
M4.4	The record must be produced to any authorised officer of the EPA who asks to see them.	Not Applicable	No requests received during the reporting period.	A
<b>M5 Telephone complaints line</b>				
M5.1	The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	Compliant	The mobile phone contact for the Managing Director, 0414 322 455, was the relevant complaints contact during the reporting period.	A, D
M5.2	The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.	Compliant	The complaints number is included on the Company website.	A, D
M5.3	The preceding two conditions do not apply until 3 months after: a) the date of the issue of this licence or b) if this licence is a replacement licence within the meaning of the Protection of the Environment Operations (Savings and Transitional) Regulation 1998, the date on which a copy of the licence was served on the licensee under clause 10 of that regulation.	No Longer Applicable	The licence was issued 18/11/2005 (i.e. more than 3 months prior).	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*
<b>6 Reporting Conditions</b>				
<b>R1 Annual return documents</b>				
R1.1	The licensee must complete and supply to the EPA an Annual Return in the approved form comprising: c) a Statement of Compliance; and d) a Monitoring and Complaints Summary. At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.	Compliant	The completed annual return for the period 18 November 2015 to 17 November 2016 was received by the EPA on 16 January 2017.	D
R1.2	An Annual Return must be prepared in respect of each reporting period, except as provided below.	Compliant	The completed annual return for the period 18 November 2015 to 17 November 2016 was received by the EPA on 16 January 2017.	D
R1.3	Where this licence is transferred from the licensee to a new licensee: e) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and a) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.	Not Applicable	The licence has not been transferred.	D
R1.4	Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on: a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.	Not Applicable	The licence has not been surrendered.	D
R1.5	The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').	Compliant	The completed annual return for the period 18 November 2015 to 17 November 2016 was received by the EPA on 16 January 2017.	D
R1.6	The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.	Compliant	Copies of annual returns retained for more than 4 years.	A
* 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*
<b>6 Reporting Conditions (Cont'd)</b>				
<b>R1 Annual return documents (Cont'd)</b>				
R1.7	<p>Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:</p> <ul style="list-style-type: none"> <li>a) the licence holder; or</li> <li>b) by a person approved in writing by the EPA to sign on behalf of the licence holder.</li> </ul>	Compliant	The Annual Return was signed by the licence holder.	A
R1.8	<p>A person who has been given written approval to certify a certificate of compliance under a licence issued under the <i>Pollution Control Act 1970</i> is taken to be approved for the purpose of this condition until the date of first review of this licence.</p> <p>Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.</p> <p>Note: An application to transfer a licence must be made in the approved form for this purpose.</p>	Noted	-	-
<b>R2 Notification of environmental harm</b>				
R2.1	Notifications must be made by telephoning the Environment Line service on 131 555.	Noted	-	-
R2.2	<p>The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.</p> <p>Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.</p>	Not Applicable	No reportable incidents occurred during the reporting period.	A, D
<b>R3 Written report</b>				
R3.1	<p>Where an authorised officer of the EPA suspects on reasonable grounds that:</p> <ul style="list-style-type: none"> <li>a) where this licence applies to premises, an event has occurred at the premises; or</li> <li>b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.</li> </ul>	Not Applicable	No requests received.	A
<p>* D = Documentation sighted                      A = Advised by Company                      O = On-site Observation</p>				

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

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Cond. No.	Commitment	Compliance	Comments	Basis*
<b>6 Reporting Conditions (Cont'd)</b>				
<b>R3 Written report (Cont'd)</b>				
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
<b>7 General Conditions</b>				
<b>G1 Copy of licence kept at the premises or plant</b>				
G1.1	A copy of this licence must be kept at the premises to which the licence applies.	Compliant	A copy is retained within the on-site document tube.	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.	Compliant	A copy is retained within the on-site document tube and is available upon request.	A
* D = Documentation sighted                      A = Advised by Company                      O = On-site Observation				

**Table D**  
**Compliance Review – Water Licence 30CA321269**

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Condition No.	Commitment	Compliance	Comments	Basis*
<b>Water management works</b>				
DK0888-00001	Any water supply work authorised by this approval used for the purpose of conveying, diverting or storing water must be constructed or installed to allow free passage of floodwaters flowing into or from a river or lake.	Not Applicable	The water supply work (extraction ponds), are not for these purposes.	-
DS2349-00001	The approval holder must make all reasonable efforts not to allow any used water to discharge, by any means including surface or subsurface drains or pipes, into or onto: <ul style="list-style-type: none"> <li>any adjoining public or crown road;</li> <li>any other person's land;</li> <li>any Crown land;</li> <li>any river, creek or watercourse or aquifer.</li> </ul>	Compliant	Extraction operations have not yet commenced. No discharges have occurred.	A, D
DS4770-00001	The Northern excavation or the Southern dredge pond excavation must not be altered or enlarged beyond the dimensions shown on Figure 2.4 of the approved project plan 05-0103, dated 16/6/2009. A copy of the project plan is held at the WaterNSW, Grafton Office.	Compliant	The initial dredge pond is less than the maximum allowable dimensions.	D
DS4771-00001	The works, authorised by this approval, must be operated in such a way that:			
	A. the drawdown of the natural water levels from operation of the quarry does not result in acidification of the acid sulfate soils surrounding the Cudgen Lakes Sand Quarry,	Compliant	Extraction operations have not yet commenced.	A, D
	B. by-products from any acid sulfate soils placed in the work do not escape into the groundwater systems surrounding the works, and	Compliant	No acid sulfate soils have been placed within the initial dredge pond.	A
	C. the quality of the groundwater near the site is not diminished.	Compliant	Extraction operations have not yet commenced. Previous monitoring undertaken does not indicate adverse effects from the initial dredge pond.	D
DS4772-00001	A. The Northern excavation must not be filled with silts and fines from the sand mining operation.	Not Yet Applicable	Extraction within the northern extraction area has not yet commenced.	A, D
	B. The Southern dredge pond excavation must not be filled with silts and fines from the sand mining operation to a final depth that is higher than 8.0m below 0.0 AHD.	Compliant	No silts or fines have yet been placed within the southern dredge pond.	A, D
* D = Documentation sighted    A = Advised by Company    O = On-site Observation				





