

1171BH May 2, 2014

The Department of Planning & Infrastructure GPO Box 39 SYDNEY NSW 2001

**Attention: Mr Brendan Liew** 

Dear Sir,

### Re: Proposed modification to Salt Ash Sand Extraction Project (MP 07 0094)

Reference is made to the Department of Planning and Infrastructure's (DPI) approval of MP 07\_0094 for the extraction of sand at Salt Ash and subsequent approved modifications. As the company seeks to commence operations in the first half of 2014, and continues to progress construction of the plant area and associated infrastructure, a number of minor amendments are proposed to the current project approval to ensure the key objectives of ATB Morton Pty Ltd, DPI and other stakeholders are met.

This submission seeks to identify those elements of the current approval which require modification to enable a successful transition from the construction phase of the project into an operation phase. Discussion on the likely impacts of the proposed modifications is also provided.

#### 1. Background

ATB Morton Pty Ltd obtained conditional project approval in 2010 to establish a sand quarry with an extraction limit of 200,000 tonnes per annum. Modifications to the project approval were issued in 2011 to amend the proposed environmental offset site from a property at Markwell to a property at Tomalla, and in a separate modification to amend the type of intersection upgrade from a BAL to a CHR type intersection. An Environmental Protection License was issued for the project in 2011.

In September of 2011, the Department issued advice accepting several management plans and strategies (Attachment A). This advice saw the project transition into a construction phase in late 2011.











Since this time works and activities undertaken by the proponent or its representatives include but are not limited to: -

- Establishment of the Community Consultative Committee;
- Pre Clearing Flora and Fauna Surveys within the plant / processing area;
- Construction of the internal haul road and acoustic bund;
- Clearing of the sand plant / weighbridge / workshop / material stockpile area;
- Consultation with any interested cultural heritage groups / organisations in accordance with the AHMS:
- Approval pursuant to Section 138 of the Roads Act, 1993 and construction of the intersection between the haul road and Janet Parade:
- Upgrade of the Janet Parade and Nelson Bay Road intersection to practical completion;
- Construction of the Plant area including amenities building, weighbridge, workshop and dam;
- Construction of overhead power lines from Janet Parade to a substation found in the sand plant area (yet to be energised);
- Progression of Biobanking Assessment process with NSW Office of Environment and Heritage (OEH);
- Implementation of monitoring programs and submission of annual returns as required by the EPL to OEH;
- Obtaining a WAL and allocation from the NSW Office of Water; and
- Engagement and liaison with independent person (Schedule 1 Condition 13) as required to ensure compliance with all relevant conditions of approval.

The construction process has been protracted as a result of delays in obtaining service and infrastructure approvals, in particular for road works and power, undertaking such











works, and the company's ability to commit monetary and human resources to the project when commanded for other projects undertaken by the company. Nonetheless ATB Morton Pty Ltd remains committed to the project and expects to be operational in the first half of 2014.

The structure of the 2011 project approval, in particular the wording of conditions relating to ongoing performance and environmental monitoring, appears to be based on a quarry operating in late 2012. At the time of determination an expectation that quarrying would take place in late 2012 was a reasonable assumption. As detailed above, this has not eventuated and necessitates the need to reconsider the wording of certain conditions.

### 2. Statutory Context

The subject application to modify the proposed development is made pursuant to Section 75W of the EP & A Act, 1979. While Section 75W has been repealed from the Act, it is still available for projects approved under the now repealed Part 3A of the Act. As such Section 75W stands as the most appropriate mechanism for submitting and assessing modifications to projects approved under Part 3A of the Act.

As will be detailed in this submission and supporting documentation the nature of the proposed modifications are such that the environmental consequences beyond those considered as part of the original assessment will be limited.

### 3. Proposed Modifications

The following modifications are proposed to assist the completion of construction and enable the project to transition from a construction phase to an operational sand quarry:

### 3.1 Acoustic Fence

Schedule 3, Condition 22(b) of the project approval requires the establishment and maintenance of a 3 metre high acoustic bund along the southern boundary of the quarry access road. The condition requires that it be established prior to the commencement of quarrying operations and also notes that the vegetated bunds be detailed in the landscape management plan. While the landscape management plan describes the treatment of batters to contain or mitigate noise generated in the quarry pit and processing area, there is no specific detail in the plan relating to the treatment of the haul road acoustic bund.











The noise management strategy does, however, contain a cross sectional plan detailing the construction of a vegetated acoustic bund with a fence on top to achieve a height of three metres from the natural ground level. This detail is provided in Attachment B to this submission. The earthen mound component was completed in early 2012.

The haul road route from Janet Parade to the plant area has also presented as the energy provider's preferred alignment to provide overhead power to the plant area. It is a requirement of the service provider that a fifteen (15) metre wide cable easement be provided for the length of the overhead power lines. The location of the proposed easement is detailed in Attachment C. The proposed easement will benefit the service provider, Ausgrid, who advise that they require: -

- Clear unobstructed access; and
- Do not permit any permanent structures to be built in the easement.

Ultimatly these conditions will form part of a restriction on title via a transfer granting easement in favour of Ausgrid. A copy of the advice of Ausgrid is provided in Attachment C. As such the earthen bund previously constructed has been removed and cannot be reinstated within this easement. Similarly a fence, being a permanent improvement cannot be constructed along the proposed alignment as detailed in Attachment B.

A revised acoustic assessment has been prepared by *Spectrum Acoustics* (*April 2014*). This report included the measurement and assessment of actual (rather than assumed) noise generated by a truck and trailer passing under load and without load. The assessment also gives consideration to the proposed change in material and location and confirms that the noise criterion at JP3 will not be exceeded under either the current approved scenario or the proposed modification.

In light of the findings of the *Spectrum Acoustics* report and the current project approval, the company remains committed to providing an acoustic fence along the southern boundary of the haul road. The location of the fence is now, however limited to the common property boundary with Lot 41, DP 247593 which contains receiver JP3. This is detailed in *Figure 2* of the *Spectrum Acoustics* report. As such it is proposed to modify the type of acoustic treatment from a mound and fence to a fence exclusive of the mound. The height of the fence will still be to three (3) metres from the finished surface level of the road. A revised detail is











provided in Attachment D. The company have advised the owners of JP3 of this proposal, who have provided written support for the proposed modification.

#### 3.2 Modifications to Conditions

ATB Morton Pty Ltd seeks to make application for a number of conditions to be modified. Any of the proposed revisions to the structure of the conditions is provided for discussion and it is appreciated that the Department may have a preferred condition which will achieve the intent of the proposed modification. Detail of the suggested modifications is provided in Attachment E.

It is appreciated that the Department may wish to take the opportunity to make other minor amendments for administrative purposes.

We expect the revision of conditions is likely to be an iterative process, and request that a draft be made available for review prior to finalising any modified project approval.

#### 3.3 Modifications to Statement of Commitments

A revised statement of commitments is provided in Attachment F. The proposed changes are highlighted in red. As with the proposed modifications to the conditions of consent, the proponent is willing to consider any additional modifications to the Statement of Commitments as thought necessary by the Department.

### 4. Impact and Mitigation

The amendment to the proposed design of acoustic barrier addressing the southern boundary of the haul road is likely to result in a change in the visual impact of the proposal. It is intended that the mound with fence on top supported by some tree planting will be replaced with a timber 'lapped and capped' fence at the same height. The effectiveness of the barrier for noise mitigation in the 'before' and 'after' scenarios will be unchanged, however the visual impact of the barrier will be increased due to limitations on the type and location of landscaping available as a result of the restrictions imposed by the service provider.

Despite the limited opportunity to provide planting which would extend above the height of the fence, there remains an opportunity to soften the visual impact of the fence through the use of native climber species (http://www.anbg.gov.au/climbers) or











other creeper species such as star jasmine. This would provide a cover for the fence without having any impact on the limitations on planting / works within the overhead power line easement.

While it is acknowledged that the proposed solution may not provide the same level of visual relief as the mound and fence combination as previously proposed and discussed with the landowner, it is felt that level of screening proposed will remain acceptable. It is also considered that this proposal offers a better outcome than others available such as removing the fence and implementing other noise mitigation measures to JP3. On this basis the proposed modification to the location and design of the acoustic barrier should be supported by DPI.

In summary it is requested that the Department consider this application pursuant to Section 75W of the EP & A Act, 1979, and support the proposed modifications to the location of the acoustic barrier and other conditions and revised statement of commitments, as appended to this submission.

Should you need to discuss, please do not hesitate to contact the undersigned.

Regards,

**Anthony Williams** 

**ATB Morton Pty Ltd** 





### **Attachment A**

## **Advice from Department of Planning & Infrastructre**





Contact: Colin Phillips Phone: (02) 9228 6483 Fax: (02) 9228 6466

Our ref:

Email: colin.phillips@planning.nsw.gov.au

Mr Anthony Williams
Planning and Approvals Manager
ATB Morton Pty Ltd
PO Box 186
HUNTER REGION MC NSW 2310

Dear Mr Williams

### ATB Morton Salt Ash Sand Extraction Project (07\_0049) Approval of EMS, Management Plans and Monitoring Programs

I refer to your letter, dated 18 July 2011, and accompanying copies of an Environmental Management Strategy, Management Plans and Monitoring Programs, and subsequent emails and revised versions of these documents, required by the Minister's approval for the ATB Morton Salt Ash Sand Extraction Project.

The Department considers that the following documents are satisfactory. Accordingly, the Director-General has approved ATB Morton Salt Ash Sand Extraction Project's:

- Environmental Management Strategy (condition 1 of schedule 5);
- Construction Noise Management Plan (condition 6 of schedule 3);
- Noise Monitoring Program (condition 7 of schedule 3);
- Dust Monitoring Program (condition 10 of schedule 3);
- Erosion and Sediment Control Plan (condition 15 of schedule 3);
- Aboriginal Cultural Heritage Management Plan (condition 28 of schedule 3); and
- Traffic Management Plan (condition 33 of schedule 3).

The following documents remain under review pending the outcomes of the company's consultation with either the NSW Office of Water or Port Stephens Council:

- Soil and Water Management Plan (condition 14 of schedule 3) incorporating the:
  - Surface Water Monitoring Program (condition 16 of schedule 3);
    - o Ground Water Monitoring Program (condition 17 of schedule 3); and
    - Acid Sulfate Soils Management Plan (condition 18 of schedule 3); and
- Landscape Management Plan (condition 24 of schedule 3) incorporating the:
  - o Rehabilitation Management Plan (condition 25 of schedule 3); and
  - o Long Term Management Strategy (condition 26 of schedule 3).

If you have any queries about this matter, please contact Colin Phillips at the details above.

Yours sincerely

Akitto 21/9/11

David Kitto

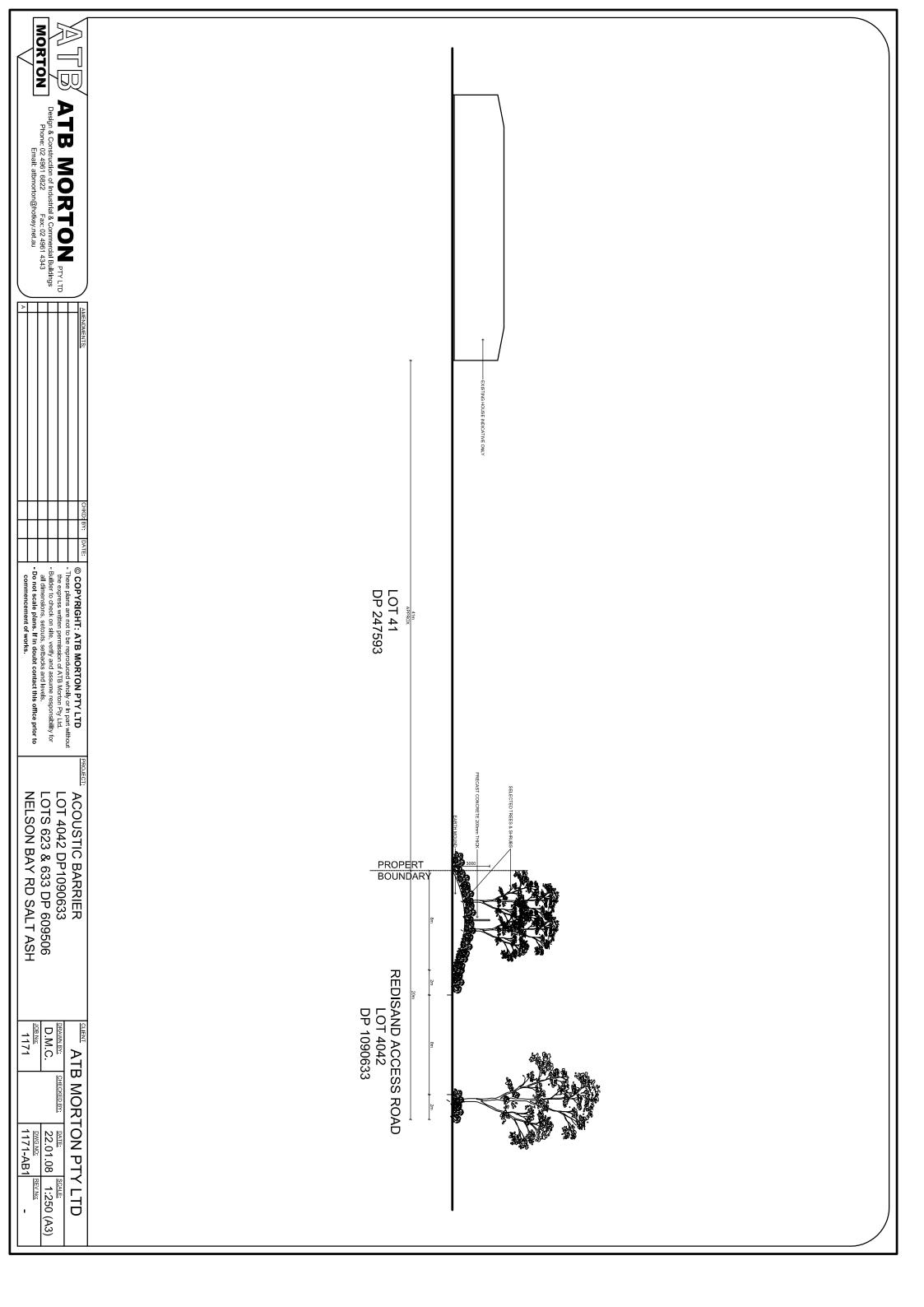
Director, Mining and Industry Projects as Delegate for the Director-General



### **Attachment B**

### **Current Acoustic Bund Detail**







### **Attachment C**

### **Ausgrid Advice and Location of Proposed Easement**



#### **Anthony Williams**

From: Nigel Traynor [NTraynor@ausgrid.com.au]
Sent: Tuesday, 28 January 2014 11:47 AM

To: Fred Morton; Craig Randall; swilson@powersol.com.au

Cc: Charlie Peden; Grant Stevenson

Subject: Re: FW: Salt Ash Sand Wash Plant - location of substation pole 9

Attachments: A-10 ACOUSTIC FENCING REV A.PDF; 50119\_8.pdf; ATT3340942.txt

Good morning all

The purpose of the easement is to provide clear unobstructed access to Ausgrid assets.

We do not permit any permanent structures to be built in our Easements.

It is a safety issue that compromises clearances.

Cheers.

#### Nigel Traynor | Engineering Officer | Contestability | Ausgrid

Level BLOCK C, 145 Newcastle Road Wallsend NSW 2287 AUSTRALIA

■: 0400-479271 | 
■: 02-49101842 | 
■: 0400 479 271 | 

| NTraynor@ausgrid.com.au |

Please consider the environment before printing this email

From: "Fred Morton" <FredMorton@atbmorton.com.au>

To: <NTraynor@ausgrid.com.au>,

Cc: "Grant Stevenson" < GrantStevenson@redisand.com.au>, "Charlie Peden" < CharliePeden@redicrete.com.au>

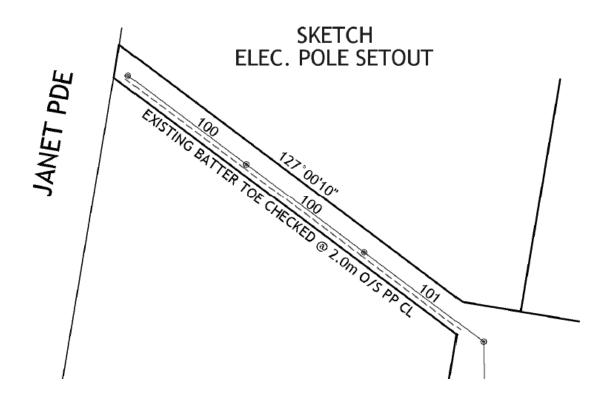
Date: 15/01/2014 07:38 PM

Subject: FW: Salt Ash Sand Wash Plant - location of substation pole 9

#### Nigel,

We are required by the NSW Department of State Planning to install an acoustic fence approximately 275m long along the mines access driveway on the southern boundary. State planning has requested that the fence be installed off the boundary to enable screening vegetation to be planted between the boundary and the fence.

The proposed acoustic fence is 3,000mm high from FGL and of treated pine construction. The attached architectural drawing A-10 Rev A indicates the general construction method. We propose to construct the fence at a minimum distance of 2,100mm from the centre of the recently installed Ausgrid poles. The redline on the below sketch indicates the approximate position of the proposed fence.



Could you please advise if Ausgrid have any objections to the fence being installed in the position proposed above, or if any adjustments need to be made to satisfy your requirements.

If you have any questions or require any additional information please do not hesitate to contact myself.

Regards,

#### Fred Morton

#### ATB Morton Group of Companies

PO Box 186, Hunter Region MC, NSW, 2310
Phone: (02) 4961 6822 Fax: (02) 4961 4343

Mobile: 0428 616 830

Website: www.atbmorton.com.au

 $\clubsuit$  Please consider the environment before printing this email.

NOTICE – This message and any attached files may contain information that is confidential and/or subject of legal privilege intended only for use by the intended recipient. If you are not the intended recipient or the person responsible for delivering the message to the intended recipient, be advised that you have received this message in error and that any dissemination, copying or use of this message or attachment is strictly forbidden, as is the disclosure of the information therein. If you have received this message in error please notify the sender immediately and delete the message.

From: Nigel Traynor [mailto:NTraynor@ausgrid.com.au]

Sent: Friday, 29 November 2013 3:27 PM

To: James Turner

Cc: Craig Randall; Fred Morton; Grant Stevenson; Steve Wilson Subject: RE: Salt Ash Sand Wash Plant - location of substation pole 9

Good afternoon James

Your ASP3 designer can advise on the site conditions necessary to meet network standards.

At the moment the certified design is unconstructable.

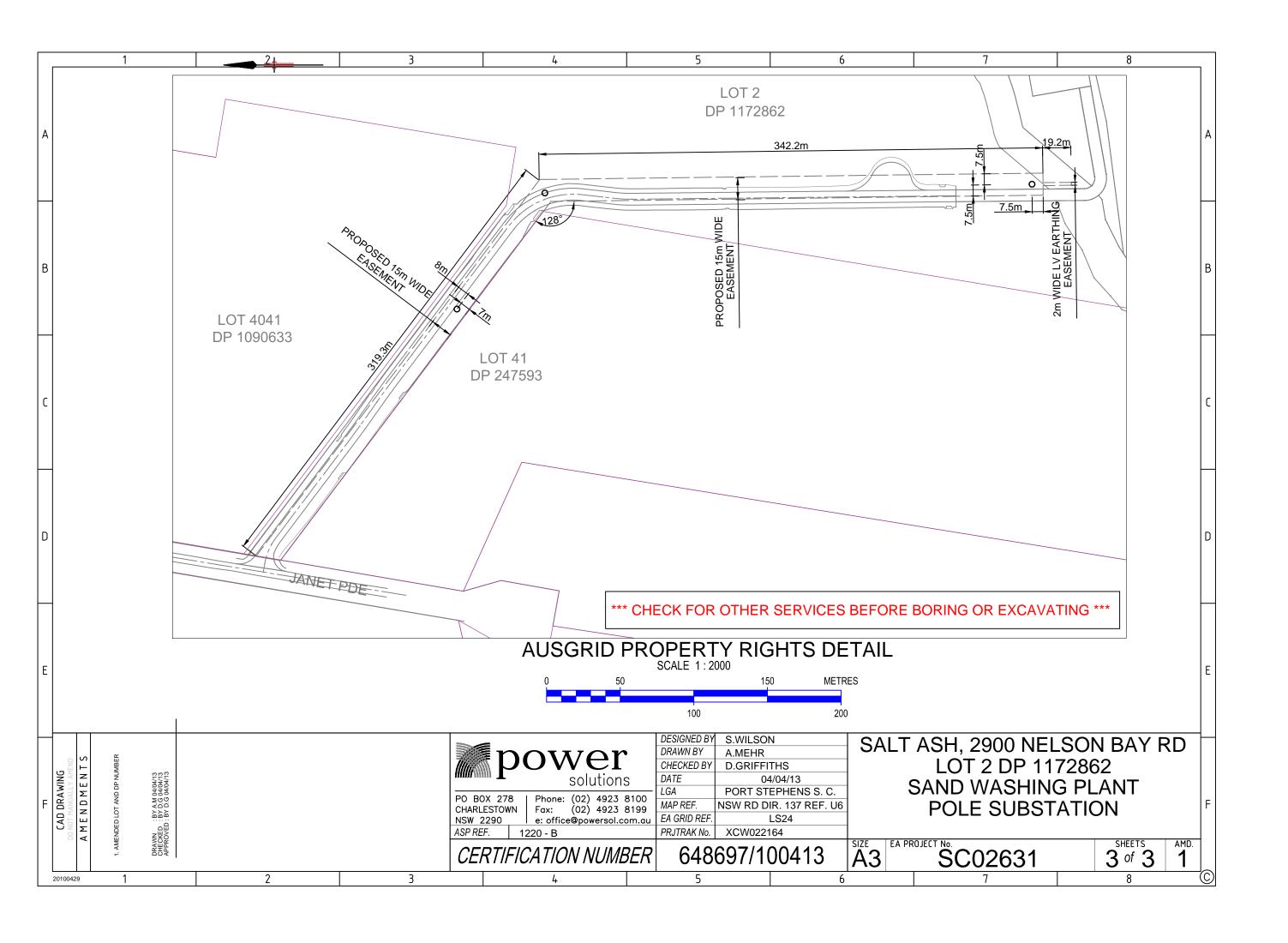
The customer and ASP3 designer need to get together to make this design work.

The designer may look to submit an amended design.

Cheers,

### Nigel Traynor | Engineering Officer | Contestability | Ausgrid

Level BLOCK C, 145 Newcastle Road Wallsend NSW 2287 AUSTRALIA ■: 0400-479271 | ■: 02-49101842 | 1: 0400 479 271 | ☑: NTraynor@ausgrid.com.au |

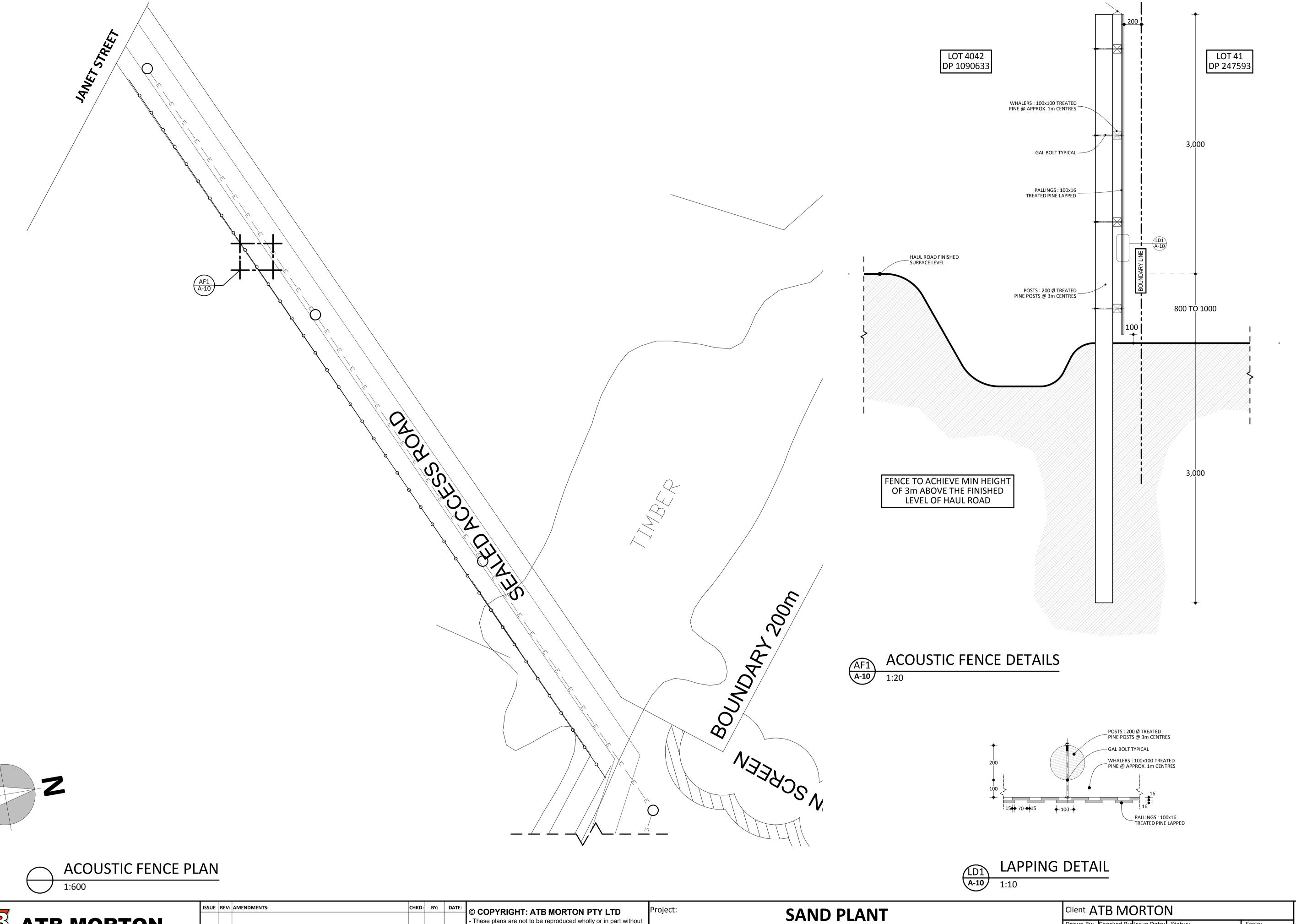




### **Appendix D**

### **Modified Fencing Detail**





ATB MORTON

Design & Construction of Industrial & Commercial Buildings
Phone: 02 4961 6822 Fax: 02 4961 4343
Email:enquiries@atbmorton.com.au

© COPYRIGHT: ATB MORTON PTY LTD

- These plans are not to be reproduced wholly or in part without the express written permission of ATB Morton Pty Ltd.

- Builder to check on site, verify and assume responsibility for all dimensions, setouts, setbacks and levels.

- Do not scale plans. If in doubt contact this office prior to commencement of works.

LOT 4042, 632 & 633 NELSON BAY ROAD, SALT ASH,NSW

Client ATB MORTON						
Drawn By: BGS	Checked By: AM	Issue Date: 4/02/2014	Status: PRELIMINARY	Scale: 1:600, 1:10, 1:20	A-10	
Project No:	Drawing Ti	tle:			Revision No:	
1171	1171 ACOUSTIC FENCING					



### **Appendix E**

### **Proposed Modifications to Project Approval**



### **Proposed Modifications to Conditions**

Condition Schedule &	<b>Current Condition</b>	Proposed Modification (highlighted in red)	Justification
Number			
Schedule 3,	By 1 February 2012, the Proponent shall:	By 1 February 2015, the Proponent shall: -	The proponent has made significant
Condition	-	(d) enter into a Biobanking agreement	inroads into establishing the biobank
19	(a) enter into a Biobanking agreement	for the offset area with the Minister	site. This has involved extensive
	for the offset area with the	for Environment and Heritage, in	consultation with the appropriate
	Minister for Environment and	accordance with Part 7A of the	Regional Conservation Officer at OEH.
	Heritage, in accordance with Part	Threatened Species Conservation	It is understood that OEH are generally
	7A of the <i>Threatened Species</i>	Act, 1995, to implement the	satisfied with the progress that has been
	Conservation Act, 1995, to	Biodiversity Offset Strategy	made with the biodiversity certification
	implement the Biodiversity Offset	summarised in Table 6;	process undertaken thus far.
	Strategy summarised in Table 6;	(e) ensure that adequate resources are	
	(b) ensure that adequate resources are	dedicated towards the	This process has been hindered, in part
	dedicated towards the	implementing the Biodiversity	as a result of an earlier consultant no
	implementing the Biodiversity	Offset Strategy; and	longer having the capabilities to finalise
	Offset Strategy; and	(f) provide appropriate long term	the biodiversity certification process
	(c) provide appropriate long term	security for this offset;	and ceasing to operate as a business.
	security for this offset;	to the satisfaction of the Director General	This are seen and a him do not and are
	to the satisfaction of the Director General		This process was also hindered when
			the new consultant (in consultation with
			OEH) identified some errors in the
			initiai biobanking assessment.
			The propopent owns the offset site at
			The proponent owns the offset site a Tomalla and remains committed to generating the required credits to ref for this project.

Γ			
Schedule 3,	Prior to the commencement of quarrying	Prior to the commencement of quarrying	As detailed elsewhere in the submission
Condition	operations, the Proponent shall establish,	operations, the Proponent shall establish,	this modification is required to ensure
22	and subsequently maintain:	and subsequently maintain:	that appropriate mitigation measures can be implemented while allowing for
	(a) a 6 metre high vegetated acoustic bund around the project's fixed plant; and (b) a 3 metre high vegetated acoustic bund along the southern boundary of the quarry access road,  to the satisfaction of the Director-General  Note: The vegetated bunds shall be detailed in the Landscape Management Plan.	(c) a 6 metre high vegetated acoustic bund around the project's fixed plant; and (d) a 3 metre high acoustic fence along the southern boundary of the quarry access road,  to the satisfaction of the Director-General  Note: The vegetated bunds shall be detailed in the Landscape Management Plan.	the installation of infrastructure required to enable to efficient operation of the extractive industry.
Schedule 3,	Prior to commencing quarrying	Prior to commencing quarrying operations,	The proponent remains committed to
Condition	operations, the Proponent shall lodge a	the Proponent shall lodge a rehabilitation	undertaking rehabilitation works and
26	rehabilitation bond for the project with the Director-General. The sum of the bond shall be calculated at \$2.50/m <sup>2</sup> for	bond for the project with the Director- General. The sum of the bond shall be calculated at \$2.50/m <sup>2</sup> for the area to be	agrees to providing a rehabilitation bond. The proponent is also aware of other projects where the rehab bond
	the area to be disturbed for the first 3	disturbed for the first 3 years of quarrying	amount has been determined based on
	years of quarrying operations, to the	operations, to the satisfaction of the	the NSW I & I guidelines and would
	satisfaction of the Director-General.	Director-General.	like the opportunity to utilise this guideline.
		Alternately a cost for the rehabilitation	
		works may be provided to the Director	
		General prepared in accordance with the	

		NSW Industry and Investment	
		Rehabilitaton Cost Estimate Guidelines	
		2010	
Schedule 5, Condition 3	By 1 November 2011, and annually thereafter, the Proponent shall review the environmental performance of the project to the satisfaction of the Director-General. This review must:  (a) describe the works (including rehabilitation) that were carried out in the previous year, and the works that are proposed to be carried out over current year;  (b) include a comprehensive review of the monitoring results and complaints records of the project over the past year, which includes a comparison of these results against:  • the relevant statutory requirements, limits or performance	Within 12 months from the commencement of extraction, and annually thereafter, the Proponent shall review the environmental performance of the project to the satisfaction of the Director-General. This review must:  (g) describe the works (including rehabilitation) that were carried out in the previous year, and the works that are proposed to be carried out over current year;  (h) include a comprehensive review of the monitoring results and complaints records of the project over the past year, which includes a comparison of these results against:  • the relevant statutory requirements, limits or	The proposed modification is sought to ensure that meaningful data is available for the Department to review and consider.
	measures/criteria;	performance measures/criteria; the monitoring results of previous years; and the relevant predictions in the EA;  (i) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance; (j) identify any trends in the monitoring data over the life of the project; (k) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and (l) describe what measures will be	

	imr	plemented over the next year to	imp	lemented over the next year to	
		prove the environmental performance		rove the environmental performance	
	of the project.		of the project.		
	or and projects		or the project.		
Schedule 5,	By 31 Decer	mber 2013, and every 3 years	Within 3 year	rs of the commencement of extraction,	The proposed modification is sought to
Condition		nless the Director-General directs	and every 3 y	rears thereafter, unless the Director-	ensure that meaningful data is available
8	otherwise, th	ne Proponent shall commission and	General direct	ets otherwise, the Proponent shall	
0	pay the full of	cost of an Independent Environmental	commission a	and pay the full cost of an Independent	for the Department to review and
	Audit of the	project. This audit must:	Environment	al Audit of the project. This audit	consider.
	(a)	be conducted by suitably	must:		
		qualified, experienced and	(g)	be conducted by suitably qualified,	
		independent team of experts		experienced and independent team	
		whose appointment has been		of experts whose appointment has	
		endorsed by the Director-General;		been endorsed by the Director-	
	(b)	include consultation with the		General;	
		relevant agencies;	(h)	include consultation with the	
	(c)	assess the environmental		relevant agencies;	
		performance of the project and	(i)	assess the environmental	
		assess whether it is complying		performance of the project and	
		with the relevant requirements in		assess whether it is complying with	
		this approval and any relevant		the relevant requirements in this	
		EPL or Mining Lease (including		approval and any relevant EPL or	
		any assessment, plan or program		Mining Lease (including any	
		required under these approvals);		assessment, plan or program	
	(d)	review the adequacy of strategies,		required under these approvals);	
		plans or programs required under	(j)	review the adequacy of strategies,	
		the abovementioned consents,		plans or programs required under	
		licences or leases;		the abovementioned consents,	
	(e)	recommend measures or actions to	4.	licences or leases;	
		improve the environmental	(k)	recommend measures or actions to	
		performance of the project, and/or		improve the environmental	
		any assessment, plan or program		performance of the project, and/or	
		required under these approvals;		any assessment, plan or program	
	(f)	and	(1)	required under these approvals; and	
	(f)	be completed within 2 months of	(1)	be completed within 2 months of	
		the approval of the audit team.		the approval of the audit team.	

Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Director-General.	Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Director-General.		
---	--	--	--



### **Appendix F**

## **Proposed Modifications to Statement of Commitments**



**Table 5.1 – Statement of Commitments** 

Impact	Commitment			
1. Ecology	Environmental Offset			
1. Ecology	By 1 <sup>st</sup> February 2015, the required number of biodiversity credits are to be retired.			
	Hollow bearing tree management     To compensate the loss of up to 212 hollow bearing trees			
	identified in the extraction foot print it is proposed to salvage branch hollows (up to 30 cm in diameter) from those existing hollow bearing trees proposed for removal for subsequent reerection onto host trees which the subject site, such as the buffer zones or retained swamp forest habitat, and / or on adjoining DECCW estate.			
	Hollows will be placed at least 3 metres from the base of the host tree and in a favourable orientation to minimise exposure. Host trees should be in good health. All salvaged hollows shall be reerected within twelve (12) weeks from completion of staged clearing operations. Damaged hollows would be repaired (where possible) or replaced with nest boxes.			
	Where required, nest boxes are to be laced in host trees in retained habitats such as buffer zones and retained swamp forest habitat and if possible, in adjoining DECCW estate.			
	The re-use of hollows and establishment of nest boxes provides habitat for a range of species including: -			
	<ul> <li>Brush – tailed Phascogale</li> <li>Squirrel Gliders; and</li> <li>microbats</li> </ul>			
	Existing logs and other suitable ground debris salvaged during clearing operations are to be retained in forested habitats within the subject site. The provision ground debris within the site would be expected to provide shelter and nesting habitat for small terrestrial mammals, additional habitat for the Brush – tailed Phascogale and Squirrel Gliders. Cleared trees supporting trunk hollows would provide suitable den sites for quolls			
	Buffer Zones     The following buffer zones / exclusion zones are proposed to be established prior to, and maintained throughout the life of the quarry: -			
	<ul> <li>A fifty (50) metre buffer shall be established on both sides of the northern Energy Australia power line. This will create a 130 metre wide 'exclusion zone (including the 30 metre cleared area);</li> </ul>			
	<ul> <li>A fifty (50) metre wide buffer zone is proposed along the site boundary adjoining DECCW Estate to minimise edge effects;</li> <li>Remaining site boundaries will be provided with a twenty metre wide vegetated buffer; and</li> </ul>			
	<ul> <li>A twenty (20) metre wide buffer zone is also proposed between the northern edge of the quarry face and the retained swamp forest habitats on the site.</li> </ul>			

All buffer zones are to be surveyed and marked (flagging tape / plastic mesh fencing) prior to the commencement of clearing works.

Buffers will generally be consistent with the figure provided in Appendix B

#### 2. Vegetation Management - Salt Ash

A comprehensive Vegetation Management Plan will be prepared to address the staged clearing program within the extraction footprint. This plan is to be endorsed by NSW DoP prior to the commencement of clearing or earthworks. The plan shall have regard to the following matters, as outlined in the Orogen 2008 report: -

### • Vegetation Clearing Management

- All contractors conducting clearing, earthworks or construction activities within the subject site are to be informed of the restrictions to the clearing of vegetation outside the exclusion fencing. A construction protocol would be prepared requiring all earthworks, machinery and personnel be strictly controlled and restricted to the extraction footprint. No storage of materials, vehicle parking or other disturbance would be undertaken outside the exclusion fencing. Contractors would be supplied with the construction protocol regarding the clearing restrictions through a work induction program;
- Trees are to be felled away from the retained bushland on the subject site back into the extraction area; and
- Domestic fauna (ie dogs) are prohibited from entering the subject site with Contractors

#### Weed Management

A Weed Management Program is to be adopted to control weeds in buffer zones, retained swamp forest habitats and future extraction stages to minimise edge effects and future extraction stages. The program is to comprise annual monitoring to assess weed coverage and determine the need for future weed control.

#### Pre Clearing Surveys

Fauna surveys are required prior to vegetation clearing for each staged extraction area. Surveys shall target Threatened species known or potentially occurring in the locality and will involve the following steps four nights prior to staged clearing activities: -

- Searches for nests of threatened raptors;
- Searches for whitewash or other signs of roosting or nesting of Powerful and Masked Owls;
- Stag watching and Anabat survey of hollow bearing trees in each staged extraction area to determine presence of Microchiropteran bats;
- Scat searches and visual inspection for recent Koala occupation of all trees proposed for felling; and
- Elliot trapping surveys for Squirrel Gliders and Brush Tailed Phascogale.

Any identified species must be appropriately monitored and clearance obtained prior to commencement of clearing in identified habitat / nesting sites. The results of such surveys would be made available to DECCW prior to the commencement of clearing

operations for each stage.

#### Translocation of Threatened Fauna

Where it is proposed to translocate a threatened fauna species, this process shall be undertaken in accordance with *Policy of the Translocation of Threatened Fauna in NSW (NPWS, 2001).* 

#### Staged Rehabilitation

Prior to the commencement of works a site rehabilitation plan is to be endorsed by DoP. This plan should have regard for: -

- Staging of rehabilitation;
- Retention and reuse of materials from clearing process;
- Seedbanking;
- Use of endemic species;
- Recovery of any groundwater dependent ecosystems, including swamp sclerophyll forest;
- · Proposed final landforms; and
- Ongoing monitoring.

#### 3. Vegetation Management – Offset Site

A vegetation management plan shall be prepared for the Offset Site. This Plan shall be endorsed by DECCW prior to the commencement of clearing on the Salt Ash site. The plan shall give regard to the following: -

- Weed Management and monitoring
- Management of retained native vegetation and habitat
- Feral animal control
- Fire management
- · Public access management
- Minimisation of edge effects and fragmentation
- Long term monitoring commitments
- Details of rehabilitation programs / measures
- Measures to ensure conservation in perpetuity
- Funding details of long term financial commitment to any proposed conservation measures.

## 4. Aboriginal Cultural Heritage

- An Aboriginal Cultural Heritage Management Plan should be developed in consultation with the local Aboriginal community. This document will guide the management of Aboriginal cultural heritage resources and heritage values for the duration of the Salt Ash Sand extraction project;
- A detailed Research Design and Methodology should be developed for the Salt Ash sand extraction project. This document will outline procedures for undertaking monitoring, surface collection and archaeological excavation within the project area:
- Archaeological excavation should be undertaken as recommended in the AHMS (2008) report. This excavation should be done with the full consultation and involvement of the Aboriginal community. The excavation should only be conducted once project approval has been granted in order to ensure that archaeological sites are not destroyed without reason;
- Consultation established with the Aboriginal community should continue for the duration of the project until all matters pertaining to Aboriginal heritage have been resolved.
- The AHMS should incorporate a designated keeping place within the site. The size and location of the keeping place should be endorsed by the Aboriginal community.

#### 5. Air Quality

 Any unsealed haulage routes are to be watered to suppress dust prior to the commencement of haulage;

	Monitoring of air quality is to occur in accordance with the licensing requirement imposed on the project.
6. Water Management	No excavation is permitted into the sandbed lower than 1 metre above the highest predicted groundwater table for the extraction area;
	All operations relating to the extraction of groundwater, including the sinking of bores must be done in compliance with the Water Sharing Plan for the Tomago Tomaree Stockton Groundwater Sources, 2003.
	<ul> <li>A Groundwater Management Plan is to be developed prior to the commencement of extraction operations to the satisfaction of the Department of Planning. The management plan is to include ongoing monitoring requirements.</li> </ul>
	<ul> <li>A Groundwater Impact Model shall be developed to the satisfaction of DoP which presents details on drawdown limits to neighbouring bores, including those on Lot 220, DP 1049608. The model shall also establish cut off criteria to avoid exposure of Potential Acid Sulphate Soil materials and determine cease to pump limits in accordance with Section 36 of the Water Sharing Plan for the Tomago Tomaree Stockton Groundwater Sources, 2003.</li> </ul>
	<ul> <li>A groundwater monitoring network shall be developed to the satisfaction of DoP which shall monitor the effectiveness of cut off criteria and compliance with the 1 metre minimum buffer to highest predicted groundwater table as determined within the model, and demonstrate minimal interference with neighbouring bores and wells.</li> </ul>
	<ul> <li>Any refuelling of equipment used for the proposal will be undertaken within a designated area, in close proximity to a spill kit and the workshop. Where practical repairs to mobile plant will be undertaken within the workshop;</li> </ul>
	<ul> <li>Prior to the commencement of sand washing on site a license for groundwater extraction is to be obtained or details of alternative arrangements are to be submitted to DoP.</li> </ul>
	<ul> <li>An approval to install and operate an on site effluent disposal system shall be obtained in accordance with Section 68 of the Local Government Act, 1993 prior to the commencement of operations.</li> </ul>
7. Visual Impact	<ul> <li>For the life of the project an 8 metre ridge line (RL 8m AHD) along the northern boundary of the vegetated sand dune is to be maintained;</li> </ul>
	<ul> <li>Buffers, as required for ecological mitigation measures, are to be similarly maintained to mitigate visual impacts associated with the development;</li> </ul>
	<ul> <li>Vegetation screens are to be established and maintained to shield the plant amenities building;</li> </ul>
	Ongoing and progressive revegetation during the sand extraction

operation is required. Revegetation is to commence on the completion of extraction from any area;

- Sand extraction to occur in accordance with the approved extraction staging plan;
- Full revegetation post staged extraction and upon finalisation of the mine.

### 8. Noise and Vibration

The proposed hours of operation are: -

- Monday Friday: 7am 5pm
- Saturday: 8am 1pm
- Sundays and Public Holidays: No operations

Prior to the commencement of construction or operations a noise management plan shall be prepared and endorsed by DoP and shall incorporate measures generally consistent with the following recommendations: -

- Construction of the required noise attenuation barrier adjacent to the Janet Parade residence shall be constructed prior to major earthworks for the quarry access road construction;
- Examine different types of machinery that perform the same function and compare the noise level data to select the least noisy machinery.
- Place as much distance as possible between the plant or equipment and residences.
- Regularly train and communicate with workers and / or contractors regarding the use of equipment in ways to minimise noise. This could include, but not be limited to, the following:
- Avoid the use of radios/stereos outside.
- Avoid shouting and slamming doors.
- Keep truck drivers informed of designated routes and parking areas, etc.
- Periodically check the site and neighbouring residences for noise problems so that solutions can be quickly applied.
- Consult with affected neighbours about scheduling activities to minimise noise impacts.
- Schedule noise activities around times of high background noise (eg local road traffic) where possible to provide masking or to reduce the amount that the construction noise intrudes above the background.
- Nominate an off-site truck parking area, away from residences, for trucks arriving prior to gates opening.
- Examine and implement, where feasible and reasonable, the
  option of acoustical treatment to residences affected by
  construction noise, such as to windows at the building façade.
  However, alternative means of ventilation may be required where
  windows are close and airflow into a building does not meet

building requirements. Note also that the effectiveness of closing existing windows may be limited by the performance of the window seals and/or building façade construction. The application for the upgrade to the Nelson Bay Road / Janet Parade Intersection shall incorporate a Construction Noise Impact Assessment and Management Plan. This plan shall be prepared in accordance with the NSW Interim Construction Noise Guidelines and endorsed by NSW DoP and the RTA prior to the commencement of works associated with the intersection. 9. Management The following management plans shall be prepared and endorsed by the **Plans Required** relevant authority prior to the commencement of works / operations. Vegetation Management Plan (Extraction Site) Vegetation Management Plan (Offset Site) Aboriginal Cultural Heritage Management Plan Groundwater Management Plan and Impact Model Construction and Operational Noise Management Plan. 10. Essential The operator is to obtain an Environmental Protection License for Operational the proposal in accordance with the Protection of the Environment Licenses Operations Act, 1997; required The operator shall adhere to any ongoing monitoring requirements specified in the license; Prior to the commencement of any operations the operator will make available and publicise a contact phone number which will enable the general public to reach an appropriate person to address and action any concerns raised. The operator shall maintain a log of all enquiries received and actions undertaken to address the enquiry. A copy of the log shall be supplied to DECCW on an annual basis



### **Attachment G**

# **Spectrum Acoustic Assessment** (April 2014)





### 2 April 2014

Ref: 12727/5141

Mr Anthony Williams
ATB Morton Pty Ltd
9 Old Punt Road
TOMAGO NSW 2322

### RE: REVIEW OF ACOUSTIC BARRIER DESIGN - SALT ASH SAND MINE

This letter report presents the results of a review of the proposed acoustic barrier design for the approved (Project Approval (PA 07-0094) and Environment Protection Licence (EPL) No. 13406) Salt Ash Sand Mine (SASM) operated by ATB Morton Pty Ltd (ATB) off Janet Parade, Salt Ash, NSW.

The location of the proposed sand extraction area and the access road is shown below in Figure 1.



Figure 1 - Location Plan



The "Environmental Management Strategy" (July 2011) (EMS) for the SASM details the following in relation to the acoustic barrier (as detailed in Appendix E of that document);

It is proposed to erect a three metre concrete noise barrier at the intersection of the proposed quarry access road and Janet Parade to shield these locations (Residences JP3 and JP4 on Figure 1) from the noise from passing trucks. The noise barrier will be constructed prior to the commencement of access road construction to ensure that noise impacts are mitigated. It is expected that the barrier will result in a 9 dB(A) reduction in noise levels at the residence nearest to the intersection (Heggies Pty Ltd, 2009. Noise Impact Assessment).

Access road construction following erection of the noise barrier is an ideal time to assess the effectiveness of the structure and to determine if the predicted reductions in noise have been achieved. This will enable modifications to be made to the structure in a timely manner and prior to operation of the Extraction Project.

The original proposal (as per the Project Approval) was to construct and earthen bund with a concrete wall on the top to a total height of 3m above the finished road level. The top of the wall was planned to be approximately 4m from the property boundary. For logistical reasons, though, it is now apparent that it is not possible to locate the barrier in this position. Instead it is now proposed that the barrier be located as a fence along the actual property boundary (still to a height of 3m above finished road level).

In light of this proposed change the Department of Planning and Infrastructure has requested a review of the effectiveness of the barrier in this location to ensure noise levels will comply with those previously predicted and the applicable noise criterion.

For the current assessment, noise levels were measured from a truck using the access road in March 2014. A truck and dog, operated by ATB, was used to travel along the access road at low speed typical to that proposed as the limit for the project. The truck used is one of the fleet that will be utilised at the SASM. The measurements were made with the truck entering and leaving the site both laden and unladen.

Noise levels from the passbys were measured simultaneously at the top of the existing low earthen mound adjacent to the road and a point approximately 30m from the boundary.

Noise emission levels were measured with Brüel & Kjær Type 2260 Precision Sound Analysers. These instruments have Type 1 characteristics as defined in AS1259-1982 "Sound Level Meters". Calibration of the instruments was confirmed with a Brüel & Kjær Type 4231 Sound Level Calibrator prior to and at the completion of measurements.

The measured noise levels show that the truck travelling at approximately 10 k.p.h on the access road has an Leq sound power level of 97 db(A) for a 30 second passby interval. This interval represents the period where the truck noise is within 10 dB of the peak passby level (beyond this the truck noise will not add to the overall Leq noise).

 $\Lambda$ 



The noise level used for the calculation of impacts and barrier effectiveness was adjusted by a correction factor of -15 dB(A) to allow for the duration of the passby event (i.e. a factor of 10xlog 30/900 to represent truck noise for 30 seconds out of a 15 minute period). The Lw of each truck noise source was, therefore, 82 dB(A) Leq (15 min).

The mine will operate between 7.00 am and 6.00 pm weekdays and 8.00 am to 1.00 pm on Saturdays. There will be up to 50 truck movements per week day or an average of just over one truck per 15 minute period.

The logistics of the trucking operation is such that it will take a minimum of 10 minutes for a truck to arrive on site, weigh in, be loaded, weigh out and leave. This indicates that, during busy periods, there may be two to three truck movements in a 15 minute period.

To look at a worst case then a scenario of three truck movements in a single 15 minute period has been considered. That is, a total Lw over the period of 87 dB(A) Leq (15 min) (= 10xlog 3 + 82 for three trucks at 82 dB(A) Leq (15 min)).

**Table 4** shows the results of the calculation of noise impacts at the representative theoretical reception point in the yard of Residence JP3 at 30m from the boundary. The noise source was considered to be at the centre of the access road at 13m from the boundary. The insertion loss for a 3.0m high acoustic fence along the boundary is included.

TABLE 1				
RECEIVED NOISE - ACCESS ROAD NOISE as dB(A) Leq (15 min)				
3m Barrier				
Item	dB(A)			
Sound Power Level (Leq 15 min, as above)	87			
Distance Loss to Receiver (43m)	41			
Barrier Loss (3.0m)	9			
Received Noise	37			
Criterion (day)	40			

The results in Table 1 show that the noise criterion will not be exceeded at Residence JP3 as a result of the assessed noise emissions from trucks travelling along the access road. Residence JP4 (which is currently derelict) is approximately 100m from the entrance to the access road and the barrier and, therefore, there will be no adverse noise impacts at this receiver.

The results in Table also show that locating the acoustic barrier on the boundary will not have any adverse acoustic impacts relative to having the barrier located on a mound approximately 4m inside the site boundary.

It is noted that the noise assessment for the project, as referenced in the EMS, determined a barrier insertion loss of 9 dB(A) at Residence JP3. This is based on assumptions drawn from the noise modelling carried out for the original assessment and is not shown in any calculations. The current assessment has performed a specific calculation based on the actual measured noise levels and noise source heights at the location of the residence and the results are, therefore, considered an accurate representation of the acoustic environment.

 $\Lambda$ 

Doc. No: 12727-5141

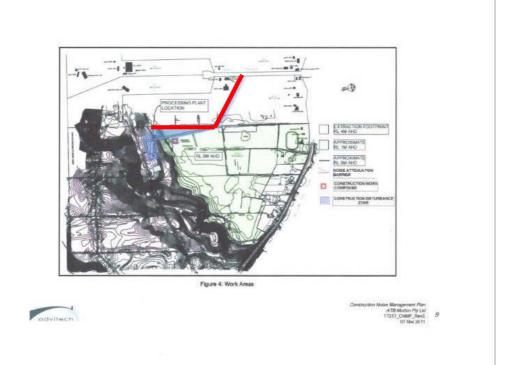
April 2014



In relation to the extent of the acoustic barrier, the EMS references a noise management programme (NMP) written by Advitech in 2011. An extract from this NMP is reproduced below:

"establishment of a three metre noise barrier adjacent to the residences at the intersection of the proposed quarry access road and Janet Parade to shield these locations (JP3 and JP4) from the noise from passing trucks. The noise barrier would be constructed within Lot 4042, DP1090633 adjacent to the northern and western boundary of the property (Figure 4 and Figure 5);"

Figure 4 from the Advitech report is reproduced below. It shows an acoustic barrier (as shown in red) that is approximately 600m long.



The location of the barrier as defined in the NMP (from Advitech) appears to have been derived from an (erroneous) interpretation of the results of the original noise assessment (Heggies 2009) the wording from which is also reproduced below;

"A 3m noise wall adjacent to the residences at the intersection of the proposed quarry access road and Janet Parade to shield these locations from noise from passing trucks. This noise wall, if approved by the resident, should be constructed along the northern and western boundary of the residential property."

From this it appears that the original intent of the Heggies report was to recommend an acoustic barrier close to the residences in Janet Parade possibly directly around the house yard (the assumed boundary of the residential property) rather than the full extent of the boundary of the land holding.

An analysis of the results from the site noise measurements and a review of the calculations shown in Table 1 indicates that, to ameliorate the measured truck noise, the barrier does not need to extend as far as shown in the reproduced Figure 4.



Doc. No: 12727-5141



Further calculation shows that compliance with the noise criterion will be achieved at distances further than 100m from the noise source (based on hemispherical distance loss) as shown below in **Table 2**.

TABLE 2				
RECEIVED NOISE - ACCESS ROAD NOISE as dB(A) Leq (15 min)				
No Barrier				
Item	dB(A)			
Sound Power Level (Leq 15 min, as above)	87			
Distance Loss to Receiver (100m)	48			
Received Noise	39			
Criterion (day)	40			

The NSW Industrial Noise Policy defines a receiver location as being at a residential boundary, or, where the residence is greater than 30m from the boundary, the most affected point within 30m of the residence. Application of this principle, and based on the angle of the access road, indicates that, to achieve compliance with the applicable noise criterion, the acoustic barrier need extend approximately 150m south west from the entrance with Janet Parade (as shown, in red, in **Figure 2**).



Figure 2 – Acoustic Barrier Location



Doc. No: 12727-5141 April 2014



We trust this report fulfils your requirements at this time, however, should you require additional information or assistance please contact the undersigned on 4954 2276.

Yours faithfully,

SPECTRUM ACOUSTICS PTY LIMITED

Author:

Review:

Ross Hodge

**Acoustical Consultant** 

Neil Pennington

Acoustical Consultant

Doc. No: 12727-5141

April 2014



### **Attachment H**

## Advice from owner of JP3 (Rooneys)



RE: Salt Ash Sand Extraction Project-Application no: 07\_0094

Dear Colin,

We have been notified by ATB Morton with regard to the changed positioning of the acoustic fence.

Although not happy with the change we understand that due to Ausgrid the changes are necessary. After consulting with ATB we have reached an agreement in writing that the fence is to be a minimum of 500mm from our boundary, it will be our choice of vegetation to be planted and some works to be undertaken by ATB on our land. Therefore we will have no objections to the repositioning and hope that by way of this letter speeds up the approval, given the close proximity of the haul road to our home it is beneficial for us to get back some privacy and noise mitigation as soon as possible as we have had none for over a year.

Attached is the new plan drawn up by ATB that we have agreed to.

Many Thanks,

Belinda Rooney

Owner of lot 41 Janet Parade adjacent to the above mentioned sand quarry.