Champions Quarry Expansion

MODIFICATION 3
RESPONSE TO SUBMISSIONS 2017
(JULY 2017)

Champions Quarry
"Working with the Environment"

CHAMPIONS QUARRY
RESPONSE TO SUBMISSIONS (JULY 2017)

	Specific Issues - Items Raised by EPA that DP & E Require Attention	Response
1.	Please clarify whether the predicted noise levels in Table 4 considered not only the change in sand washing plant model, but also the difference in location of the plant and the proposed amendments to the noise bund ('Bund E') from the EA submitted in 2010. If not please provide updated predicted noise levels for Table 4 which takes into account all subsequent changes from what was proposed in the 2010 EA.	Scenarios C and G in Table 4 are the only noise scenarios that include the sand washing plant. Scenarios C and G in Table 4 considered the change in sand washing plant, the change in location of the sand washing plant and increased height of Bund E. Please refer to Paragraph 3.1 in Annexure A to this Report.
2.	The "Project Specific Noise Criteria" listed in Table 4 are different from the approved operational noise criteria (see condition 5 of Schedule 3 of the Project Approval). Please amend the noise criteria in Table 4 to the approved operational noise criteria set out in Condition 5 and the updated predicted noise levels requested in point 1 above against these criteria.	Table 4 was amended and reproduced under Paragraph 3.1 in Annexure A to this Report.
3.	Describe what measures to reduce operational noise either have been, would or may be implemented.	The proposed sand washing plant itself is not expected to produce significant noise levels compared to other plant, therefore additional mitigation measures applied to the sand washing plant would have no appreciable effect on total noise levels from the quarry. Therefore the noise reduction and mitigation measures considered and recommended in the Project EA, which forms the basis of the current Project Approval, are proposed to continue unchanged. Please refer to Paragraph 3.1 in Annexure A to this Report.
4.	Please provide a description of stakeholder engagement undertaken in respect of the proposed modification with the neighbouring receivers (R1, R2, R2A, R3, R4 and R5), specifically regarding the predicted noise impacts.	A Champions Quarry Community Information Newsletter attached as Attachment G to the EA was prepared and provided to the surrounding landowners that may be impacted by the development, including Receivers 1, 2, 2A, 3, 4 and 5 in October 2016. The Newsletter sought constructive input to the planning process within 14 days via email. No feedback or comments were received from any of the community groups/members that were consulted. The proposed modification for the sand washing plant was also raised at the Champions Quarry Community Consultative Committee on 14 December 2016. No objections were raised by members of the Community Consultative Committee and no further information was sought. The Local Community Representative (Receiver 2) failed to attend the meeting despite significant notice of dates and change of dates. No further engagement with neighbouring receivers was undertaken

		specifically regarding the predicted noise impacts as the Proponent did not consider that the modification raised any new noise issues and this has been confirmed by noise reports.

ANNEXURES

Annexure A – Bridges Acoustic Report dated 3 July 2017

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3 July 2017
Ref: J0180-02-L5

Champions Quarry
P.O. Box 5261
EAST LISMORE NSW 2480

Attn: Ms Cath Champion

Dear Cath,

RE: CHAMPIONS QUARRY – MODIFICATION TO DEVELOPMENT CONSENT – RESPONSE TO SUBMISSIONS

1. INTRODUCTION

Champions Quarry has proposed a Modification to Project Approval (PA) 09_0080 to permit:

- The approved sand washing plant to be constructed at an alternative location near the northern end of the Southern Extraction Area;
- An increase in the height of the bund adjacent to the sand washing plant from 5 m to 6 m;
- Removal of topsoil and overburden over a 1 hectare area for the sand washing plant and associated stockpiles; and
- Installation of additional sediment controls within the water management system.

An Environmental Assessment for the Modification (Modification EA), including an acoustic assessment prepared by Bridges Acoustics, was recently placed on public exhibition. Comments regarding acoustic issues were received by Champions Quarry from the Environment Protection Authority (EPA) and the Department of Planning & Environment (DP&E). This report provides a response to the majority of those comments.

2. RESPONSE TO EPA'S COMMENTS

The EPA has commented on differences between the predicted noise levels from the Modification and current PA noise limits, specifically that Table 4 in the acoustic assessment includes predicted noise levels that are higher than the current PA noise limits. Following is a summary of previous acoustic reports that lead to this situation, followed by justification for the predicted noise levels.

2.1 Champions Quarry Expansion Project EA

The Champions Quarry Expansion Project (the project) was approved by the DP&E based on the *Champions Quarry Expansion Project Environmental Assessment Report* (Project EA) (ERM, February 2010), including *Appendix D Noise Assessment* (Project EA Noise Assessment) (ERM, December 2009).

Table 6.6 in the Project EA Noise Assessment shows predicted noise levels for Scenarios B to I, including noise control. The table also shows relevant Project Specific Noise Levels (PSNLs) which were calculated from measured background noise levels and the recommendations in the NSW Industrial Noise Policy

(INP). Predicted noise levels in Table 6.6 comply with the PSNLs except for a level of 38 LAeq,15min at Noise Assessment Location (NAL) 2 for Scenario G and predicted levels of 39 LAeq,15min at NAL 2 and 3 for Scenario H, all compared to a PSNL of 37 LAeq,15min. Predicted noise levels, for the assessed scenarios, are therefore 1 to 2 dBA above the PSNLs according to Table 6.6 at two of the closest receptors.

Section 6.6.2 of the Project EA Noise Assessment suggests the predicted 1 dBA exceedance of the PSNL at NAL 2 for Scenario G is insignificant compared to the noise model tolerance of 2 dBA. It is noted that the approved sand washing plant is included in Scenarios C and G and, given clear compliance with the PSNL for Scenario C, the sand washing plant itself produces acceptable noise levels.

Section 6.6.2 of the Project EA Noise Assessment also notes the predicted exceedances of the PSNLs for Scenario H are primarily due to the rock hammer operating in conjunction with other plant. The Project EA Noise Assessment recommends a rock saw be used in preference to a hammer and, if use of a hammer cannot reasonably be avoided, the hammer be used in isolation to prevent exceedances of the PSNLs due to noise from multiple plant operating within the quarry.

Section 6.6.2 of the NIA therefore addresses the predicted exceedances of the PSNLs shown in Table 6.6. The occasional 1 dBA exceedance of the PSNLs for Scenario G is currently approved, and the predicted 2 dBA exceedances for Scenario H are to be avoided or mitigated.

2.2 Modification EA

The Modification proposes changes to the sand washing plant and associated bund, which were assessed in the Modification EA Acoustic Assessment, and other project details with no significant potential to affect ongoing noise levels from the quarry. The sand washing plant is one of a number of noise sources associated with the quarry. Rather than reassess all proposed noise sources which would repeat much of the work in the Project EA Noise Assessment, the Modification EA Acoustic Assessment considered noise from the sand washing plant, both alone and in conjunction with all other approved plant.

Table 3 in the Modification EA Acoustic Assessment is simply a copy of Table 6.6 in the Project EA Noise Assessment, including predicted 1 dBA and 2 dBA exceedances of the PSNLs discussed in Section 2.1 above. These predicted exceedances are primarily due to other plant, not the sand washing plant.

Table 4 in the Modification EA Acoustic Assessment is effectively a repeat of Table 3 except that quarry noise levels have been recalculated based on proposed sand washing plant noise levels rather than the approved levels. A comparison between Tables 3 and 4 indicates no change in quarry noise levels at any receptor. The Modification would therefore not result in any change to the approved noise levels, which already include a 1 dBA exceedance at NAL 2 for Scenario G and avoidance of the calculated 2 dBA exceedances at NAL 2 and 3 for Scenario H.

As the currently approved noise levels will continue unchanged for the Modification, there is no need for additional noise mitigation beyond the significant mitigation originally recommended in the Project EA and subsequently approved.

3. RESPONSE TO DP&E'S COMMENTS

The DP&E has provided four comments or requests for additional information. The first three are responded to below.

3.1 Clarification of Predicted Noise Levels

DP&E has questioned whether the predicted noise levels in Table 4 of the Modification EA Acoustic Assessment include the proposed sand washing plant and amended noise bund.

A summary response is yes. The simple figure attached to the Modification EA Acoustic Assessment, extracted directly from the noise model, shows the location of the approved sand washing plant (labelled

'previous') and the proposed location of the sand washing plant (labelled 'proposed'). Approved and proposed bunds are shown adjacent to both approved and proposed sand washing plant locations. The predicted noise levels in Table 4 were calculated by taking the currently approved noise levels, subtracting 'previous' or approved noise levels from the sand washing plant and adding proposed levels from the alternative plant in the proposed location adjacent to the proposed bund. The result, shown by a comparison between Tables 3 and 4, is no change to currently approved quarry noise levels rounded to the nearest 1 dBA.

3.2 Noise Criteria.

Table 3 in the Modification EA Acoustic Assessment is a direct copy of Table 6.6 in the Project EA Noise Assessment, including PSNLs, to form an approved baseline for the assessment. Table 4 similarly included the PSNLs to aid in directly comparing the predicted noise levels in Table 4 to the approved levels in Table 3. An amended version of Table 4, including the PA Schedule 3 Condition 5 noise limits, is shown below.

Table 4: Modified Quarry Noise Levels

Receptor	Modelled Scenario in NIA								PSNC [2]	PA [3] Criteria
	B	C [1]	D	E	F	G [1]	H	I		
	Modified Daytime Noise Level, LAeq,15min									
R1 north	28	26	30	29	30	31	35	31	40	35
R2 north east	32	35	34	33	34	38	39	36	37	37
R2A north east	Not reported in NIA, however lower noise level than at Receptor R2								37	37
R3 east	32	34	34	33	33	37	39	35	37	37
R4 west	37	33	38	36	36	38	39	37	40	38
R5 south west	Not reported in NIA, however lower noise level than at Receptor R4								40	38

1 Scenario includes the sand washing plant.

2 Project Specific Noise Criteria (PSNC) developed and reported in the NIA for Receptors R1, R2, R3 and R4 and adopted in this assessment for R2A and R5.

3 Noise criteria taken from PA 09_0080 Schedule 3 Condition 5 Table 2.

Predicted noise levels meet the criteria with the exception of a 1 dBA exceedance of the PA criteria for Scenario G to Receptor 2, which is already approved as discussed above, and 2 dBA exceedances of the PA criteria for Scenario H to Receptors 2, 2A and 3 which were to be avoided as discussed in the Project EA by operating the rock hammer alone. These minor exceedances of the PSNLs and PA criteria shown in Table 4 are not significantly influenced by noise from the approved or proposed sand washing plant.

3.3 Noise Reduction Measures.

The DP&E has questioned the noise reduction measures that have been, would be or may be implemented. The Project EA discussed noise reduction and mitigation measures, including the acoustic effect of various bunds and avoiding simultaneous operation of the rock hammer with other plant, to meet the noise criteria with the exception of a very minor 1 dBA exceedance of the criteria for Scenario G to NAL 2 (Receptor 2). This minor 1 dBA exceedance is currently approved.

The proposed sand washing plant itself is not expected to produce significant noise levels compared to other quarry plant, therefore additional noise mitigation applied to the sand washing plant would have no appreciable effect on total noise levels from the quarry. Therefore the noise reduction and mitigation measures considered and recommended in the Project EA, which forms the basis of the current PA, are proposed to continue unchanged.

4. CONCLUSION

We trust the above responses to the EPA and DP&E's comments and questions are sufficient to address three of the four concerns regarding noise from Champions Quarry if the Modification is approved. The fourth comment from DP&E, related to stakeholder engagement, will be responded to by others. Please contact the undersigned for any further information or discussion.

Yours faithfully,

BRIDGES ACOUSTICS

MARK BRIDGES BE Mech (Hons) MAAS
Principal Consultant