

Technical Note

Project:	Support to Lancashire County Council Minerals Planning Authority		
Subject:	Land off 12 Bourbles Lane – Noise review		
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Date:	10/11/2023	Project No.:	5218724
Application number:	LCC/2023/0030		
Location:	Land off 12 Bourbles Lane		
Proposed works:	Proposed Sand and Gravel Extraction, Land off Bourbles Lane, Preesall		
Grid Ref:	OS Grid Ref: SD 37660 47681		

Document history

Revision	Purpose description	Originated	Checked	Reviewed	Authorised	Date
1.0	Noise review	AL	N/A	IE	AW	10/11/23

Client signoff

Client	Lancashire County Council
Project	Support to Lancashire County Council Minerals Planning Authority
Project No.	5218724

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1. Application Documents

On behalf of Lancashire County Council (LCC), AtkinsRéalis has reviewed the following information which forms part of a noise assessment, submitted to inform the planning application for Land off 12 Bourbles Lane, application number LCC/2023/0030:

Document

Scoping Opinion – ES Appendix 1

Bourbles Quarry Environmental Statement (ES) July 2023

ES Appendix 9: Noise Assessment (20/03/23) R23.11291/2/AP – The Vibrock Report

2. Project Context

This Technical Note provides comment, drafted with regards to a technical review of the noise assessment and associated documentation submitted with planning application LCC/2023/0030. The planning application, made by Baxter Group Ltd, is development of a new site for the extraction and processing of sand and gravel including the construction of new site access roads, landscaping and screening bunds, minerals washing plant and other associated infrastructure with restoration to leisure end-uses, agricultural land and biodiversity enhancement, using imported inert fill on Land off 12 Bourbles Lane (hereafter referred to as 'the Site').

LCC provided a Scoping Opinion on 10th August 2022 (ES Appendix 1). In relation to noise and vibration emissions associated with the proposed development, LCC required that:

“The ES should contain a chapter setting out the noise impacts of the development. The assessment should follow the principles set out in the Planning Practice Guidance (paragraphs 019 – 022).”

The scoping opinion also sets out the details expected by LCC in the assessment, including baseline noise measurements, assessment scenarios and mitigation. It also sets out receptors which should be included as part of the assessment prepared by the applicant:

- Woodlands on Bourbles / Little Tongues Lane
- Red Lea Kennels
- Bourbles Farm House, Bourbles Lane
- Mytax / New England Cottage on Bourbles Lane
- Hillfield House, Lancaster Road
- The Beeches, Lancaster Road
- Ourome, Gaulters Lane
- Old Nickson’s Cottage, Nicksons Lane

The AtkinsRéalis review of the applicants noise assessment and recommendations are detailed below.

3. Review

3.1. Approach

AtkinsRéalis review considers the noise assessment submitted as an appendix to the ES, and how this appendix is reflected within the ES:

- Comparison against scoping opinion;
- Assessment methodology, standards and guidance applied;
- Assessment inputs and assumptions;
- Adequacy of assessment outcomes.

3.2. Review – Scoping Opinion

Table 3-1 identifies how the assessment considers the aspects identified in the Scoping Opinion:

Table 3-1 - Scoping Opinion Review

Scoping opinion	Addressed in assessment	Adequacy
Follow Planning Practice Guidance paragraphs 019-022	The Planning Practice Guidance is used within the assessment.	Good
Baseline noise survey	A baseline noise survey was undertaken in 2021, where two 15-minute measurements were taken during the daytime at each of 7 locations. The assessment has not considered if baseline levels may have changed since 2021.	Reasonable
Seven receptor locations are identified	All the identified receptor locations are included in the assessment.	Good
Assessment should include fixed and mobile plant	The plant list used in the assessment includes both fixed and mobile types of plant. An assessment of noise from road traffic accessing the development has not been undertaken.	Partial
Impacts should be identified for extraction and restoration stages	The assessment reports the impacts for “normal operations”, which is taken to mean extraction rather than restoration. Restoration activities are mentioned in the context of the reported short-term activities, but timelines are not given. The report notes that the quarry would be worked in phases, but the assessment results do not identify which phase(s) the results relate to.	Partial
Noise mitigation measures should be set out	The assessment notes that bunds are to be formed, but only provides general details of their noise attenuating properties. The bunding in Figure 2 in the noise report is not the same as the bunding on the Proposed Site Layout plan submitted with the application. The recommendations in the report mention stand-off distances for noise control, but these are not presented within the assessment. A series of noise control measures for the operation of the plant are also recommended.	Partial

Generally, the assessment has fulfilled the different aspects sought by the scoping opinion. However, there is some ambiguity over how applicable the assessment results and mitigation measures are to the full development.

3.3. Review – Methodology, Standards and Guidance

The assessment for fixed and mobile plant within the site follows the usual standards and guidelines as set out in the National Planning Policy Framework and guidance, and national noise policy. The assessment also identifies relevant local policy. The calculation methodology used in the assessment is also appropriate.

The key criteria from Planning Policy Guidance for normal operations are set out in Table 3.2.

Table 3-2 – Noise Criteria – Normal Operations

Time period	Noise criteria	Used in the assessment
Daytime (07:00 – 19:00)	Levels should not exceed the background L_{A90} levels by more than 10dB.	Yes
Daytime (07:00 – 19:00)	Where it would be difficult to not to exceed L_{A90} levels by more than 10dB, total noise levels should not exceed 55dB L_{Aeq} .	Yes
Evening (19:00 – 23:00)	Same as daytime, but use evening background rather than daytime background.	No
Night-time (23:00 – 07:00)	Noise should be at a minimum, and not exceed 42dB L_{Aeq} .	No
Other characteristics	Other criteria can be used where noise from the activities would be tonal, peak or impulsive characteristics.	No

Additional criteria for short-term operations are given in the Planning Policy Guidance, which allow noise levels up to 70dB L_{Aeq} for periods of up to 8 weeks a year at selected locations. The criteria describe the types of activity which they apply to.

The assessment notes that there is potential for 100 heavy goods vehicle (HGV) movements per day with the development in place, and there is no assessment of potential changes in noise on the local road network near the quarry.

Similarly, Figure 1 in the assessment identifies haul routes which are relatively close (within 100m) to some of the receptors, but the assessment does not identify impacts from HGV traffic on haul routes.

The noise assessment does not assess impacts from the future uses of the site after restoration.

3.4. Review – Assessment inputs and assumptions

The noise sources, calculation assumptions and approach for fixed and mobile plant within the site are in line with expectations for the results set out in the assessment.

Baseline noise levels were measured at each of 7 locations for two fifteen-minute periods during the middle of the day. Depending on how typical the noise climate was at the time of the survey, it is possible that long-term baseline noise levels could be higher or lower than measured, with corresponding higher or lower impacts, and no commentary on variability over time is provided within the assessment. Similarly, the quarry is seeking permission to operate on a Saturday morning, and baseline noise levels could be lower at the weekend.

The noise predictions are described as being representative of ground floor locations. If first floor locations were assessed, the noise levels from the development could be greater due to there potentially being less screening or soft ground attenuation. This could result in greater noise impacts at first floor locations.

The assessment presents results for both short-term activities and normal operations, but does not identify which of the plant/equipment list are used for each of the predictions.

The plant and equipment locations for the assessment are not shown, making it difficult to establish if the impacts would differ as the phases of the development progress.

3.5. Review – Adequacy of assessment outcomes

The conclusion of the noise assessment in Chapter 12 of the ES describes that the potential effects of the development are not significant. The summary of the noise assessment describes that it is unlikely that there would be significant or unacceptable impacts. Otherwise, the ES chapter reflects the noise assessment appendix.

Normal operations

The assessment demonstrates that for normal operations noise levels are below the 55dB Planning Practice Guidance criterion at all receptors.

At three receptors noise levels are shown to be more than 10dB above background levels, which should not be permitted unless meeting this imposes an unreasonable burden on the operator. The assessment has not indicated if it would be possible to bring noise levels down so they were not more than 10dB above background. The assessment notes that exceedances of 10dB above background will be short-lived, and that

the campaign basis of extraction (extraction over selected periods within the year) means that there would be significant periods of time without operations.

At all other receptor locations, the noise levels shown are less than 10dB above background, indicating that the results are below the criteria set out in the Planning Practice Guidance.

Figure 1 in the report shows the arrangement for Phase A of the development. Figure 2 shows outline areas for Phases 1, 2, 3 and 4. It is not clear that the assessment results presented are the worst-case results from all phases, resulting in some uncertainty that the assessment results presented are just for Phase A or if they cover all Phases. The report could, for example, identify the noise impacts during each phase, including restoration.

Short-term operations

The assessment has demonstrated that for short-term operations noise levels are below the 70dB Planning Practice Guidance criterion at all receptors. The assessment has not demonstrated that these operations would last for less than 8 weeks per year.

Similarly, there is some uncertainty if the assessment results presented are just for Phase A or if they cover all Phases.

Road traffic operations

The assessment has not included impacts from HGV and other vehicles using the local road network to access the site, principally on Lancaster Road. There are several properties on Lancaster Road between the site access and the A588 which may be affected by changes in road traffic noise on Lancaster Road.

Chapter 6 in the ES concludes that the overall impacts on traffic flows are negligible, but does not consider noise.

Report conclusions and recommendations

The report concludes in Chapter 5 that noise impacts are unlikely to be significant provided that additional best-practice control measures are implemented. Chapter 6 of the report describes that screening bunds and stand-off distances are used to control noise, recommends several noise control measures as best practice, and that a noise management plan is prepared. Details of bunds and stand-off distances in the context of noise control are not presented within the report.

The report suggests that noise impacts could be secured through a planning condition.

3.6. Overall Review Conclusions

An assessment of noise impacts from the quarry operations at the proposed development has been undertaken in general accordance with relevant and appropriate guidance. There is some uncertainty that the results presented reflect the noise impacts from all of the phases of the development, and impacts on road traffic noise from HGV accessing the site have not been presented.

The impacts shown in the report are generally within the noise limits set out in Planning Policy Guidance, although results at some locations are higher than the most stringent criteria. Impacts are presented in the context of limited durations of working, and the decision on planning permission should take this into account.

A range of noise mitigation measures are set out in the report. In respect of bunds and offset distances, details are not presented in the assessment, and further details would be needed for inclusion within a noise management plan. The other noise control measures set out should be included in a noise management plan for the quarry.

It would be beneficial for the applicant to provide the following additional information to inform the planning decision:

- Confirmation that the assessment results presented apply to all phases of the development,
- An opinion on baseline noise levels on a Saturday morning,
- Further details on the dimensions of bunds and stand-off distances used for noise mitigation,
- Consideration of mitigation measures to bring all results within 10dB of baseline noise levels,
- An assessment of potential noise impacts of development traffic using the local road network.