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Technical Note

Prepared by:	Dr Robert Storey	Date:	31 March 2022
Project:	Shellingford Quarry	Ref:	5272
For:	Multi-Agg Ltd	Page:	1 of 8
Subject:	Noise & Vibration Management Plan for Infilling of Shellingford Quarry Extension		

1. Introduction

This Noise and Vibration Management Plan (NVMP) has been prepared to accompany the application to the Environment Agency (EA) to amend the existing permit for the site (Ref. No. EPR/BP3095EU) for the importation and placement of inert material to include the new extension to Shellingford Quarry in Oxfordshire (the site).

The NMVP outlines the methods by which the Operator will monitor, assess and minimise the potential impact of noise generated by operations during the infilling of the new extension.

A Noise Management Plan (NMP) was previously submitted to Oxfordshire County Council pursuant to condition 22 of the planning permission dated 24 September 2020 (Ref: P18/V2610/CM (MW.0104/18) (MW.0101/20)) for the proposed extraction of mineral and restoration on land to the west of Shellingford Quarry.

This NMVP relates to the infilling of the extension area in the context of the requirements of the EA.

The NVMP has regard to the Oxfordshire County Council (SCC) planning permission for mineral extraction in the western extension to the site and in particular the conditions that relate to hours of operation.

2. Environment Agency Permit Condition on Noise

The current Environment Agency permit dated 22 October 2012 (Ref. No. EPR/BP3095EU) includes the following condition on noise:

“3.3 Noise and vibration

3.3.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.3.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan;
- (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency."

3. Details Relating to Noise and Vibration Management Plan

Operating Hours

Condition 5 of the Oxfordshire County Council planning permission dated 24 September 2020 (Ref: P18/V2610/CM (MW.0104/18) (MW.0101/20)) which relates to mineral extraction and restoration in the western extension to the site (relating to hours of operation) is as follows:

"5. No operations, including HGVs entering and leaving the site, other than water pumping or environmental monitoring, shall be carried out at the site except between the following times:

- 07.00 to 18.00 Mondays to Fridays*
- No operations shall take place on Saturdays, Sundays, Public or Bank Holidays."*

Vehicle Movements and Reversing Alarms

The existing speed limit on site has the effect of minimising noise from vehicle movements and is a key feature for the safety of all facility staff. Company vehicle drivers will be obliged to comply with the site speed limit as part of the terms of their employment and all facility staff will be instructed to report any observed speeding offence. Any non-company vehicle driver that repeats a speeding offence will be refused access to the site.

Upon entering the site, drivers will be supplied with a map clearly showing the vehicle routes which minimise the need for reversing alarms. The weighbridge operator and other facility staff will be instructed to report non-observance. Any non-company vehicle driver that does not follow the vehicle routes will be refused access to the site.

For mobile plant and all of the Permit Holder's road going vehicles on site white noise reversing alarms will be specified, rather than standard (tonal) reversing beepers. Additionally white noise alarms will be requested on any hired plant or vehicles.

In summary, measures to minimise material handling, processing and vehicle noise include:

- Utilisation of the latest mobile plant items operated by trained staff with maintenance functions performed by supplier engineers.
- Installation of white noise reversing indicators on trucks and loading shovels.
- Training for operators with reference to revving of engines and generation of unnecessary noise, i.e. use of horns.

4. Site Noise Monitoring

In order to confirm that site noise levels are not causing excessive pollution at the nearest dwellings to the site, a noise monitoring survey will be carried out by a competent person (i.e. a member of the IOA or a holder of the IOA Certificate of Competence in Environmental Noise Monitoring) using a tripod mounted Class 1 Sound Level Meter in accordance with the requirements of BS EN 61672-1:2013 within 3 months of the commencement of infilling operations on site.

The survey will then be repeated on a six monthly basis throughout the first two years of the development unless otherwise agreed in writing with the EA. Further monitoring would then not be undertaken unless specifically required by the EA.

A similar scheme of noise monitoring has been agreed with Oxfordshire County Council with regard to the working of the extension area and it would be practical to combine the two surveys.

The results of the noise monitoring will be made available to the EA no later than one month following the date of measurement. Any additional information, for example, details of any surveys, investigations or additional assessments will be provided to the EA upon request.

The proposed locations for the noise monitoring surveys (based on the nearest existing and proposed noise sensitive locations) are detailed in the table below. These locations are subject to them being accessible.

Ref.	Location	Description
1	Laburnum Cottage	On track to north of property, in line with east façade of dwelling, 15 metres from roadside.
2	Glebe House, Shellingford	At old metal gate to northwest of Glebe House and southeast of church.
3	Shellingford House, Shellingford	By stile at start of footpath on Church Street opposite Shellingford House.

The monitoring locations are shown on the site plans included as Appendix 1 to this scheme.

The measurement locations were selected as being representative of the nearest existing and proposed noise sensitive locations and are selected as not to be shielded by the dwellings themselves or other local building structures. Where possible, locations have been selected which are accessible from public roads and footpaths and should be available to the operator as well as EA officers.

The measurements shall consist of two separate periods of 15 minutes duration at each location and the information to be reported shall be the $L_{A90, T, \text{free field}}$ and $L_{Aeq, T, \text{free field}}$ noise levels and the audible noises contributing to the measured levels shall be noted. The weather conditions shall be adequately described as well as the date and time of the survey.

Measurements shall take place during the normal operating hours of the site, i.e. 07:00 to 18:00 hours Monday to Friday hours. A check shall be made to confirm that normal infilling operations are in progress during the survey.

Where practicable, significant non-site noise should be paused out of the survey (or excluded through post processing of the data), but where this proves not practicable a note shall be made of the best estimate of noise from the site. Where extraneous noise dominates the overall noise level, a clear statement to that effect shall be included in the report.

If the results of the noise monitoring indicate that the site noise is causing excessive pollution at any of the monitoring locations during the measurements, the operator shall notify the EA as soon as practicable within seven days of the date of the noise monitoring.

The Operator will implement mitigation measures, as set out below, and manage site operations as required to reduce site noise levels to within acceptable limits.

The Operator shall seek to remedy the problem as soon as possible and if necessary produce a scheme of additional mitigation measures to reduce the site noise identified as the cause of the excess within seven days of the date of the noise monitoring.

5. Mitigation Measures

The site and development have been designed to include mitigation measures to minimise potential noise impacts. In addition, the operator will manage the site and activities in such a way as to reduce noise levels wherever possible.

The proposed mitigation measures are set out below and include those detailed in the WBM report titled “*Shellingford Quarry Western Extension Noise Assessment*” dated 06 August 2018:

- Soil screen bunding, as shown on the Site Location plans in Appendix 1:
 - To a height of 4 metres along the western perimeter of Phase 2;
 - To a height of 4 metres for approximately 150 metres along the western perimeter of Phase 3 from the north; and
 - To a height of 3 metres along the eastern perimeter adjacent to the White Horse Business Park.
- Restricted hours of operation:
 - 07.00 to 18.00 Mondays to Fridays
 - No operations shall take place on Saturdays, Sundays, Public or Bank Holidays.
- Processing of mineral at the processing plant within the existing quarry.
- Use of quieter or silent types of alarm or warning devices on mobile plant.
- Use of modern plant and equipment.

6. Noise Complaints

If noise complaints are received, then the following actions would take place:

All noise complaints made by third parties should be brought to the attention of the **Site Manager** in the first instance. They shall then make a note of the complaint and resolve it or pass to the appropriate party for action.

Upon receiving a complaint about noise, as much detail about the complaint as possible will be requested and recorded. The recorded detail shall, wherever possible, include the following:

- Time;
- Date;
- Nature of complaint/description of noise (e.g. intermittent, hum, hiss, impact noise);
- Duration;
- Weather conditions;

- Location noise could be heard;
- Complainant's contact details.

The **Site Manager** will ensure that the complaint is fully investigated and a response provided to the complainant within five working days.

If the complaint is received directly by the operator, the site manager or nominated representative would listen at a point on publicly accessible land in the vicinity of the nearest dwellings to the site (or if necessary, on private land if previously agreed with the owner of the property) for 15 minutes, within 4 working hours of receiving the noise complaint.

The site manager or nominated representative would complete a noise complaint report form (an example form is included in Appendix 2 at the end of this NVMP).

If the noise complaint was made to the Environment Agency (EA), the actions taken by the operator are dependent on when the noise complaint is made known to them and what information is made available by the EA.

As in the case of complaints put directly to the operator, where the noise complaint made to the EA relates to current operations, the site manager or nominated representative would listen at a point on publicly accessible land in the vicinity of the nearest dwellings to the site (or if necessary, on private land if previously agreed with the owner of the property) for 15 minutes, within 4 working hours of receiving the noise complaint.

The site manager or nominated representative would then complete a noise complaint report form, with as much information as has been made available by the EA.

If it can be determined that the site noise is clearly audible and the complaint is deemed by the operator to be substantiated, then any specific action taken to rectify or address the situation will be recorded in writing and advised to the complainant, if they have asked to be updated, within 3 working days of receiving the noise complaint.

In the event of the noise continuing to be a source of complaint, efforts will be made to identify the source of the noise as soon as possible in order to remedy the situation as far as is reasonably practicable. This includes seeking specialist advice, if required.

If the site manager deems that such a complaint is substantiated, noise monitoring will be carried out by a competent person (i.e. a member of the IOA or a holder of the IOA Certificate of Competence in Environmental Noise Monitoring) using a tripod mounted Class 1 Sound Level Meter in accordance with the requirements of BS EN 61672-1:2013.

This noise monitoring shall take place within two weeks of the complaint, subject to suitable weather for the noise monitoring. If practicable, and by agreement with the complainant in the timescale indicated, the monitoring shall take place at the complainant's property. Otherwise, the noise monitoring shall take place at one of the nearest publicly accessible points to the complainant's property.

The details of any such noise complaint, site response, any investigation and /or remedial action will be reported to the EA.

In the unlikely event of a scenario giving rise to substantiated complaints that could not be resolved within two weeks of receiving the noise complaint, operations would be suspended until such time as the issue is rectified.

The data from noise complaints will be reviewed annually by the operator.

7. Vibration

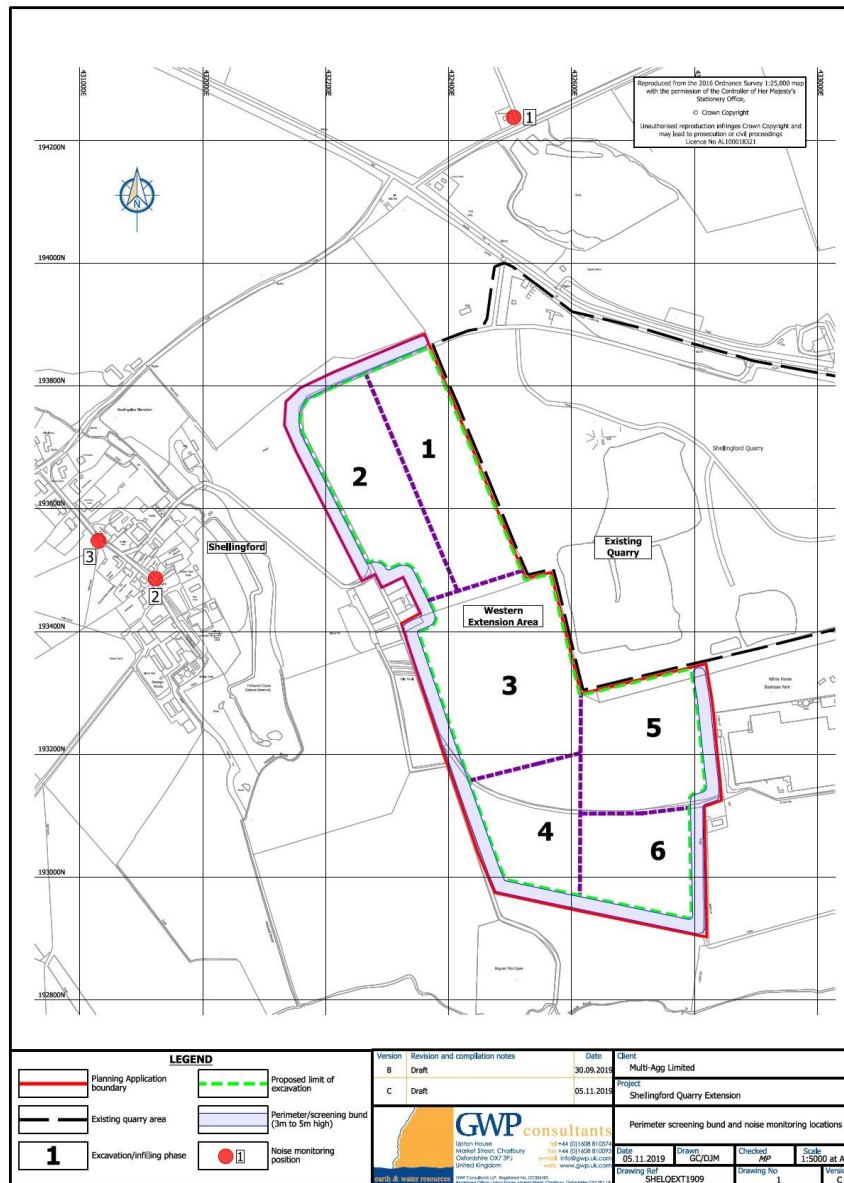
Vibration is rarely perceptible beyond a few metres from working plant. There is no reason to expect vibration arising from machinery and plant items to be perceptible outside the boundary of the site.

No concerns or complaints about vibration have been brought to the attention of the operator since they commenced operations on the site.

In these circumstances, it is not considered that any measures are required to mitigate against vibration and that no regular monitoring of vibration levels is necessary.

In the highly unlikely event that vibration from the site activities became an issue outside the site boundary in the future, then mitigation measures and/or off-site vibration monitoring could be considered depending upon what was the identified cause of the vibration.

Appendix 1 – Site Plan Showing Monitoring Locations



Ref.	Location	Description
1	Laburnum Cottage	On track to north of property, in line with east façade of dwelling, 15 metres from roadside.
2	Glebe House, Shellingford	At old metal gate to northwest of Glebe House and southeast of church.
3	Shellingford House, Shellingford	By stile at start of footpath on Church Street opposite Shellingford House.

Appendix 2 - Example of Noise Complaint Report Form

Noise complaint report form	Date:	Ref. No.
Name and address of complainant		
Tel no. of complainant		
Time and date of complaint		
Date, time and duration of offending noise		
Weather conditions (e.g., dry, rain, fog, snow)		
Wind strength and direction (e.g., light, steady, strong, gusting)		
Complainant's description of noise (e.g., hiss, hum, rumble, continuous, intermittent)		
Has complainant any other comments about the offending noise?		
Any other previous known complaints relating to installation (all aspects, not just noise)		
Any other relevant information		
Potential noise sources that could give rise to the complaint		
Operating conditions at the time offending noise occurred (e.g., flow rate, pressure at inlet and pressure at outlet)		
Action taken:		
Final outcome:		
Form completed by		Signed