



Noise Management Plan

Peter Bennie Limited.
Pitsford Quarry Recycling Facility
A508 Market Harborough Road
Pitsford
Northamptonshire
NN6 9NL.



PROVIDING SOLUTIONS, ENSURING COMPLIANCE

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Sensitive Receptor Plan	Drawing No. 21/014d 002

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1. Introduction

- 1.1. Westbury Environmental Limited has prepared this Noise Management Plan to support a Environmental Permit Application on behalf of Peter Bennie Limited (the Operator).
- 1.2. The application comprises a bespoke environmental permit application for physical waste treatment. The proposed waste treatment activities include the manual sorting, separation, screening, crushing and blending of waste.
- 1.3. A noise impact assessment has been prepared to accompany the Permit Application, which demonstrates, with appropriate mitigation and control measures, the operation of the Site would not result in unacceptable levels of noise.

Content and Structure of Report

- 1.4. This Noise Management Plan provides detailed information on the sources, risks and mitigation measures related to potential noise emissions from the waste operations undertaken on the Site. It also documents how a noise complaint/issue will be responded to.
- 1.5. This Noise Management Plan is structured as follows:
 - Section 1 Introduction.
 - Section 2 provides a description of the location of the Site and Site activities.
 - Section 3 provides a description of noise sources.
 - Section 4 describes the nearby sensitive receptors and noise pathway to the receptors.
 - Section 5 describes the proposed control measures and monitoring along with actions to be taken in case of a complaint.
 - Section 6 describes when and how the Noise Management Plan will be updated and reviewed.
 - Section 7 describes the complaints reporting procedure.

Maintenance and Review of the NMP

- 1.6. The Site Manager is responsible for the NMP and the training of personnel working on Site.
- 1.7. A copy of the plan is maintained within the weighbridge, with the master copy held in the Site office.
- 1.8. The plan will be subject to a periodic review, should there be any changes to the operation of the site, including replacement of plant operating.
- 1.9. The staff working on site are trained as part of the overall site management to operate the quarry by The Site Manager. The training is updated / reviewed periodically.
- 1.10. The Site Manager has the responsibility for maintaining records of complaints and these are discussed in Section 7.
- 1.11. Periodic noise monitoring described in Section 4 will be carried out by Peter Bennie Ltd or an appointed acoustic consultant, with the personnel undertaking the monitoring exercise, suitably qualified.



2. Site description

Location

- 2.1. The Site is the proposed permit boundary area that is located within Pitsford Quarry, see Permit Boundary Plan 21/014d 003. Pitsford quarry is owned and operated by the applicant. Pitsford Quarry is located off the A508 Market Harborough Road at Pitsford Quarry, Pitsford Northampton, NN6 9NL. The proposed permit area extends to approximately 2.2 hectares within the quarry (Site).
- 2.2. The Site is located at National Grid Reference (SP 75660 67153) approximately 6.6km north of the centre of Northampton.
- 2.3. The Site is located within a Local Wildlife Site. The quarry is surrounded by agricultural land to the north, east, south, and west.

Activities

- 2.4. Waste activities proposed to be carried out on Site include the storage and treatment of non-hazardous and inert waste. The treatment activities include:
 - Screening
 - Crushing
 - Handpicking
- 2.5. All waste operations are undertaken outside.
- 2.6. Treatment of waste materials will be undertaken within proposed permitted area within Pitsford Quarry, see Site Layout Drawing No. 21/014d 001 V3.

Operating hours

- 2.7. The proposed operational hours for the recycling facility are:
 - 07:00am to 16:30pm Monday to Friday
- 2.8. The Site will be non-operational during the night.
- 2.9. The Site will be non-operational on Sundays and bank holidays.



3. Noise sources and impact

- 3.1. This Noise Management Plan considers the potential impacts posed by noise generated by the proposed waste operations and describes the measures which will lessen the impacts of any noise generated.
- 3.2. Excessive noise levels may present a risk to employees on the Site. Assessment of this risk has not been considered in this Noise Management Plan.

Noise sources

- 3.3. The activities with the potential to cause noise emissions from the Site are:
 - Vehicle movements.
 - Treatment (crushing/ screening) of waste.
 - Movement of materials.

Other sources of noise

- 3.4. The mineral extraction activities that are undertaken within the quarry generate noise through processing of minerals, which are controlled through the imposition of appropriate planning conditions. It has been reported to us that a noise complaint has never been received from these activities.
- 3.5. Passing traffic on the A508 to the west of the Site and Moulton Road to the east of the Site, generates noise and is the main influence on the background noise environment at the surrounding properties.
- 3.6. T's Wood and areas of trees close to the Site generate rustling noises and are likely to mask the noise from the quarry during periods when it is windy.

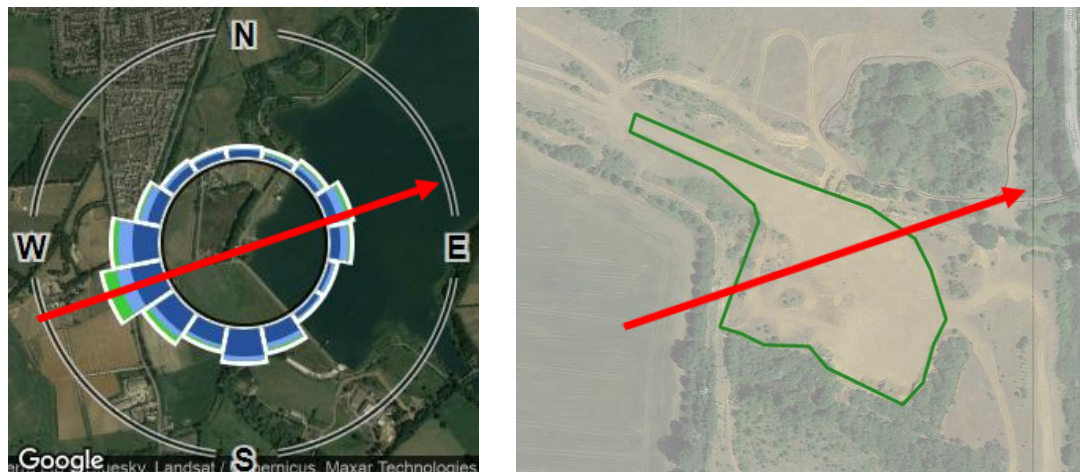


4. Pathway and receptors

Pathway

- 4.1. Wind direction plays a significant role in the potential impact experienced from noise. Noise will be 'carried' by the wind. It is therefore considered that noise is more likely to travel towards sensitive receptors that are 'down-wind' of the Site.
- 4.2. The distance from the Site boundary to the sensitive receptor plays an important role in the potential impact experienced from noise. Noise at sensitive receptors will reduce with distance from the source. Noise has the potential to cause a nuisance where sensitive receptors are closer to the Site.
- 4.3. Wind speed and direction data have been obtained from Pitsford Reservoir weather station for the period from 04/2015 to 03/2022. Pitsford Reservoir weather station is located approximately 3.4km north of the Site. This observing station is the closest wind station to the Site according to "Windfinder.com" and has wind speed and direction data appropriate for characterisation of the wind climate at the Site, see Figure 4.1.

Figure 4.1: Wind rose from Pitsford Reservoir Weather Station from 04/2015 to 03/2022 and site plan. Arrow indicates predominant wind direction



Receptors

- 4.4. The proposed operations on the Site have the potential to cause noise emissions. Noise emissions can create a potential nuisance in the community (residents and employees of nearby businesses) or can have an impact on local wildlife.
- 4.5. This Noise Management Plan identifies receptors that may be sensitive to noise emissions.
- 4.6. The direction and distances from the permit boundary to the closest boundary of sensitive receptors, within 500m of the Site, are provided in Table 4.1: Sensitive receptors.
- 4.7. A Sensitive Receptors Plan has been prepared, see Sensitive Receptor Plan Drawing No. 21/014d 002.

**Table 4.1: Sensitive receptors**

Ref.	Receptor	Type of receptor	Direction from Site	Approximate Distance – Proposed permit boundary to receptor boundary (m)
1	T's Wood	Local Wildlife Site	N	~0
2	Moulton Road	Road	NE	80
3	Harrison Courier Services and Residential House	Area of residential dwellings and associated infrastructure	N	155
4	Pitsford Fishery	Water Body	SE	225
5	Residential Housing	Area of residential dwellings and associated infrastructure	SW	300
6	Pond	Water Body	SW	300
7	Decidious Woodland	Woodland	SW	305
8	Grotto Spinney	Local Wildlife Site	NE	385
9	Decidious Woodland	Woodland	N	450
10	Residential Housing	Area of residential dwellings and associated infrastructure	SE	495
11	Residential Housing	Area of residential dwellings and associated infrastructure	NW	495

- 4.1. The quarry is located within an area mainly used for agricultural land uses and woodland. The Site itself is located in a quarry void. The Site is located within the Local Wildlife Site (LWS) called T's Wood. However, this LWS is designated for open mosaic and acid grassland. As the Site is located in a quarry void, the area in which waste operations will take place has not been grassland for at least fifteen years.
- 4.2. Due to the distance from the Site to T's Wood, it is considered that noise from the proposed waste operations at the Site may reach this sensitive receptor. T's Wood is located ~0m from the entrance to the Site. T's Wood is actually located 130m north west of the waste treatment area.
- 4.3. There are residential areas located to the north and southwest are located approximately 155m and 300m from the Site respectively. These residential areas are at a higher ground level than the Site, therefore the risk of noise reaching these receptors is reduced. The quarry is to a depth of nine metres.
- 4.4. Due to the predominant wind direction from the south-southwest, it is considered that receptors located north-northeast of the Site are at greater risk of experiencing adverse impacts of noise emissions from the Site. Receptors to the north-northeast of the Site include T's Wood, Moulton Road, and Residential Housing.



5. Control measures and process monitoring

- 5.1. The plant would be located at a low level within the quarry and effectively screened from the properties to the south west by the quarry sides and existing bunding, which will remain in situ. The noise impact assessment identified further bunding would be required to screen the property to the north east from the operational area, which would be provided as described in the assessment and maintained.
- 5.2. The table below includes information on how the Operator will manage activities that can cause noise, see Table 5.1: Noise sources and control measures. Table 5.1 outlines the anticipated contribution of each activity to overall noise emissions both before and after the implementation of the control measures.



Table 5.1: Noise sources and control measures

Potential noise source	Operational times	Contribution to overall impact	Control measures	Contribution to overall impact post control measures	Action taken following a noise complaint
Crushing and Screening	07:00 – 16:30 Monday to Friday only.	Medium	<p>Siting of mobile plant to place maximum distance between plant and nearby sensitive receptors, see Site Layout Plan Drawing No. 21/014d 001 V3.</p> <p>Crushing and screening will be undertaken to the south of the Site, due to the prominent wind direction being towards the north-northeast. This will create the furthest distance possible to the most sensitive receptor (residential area). The distance between the crushing and screening plant and residential area to the north would therefore be 280m.</p> <p>Stockpiles of waste will be stored on the northern side of the crusher and screening to provide maximum screening to receptors in to the north and north east.</p> <p>The crusher and screener will be placed with the quietest elevation pointing northwards (outward conveyor end facing north).</p> <p>The proposed waste activities are located within the quarry void at a ground level of approximately 9m below the level of the surrounding ground, where the receptors are located. This difference in ground levels will help prevent noise being carried to the residential area 155m north of the Site.</p> <p>Bunding to be provided to the north of the operational area to screen the property to the north east.</p>	Low	<p>Investigate complaint.</p> <p>Check that operations are being carried out in accordance with the Noise Management Plan and EMS.</p> <p>Provide additional staff training should it be required to ensure that requirements are implemented.</p> <p>Plant and equipment will be checked for faults that could lead to increased noise. Repairs/maintenance carried out if necessary</p> <p>Temporary cessation of activities that are identified to be a source of noise emissions that could be causing a nuisance (as a result of investigation of a complaint).</p>



Potential noise source	Operational times	Contribution to overall impact	Control measures	Contribution to overall impact post control measures	Action taken following a noise complaint
			<p>No complaints regarding noise were received during the quarrying works.</p> <p>Crushing and screening will only be carried out during operational hours.</p>		
Vehicle movements	07:00 – 16:30 Monday to Friday	Low to Medium	<p>The speed limit for all vehicles on Site is 5mph. Speed humps will not be used on Site.</p> <p>The Site surface (including the haul road) will be maintained to ensure the surface is kept free from potholes and ruts.</p> <p>All mobile plant used on Site will have 'broadband' type reverse alarms (i.e. no tonal beeper type).</p> <p>Where practicable, Heavy Goods Vehicles (HGV's) within the control of the Site operator will have similar reverse type alarms fitted or the use of a banksman to reduce the need for alarms. Where HGV's are sub-contractor vehicles they will be encouraged to use this type of alarm.</p> <p>Driver's of HGVs or mobile plant will be instructed to avoid leaving engines running unnecessarily or excessive revving of engines.</p>	Low	<p>Investigate complaint.</p> <p>Plant and vehicles will be checked for faults that could lead to increased noise. Repairs/maintenance carried out if necessary.</p> <p>Check that operations are being carried out in accordance with the Noise Management Plan and EMS.</p> <p>Provide additional staff training should it be required.</p>
Movement of materials	07:00 – 16:30 Monday to Friday	Low to Medium	<p>The speed limit for all vehicles on Site is 5mph. Speed humps will not be used on Site.</p> <p>No unnecessary double handling of material.</p> <p>Drop heights will be minimised, which will reduce noise.</p>	Low	<p>Investigate complaint.</p> <p>Check that operations are being carried out in accordance with the Noise Management Plan and EMS.</p> <p>Provide additional staff training should it be required.</p>



Noise Monitoring

- 5.3. All staff must report unusual or abnormal noise to Site Management, in accordance with their noise training. Noise will not be routinely monitored using noise monitoring equipment at the Site.
- 5.4. Noise monitoring is carried out periodically at the surrounding properties as required to satisfy the requirements of the planning permission to operate the quarry. The noise monitoring reports are provided to the Mineral Planning Authority and reviewed accordingly.
- 5.5. The noise monitoring is carried out accordance with the approved noise monitoring scheme by a suitably trained person.
- 5.6. The noise monitoring scheme includes the area of the quarry where the permitted operations will be undertaken and thus the permitted operations would be monitored in accordance with the scheme to ensure the operational noise levels remain both below the planning condition limits and that which would constitute an unacceptable level of noise.
- 5.7. The approved noise monitoring scheme is provided in Appendix 1.
- 5.8. In addition, it may be necessary to carry out monitoring of noise from a noise source or at the Site boundary e.g. to aid the investigation of a noise complaint. Further information on this is given in Section 7 Complaints Reporting.
- 5.9. The use of noise monitoring equipment can provide an objective sound level. Any noise monitoring equipment will be maintained and calibrated in accordance with the manufacturer's recommendations. Records relating to the calibration of noise monitoring equipment will be maintained.



6. Responsibilities, review and training

- 6.1. This Noise Management Plan forms part of the Environmental Management System (EMS). The EMS, including this Noise Management Plan, will be kept on Site and made available to all relevant staff.

Responsibilities

- 6.2. The Site manager is responsible for implementation of the requirements of the Noise Management Plan and for ensuring that the control measures are implemented.
- 6.3. Site staff are responsible for detecting/reporting noise emissions from waste operations that may cause a nuisance to local receptors.

Review

- 6.4. The Site manager is responsible for ensuring this Noise Management Plan is reviewed to ensure its continuing effectiveness.
- 6.5. The Noise Management Plan will be reviewed:
- If the Site receive persistent noise complaints.
 - When a change in operations is deemed to have a potential effect on increasing noise emissions.
 - If a failure in the existing mitigation measures has been identified.

Training

- 6.6. Procedures within the EMS requires staff to be trained on the details included within this Noise Management Plan, particularly noise mitigation measures and the monitoring of noise. Staff training is typically completed via toolbox talks.
- 6.7. It is the responsibility of the Site manager to ensure that appropriate training is carried out. A record of this training will be maintained on each staff members Training Record. Copies of the staff Training Records are kept on Site.
- 6.8. Should any noise complaint investigations conclude that a noise emission arose as a result of the requirements of the Noise Management Plan not being followed by Site staff, further training will be completed on implementation of this Noise Management Plan.



7. Complaints reporting

- 7.1. In the case of any incidents that cause significant noise emissions, staff will report the incident to the Site Manager.
- 7.2. The Site Manager will record the incident and any steps taken to resolve the issue e.g., pausing operation or repairing failing machinery. Procedures and forms relating to the recording of incidents are included within the EMS.
- 7.3. If the incident gave rise to a complaint, a Complaint Form will be completed. All complaints are acknowledged and recorded.
- 7.4. The Complaint Form will record the incident that led to the complaint and any remedial action taken. A copy of the Complaints Form is provided in Appendix 1.
- 7.5. It is the responsibility of the Site Manager or their delegate to complete the Complaints Form.
- 7.6. Staff will investigate all complaints to identify the source of the problem. All incidents / complaints will be investigated on the same day. The investigation will include.
 - Travel to the site from which the complaint is reported to originate to make checks on noise levels.
 - Ensuring the inspections of plant /equipment have been complete.
 - Ensuring this Noise Management Plan is being followed accordingly.
 - Aural monitoring of noise emissions from the area from which the noise originated.
 - If noise is detectable, identification of where on site the noise may be originating.
- 7.7. The complainant will be notified if the source of the noise is found to be from another source or from the Site. If the source of the noise is from another source, the source details will be recorded on the complaint form.
- 7.8. The Operator will then identify the reason for the noise emission e.g., breach of procedure, lack of training, mitigation not being implemented or increase in noise from an identified source.
- 7.9. Records of any monitoring carried out as part of the complaint investigation process will be kept with the completed complaint form.
- 7.10. A complaint is considered to be resolved when the source of the noise is identified, and remedial action is taken (if required) and relevant persons notified.
- 7.11. Should the investigation identify the need for additional mitigation or other remedial action, the appropriate mitigation / action will be implemented as soon as practicable.



Drawings

Permit Boundary Plan	Drawing No. 21/014d 003
Site Layout Plan	Drawing No. 21/014d 001 V3
Sensitive Receptor Plan	Drawing No. 21/014d 002



Appendix 1

Noise Monitoring Scheme



NOISE MONITORING PROTOCOL FOR PITSFORD QUARRY

Under the Modern Mineral Conditions for Pitsford Quarry, noise limits have been set for 12 locations, as shown in Table 1. It should be noted that the levels in Table 1 are for normal extraction, processing works and associated activities. The temporary works associated with the construction of soil baffle mounds are subject to a uniform limit of 70 dB L_{Aeq} at the locations shown in Table 1.

In the event that the measurements demonstrate that the appropriate criteria are exceeded, operations will cease until additional noise attenuation measures are introduced to reduce noise to below the specified limits.

Noise measurements will be taken at a free-field location representative of the noise environment affecting the most exposed facade (with a window to a habitable room) of the properties identified in Table 1 (subject to access).

Measurements to be carried out at least once every three months whilst a phase is active but particularly:

- during overburden removal and bund construction;
- at the start of mineral extraction works;
- when extraction works near their closest point to any of the properties listed in Table 1;
- when it is anticipated that substantial benefit is being derived from a mitigation feature (such as a bund); and
- when a new complaint is received by the site operators, the minerals planning authority or the district council.

Measurements will be carried out by a competent person with a Type 2 (or better) Integrating Sound Level Meter calibrated with a Class 2 (or better) Acoustic Calibrator. Both the Sound Level Meter and the Acoustic Calibrator are to have been calibrated by a laboratory with a calibrated sound source, traceable to a national standard, within 24 months of the measurement exercise.

During any particular monitoring exercise, a single 15 minute sample measurement would be carried out at each location. Where the results indicate that the noise level from site activity is within 2 dB of the appropriate criterion, a second 15 minute sample measurement will be taken at least 30 minutes later (subject to working hours constraints). Where practicable, noise from extraneous intermittent events (aircraft overhead, vehicles in close proximity to the measurement position etc.) should be paused out of the measurements.

The following information shall be recorded:

- L_{Aeq} , $L_{Amax F}$, L_{A10} and L_{A90} noise levels;
- whether the measured L_{Aeq} value exceeds the appropriate criterion;
- the relative location of the measurement position and the property identified in Table 1;
- the weather conditions (in particular windspeed and direction) [note that measurements would not normally be carried out when windspeeds exceeded 5 m/s or during rain or when the road surfaces are wet];
- identification of the principal influence on L_{Aeq} noise levels;
- identification of the principal influence on L_{A90} noise level;



ANV

Acoustics Noise and Vibration

- a description of the activities being carried out upon site during the measurement;
- an evaluation of the audibility of noise from the site [in particular whether noise from the site overall, or from a particular activity on the site, was the Dominant Source (DS), Major Source (MS), Clearly Audible (CA) or Just Audible (JA)*];
- comments upon individual noise events which may have contributed to the measured L_{Aeq} noise level (together with their duration and an evaluation of whether (throughout their stated duration they were DS, MS, CA or JA); and
- comments upon any other factors which may have had a material influence upon the measurement/observation exercise.

Location	Phases during which Monitoring Will Take Place	Limit $L_{Aeq, 1hr}$	Comments
Fox Covert Farm	All	48	Potentially affected by noise from processing area and haul road
The Oaks	All	48	Potentially affected by noise from processing area and haul road
Bunkers Hill Farm	All except Phase 1	50	
Butchers Lane	3, 4A	50	
Church Holding	3, 4A	50	
Stud Farm	5A,5B	53	
Stud Farm Cottages	5A,5B	53	
Spring Meadow Farm	4A, 4B, 5A, 5B	50	
Moulton Mill	4A, 4B, 5A, 5B	52	
Home Farm	All	53	Potentially affected by haul road.
Stewart Close	6	50	
Holcot Centre	6	55	

Table 1: Noise Sensitive Locations and Noise Limits

* For a Dominant Source (DS) condition, other sources of noise should be inaudible and probably, therefore, 10 dB or so below the DS. The Major Source (MS) is the clearly principal influence on the noise environment and measured L_{Aeq} level but other sources are audible and may make a contribution to the L_{Aeq} noise level. A Clearly Audible (CA) source is likely to make some contribution to the L_{Aeq} noise level (though it might not be the principal component of it) and other sources (either alone or in combination) subjectively contribute at least as much to the noise environment. A Just Audible (JA) source can be heard, perhaps only during occasional quiet periods, but does not contribute significantly to the overall subjective impression of the noise environment and is unlikely to contribute substantially to the measured L_{Aeq} noise level.



Appendix 2

Complaints Form

Complaints Form

Who made the complaint?	Name:	
	Address:	
	Phone No.:	
Date and time they made the complaint:		
What happened? What was it about?		
Was anyone else aware of this – other neighbours or your staff? If so, who?		
Did the complaint relate to your site? If so, what happened? What went wrong?		
What have you done to make sure that it does not happen again?		
Was there any significant pollution – for example: dust, odour or noise outside the site or spillage of polluting liquids onto the ground, into a drain or a watercourse?		
If there was, then you must notify the Environment Agency on 0800 807060 and any other relevant regulators. Have you done so? Yes <input type="checkbox"/> No <input type="checkbox"/>	At what time did you phone?	
You must also write or send an email to confirm this to your local Environment Agency office. Have you done so? Yes <input type="checkbox"/> No <input type="checkbox"/>	What date did you contact?	
Please print and sign your name:		