NOISE IMPACT ASSESSMENT

The Scrap Yard, Barnfields Industrial Estate, Leek, Staffordshire ST13 5QG

R Bestwick & Sons Ltd

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Client No:	2920	**Job No:**	001		

Oaktree Environmental Ltd

Waste, Planning & Environmental Consultants

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Document History:

Version	Issue date	Author	Checked	Description
1.0	08/12/2021	TB	CP	Internal draft
1.1	13/12/2021	TB/CP	CP	Submission copy
1.2	24/01/2022	TB	CP	Amendment in line with schedule 5 comments
1.3	07/06/2022	TB/CP	CP	Further updates following EA comments; refer to Schedule 5 response document

CONTENTS

List of Tables

List of Appendices:

Appendix I - Drawings

Drawing No. BAR/2920/03 – Site Layout & Fire Plan

Drawing No. BAR/2920/04 – Receptor Plan

1 Introduction

1.1.1 Oaktree Environmental Ltd have been instructed by R Bestwick & Sons Ltd to prepare a Noise Impact Assessment (NIA) in line with BS4142:2014 with mitigation/good practice measures derived from this assessment used to inform the accompanying Noise & Vibration Management Plan (NVMP) the methods by which R Bestwick & Sons Ltd will assess and minimise the potential impacts of noise generated through the operation of the site situated at The Scrap Yard, Barnfields Industrial Estate, Leek, Staffordshire ST13 5QG.

1.1.2 Reference should be made to the accompanying Noise Impact Assessment (NIA) as per BS4142:2014 with specific mitigation and good practice measures derived from this assessment used to inform the Subsequent Noise & Vibration Management Plan (NVMP). These mitigation measures will be put in place by site management.

1.1.3 Contact details for Oaktree Environmental are as follows:

Oaktree Environmental Ltd	Contact:	Thomas Benson
Lime House	Position:	Senior Consultant
2, Road Two	Tel:	01606 558833
Winsford Industrial Estate	E-mail:	thomas@oaktree-environmental.co.uk
Winsford CW7 3QZ		

1.2 Site location

1.2.1 The site is located on Land at The Scrap Yard, Barnfields Industrial Estate, Leek, Staffordshire ST13 5QG as shown on Drawing Nos. BAR/2920/03. The national grid reference for the site is SJ 98016 55191.

1.2.2 The site is located within a mixed setting, with large industrial areas to the north and west, and agricultural land and playing fields to the south and east. The nearest residential dwellings are located approximately 360m to the northwest off Sandon Street. There is also a residential property situated approximately 210m to the south-west of the site but this premises comprises a close family friend of the operator and has therefore been

removed as a receptor considered '*Sensitive*' as complaints will not arise from this property. If a new resident were to acquire the property, an updated NIA would be submitted to the EA for approval.

1.3 Facility overview

1.3.1 The permit boundary is outlined in green on Drawing No. AVR/2369/02. All references to 'the site' in this document shall mean this area and the associated infrastructure, plant and equipment.

1.3.2 The waste types handled on site will comprise household, commercial and industrial wastes as defined in the Controlled Waste (England and Wales) Regulations 2012 and Section 75 of the Environmental Protection Act 1990.

1.3.3 The maximum amount of waste to be stored on site at any one time is shown on Drawing No. BAR/2920/03 with residence times for each waste type.

1.3.4 If the maximum storage capacity is reached then no further waste will be accepted until waste can be removed from the site and taken to a suitably permitted or exempt site.

1.4 Hours of operation

1.4.1 The site is permitted to be open during the following hours for the receipt, treatment and removal of waste; including depositing, sorting, moving, storing and removing waste:

Monday to Friday	08.00 – 17.00
Saturday	08.30 – 12.00
Sundays, Bank/Public holidays	Closed

1.4.2 The only activities on site which will be permitted outside of these hours are maintenance works, general administrative duties and emergency processing due to unavoidable events such as staff shortages, plant breakdowns or poor weather conditions.

1.4.3 During times where the site is closed or not in operation, the site will be locked and secured to prevent unauthorised vehicular or pedestrian access.

1.5 Vehicles, plant and equipment

1.5.1 Waste will be handled using the plant listed in Table 1.1 overleaf. Additional plant will be hired to cover any very busy periods. Only trained operators will be permitted to drive/operate the plant listed below. Any changes to the list will be notified to the EA prior to implementation. The minimum requirements when the site is operational are shown in bold italic print.

Table 1.1 - Plant & Equipment

ITEM	***NUMBER***	***FUNCTION***
Loading shovel	1	Loading/unloading/movement/sorting
360^0 excavators	3	Loading/unloading/movement/sorting
Telehandler	1	Loading/unloading/movement/sorting
Forklift	1	Loading/unloading/movement/sorting
Weighbridge	1	Accurately weighing of loads
Baler	1	Baling/compaction of ELVs
Crusher	1	Crushing of inert material

1.5.2 Note: The plant/equipment on site may vary and additional equipment may be hired-in to cope with larger jobs, jobs with specific requirements or to prevent over stockpiling leading to a breach of permitting conditions.

2 Noise Assessment Criteria

2.1 Overview

2.1.1 In order to assess the impacts of existing road traffic and industrial noise on the proposed development, the following documents have been used:

- BS8233:2014
- BS4142:2014
- World Health Organisation (WHO) Guidelines on Community Noise

2.2 Existing vs proposed noise levels

2.2.1 The following table demonstrates which activities are existing and which activities are proposed at site.

Table 2.1 – Existing & Proposed Activities

EXISTING	***PROPOSED (IN ADDITION TO EXISTING ACTIVITIES)***
Compacting/crushing of metal waste and ELVs using a 360^0 excavator	Screening of soils and inert waste
Acceptance and removal of scrap metals using HGVs (skip wagons and articulated trailers)	Acceptance and removal of mixed and sorted HCI wastes from areas on the site
Loading of metal waste and ELVs into skips/containers for removal off site	Loading of mixed and sorted HCI wastes into skips/containers for removal off site
Tipping of scrap metal onto the concrete floor	Tipping of mixed HCI waste into the waste reception area on the concrete pad
Sorting of scrap metal hand, loading shovels and 360^0 excavators	Sorting of mixed waste by hand, loading shovels and 360^0 excavators
Baling of scrap metals and ELVs in existing baler	Crushing of inert waste
Transporting scrap metal and ELVs around the site using loading shovels and 360^0 excavators	Transporting mixed and sorted wastes around the site by hand, loading shovels and 360^0 excavators
Cutting of scrap metal by hand using hand held equipment i.e. power saws	N/A
Depollution of ELVs	N/A
Acceptance of <25,000 tpa of ELVs and scrap metal waste	Acceptance of <25,000 tpa of mixed HCI waste (50,000 tpa in total)
Approximately 60 movements (30 in, 30 out) of HGVs associated with scrap metal/ELVs	Approximately a further 60 movements (30 in, 30 out) of HGVs associated with the mixed HCI transfer station

2.3 BS8233:2014

2.3.1 This document provides guidance on the relevant level of sound insulation required by a variety of building types affected by general environmental noise and provides recommendations for appropriate internal ambient noise level criteria for a variety of different situations including residential dwellings. The table below includes the proposed noise criteria within BS8283:2014 with regards to residential properties:

Table 2.2 - BS8233:2014 Internal Criteria

Activity	Location	07:00 – 23:00	23:00 – 7:00
Resting	Living rooms	35 $L_{Aeq, 16hour}$	-
Dining	Dining room	40 $L_{Aeq, 16hour}$	-
Sleeping	Bedroom	35 $L_{Aeq, 16hour}$	30 $L_{Aeq, 16hour}$

2.4 BS4142:2014

2.4.1 BS4142:2014 provides a method for assessing and rating sound of an industrial / commercial nature. The method described in the standard uses the rating level from a noise source and the existing background noise level to assess the potential effects of sound on the residential premises upon which sound is incident.

2.4.2 Using this method, the background sound level is subtracted from the rating level. The resulting figure is assessed using the following guidance from the document:

- The greater the difference between the background sound level and the rating level, the greater the impact on the receptor.
- An exceedence of the background level of around 10dB or more is likely to be an indication of a significant adverse impact, dependent on the context.
- An exceedence of the background level of around 5dB is likely to be an indication of an adverse impact, dependent on the context.
- The lower the rating level compared to the existing background level, the less likely an adverse impact or a significant adverse impact. Where the rating level does not

exceed the background level, this is indicative of a low impact, dependent on context.

2.4.3 The document introduces a requirement to consider and report the uncertainty in the data as well as also including guidance for applying a correction/penalty for certain adverse acoustic features such as tonality, impulsivity or intermittency. The following table summarises the corrections based on the subjective assessment of the noise.

Table 2.3 - BS4142:2014 Corrections and Penalties

	Tonality	**Impulsivity**	**Other characteristics**
Just perceptible	+ 2dB	+ 3dB	
Clearly perceptible	+ 4dB	+ 6dB	
Highly perceptible	+ 6dB	+ 9dB	
Readily Distinctive against Residual Environment			+ 3dB

2.5 WHO Guidelines for Community Noise

2.5.1 The WHO Guidelines (1999) recommends indoor night-time guidelines in order to avoid sleep disturbance, the document states these to be 30 dB (LAeq)and 45 dB (LA_{fmax})for continuous and individual noise events respectively.

2.5.2 The document states that the number of noise events should also be considered and that individual noise events should not exceed 45 dB (LA_{fmax})more than 10 – 15 times per night.

2.5.3 The WHO document also recommends that steady, continuous noise levels should not exceed 55 dB (LAeq) on outdoor living areas (balconies, terraces etc.). However, in order protect the majority of individuals from moderate annoyance, external noise levels should not exceed 50 dB (LAeq).

3 Existing Noise Climate and Background Levels

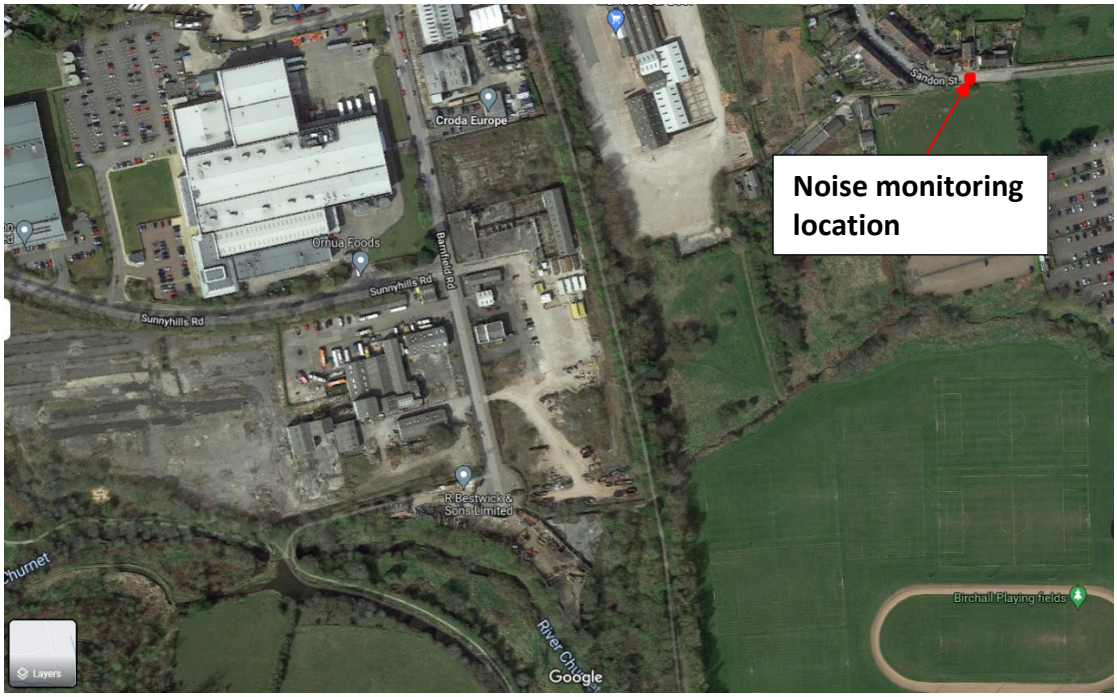
3.1 Procedure and Monitoring Locations

3.2 An initial noise survey was completed on the 8th December 2021 and the 22nd January 2022 in accordance with BS 7445-1: 2003 by Thomas Benson of Oaktree Environmental Ltd. Attended background level measurements were taken at locations representative of the nearest noise sensitive receptors within the vicinity of the site.

3.2.1 It is considered that the residential dwellings off Sandon Street approximately 360m to the northeast comprise the most relevant receptors. Whilst a farmhouse is located approximately 200m southwest of the site, this also comprises a business/commercial landuse operation which will generate its own level of noise. The operator of R Bestwick & Sons benefits from a good rapport with the residents of this location due to being a close family friend. It is therefore considered that this receptor is not relevant with regards to a BS4142:2014 assessment.

3.2.2 The measurement location is shown in red within the capture shown in within Figure 3.1 below:

Figure 3.1 - Site location and noise monitoring position



3.3 Other receptors

3.3.1 In addition to the receptors above, there are environmental/recreational receptors within 500m of the site boundary comprising Birchall Meadow (Local Wildlife Site), Bullhead and Brown Trout (Code 2 Protected Species) and Deciduous Woodland's; however, BS4142:2014 does not include these types of receptors and therefore assessment with regards to these locations is difficult. These receptors will be included within the accompanying NVMP w in order to ensure noise impacts are appropriately managed with regards to these receptors.

3.4 Weather conditions

3.4.1 The weather during the background surveys is summarised in the table below, this was recorded via a mixture of an anemometer and ongoing onsite observations:

Table 3.1 – Weather conditions

Date	Wind Speed (max)	Cloud Cover	Temperature	Precipitation
08/12/2021	Mainly still with gusts up to 4.1 m/s	100%	5-7^{oC}	Sporadic rainfall throughout the day. Drizzle/showers between 08:00-08:30, 08:46-08:56, 10:32-10:55, 10:31-11:20 and from 11:55.
09/12/2021	Max wind speed of 1.3m/s	80-100%	0-5 ^{oC}	None recorded whilst onsite.

3.4.2 Weather conditions and the deadlines associated with the non-duly made request prevented further background monitoring being undertaken, however, when possible, background monitoring will be undertaken and the report updated accordingly. It is considered that the information provided should be suitable and updated measurements would not affect the conclusion of this NIA or accompanying NVMP.

3.5 Equipment Used During the Survey

3.5.1 Details of the equipment used during the survey are shown in the table below:

Table 3.2 - Survey Equipment

Description	Model	Manufacturer	Serial No.	Calibration Date
Class 1 Sound Analyser	NOR 150	Norsonic	15030504	02/10/2020
Microphone	Norsonic Type 1225	Norosnic	305208	02/10/2020
Field Calibrator	NOR 1251	Norsonic	35205	03/03/2021

3.6 Results

3.6.1 The results of the background noise monitoring survey are tabulated overleaf in table 3.3

Table 3.3 – Weekday Measurement Results for Noise Monitoring Position A (Sandon Street)

Measurement Time	LA_{eq}	LA_{max}	LA_{90}	LA_{10}
08/12/2021 08:31-08:46	51.8	70.7	47.7	52.3
08/12/2021 08:56-09:56	51.6	73.1	46.3	52.5
08/12/2021 10:05-10:30	56.4	81.8	45.9	53.0
08/12/2021 11:25-11:55	52.6	75.6	45.7	50.9

Table 3.4 – Weekend Measurement Results for Noise Monitoring Position A (Sandon Street)

Measurement Time	LA_{eq}	LA_{max}	LA_{90}	LA_{10}
22/02/2022 08:25-09:25	55.5	76.0	40.4	57.4
22/02/2022 09.30-10:30	50.1	72.9	40.5	50.9
22/02/2022 10:30-11:30	60.1	97.7	40.9	51.6

3.7 Existing Noise Climate

3.7.1 During the attended background measurements, it was evident that the existing noise climate comprised;

- Distant road traffic along Junction Road to the north and Cheddleton Road to the east as well as the commercial uses to the southeast,
- More sporadic road traffic associated with residents at Sandon Street and couriers/deliveries etc.,
- Air traffic including a helicopter between 09:18-09:22,
- Distant, yet faintly audible industrial/commercial noise from the southwest.
- Additional noise sources such as birdsong and local residents as well as the operation of a bin lorry between 10:25 and 10:30.

3.7.2 Additionally, discussions with local residents during the monitoring reveal that additional noise sources include the generator associated with the commercial use to the southeast. Residents have advised that this is prevalent at times during its operation. This source was not active during the background survey on the 8th December.

3.7.3 During the weekend, background levels remained largely as previous, albeit with a lesser contribution from road traffic and industrial/commercial noise was at a lower level than that observed during the week.

4 Noise Impact Assessment

4.1 Introduction

4.1.1 Table 4.1 below includes the noise sources associated with the proposed operation of the site.

Table 4.1 - Noise levels Associated with Proposed Operations

Activity	Noise Level (LAeq)	Sound Power Level	Source/comments
Loading of HGVs with scrap metal using loading shovel and excavator	84.6dB (A) at 3m	111	Measured at a similar site by Oaktree Environmental.
Movement of materials using the forklift	65.0dB (A) at 10m	93	Measured at a similar site by Oaktree Environmental.
Operation of the car baler	85.0dB (A) at 10m	111	Review of historic reports whereby a similar activity has been assessed.
Unloading of scrap metal from HGVs (tipping of scrap metal onto the floor from a container fixed to a HGV)	87.0dB (A) at 5m	109	Measured at a similar site by Oaktree Environmental.
Moving/sorting of scrap metal using onsite equipment (loading shovel/excavators)	77.4dB (A) at 3m	95	Measured at a similar site by Oaktree Environmental.
Loading and operation of crusher	82dB (A) at 10m	109	Oaktree measurement of similar plant

4.1.2 In terms of cutting using hand-held equipment, this is only undertaken for repairs and in the workshop with the roller shutters closed. The site will not 'cut' any scrap metal in external areas of the site therefore it is considered that no measurement is required for this.

4.1.3 To assess the potential noise impacts associated with the installation of the facility on the on the nearby noise sensitive receptors, noise models have been created using CadnaA.

The software package utilises standardised noise prediction methodologies and algorithms in order to predict the propagation of noise from source to receiver.

4.1.4 The CadnaA noise model was constructed using OS mapping data and Google Earth satellite imagery. The following assumptions/parameters are made within the model:

- The intervening land between the site boundary and residential properties was modelled with G = 0.8 as it was considered that the land is predominantly acoustically absorbent.
- Noise sources have been based on their most likely location with reference to the site layout and fire plan.
- Noise sources were set to be operate for a set fraction of the hourly reference time which were based on conversations with site management. These are as follows; 45 minutes for the movement of the forklift, 15 minute for the loading of HGVs with scrap metal, 45 minutes for the operation of the car baler, 5 minutes for the unloading of scrap metal, 30 and 60 minutes for the 2no.excavators used to move/sort waste. An additional model has also been produced which includes those previously discussed but also the inclusion of the concrete crusher in the south of the site.
- Buildings were set as acoustically reflective, with a reflection loss of 1 dB.
- Noise levels were determined on a grid and at residential properties representing the nearest residential facades. The height of each receiver was 2.0 m, consistent with the height of a typical first storey window.
- The predicted noise levels were free-field, A-weighted, sound pressure levels. The noise contours generated within the model are also at a height of 2.0 m, assumed to be the worst-case scenario.
- Surrounding building heights have been taken from observations and information provided from the Local Authority public access where available.

Figures 6.2-6.5 overleaf detail the predicted noise levels (in dB A) associated with the proposed operations at the relevant receptors.

Figure 6.2 – Noise modelling of noise associated with the typical operations

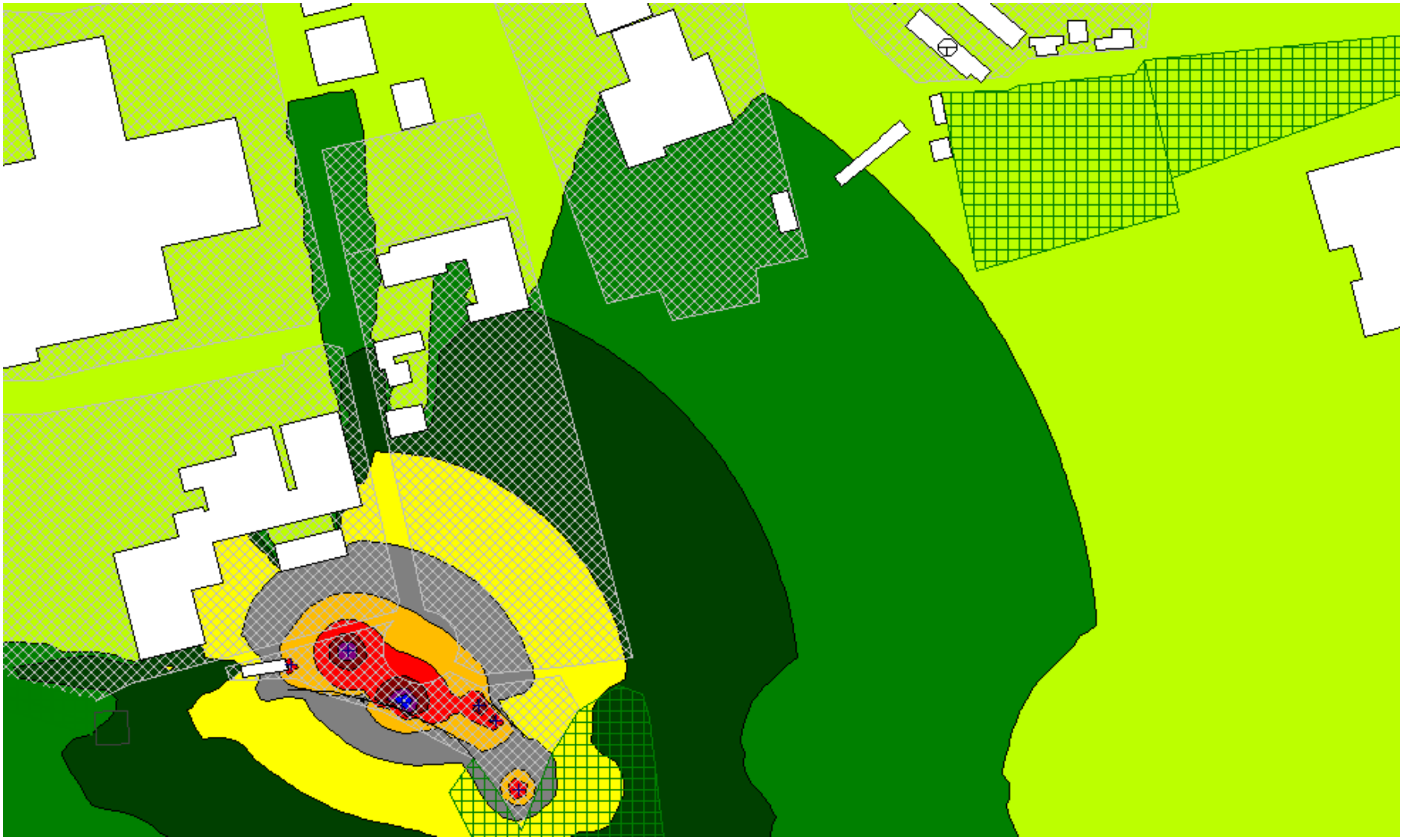


Figure 6.3 – Noise modelling of noise associated with the typical operations

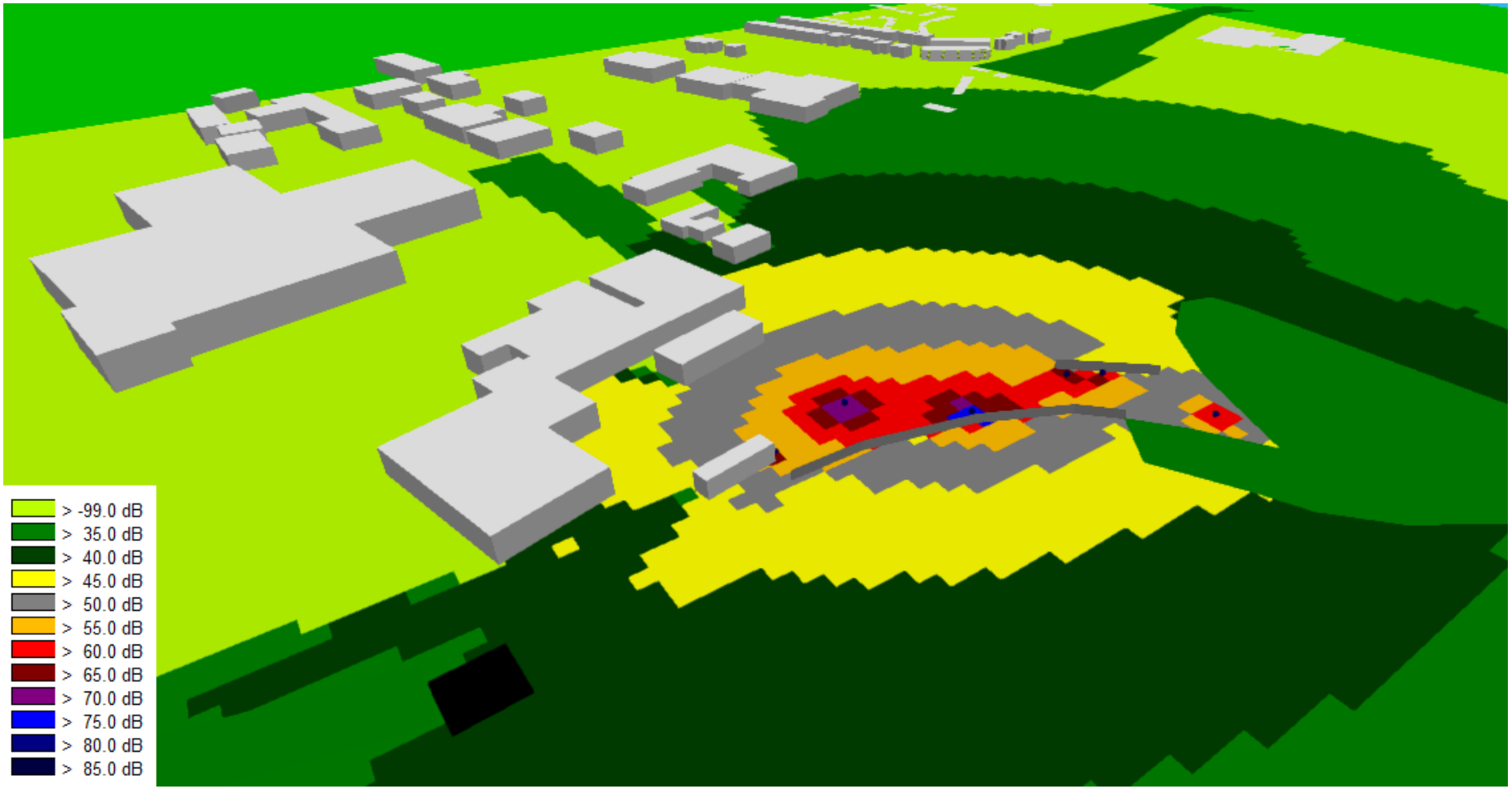


Figure 6.4 – Noise modelling of noise associated with the typical operations (including crusher)

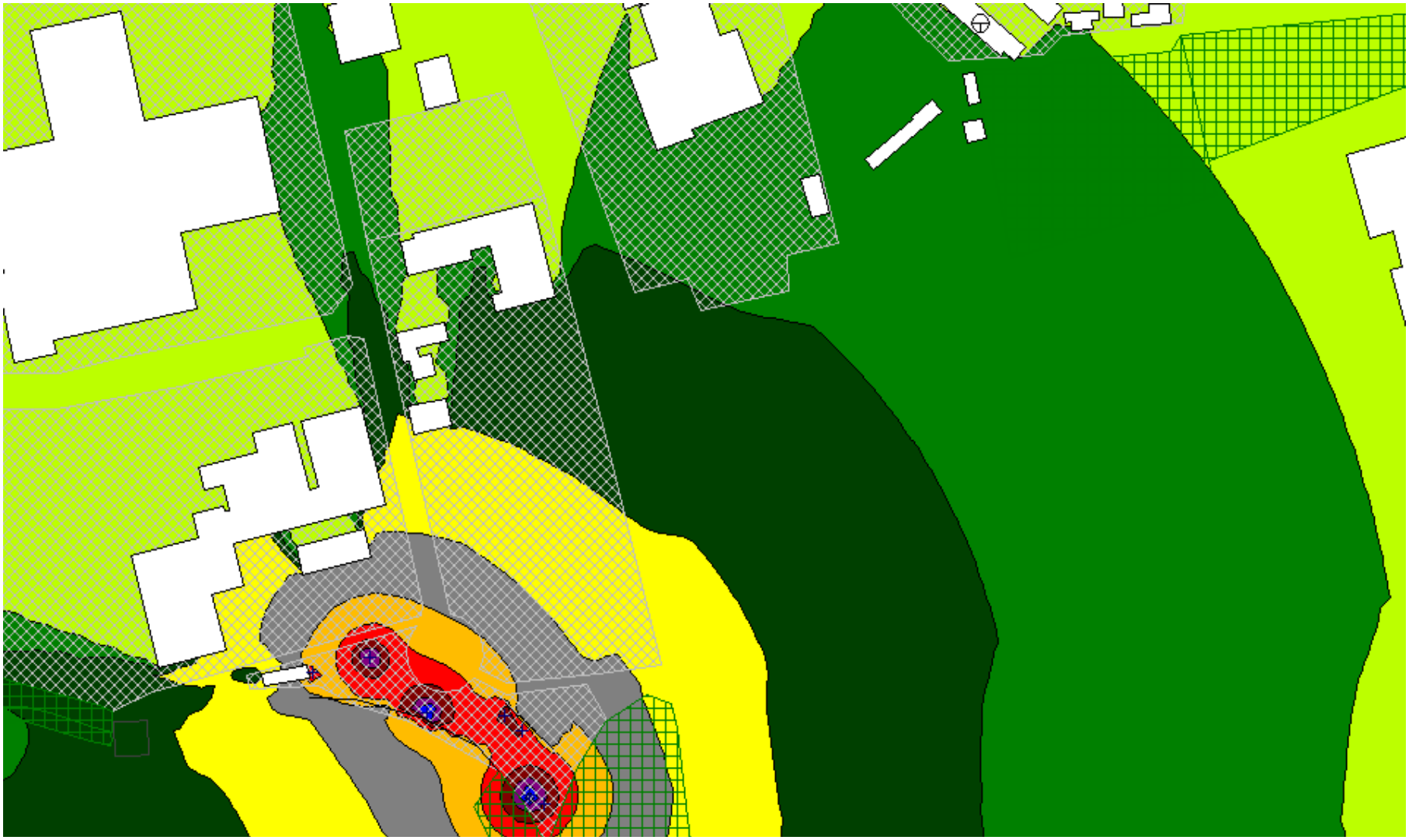
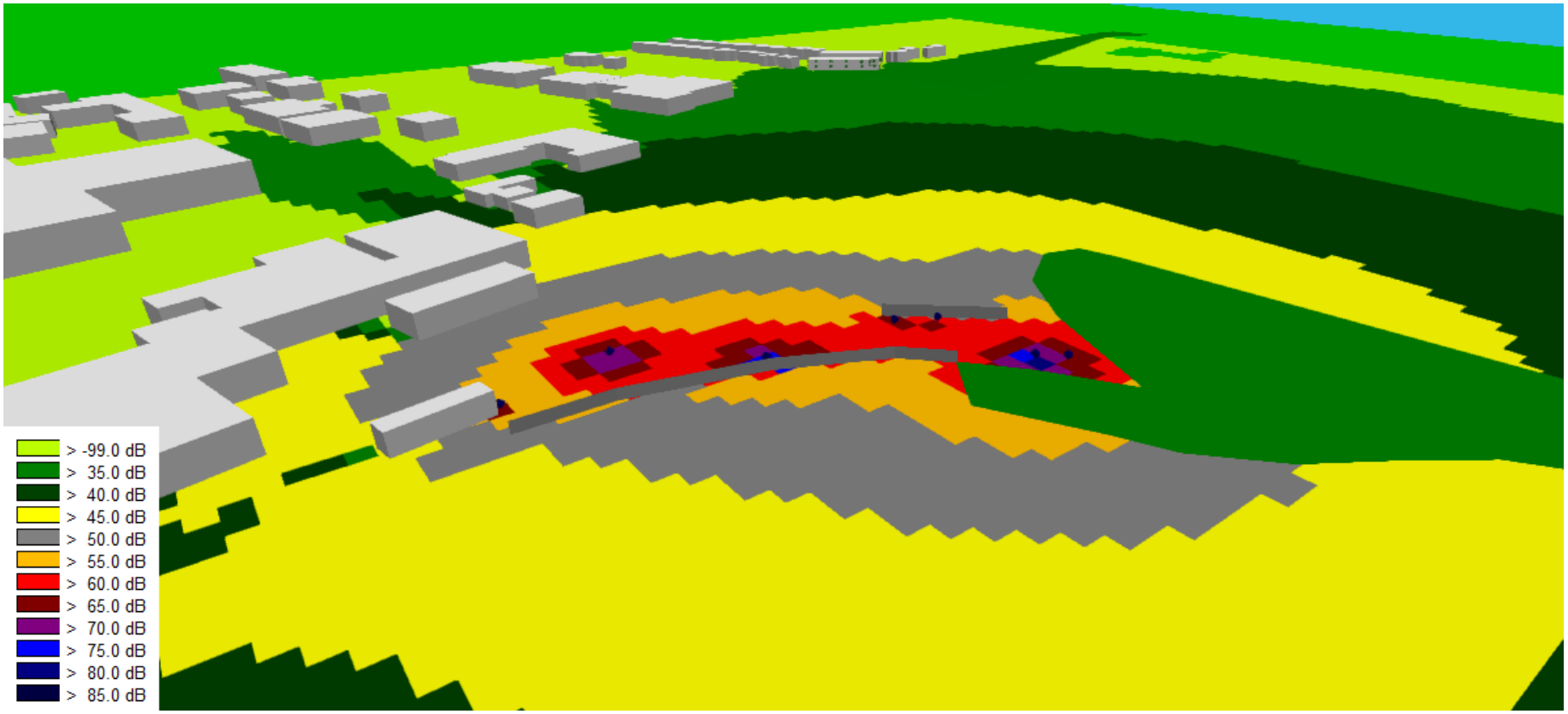


Figure 6.5 – Noise modelling of noise associated with the typical operations (including crusher)



4.2 Discussion

4.2.1 With regards to penalties as per BS4142:2014, it is considered that the impulsive nature of the operations may be just perceptible at the nearest noise sensitive receptors due to the distance between the source and receptor, intervening structures and nature of the operations and therefore a 3dB penalty has been applied. A 5dB penalty has been applied during the operation of the crusher in order to take account for tonal characteristics.

4.2.2 The median background level has been utilised in the assessment below for both weekday and weekend levels. It is proposed to only operate the crusher during weekdays, Table 4.3 reflects this.

Table 4.2 – Preliminary BS4142:2014 assessment with regards to typical operation (excluding the crusher)

	Calculated noise level at Sandon Street	**Comments**
Calculated noise level as per figure 6.2-6.3	35.0	
Addition of relevant penalties as per BS4142:2014	+3 = 38.0	As per Section 4.2.1
Comparison to median weekday background level	38.0-46.1 = 8.1dB (A) below	Negligible/low impact as per BS4142:2014
Comparison to median weekend background level	40.5-46.1 = 5.6dB (A) below	Negligible/low impact as per BS4142:2014

Table 4.3 – Preliminary BS4142:2014 assessment with regards to typical operation (with the crusher)

	Calculated noise level at Sandon Street	**Comments**
Calculated noise level as per figure 6.2-6.3	38.0	
Addition of relevant penalties as per BS4142:2014	+5 = 43.0	As per Section 4.2.1
Comparison to median background level	43.0-46.1 = 3.81B (A) below	Negligible/low impact as per BS4142:2014

4.2.3 Therefore, the preliminary assessment shows that with regards to the proposed operations the rating level is considerably below the measured background level at these times and

therefore the impacts associated with noise as a result of the proposed operation of the site at these times are negligible/low.

4.3 Uncertainty

4.3.1 Uncertainty in this assessment was controlled via the following precautions/procedures:

- Both the sound level meter and calibrator have a traceable laboratory calibration and the meter was field-calibrated both before and after the measurements.

4.3.2 Additional sources of uncertainty include the relatively short duration of background monitoring and the weather on the day of the survey; however, this is largely controlled via the margin of the exceedance of the background level over the rating level.

5 Conclusion

5.1 Summary & Recommendations

5.1.1 Oaktree Environmental have undertaken an NIA at The Scrap Yard, Barnfields Industrial Estate, Leek, Staffordshire ST13 5QG.

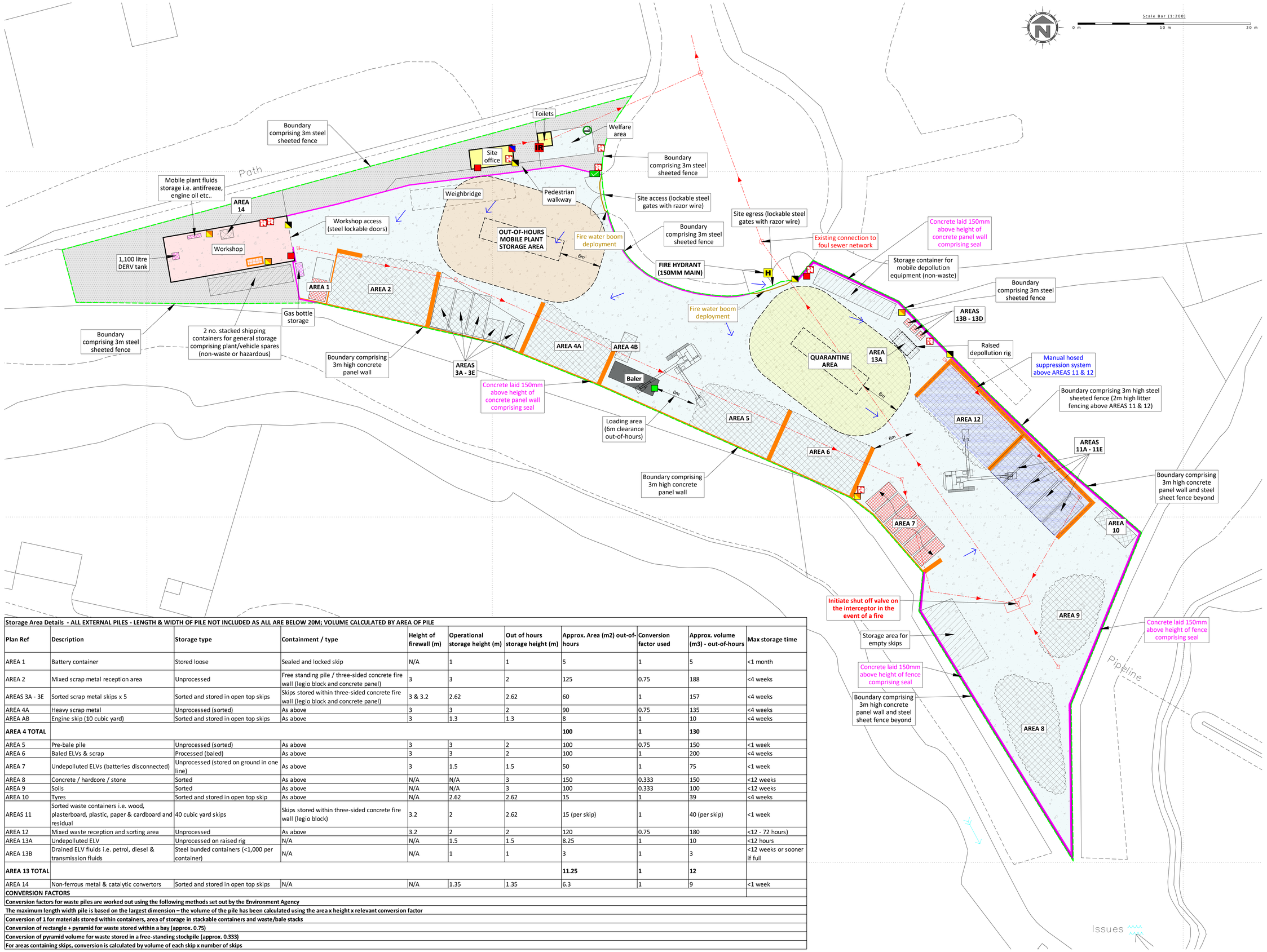
5.1.2 The primary receptors are considered to be the residential off Sandon Street to the northeast.

5.1.3 The rating level of the proposed operations at the nearest residential receptors are considerably below that of the background levels measured previously and therefore a negligible/low impact is derived as per the guidance within BS4142:2014.

5.1.4 In addition, a NVMP has been produced by Oaktree and submitted in support of the application will include additional mitigation and good practice measures in order to ensure noise levels are adequately controlled.

Appendix I

Drawings



Storage Area Details - ALL EXTERNAL PILES - LENGTH & WIDTH OF PILE NOT INCLUDED AS ALL ARE BELOW 20M; VOLUME CALCULATED BY AREA OF PILE

Plan Ref	Description	Storage type	Containment / type	Height of firewall (m)	Operational storage height (m)	Out of hours storage height (m)	Approx. Area (m2) out-of-hours	Conversion factor used	Approx. volume (m3) - out-of-hours	Max storage time
AREA 1	Battery container	Stored loose	Sealed and locked skip	N/A	1	1	5	1	5	<1 month
AREA 2	Mixed scrap metal reception area	Unprocessed	Free standing pile / three-sided concrete fire wall (legio block and concrete panel)	3	3	2	125	0.75	188	<4 weeks
AREAS 3A - 3E	Sorted scrap metal skips x 5	Sorted and stored in open top skips	Skips stored within three-sided concrete fire wall (legio block and concrete panel)	3 & 3.2	2.62	2.62	60	1	157	<4 weeks
AREA 4A	Heavy scrap metal	Unprocessed (sorted)	As above	3	3	2	90	0.75	135	<4 weeks
AREA AB	Engine skip (10 cubic yard)	Sorted and stored in open top skips	As above	3	1.3	1.3	8	1	10	<4 weeks
AREA 4 TOTAL							**100**	**1**	**130**	
AREA 5	Pre-bale pile	Unprocessed (sorted)	As above	3	3	2	100	0.75	150	<1 week
AREA 6	Baled ELVs & scrap	Processed (baled)	As above	3	3	2	100	1	200	<4 weeks
AREA 7	Undepolluted ELVs (batteries disconnected)	Unprocessed (stored on ground in one line)	As above	3	1.5	1.5	50	1	75	<1 week
AREA 8	Concrete / hardcore / stone	Sorted	As above	N/A	N/A	3	150	0.333	150	<12 weeks
AREA 9	Soils	Sorted	As above	N/A	N/A	3	100	0.333	100	<12 weeks
AREA 10	Tyres	Sorted and stored in open top skip	As above	N/A	2.62	2.62	15	1	39	<4 weeks
AREAS 11	Sorted waste containers i.e. wood, plasterboard, plastic, paper & cardboard and residual	40 cubic yard skips	Skips stored within three-sided concrete fire wall (legio block)	3.2	2	2.62	15 (per skip)	1	40 (per skip)	<1 week
AREA 12	Mixed waste reception and sorting area	Unprocessed	As above	3.2	2	2	120	0.75	180	<12 - 72 hours)
AREA 13A	Undepolluted ELV	Unprocessed on raised rig	N/A	N/A	1.5	1.5	8.25	1	10	<12 hours
AREA 13B	Drained ELV fluids i.e. petrol, diesel & transmission fluids	Steel bunded containers (<1,000 per container)	N/A	N/A	1	1	3	1	3	<12 weeks or sooner if full
AREA 13 TOTAL							**11.25**	**1**	**12**	
AREA 14	Non-ferrous metal & catalytic convertors	Sorted and stored in open top skips	N/A	N/A	1.35	1.35	6.3	1	9	<1 week
CONVERSION FACTORS										
Conversion factors for waste piles are worked out using the following methods set out by the Environment Agency										
The maximum length width pile is based on the largest dimension – the volume of the pile has been calculated using the area x height x relevant conversion factor										
Conversion of 1 for materials stored within containers, area of storage in stackable containers and waste/bale stacks										
Conversion of rectangle + pyramid for waste stored within a bay (approx. 0.75)										
Conversion of pyramid volume for waste stored in a free-standing stockpile (approx. 0.333)										
For areas containing skips, conversion is calculated by volume of each skip x number of skips										

NOTES

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Scale Bar (1:200)
0 m 10 m 20 m

REVISION HISTORY

Rev	Date	Init:	Description:
-	15.4.21	CP	Initial Drawing
A	26.4.21	CP	EA comments
B	07.6.21	CP	EA comments

Key:

- Permit boundary
- Waste storage areas
- Hazardous waste storage areas
- Non-waste storage areas
- Non-waste hazardous fluid storage
- Workshop including minor waste storage (impermeable concrete floor and sealed)
- Other buildings i.e. workshops/offices
- Impermeable concrete surfaces with sealed drainage
- 0.15m high concrete seal around concrete pad
- Steel sheeted fence
- Foul drainage
- Surface gully
- Manholes
- Surface water fall direction
- 600mm - 800mm legio block walls
- 150mm - 500mm concrete panel walls and sleeper walls with steel plate
- Quarantine areas (with 6m buffer zone)
- Hot works area (indicative location)
- Hose reels (indicative location)
- Fire fighting equipment / extinguishers (indicative locations)
- Plant shutoff (indicative location)
- Fire alarms (indicative location)
- Spill kits (indicative location)
- Designated smoking area
- Access route for emergency services
- Fire hydrant
- Fire assembly points
- Thermal & flame CCTV camera locations (indicative location)
- Intruder alert CCTV camera locations (indicative location)
- Fire water booms to seal water escape points in the event of a fire

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
SITE LAYOUT & FIRE PLAN

CLIENT
R Bestwick and Sons Ltd

PROJECT/SITE
The Scrap Yard, Barnfields Industrial Estate, Leek, Staffordshire ST13 5QG

SCALE @ A1	JOB NO	CLIENT NO
1:200	001	2920

DRAWING NUMBER	REV	STATUS
BAR/2920/03	B	Issued

DRAWN	CHECKED	DATE
CP	RB	07.06.21

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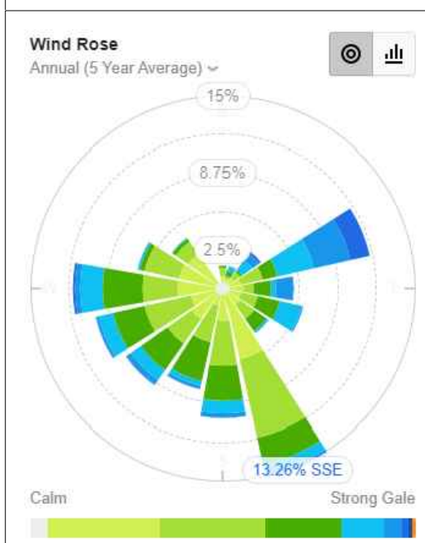
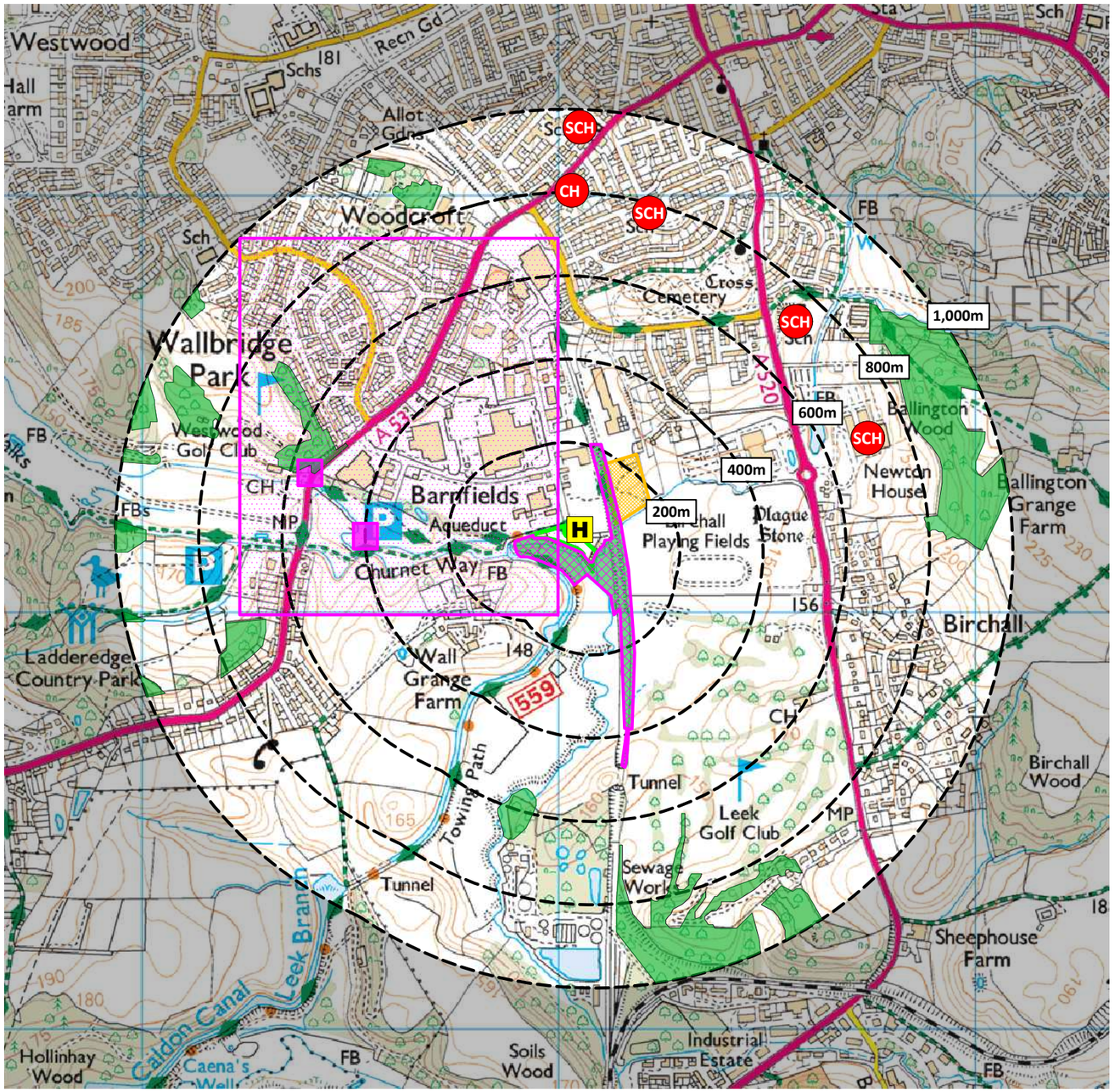
KEY:

- Permit boundary
- Surface water body (pond / pool / lake)
- Stream, river, beck
- Buildings includes Agricultural, industry, commerce and retail - could also include small houses)
- Residential blocks
- Class A roads
- Class B roads
- Class C roads
- Priority Habitat - Deciduous Woodland
- Birchall Meadow (LWS)
- Protected fish
- Protected fish migratory route
- Protected habitats
- SCH — Schools including primary, high, colleges and Universities
- CH — Care homes
- Places of worship
- H — Fire hydrants (indicative)

Compass Wind Rose for Leek, Staffs.
Annual (5 year average)
- source: Willy Weather





Scale Bar (1:12,500)

0 km — 500 m — 1 km

NOTES

1. Boundaries are shown indicatively.
2. Wind rose data shows the prevailing wind direction from the south blowing north.

REVISION HISTORY

Rev	Date	Init:	Description:
-	27.4.21	CP	Initial Drawing
A	25.11.21	CP	Added receptors

Oaktree Environmental Ltd
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DRAWING TITLE
RECEPTOR PLAN

CLIENT
R Bestwick and Sons Ltd

PROJECT/SITE
The Scrap Yard, Barnfields Industrial Estate, Leek, Staffordshire ST13 5QG

SCALE @ A3	JOB NO	CLIENT NO
1:12,500	001	2920

DRAWING NUMBER	REV	STATUS
BAR/2920/04	A	Issued

DRAWN	CHECKED	DATE
CP	--	25.11.21

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