PERMIT APPLICATION SUPPORTING DOCUMENT

Rockcliffe Industrial Estate, Carlisle

North West Recycling Limited

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Document History:

Version	Issue date	Author	Checked	Description
1.0	02/03/2023	DY/IA	DY/IA	Initial draft
1.1	08/10/2024	DY/IA	NWR	Second draft
1.2	29/10/2024	DY/IA	NWR	Application copy
1.3	21/03/2025	DY/IA	NWR	Amended to provide clarification on single SRF process line, tonnages and reference to DMP

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1 Introduction

1.1 Overview

1.1.1 This document contains supporting information which accompanies the Environmental Permit variation application being submitted for a facility located at Rockcliffe Industrial Estate, Carlisle. This application has been completed on behalf of North West Recycling Limited ("the operator") by Oaktree Environmental Ltd.

1.2 Proposed Activities

1.2.1 The operator holds an existing Environmental Permit (EP) for the operation of a waste recycling facility for the receipt and recycling of Household, Commercial and Industrial Wastes. Part of the existing process includes the separation of non-recyclable wates with significant calorific value, which are then shredded and processed into a Solid Recovered Fuel (SRF), which is sent to suitably licenced energy recovery facility.

1.2.2 The operator proposes to increase the permitted volume of material that is pre-treated for incineration above 75 tonnes/day. As such, this will be classed as an installation activity under the Environmental Permitting (England and Wales) Regulations 2016 (as amended) ("the regulations"). A variation to the existing EP is therefore required to include an installation activity within the permit.

1.2.3 The table below outlines the proposed installation activities. The proposed installation activities will proceed in two phases, as shown in the table below.

Table 1.1 – Proposed Installation Activities

Installation Name	Schedule 1 References	Description of the Activity	Installation Activity Capacity
North West Recycling Limited	Section 5.4 Part A (b)(ii)	Pre-treatment of non-hazardous waste for incineration and co-incineration	Phase 1: 174,175 tonnes/annum Phase 2: 374,175 tonnes/annum

1.2.4 The installation activity will be undertaken within Unit B. The second phase will require an extension to Unit B. Both phases of the development are illustrated on the layout plans within Appendix I.

1.2.5 The material to be processed in Unit B will either be delivered direct to Unit B from off-site sources or obtained from some of the waste materials recycled in Unit A. The non-installation activities within Unit A will remain as authorised within the existing permit. During pre-application discussions, The Environment Agency (EA) outlined their view that some of the operations within Unit A will be a Directly Associated Activity (DAA) to the proposed installation since some of the recycled materials could be destined for further processing in Unit B. The applicant and their agent do not agree that this meets the test for a DAA in accordance with Schedule 1 of the permitting regulations for the following reasons:

- The activities in Unit A will be a bespoke waste operation in their own right, not an installation and can be regulated as a waste activity in the installation permit, an approach that has been taken within other permits of a similar nature. To regulate a bespoke waste operation as a DAA would be a departure from the regulatory approach experienced with similar applications;
- As a bespoke waste activity, the operations in unit A will be controlled by 'appropriate measures', which is a blend of Best Available Techniques (BAT) and current operational best practice. These measures apply to the bespoke waste activity in any event;
- There is no technical connection between Unit A and Unit B because the non-recyclable material arising from unit A could be sent elsewhere. Equally, material received for processing in Unit B could be obtained from elsewhere; and,
- The use of material from Unit A in the SRF production facility within Unit B does not have an effect on pollution from the installation, which is controlled by BAT and associated emission limits to air which apply regardless of where the material is obtained from.

1.2.6 The above observations were provided to the EA at the pre-application stage, but the EA were not prepared to accept the arguments and subsequently closed the pre-application process, strongly advising that the applicant did not deviate from the advice to allow for a smoother permit determination process.

1.2.7 In the interests of reducing risk of the application being returned, the applicant has decided to proceed on the basis of the relevant activities within Unit A being classed as a DAA to Unit B, specifically the activities which process material that could be destined for further processing within Unit B.

1.3 Legislation and Guidance Documents

1.3.1 The following legislation and guidance documents have been consulted for the purpose of completing this supporting document:

- Environmental Permitting (England and Wales) Regulations 2016 (as amended);
- Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council;
- Environmental Permitting Regulations: Guidance for Applicants H5, Site Condition Report – Guidance and Templates, EA, April, 2013;
- Permitting Risk Assessment Guidance on government website (https://www.gov.uk/government/collections/risk-assessments-for-specific-activities-environmental-permits);
- Permit Air Emissions Risk Assessment Guidance (https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit;
- Climate Change Risk Assessment Guidance (https://www.gov.uk/guidance/adapting-to-climate-change-risk-assessment-for-your-environmental-permit);
- H4 Odour Management: How to Comply with your Environmental Permit, Environment Agency, March 2011; and,

- Guidance on developing management systems (https://www.gov.uk/guidance/develop-a-management-system-environmental-permits.

1.4 Permit Boundary

1.4.1 Reference should be made to Appendix I for a map showing the proposed permit boundary for the site. It should be noted that the permit boundary has been regularised as part of this application to reflect existing operations which are authorised under the permit and which have been implemented under the permit for a number of years. The permit boundary and layout plan in the existing permit is not appropriately scaled or detailed. A fully detailed scaled layout and permit boundary plan has been produced and submitted as part of this application, informed by detailed drone survey of the site.

1.5 Pre-Application discussions

1.5.1 Pre-application advice was previously sought from the EA. The pre-application report was received on 26th April 2024, reference no. EPR/DP3393LV/P001. A copy of this report is contained within Appendix II for reference.

1.6 Phased Development

1.6.1 The operator is seeking to upgrade the SRF production line within Unit B under a two-phased approach which has been discussed and agreed with the Environment Agency (EA) as part of an enhanced pre-application request.

i) **Phase 1:** The first phase will allow the operator to operate one SRF production line within Unit B which will accept 174,175 tonnes of waste/annum. The proposed waste throughput for non-installation waste activities within Unit A and external soils and aggregates processing will be 225,825 tonnes/year, resulting in an overall throughput of 400,000 tonnes/annum across all activities on-site during Phase 1.

ii) **Phase 2:** The second phase will be to extend Unit B and install two feed lines into the single SRF production line within Unit B. This will increase the throughout in Unit B to 374,175 tonnes/annum. The throughput of the waste operations within Unit A and external soils and aggregates processing will remain at 225,825 tonnes per year. The overall site throughput will be 600,000 tonnes/annum across all activities undertaken at the site during Phase 2.

2 Operating Techniques

2.1 Overview

2.1.1 The proposals are for the addition of an installation activity for the pre-treatment of waste for incineration and co-incineration.

2.2 Detailed Description of Process

2.2.1 General

2.2.1.1 Reference should be made to Appendix I for a site layout plan illustrating the proposed operations and configuration of the layout. The development will proceed in two phases, as described previously. The activities proposed are the same as those already undertaken on-site, but will include an increase in recycling capacity, increasing the throughput above the installation threshold.

2.2.2 Waste Treatment

2.2.2.1 Vehicles arriving at the site will report to offices for waste acceptance checks. Waste will be checked to ensure it is eligible for acceptance into the site, any unauthorized wastes will result in wastes being rejected. Accepted waste will be directed to the relevant reception area.

2.2.2.2 The waste subject to the pre-treatment activity, i.e. mixed waste, will be taken into Unit B and loaded into one of the two feed hoppers, material will then be conveyed into the purpose built SRF/Refuse Derived Fuel (RDF) processing plant as detailed on Drawing Nos. 634-003-03 and 634-004-03A. The processed SRF/RDF outputs from the treatment plant will be transferred into one of the designated storage bays for temporary storage prior to removal off site. Recycled material may also be transferred from Unit A to the processing operations within Unit B. The remainder of the operations on-site will remain the same as authorised under the existing permit.

2.2.2.3 Reference should be made to Appendix XI for process flow diagrams for the proposed installation activity and DAA within Unit A.

2.2.2.4 Air abatement and extraction systems will be installed within Units A and B, which will extract air, via activated carbon filter and baghouse filtration system for emissions control, with air exhausted via external elevated flues for dilution and dispersion of residual emissions. This also ensures the site complies with relevant BAT measures for containment, collection and abatement of diffuse emissions from the process. The locations of the exhaust flues are shown on drawing nos. 634-003-03 and 634-004-03A.

2.3 Waste Codes

2.3.1 A full list of existing waste codes with descriptions for incoming waste streams is included in the existing EP. The operator proposes to include two additional waste codes as part of this variation application. This is as follows and will be processed within Unit B:

- 19 02 10 – combustible wastes other than those mentioned in 19 02 08 and 19 02 09

2.3.2 Reference should be made to document ref: 634-004-S within Appendix XIV for details of how waste codes will be split between waste and installation activities on-site.

2.4 Environmental Management System

2.4.1 An Environmental Management System (EMS) for the proposed site has been prepared in accordance with best practice guidance at the time of drafting. Reference should be made to Appendix III for a copy of the EMS.

2.4.2 The EMS identifies the measures that will be taken to prevent or, where this is not practicable, to reduce emissions from the site.

2.4.3 The EMS has been produced prior to the site expansion and will therefore be reviewed on commencement of expanded operations to ensure it reflects best practice and

actual operations undertaken on site. The EMS will also be subject to continuous review and revision throughout the operation of the site. The EA will be supplied with details of revisions on a regular basis. Major revisions will be subject to prior approval by the EA.

2.5 Accident Management Plan

2.5.1 Reference should be made to Appendix VII for Accident Management Plan (AMP).

2.6 Permit Operating Techniques

2.6.1 Table S1.2 of the existing permit (Operating Techniques) refers to the Odour Management Plan and Fire Prevention Plan submitted in support of the previous application to vary the EP. This information will be superseded by the information contained within this current permit application document, including the Odour Management Plan within Appendix V and Fire Prevention Plan within Appendix IV.

2.7 Site Drainage

2.7.1 Site drainage arrangements are shown on Drawing Nos. 634-003-03 and 634-004-03A. Clean surface water drainage from roof and yard areas will drain to the beck running along the Southern part of the site, consistent with the existing, authorised arrangements. There will be no change to arrangements for management of foul water arising from welfare facilities and offices on site. This will be discharged in accordance with an existing EP in place for the discharge.

3 Raw Materials

3.1 The table overleaf outlines the raw materials that will be used along with expected quantities and details of any relevant hazards. Justification for raw materials and resources used has also been provided in the table. The site operator will use appropriate measures to ensure that raw materials and resources are used efficiently, and records will be maintained of raw material and resource use.

3.2 Manufacturer's guidelines will be followed when using specific fuels and consideration will be given to environmental impacts when purchasing new plant and equipment for the site. Any compounds utilised as described above will be used as recommended by specialist suppliers. Any quantities of materials used will be the minimum necessary to undertake the required process. A review of raw and auxiliary materials used on site will be carried out at least on an annual basis to assess whether any alternative materials can be used which would result in improved environmental performance. The reviews will ensure raw materials and resources used are appropriate, are used efficiently and any options for reduction in use identified, if applicable.

3.3 It should be noted that the diesel usage figure in the table below is based on the current use of diesel powered generators on the site. As discussed later in this document, the diesel generators will be removed from site upon commissioning of the Small Waste Incineration Plant (SWIP) on the adjacent site, expected to be completed by March 2025. The SWIP will provide the electrical power that is currently provided by the generators, therefore significantly reducing diesel use at the installation.

Table 3.1 – Raw Material and Resource Use

Raw Material	Nature	Approximate Annual Throughput	Storage Details	Potential Hazards/Environmental Impact	Alternative Raw Materials/Resources	Justification for Raw Material Used
Water	Liquid	416,000 litres/annum	Storage tank	N/A – non-hazardous	None	Water required for dust suppression, as necessary.
Diesel (site wide)	Liquid	789,647 litres/annum	Stored in sealed tanks	Irritant to skin and eyes. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended oil mist exposure limit.	Electricity from grid Natural gas powered generator Petroleum powered generators	Required as part of the operation of mobile and stationary plant. Use of generators rather than electricity from the grid is preferred since this always ensures a constant supply of fuel to power essential plant and machinery for successful operation of process. Similarly, use of diesel powered generators preferable to natural gas powered generators as this always ensures constant supply of fuel. Use of diesel powered generators preferable to petroleum powered generators since they are more powerful and fuel efficient, providing consistent power over extended periods Diesel powered generators expected to be removed from site by March 2025
Ad-blue	Liquid	11,500 litres/annum	Stored in sealed tanks	Irritant to skin and eyes. Ingesting it is harmful and can lead to serious health complications.	None	Required as part of the operation of mobile and stationary plant to reduce harmful nitrogen oxide (NOx) emissions

Raw Material	Nature	Approximate Annual Throughput	Storage Details	Potential Hazards/Environmental Impact	Alternative Raw Materials/Resources	Justification for Raw Material Used
Maintenance oils i.e. hydraulic oil, transmission oil, gear oil etc..	Liquid	Variable, based on maintenance schedule recommended by manufacturer. Hydraulic oil – 6,000 litres/annum Transmission oil – 1,440 litres/annum Gear oil – 1,440 litres/annum	Stored in sealed containers, in accordance with Health and Safety requirements for substance	Constant skin exposure may cause dryness or chapping. May cause physical irritation to eyes if not removed	None	As recommended by engine manufacturer to ensure reliable, efficient operation of engines which power shredder and trommel unit and other mobile plant and machinery.
Grease (drum)	Solid / Liquid	300 kg/annum	Stored in sealed containers, in accordance with Health and Safety requirements for substance	Repeated exposure may cause skin dryness or cracking. May cause temporary eye irritation.	None	As recommended by engine manufacturer to ensure reliable, efficient operation of engines which power plant.
Grease (cartridges)	Solid / Liquid	216 litres/annum	Stored in sealed containers, in accordance with Health and Safety requirements for substance	Repeated exposure may cause skin dryness or cracking. May cause temporary eye irritation.	None	As recommended by engine manufacturer to ensure reliable, efficient operation of engines which power plant.
Activated Carbon	Solid	8,200 kg/annum	Stored on-site in accordance with relevant Health and Safety requirements	Flammable solid. Irritant to eyes. May cause respiratory irritation	None	Required for abatement of VOCs in diffuse emissions arising from SRF/RDF processing undertaken in Units A & B

Raw Material	Nature	Approximate Annual Throughput	Storage Details	Potential Hazards/Environmental Impact	Alternative Raw Materials/Resources	Justification for Raw Material Used
Fabric filters	Solid	2,000 kg/annum	Spares stored on site	None	None	Required for abatement of dust in diffuse emissions arising from SRF/RDF processing undertaken in Units A & B

4 Wastes

4.1 The site operator is committed to following the waste hierarchy and preventing/minimising waste as far as is practicably possible at the site. The table below outlines expected wastes and residues from the process.

Table 4.1 – Wastes

Waste Stream	Annex IIA or IIB (Disposal and Recovery Codes) Description	EWC Code	Expected Annual Quantity	Details of How Waste Disposal is Minimised
Spent activated carbon	R7, R13	15 02 02* 15 02 03	8.2 tonnes/annum	Disposed/recovered at a suitably authorised facility
Dust filters from baghouse filter systems	R1, D1, R13, D15	15 02 02* 15 02 03	2 tonnes/annum	Disposed/recovered at a suitably authorised facility
Spent maintenance oils	R1, R13, D10	N/A	Up to 140 litres per year	Disposed/recovered at a suitably authorised facility

5 Emissions to Air, Land & Water

5.1 Point Source Emissions to Air

5.1.1 In order to comply with BAT requirements, the operator proposes to install extraction systems on Units A and B, to collect and treat diffuse emissions from mechanical treatment of wastes which are pre-treated for incineration. This will include the installation of activated carbon and baghouse filters on each unit to control emissions of dust and VOCs. Exhaust air will be released via external elevated flues on each unit, which will dilute and disperse residual emissions. The height of each flue will be 2m above the maximum height of each unit. Reference should be made to Appendix I for site layout plan illustrating proposed exhaust flue locations (emission points A1 and A2).

5.1.2 Potential impacts from exhaust emissions arising from emission points A1 and A2 has been fully assessed within the emissions modelling report contained within Appendix IX. This has demonstrated that potential impacts will be acceptable at surrounding receptor locations.

5.1.3 The site currently has a number of diesel powered generators installed to provide power for site operations. These have been installed for a number of years as part of the permitted operation. These are to be removed as part of a proposal to install a SWIP on adjacent land, the latter to be regulated by the Local Authority under a Schedule 13 EP. The operator anticipates that the generators will be removed by March 2025. The operator has confirmed that planning and permit applications have been submitted for the SWIP and are currently under determination. The modelling assessment within Appendix IX has taken account of potential in-combination impacts from air emissions in the modelling assessment, including the SWIP as an emission source.

5.1.4 The site also has a small biomass boiler installed which provides heating for buildings and offices. This is an exempt appliance, registered under a U4 exemption and therefore has not been considered further within the assessment.

5.1.5 The model report in Appendix IX contains full details of expected process parameters and emissions associated with the proposed extraction systems. Proposed monitoring arrangements are outlined within Section 6.

5.2 Point Source Emissions to Water

5.2.1 There will be no additional point source emissions to water from the site. Foul water arising from welfare facilities and offices on site will be discharged to a septic tank, in accordance with an existing EP in place for the discharge (permit ref: NW/017690602/001). Solids are collected and residual liquid discharged to the beck to the South of the site, in accordance with existing EP.

5.3 Point Source Emissions to Land

5.3.1 There will be no point source emissions to land.

5.4 Point Source Emissions to Sewer

5.4.1 There will be no point source emissions to sewer.

5.5 Fugitive Emissions

5.5.1 Fugitive emissions such as dust will be highly controlled through effective management and site design. General waste and waste to be pre-treated for incineration will be delivered to buildings with fast acting roller shutter doors. Processing of such waste will be undertaken within the buildings. The abatement and extraction systems to be installed will ensure that dust emissions will be minimal. Aggregates and soils will be delivered to the external processing area and appropriate emissions controls are in place, as detailed in the site EMS and therefore presents no additional risk of fugitive emission compared to the permitted operation.

5.5.2 Given the above, it is was considered that a Dust Management Plant would be required as no significant additional risks from dust will be generated by the proposals.

However, the EA have disagreed with this position and therefore, a DMP has been provided within Appendix XIII of this document.

5.6 Odour Emissions

5.6.1 The operator already implements an approved Odour Management Plan (OMP) during day to day operations at the site. This has been updated to ensure it meets latest EA requirements as part of this application. The OMP outlines the controls that will be in place to control potential for odour emissions and potential impacts. Reference should be made to Appendix V for a copy of the proposed OMP.

5.7 Noise Emissions

5.7.1 Consideration has been given to potential sources of noise from the onsite operations. Therefore, adequate noise abatement measures have been integrated at the site. A quantitative noise assessment has been undertaken and Noise Management Plan (NMP) prepared as part of this application. Reference should be made to Appendix VI for a copy of the Environmental Noise Assessment and NMP.

6 Point Source Emissions Monitoring

6.1 Point Source Air Emissions Monitoring

6.1.1 The following table outlines the proposed method for monitoring of emissions to air, in accordance with EU Directive 2018 (1147). Reference should be made to the site layout drawings within Appendix I for details of emission point locations.

6.1.2 The pollutants to be monitored are in accordance with the Waste Treatment BAT Conclusions Document, specifically BAT 25 and BAT 31 which relate to the mechanical treatment of wastes with calorific value.

Table 6.1 – Emission Limits and Monitoring Requirements – Emission Points A1 and A2

Pollutant	Emission Limits ($mg.Nm^{-3}$) Expressed at Reference Conditions of 273.15K, 101.3kPa, dry gas	Monitoring Frequency	Monitoring Method
Dust	5	Every six months	Manual extractive test - EN 13284-1
Total Volatile Organic Compounds (TVOC)	30	Every six months	Manual extractive test - EN 12619 or EN ISO 13199

6.1.3 Stack sampling arrangements will be subject to detailed design to ensure compliance with the permit and relevant guidance. Stack sampling arrangements will be deigned to accord with the following, as far as is practicably possible:

- Sampling locations will be designed to meet BS EN 15259 Clause 6.2 and 6.3;
- Sample ports will be large enough for monitoring equipment and positioned in accordance with the relevant requirements of BS EN 15259;
- Access will be provided adjacent to sampling ports, such that sufficient working area, support and clearance is provided for sampling team to work safely with equipment;
- Sample locations will be at least 5 Hydraulic Diameters (HD) from the stack exit;
- Sample locations will be at least 2 HD upstream from any bend or obstruction; and,

- Sample locations will be at least 5 HD downstream from any bend or obstruction; and,
- The sample plane will have constant cross-sectional area.

7 Energy Efficiency

7.1 All mobile and stationary plant and equipment utilized at the site will be subject to regular maintenance to optimise operating efficiency. A record of fuel consumption will be maintained and will be used to identify any abnormal fuel consumption that requires investigation.

7.2 All staff will receive appropriate training for operations at the site which will include maintenance procedures and basic housekeeping (e.g. switching lights and equipment off when not in use).

7.3 The operator will review and record opportunities to improve energy efficiency at least on an annual basis and take any appropriate action as deemed necessary by the review.

7.4 The table below summarises expected energy use at the installation. It should be noted that the use of diesel and associated energy use will be significantly reduced following the removal of the generators and installation of SWIP on adjacent site. This will improve the sustainability of the operation, since electricity will be provided from a plant utilising energy from waste.

Table 7.1 – Energy Use

Energy Type	Anticipated Quantity
Electricity	493,740KWh per annum (1,777.46 GJ)[(a)]
Diesel	8,607,152KWh per annum (30,985.75GJ) per annum[(b)]
TOTAL	**32,763.21 GJ per annum**

N.B (a) Based on annual projected electricity use from current consumption at site
(b) Based on expected annual usage (litres) and government conversion factors

8 Fire Prevention

8.1 As the site stores combustible wastes, a Fire Prevention Plan (FPP) is required to be in place. An FPP is in place for the existing operation. This has recently been submitted to the EA for approval. Reference should be made to Appendix IV for the FPP. This has demonstrated that sufficient management and control measures will be in place to ensure the risk of fire is minimal/negligible.

9 Environmental Risk Assessment

9.1 Reference should be made to Appendix VIII for an Environmental Risk Assessment (ERA) completed as part of the application. This has demonstrated that sufficient risk management measures will be in place to ensure environmental risks are minimal/negligible.

10 Best Available Techniques

10.1 An assessment of BAT has been undertaken against the relevant BAT measures within Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 which outlines BAT conclusions for wate treatment.[1]

10.2 Reference should be made to Appendix X for the BAT assessment.

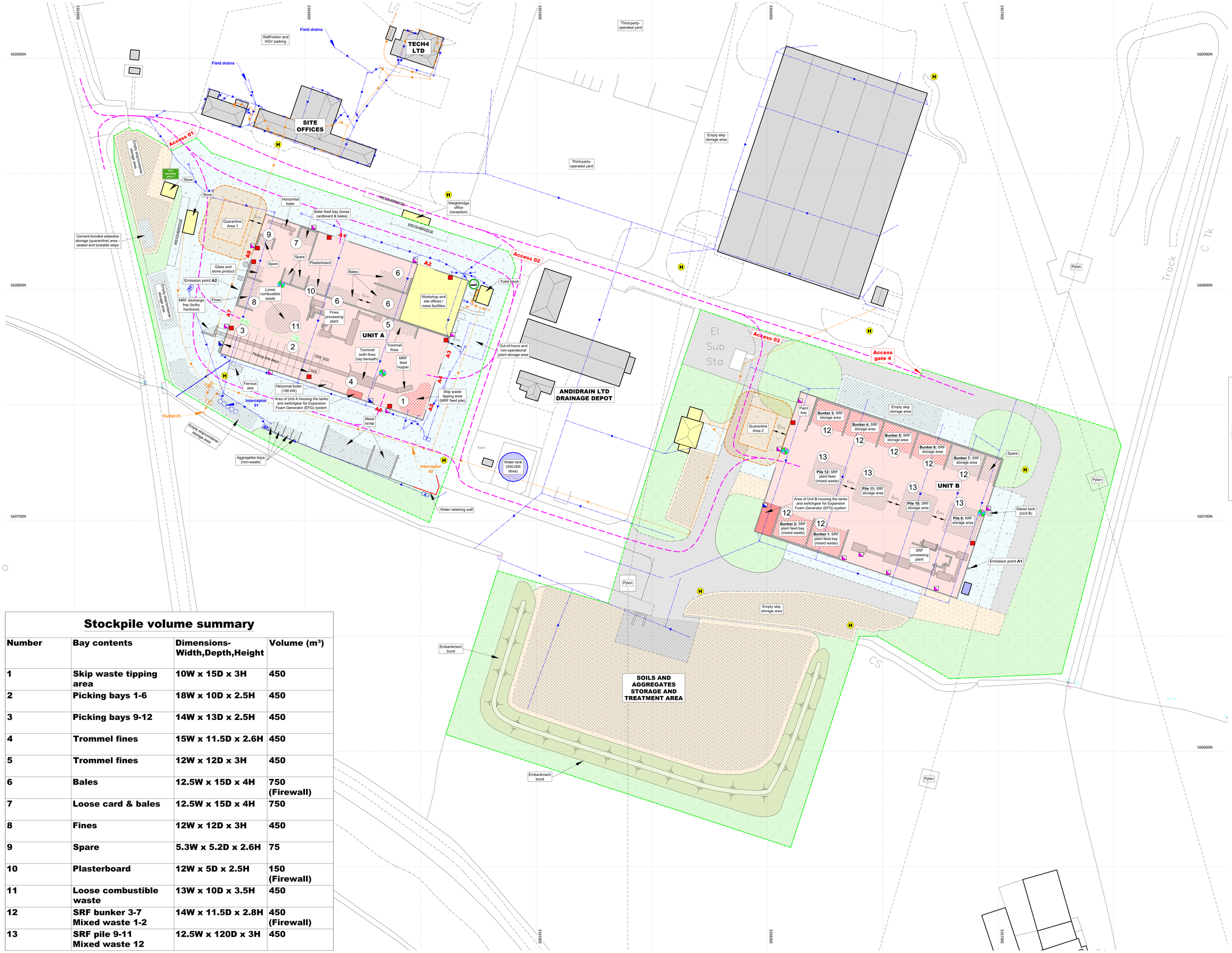
[1] Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 Establishing Best Available Techniques (BAT) Conclusions for Waste Treatment, Under Directive 2010/75/EU of the European Parliament and of the Council.

11 Site Condition Report

11.1 Reference should be made to Appendix XII for a Site Condition Report (SCR) for the permit boundary area.

Permit Application Supporting Document Appendix I

Permit Boundary and Site Layout Plan



Stockpile volume summary

Number	Bay contents	Dimensions- Width,Depth,Height	Volume (m³)
1	Skip waste tipping area	10W x 15D x 3H	450
2	Picking bays 1-6	18W x 10D x 2.5H	450
3	Picking bays 9-12	14W x 13D x 2.5H	450
4	Trommel fines	15W x 11.5D x 2.6H	450
5	Trommel fines	12W x 12D x 3H	450
6	Bales	12.5W x 15D x 4H	750 (Firewall)
7	Loose card & bales	12.5W x 15D x 4H	750
8	Fines	12W x 12D x 3H	450
9	Spare	5.3W x 5.2D x 2.6H	75
10	Plasterboard	12W x 5D x 2.5H	150 (Firewall)
11	Loose combustible waste	13W x 10D x 3.5H	450
12	SRF bunker 3-7 Mixed waste 1-2	14W x 11.5D x 2.8H	450 (Firewall)
13	SRF pile 9-11 Mixed waste 12	12.5W x 120D x 3H	450

NOTES

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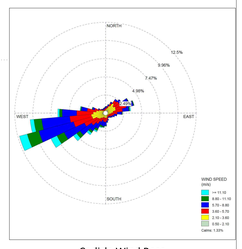
REVISION HISTORY

Rev:	Date:	Init:	Description:
-	18.02.22	RS	Initial drawing
A	18.02.22	RS	Client comments
B	14.02.22	RS/CP	EA comments
C	04.01.24	JH	Amendment
D	09.02.24	JH	Flue added
E	18.04.24	JH	Amendment
F	20.09.24	JH	Layout amendment
G	23.09.24	JH	Drainage added
H	26.09.24	JH	Table amendment

KEY:

- Permit boundary
- Storage areas (general)
- Storage areas benefiting from Expansion Foam Generator (EFG) coverage
- Sealed buildings
- Concreted area
- Stone surface (free-draining)
- Other on-site buildings (offices, workshop, etc.)
- Tarmac surfacing
- Unsurfaced areas (grass / vegetation)
- Quarantine areas (with 6m buffer zones)
- Fire fighting equipment (extinguishers, etc.)
- Mains water
- Access routes for emergency vehicles
- Fire alarm call points
- Designated smoking area
- Penstock / shut-off valve for use in event of a fire or spillage for surface water drainage containment
- On-site fire hydrants (on 100mm and 200mm mains)
- Radiometric Thermal Camera & Monitor (RTCM)
- Indicative surface & roof drainage
- Indicative combined drainage
- Drainage fall direction
- T / T Tanks
- S / S Sump
- ST / ST Silt trap
- Manhole
- Gully



Carlisle Wind Rose

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
LAYOUT & FIRE PLAN (PHASE 1)

CLIENT
North West Recycling Ltd

PROJECT/SITE
Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

SCALE @ A0	CLIENT NO	JOB NO
1:500	634	003

DRAWING NUMBER	SHEET NUMBER	REV	STATUS
634-003-03	1 of 1	H	Issued

DRAWN BY	CHECKED	DATE
RS/CP/JH	RS	26.09.24

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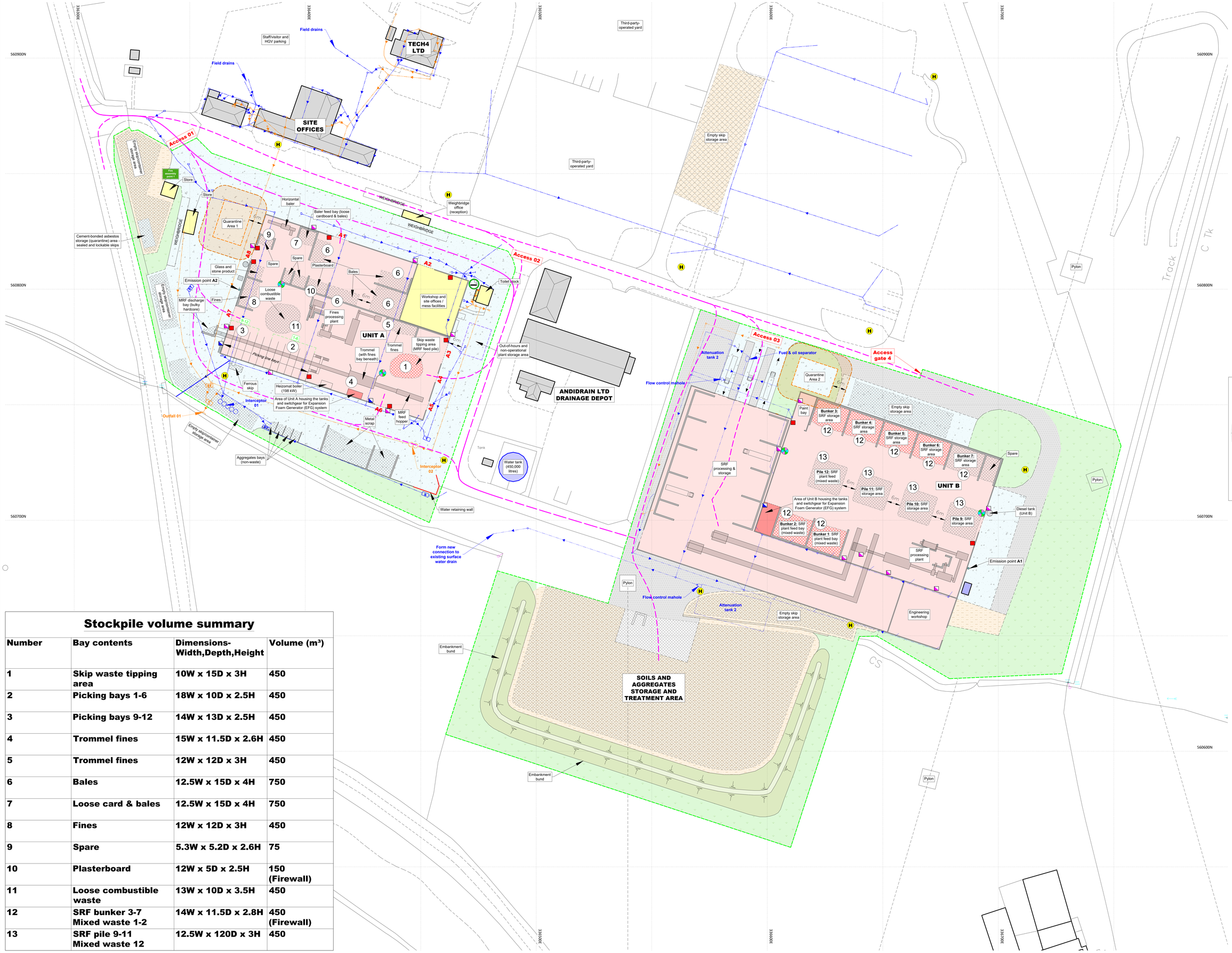

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9	Spare	5.3W x 5.2D x 2.6H	75
10	Plasterboard	12W x 5D x 2.5H	150 (Firewall)
11	Loose combustible waste	13W x 10D x 3.5H	450
12	SRF bunker 3-7 Mixed waste 1-2	14W x 11.5D x 2.8H	450 (Firewall)
13	SRF pile 9-11 Mixed waste 12	12.5W x 120D x 3H	450

NOTES

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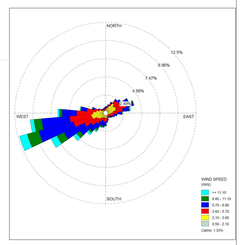
REVISION HISTORY

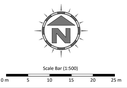
Rev:	Date:	Init:	Description:
-	31.07.24	RS/JH	Initial drawing
A	01.08.24	JH	Amendment
B	20.08.24	JH	Emission point added
C	28.08.24	JH	Table added
D	30.08.24	JH	Amendment
E	23.09.24	JH	Drainage added
F	26.09.24	JH	Table amendment
G	19.12.24	JH	Client comments

KEY:

- Permit boundary
- Storage areas (general)
- Storage areas benefiting from Expansion Foam Generator (EFG) coverage
- Sealed buildings
- Concreted area
- Stone surface (free-draining)
- Other on-site buildings (offices, workshop, etc.)
- Tarmac surfacing
- Unsurfaced areas (grass / vegetation)
- Quarantine areas (with 6m buffer zones)
- Fire fighting equipment (extinguishers, etc.)
- Mains water
- Access routes for emergency vehicles
- Fire alarm call points
- Designated smoking area
- Penstock / shut-off valve for use in event of a fire or spillage for surface water drainage containment
- On-site fire hydrants (on 100mm and 200mm mains)
- Radiometric Thermal Camera & Monitor (RTCM)
- Indicative surface & roof drainage
- Indicative combined drainage
- Drainage fall direction
- T / T Tanks
- S / S Sump
- ST / ST Silt trap
- Manhole
- Gully



Carlisle Wind Rose



Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
LAYOUT & FIRE PLAN (PHASE 2)

CLIENT
North West Recycling Ltd

PROJECT/SITE
Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

SCALE @ A0	CLIENT NO	JOB NO
1:500	634	004

DRAWING NUMBER	SHEET NUMBER	REV	STATUS
634-004-03A	1 of 1	G	Issued

DRAWN BY	CHECKED	DATE
RS/CP/JH	RS	19.12.24

Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
t: 01606 558833 | e: sales@oaktree-environmental.co.uk

Permit Application Supporting Document Appendix II

Pre-Application Report

Oaktree Environmental Ltd
Isaac Allen
isaac@oaktreeenvironmental.co.uk

Reference: EPR/DP3393LV/P001
Date: 26/04/2024

Dear Isaac Allen

Pre application advice – Enhanced service

Site: NORTH WEST RECYCLING LIMITED

Unit A, Rockcliffe Estate, Rockcliffe, Carlisle, CA6 4RW

Thank you for your pre application enquiry on 11/03/2024

I am pleased to provide you with your enhanced level of pre-application advice. This advice is based on the information provided on your pre application advice form and conversations/emails recorded on the following dates:

- Email on 11/03/2024

Applicant questions:

1. Two phase development.

As long as the documents submitted at the application stage include a description and assessment of both phases combined, we can accept this approach. Please note that your assessment should be based, as you said, on the total worst case scenario. Should the site wish to be operational before the second phase is completed, it will have to be compliant with all applicable BAT and it must demonstrate that all management techniques and mitigation measures are in place.

2. Confirmation of required information, assessments and management plans, application forms, charging and fees.

Described below.

3. The extent of EC BAT Conclusions Document for waste treatment application.

The applicable BREFs have been listed below and these are applicable to the proposed installation activities. However, if the installation activities are linked with the already existing waste activities, for example an existing R activity is DAA to an installation scheduled activity, then BAT will apply to those waste activities as well.

Varying the permit

To apply for a variation, you must provide the following forms and supporting information.

Forms:

Complete part A: about you, part C2: varying a bespoke permit, part C3 to change an installation permit and part F1: charges and declarations.

If the proposed changes will affect any of the following aspects of the existing waste permit, complete also part C4 to change a bespoke waste operation permit:

- Current waste operations
- Point source emissions to air, water and land
- Operating techniques
- Monitoring

Declaration

Please ensure the Declaration section is completed by each “relevant person”.

- In the case of a company a relevant person must be an active director/company secretary as listed on Companies House.

Further information on who should complete the declaration can be found in section 5 of the guidance notes for the F1 application form.

Application charge

Adding a Section 5.4 (b)(ii) - non-hazardous waste installation – pre-treatment of waste for incineration or co-incineration; (charging ref. 1.16.2.3) - £13,288.

Additional potential charges:

1.19.2 Habitats assessment (except where the application activity is a flood risk activity) - £779

1.19.3 Fire prevention plan (except where the application activity is a farming installation) - £1,241

1.19.6 Odour management plan (except where the application activity is a farming installation) - £1,246

1.19.7 Noise and vibration management plan (except where the application activity is a farming installation) - £1,246

1.19.9 Dust and bio-aerosol management plan - £620

Supporting documents

Non-Technical Summary

The application should include a simple explanation of your proposed activities. This should include a summary of your operations and a summary of the key technical standards and control measures arising from your risk assessment.

As a guide, this summary document should be no more than one to two pages in length.

Site plan

The plan must clearly show the full site boundary in a single unbroken line, preferably in green.

Your plan should clearly mark the site layout, emission points, infrastructure, drainage arrangements and a north arrow.

Environmental Management System

Please send a summary of your updated environmental management system (EMS) that includes the new proposed activities. You should follow the guidance on developing a management system.

Habitats risk assessment

The site is within screening distance to habitat sites. Please include a risk assessment of the sites from your activity - screening reports attached.

If your proposed operation involves any nitrogen or phosphorus nutrient inputs to surface water (or groundwater in hydrological continuity with surface water) then you will need to consider how you will achieve nutrient neutrality for your operation. In line with the Habitats Regulations any proposed net increase in nutrient load discharged into these catchments, which are currently failing to meet their water quality objectives for nutrients, will cause an adverse effect to the protected site and must therefore be considered for refusal. For more information on Nutrient neutrality see Natural England's guidance at the following link: Nutrient Neutrality and Mitigation: A summary guide and frequently asked questions - NE776.

Environmental Risk Assessment

You must consider the environmental risk posed by your proposals. This must take the form of an environmental risk assessment which should follow the methodology set out in risk assessments for your environmental permit.

You should read our guide to risk assessments for specific activities and consider using our assessment tool to evaluate your environmental risk. Our assessment tool will inform you when more detailed modelling is required.

Depending on the outcome of your initial environmental assessment, you may be required to undertake detailed modelling of your environmental risk.

- If you need to assess the risk of emissions to air, use the air emissions risk assessment for your environmental permit guidance.

  You must carry out detailed modelling assessment on any emissions that you didn't screen out through your air emissions risk assessment. Your modelling report needs to follow the air dispersion modelling reports guidance.

- If you need to assess the risk of hazardous pollutants to surface water, you need to follow the surface water pollution risk assessment guidance.
- If you need to assess the risk from sanitary determinands you should follow the assessment of sanitary and other pollutants in surface water discharges methodology.
- If you need to undertake detailed modelling of the risk to surface water you should follow the surface water pollution risk assessment methodology.
- If you need to undertake an assessment of the risk to groundwater you should follow the groundwater risk assessment guidance.

Waste types and EWC code list

Provide a description of the European Waste Catalogue (EWC) codes that will be received, stored and/or treated at the site.

Waste pre-acceptance, acceptance and rejection procedures

Provide new or updated waste pre-acceptance, acceptance and rejection procedures that meet the requirements outlined in Section 3 of the Non-hazardous and inert waste: appropriate measures for permitted facilities.

Waste storage and handling procedures

As part of the Operating Techniques, you must provide a technical description of the waste storage and handling procedures for the different waste types received at the site. The

storage and handling procedures must be in line with the requirements outlined in Section 4 of the Non-hazardous and inert waste: appropriate measures for permitted facilities.

Technical Description and BAT assessment

You will need to provide a technical description of the activity and the changes you propose to make.

You must demonstrate how you will meet any relevant Best Available Techniques (BAT) and emission limits set out in the BREF for Waste Treatment, BAT Conclusions for Waste Treatment and the Environment Agency Sector guidance notes S5.06 – recovery and disposal of hazardous and non-hazardous-waste. You must also provide an assessment to demonstrate how the site's infrastructure or equipment is designed to meet the requirements of the Waste Treatment BAT conclusions.

The technical assessment should also include details of your operating techniques and the infrastructure you are using to minimise the risk of pollution, including any details of secondary containment used (such as bunds) and how this meets any relevant standards. Please see the pollution prevention guidance for additional advice.

Detail any existing operating techniques (as listed in table S1.2 of your permit) that are subject to change by the application being made and demonstrate how they will meet any relevant BAT. Note any new equipment or activities are likely to need to meet any new and relevant BAT standards.

Amenity management plans

You must read our guidance on how to control and monitor emissions for your environmental permit.

This includes guidance on controlling pollution from odour, dust, noise, pests and other 'fugitive emissions' (emissions without set emission limits).

The required management plans are based on the finding of your risk assessment. We would expect the following management plans to accompany an application for a S5.4 Part A(1) (b)(ii) activity:

- Dust management plan,
- Odour management plan,
- Noise and vibration management plan,
- Fire prevention plan,
- Accident prevention and management plan.

If you consider that any of these plans do not apply to your site, please provide a justification for your decision to not include them in the application documents.

For odour and dust, we can supply a management plan template. The templates have been designed to cover the aspects of your operations that we will assess. You do not have to use this template, but if you do and provide all the information requested, it makes it more likely your plans will be accepted. You should contact the following teams to request a copy the template:

- Odour: odourteam@environment-agency.gov.uk
- Dust: air.quality@environment-agency.gov.uk

We have included additional notes below on specific considerations for noise impact assessments below.

Risks from Noise and Vibration, Industrial and Commercial Sound and Noise Management Plans

If your risk assessment shows your operation is likely to cause pollution from noise or vibration beyond your site boundary you must provide a noise impact assessment (NIA) based on BS4142:2014+A1:2019 – 'Methods for rating and assessing industrial and commercial sound'.

Where your assessment has used calculations or modelling to predict sound pressure levels at receptors, you must follow our guidance on the presentation of your acoustic data: Noise impact assessments involving calculations or modelling.

We have attached some supplementary advice on producing a NIA.

Your NIA must be accompanied by a Noise Management Plan based on the results of your NIA. We have attached a template to help you produce a noise management plan.

Fire Prevention Plan (FPP)

If you store combustible wastes at your site you need to provide an FPP. You must follow our guidance on Fire Prevention Plans. This tells you what to include in your FPP and the fire prevention measures you must put in place. We have also produced a template to help you prepare your plan that you can find at the top of the link above.

If the site already has an FPP and the variation will lead to an increased fire risk, then a new or updated plan will be required.

Accident prevention and management plan

Your EMS should include a plan for dealing with any incidents or events that could result in pollution. This should follow our guidance on producing an accident prevention and management plan. If applying for a variation, you may need to update this plan to incorporate the proposed changes.

Technical Competence

Considering your activities include waste management, you must meet legal operator and competence requirements. You will need to send in evidence of appropriate technical competence for the proposed activities (or in the case of variations, the proposed changes). You will need to include valid certificates or other acceptable evidence.

Site condition report

As the variation add a scheduled activity, consider updating the Site condition report in line with our guidance H5 Site condition report – guidance and templates.

Application Timescales

The time it takes us to allocate an application depends on a number of factors, including the complexity of the specific application and the availability of a member of our team with the right skills to assess it. Once an application is duly made, the amount of time taken to determine your application will vary. It will be impacted by factors such as:

- The quality of the application
- The complexity of the application
- Whether an application is of high public interest
- Whether the application includes novel technologies or techniques
- Whether the determination requires input from others, both internal and external to the Environment Agency

- Whether modelling and/or monitoring and assessment is required, for example Air Quality modelling and assessment

The Permitting Officer determining your application will be able to keep you updated with the progress of your application.

What happens next?

If you submit an environmental permit application then please quote this pre-application reference number: EPR/DP3393LV/P001

If the advice above details using the online digital application form, your application can be submitted using this method. If not, please send your completed application documents via email to:

psc@environment-agency.gov.uk

Please email applications where possible. If email is not possible you can submit by post to:

Environment Agency, Permitting Support Centre, Quadrant 2, 99 Parkway Avenue, Sheffield, S9 4WF

Application Timescales

The time it takes us to allocate an application depends on a number of factors, including the complexity of the specific application and the availability of a member of our team with the right skills to assess it.

Once an application is duly made, the amount of time taken to determine your application will vary. It will be impacted by factors such as:

- The quality of the application
- The complexity of the application
- Whether an application is of high public interest
- Whether the application includes novel technologies or techniques
- Whether the determination requires input from others, both internal and external to the Environment Agency
- Whether modelling and/or monitoring and assessment is required, for example Air Quality modelling and assessment

The Permitting Officer determining your application will be able to keep you updated with the progress of your application.

Disclaimer

The advice given is based on the information you have provided, and does not constitute a formal response or decision of the Environment Agency with regard to future permit applications. Any views or opinions expressed are without prejudice to the Environment Agency's formal consideration of any application. Please note that any application is subject to duly making and then full technical checks during determination, and additional information may be required based on your detailed submission and site specific requirements and the advice given is to address the specific pre-application request.

This advice covers installations only.

Other permissions from the Environment Agency and/or other bodies may be required for associated or other activities.

This pre-application request is now closed.

We consider this pre application request is now closed however if you have any questions regarding this letter please contact daniel.ros@environment-agency.gov.uk.

If you require additional enhanced pre-application advice please complete our online form.

We look forward to working with you on this project.

If you have any questions please call 03708 506 506.

Yours sincerely

Daniel Ros

daniel.ros@environment-agency.gov.uk

Permit Application Supporting Document Appendix III

Environmental Management System

ENVIRONMENTAL MANAGEMENT SYSTEM

Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

North West Recycling Ltd

Version:	1.3	**Date:**	21/03/2025		
Doc. Ref:	634-004-A	**Author(s):**	IA/DY	**Checked:**	NWR
Client No:	634	**Job No:**	004		

Oaktree Environmental Ltd

Waste, Planning & Environmental Consultants

Oaktree Environmental Ltd, Lime House, 2 Road Two, Winsford, Cheshire, CW7 3QZ
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REGISTERED IN THE UK | COMPANY NO. 4850754

Document History:

Version	Issue date	Author	Checked	Description
1.0	30/08/2024	IA	-	Internal draft
1.1	01/09/2024	IA/DY	NWR	Draft for client review
1.2	29/10/2024	IA/DY	NWR	Submitted with permit application
1.3	21/03/2025	IA/DY	NWR	Tonnages and drawing references updated

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NWR/RF/4 - Site Diary/Inspection Form
NWR/RF/6 - Employee Training Needs Assessment / Review
NWR/RF/7 - Complaints Form

Appendix III - Environmental Permit and Accepted EWC codes

Appendix IV - Health & Safety – Conditions of Site Use for Staff and Visitors

Appendix V - Detailed Waste Acceptance Procedures

Site Information & Key Contacts List

Site Address:	Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW		
Site Operator:	North West Recycling Ltd	**National Grid Ref:**	NY 36410 60830
Contact	**Description**	**Office Hours**	**Out of Hours**
North West Recycling Ltd	Permit Holder	01228 672999	07900 992299
Cumberland Infirmary Hospital, Newtown Rd, Carlisle CA2 7HY	Local NHS Hospital (Main)	01228 523444	999
	Accident & Emergency (A&E)	999	999
Cumbria Constabulary Brunel Way, Carlisle CA1 3NQ	Local Police Non-Emergency	101	999 or 112
	Police Emergency	999 or 112	999 or 112
Cumbria Fire & Rescue Service, Carlisle West Community Fire Station, Carlisle CA2 7GW	Fire and Rescue Service (in Emergency Dial 999)	0300 303 8623	999 or 112
Environment Agency Orchard House, Endeavour Park, London Road, Addington, West Malling, Kent, ME19 5SH	Environmental Regulator	0370 850 6506	0800 80 70 60
Cumberland Council Civic Centre, Rickergate, Carlisle, CA3 8QG	General Enquiries	0300 373 3730	101, 999 or 112
United Utilities	Mains water and sewerage supplier	03456722999	03456722999
Oaktree Environmental Ltd - Lime House, 2 Road Two, Winsford, Cheshire CW7 3QZ	Secondary specialist waste and permitting compliance advisors	01606 558833	N/A

1 General Considerations

1.1 Site Operator/Permit Holder

1.1.1 North West Recycling Ltd holds an Environmental Permit for an A11: Household, Commercial & Industrial Waste T Stn activity and seeks to add a Schedule 1 Part 2 Section 5.4 (a)(iii) and b(ii) non-hazardous waste installation activity under The Environmental Permitting (England and Wales) Regulations 2016. Under the installation activity the site will be accepting waste which will be treated to produce a Solid Recovered Fuel (SRF)/Refuse Derived Fuel (RDF) which will be sent for incineration.

1.1.2 The current EP allows for the acceptance, storage and treatment of household, commercial and industrial waste (HCI) and construction, demolition and excavation (CDE) waste under an A11 activity.

1.1.3 The site will be regulated by the EA under the Environmental Permitting (England & Wales) Regulations 2016.

1.2 Relevant Contacts

1.2.1 The contact details for the operator are as follows:

North West Recycling Limited Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW	**Contact:**	Richard Allan
	Position:	Managing Director
	Tel:	01228 672999

1.2.2 Oaktree Environmental Ltd have been engaged to act as consultants for North West Recycling Ltd to assist in the preparation of this Environmental Management System (EMS). This EMS has been prepared to meet the requirements of The Environmental Permitting (England and Wales) Regulations 2016 and the Environment Agency's Guidance: "*Develop a management system: environmental permits*".

1.2.3 Contact details for Oaktree Environmental are as follows:

Oaktree Environmental Ltd
Lime House
2 Road Two
Winsford
Cheshire CW7 3QZ

Contact: David Young
Position: Principal Consultant
Tel: 01606 558833
E-mail: david@oaktree-environmental.co.uk

1.2.4 A full list of relevant contacts (including key emergency contact numbers) are provided in the Site Information & Key Contacts List section in the pre-pages of this document.

1.3 Site Location

1.3.1 The site is located on Land at Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW as shown on Drawing Nos. 634-003-03 and 634-004-03A.

1.4 Permit Area/Waste Management Operations

1.4.1 The permit boundary is outlined in green in the EP. All references to 'the site' in this EMS shall mean this area and the associated infrastructure, plant and equipment.

1.4.2 The EP is required for the storage prior to removal and treatment of waste. Waste treatment processes which currently take place on site include the following:

- Compacting/Baling (by loading shovel / 360° excavator and baling equipment);
- Sorting (with loading shovel / 360° excavator or by hand);
- Crushing (by using appropriate mechanical screening plant and equipment);
- Screening (by using appropriate mechanical screening plant and equipment);
- Separation (by using appropriate mechanical separation plant and equipment); and,
- Shredding (by using appropriate mechanical shredding plant and equipment).

SRF/RDF Waste Treatment

1.4.3 The majority of wastes received on site are destined for production of SRF which will be sent for incineration.

Waste Receipt

1.4.4 Vehicles arriving at the site will report to offices for waste acceptance checks. Waste will be sampled/inspected to ensure it is eligible for acceptance into the site, any unauthorised/negative results will result in wastes being rejected, whist a positive result will ensure waste acceptance, and the vehicle will be directed to the relevant reception area.

1.4.5 Waste will then be tipped into the relevant reception area and loaded into one of the two hoppers which conveys the materials into the SRF treatment lines which will be utilised to produce RDF/SRF for temporary storage in the bunker bays prior to incineration.

1.5 Hours of Operation

1.5.1 The site will be open for the delivery of waste between 07.00 to 18.00 Monday to Friday and between 07.00 and 15.00 on Saturdays.

1.5.2 Operational hours (comprising primarily internal processing) will be Monday to Friday between 07.00 to 22.45 and Saturdays between 07.00 and 15.00.

1.5.3 Crushing/screening of aggregates will be limited to Monday to Friday between 09:00 and 17:00.

1.5.4 The only activities on site which will be permitted outside of these hours are maintenance works, situations where waste is brought in for deposit in emergency situations and general office use.

1.6 Waste Storage, Types and Quantities

1.6.1 The locations of the operational and storage areas are shown on Drawing Nos. 634-003-03 and 634-004-03A. The nature of operations at treatment facilities means that certain operational areas may change depending on processing requirements.

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

1.6.3 The site will be operated under a two-phased approach, initially starting with Phase 1, with site capacity being increased in the future during Phase 2, as detailed below:

1.6.4 The operator is seeking to upgrade the SRF production line within Unit B under a two-phased approach which has been discussed and agreed with the Environment Agency (EA) as part of an enhanced pre-application request.

i) **Phase 1:** The first phase will allow the operator to operate one SRF production line within Unit B which will accept 174,175 tonnes of waste/annum. The proposed waste throughput for non-installation waste activities within Unit A and external soils and aggregates processing will be 225,825 tonnes/year, resulting in an overall throughput of 400,000 tonnes/annum across all activities on-site during Phase 1.

ii) **Phase 2:** The second phase will be to extend Unit B and install two feed lines into the single SRF production line within Unit B. This will increase the throughout in Unit B to 374,175 tonnes/annum. The throughput of the waste operations within Unit A and external soils and aggregates processing will remain at 225,825 tonnes per year. The overall site throughput will be 600,000 tonnes/annum across all activities undertaken at the site during Phase 2.

1.6.5 Reference should be made to Appendix I for drawings illustrating Phase 1 (ref: 634-003-03) and Phase 2 (ref: 634-004-03A).

1.6.6 Based on the above, the entire throughput of the site will be limited to <600,000 tonnes per annum once operations have been fully expanded.

1.6.7 The site will only accept waste that is capable of being processed by the onsite treatment plant. If the maximum storage capacity of the site 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.

1.6.8 The following table outlines waste stockpile/bay volumes.

Table 1.1 – Waste Stockpile Volumes

Reference on Layout Plan	Waste Type	Number of Stockpiles/Bays	Volume per Stockpile/Bay (m^3)
1	Skip waste	1	450
2	Picking bays 1-6	6	450
3	Picking bays 9-12	4	450
4	Trommel fines	1	450
5	Glass and Stone	1	450
6	Bales	1	750
7	Loose card	1	750
8	Fines	1	450
9	Woodchip	1	75
10	Plasterboard	1	150
11	Loose combustible waste	1	450
12	SRF bunker 1-7	7	450
13	SRF pile 9-12	4	450

1.7 Exempt Activities

1.7.1 Activities which are outside the scope of the EP for the site [listed in Schedule 3 of The Environmental Permitting (England and Wales) Regulations 2016] will not be carried out at the site. If this were to occur the relevant details would be registered with the EA prior to commencement.

1.7.2 Registration - Current and future exemption notifications and register entries will be held in the site office. Registered exemptions are valid for a period of 3 years. If the activity is to be carried on after 3 years, a renewal will be submitted to the EA.

1.7.3 Any waste which is stored under exemptions will be clearly labelled on the site plan and kept separate from those wastes on site which are permitted.

1.8 Staffing and Management

1.8.1 The site will open for the deposit of waste or for other essential operations during the hours listed in Section 1.5. The table below details the minimum and normal staffing requirements for the site.

Table 1.2 – Staffing numbers and responsibilities

Position	Normal Operational Conditions	Minimum requirements and cover provisions	Responsibilities
Environmental Manager (TCM)	30 hours per week	28 hours per week (cover can be provided by alternative WAMITAB holder)	Ensuring that the site is compliant and being operated in accordance with the Environmental Permit
Site Manager	1	1 (cover by Site Foreman and Team leaders supervised by Compliance Manager	Waste processing systems and site operation
Area Shift Supervisor	1 per area (Unit A & Unit B) per shift	1 (cover by site manager)	Supervising activities of each area and teams
Machine / Plant Operators in tipping area	2 per shift	1	Ensuring that plant is being used correctly. Waste handling/processing, reception, and plant operation
Machine / Plant Operators for loading outgoing vehicles	3 per shift	2	Ensuring that plant is being used correctly. Waste handling and loading
Other site machine/plant operators	2 per shift	1	Ensuring that plant is being used correctly. Waste handling/processing, reception, and plant operation
Weighbridge administrator	2	1 (cover can be provided by other weighbridge operator and Environmental Manager)	Managing waste receipts, waste transfer notes and consignment notes
Amenity Operative (housekeeping)	1	1	Housekeeping, pest control, debris and litter
Pest control operative	2	1	Housekeeping, pest control.
General operatives	26	14	Assisting in waste operations.

1.8.2 Where staffing falls below the minimum required for normal operations this shall be rectified within 6 working days.

1.8.3 Actions to rectify may include any of the following;

- Review previous job applicants and offer job to appropriate person
- Employ temporary agency staff until permanent cover is arranged
- Utilise self employed persons where appropriate to cover position

1.8.4 All personnel are required to act in a manner that prevents harm being caused to themselves, their colleagues or their environment.

1.8.5 All site personnel have responsibilities to protect their health and safety, and to act within the conditions of the site Permit and minimize the company's effect on environment and to report accidents and incidents that have a health, safety or environmental impact.

1.8.6 Key site management roles are assigned between the site management team as detailed below;

- General Manager is responsible for:

  - Environmental Policy Statement
  - Setting Objectives
  - Periodic review of this Environmental Management System
  - Maintaining the Register of Environmental Aspects
  - Keeping and updating Training Records
  - Site Manager
  - Environmental Manager
  - Maintaining valid COTC

- The Environmental Manager (COTC Holder) and shall be responsible for:

  - Maintaining valid COTC
  - Auditing this Management System
  - Approving waste disposal sites

- The Site Manager is responsible for

- Daily Activities on site
- Daily Inspections and Monitoring
- Daily Site Diary Records
- Implementing Operational Control procedures
- Provision of Critical Plant at all times
- Ensuring training is maintained at an adequate standard
- Maintenance of building and area surfacing

1.9 Health and Safety

1.9.1 All operations on site will be carried out in accordance with the relevant requirements of the Health and Safety at Work Act 1974. Conditions of site use for employees, visitors and contractors are shown in Appendix IV. These conditions will be shown to all site users and must be signed prior to using the site. Anyone refusing to comply with the conditions of use will be asked to leave the site.

1.10 Fit and Proper Persons

1.10.1 The site's Technically Competent Manager (TCM) will provide the required attendance time at the facility as required by guidance periodically issued by the EA. A copy of TCM's Certificate of Technical Competence (COTC) will always be made available in the site office.

1.10.2 The company, through the TCM, will ensure that a nominated deputy is sufficiently trained and familiar with the EP and this EMS document in addition to all relevant company procedures who, in the absence of the TCM, will act the competent person. If either the TCM or deputy is changed, the EA will be informed of the change and the relevant details of the replacement as soon as possible.

2 Site Engineering and Infrastructure

2.1 Site Description

2.1.1 The site is within an industrial area and contains a large-scale industrial building and site drainage system.

2.1.2 The location of the operational, treatment and storage areas are shown on Drawing Nos. 634-003-03 and 634-004-03A.

2.2 Access and Parking

2.2.1 The site is located as shown on Drawing Nos. 634-003-03 and 634-004-03A and access to the site is gained via a purpose built access track.

2.2.2 The site has ample parking for site staff, visitors and Heavy Goods Vehicles (HGVs).

2.2.3 The principal infrastructure comprises of one transfer building and a yard area. A one way traffic system will be maintained on the site from the main entrance, around the outside of the building, clockwise, continuing to the outbound-weighbridge or site exit.

2.2.4 Parking shall be provided for staff and visitors to the site at the Unit I Offices. The main offices for the business activities shall be provided adjacent to the permitted area at Unit I. All visitors to site, excluding customers with waste, shall report to the main reception at Unit I before being authorized to enter the permitted area at Unit A.

2.2.5 A bunded vehicle re-fueling tank and pump are operated on the site in the main yard area.

2.3 Site Office

2.3.1 The site office is located as shown on Drawing Nos. 634-003-03 and 634-004-03A. The documents listed below will be retained in the site office.

Table 2.1 – Documents Retained On-Site

Documents to be retained in site office
The Environmental Permit (original & any subsequent variations)
This Environmental Management System (EA agreed document)
Current site diary (to record all inspections/visitors to the site)
Environment Agency inspection (CAR) forms
In-house inspection sheets/recording forms
Duty of care transfer notes (for 2 years minimum)
Duty of care product notes [(aggregates/topsoil (for 2 years minimum)]
Hazardous waste consignment notes (rejected waste, etc., kept for 5 years)
Waste delivery tickets
Accident book (& 1st aid kit)

2.4 Weighbridge

2.4.1 All incoming vehicles are required to report to the site office. The details of the load will be recorded, and the transfer note and company documentation will be further checked by the operator to ensure that the load is acceptable at the site. The weight of all loads will be recorded using one of the two available weighbridges or agreed WRAP conversion weights for loads where the weight is not known upon receipt at the site.

2.4.2 Mud, water and buildup of any errant wastes have the potential for affecting the accuracy of the weighbridge. The weighbridge will be visually inspected daily for all of these to ensure it is in a good operational condition. If the finding is anything other than acceptable then immediate corrective action will be taken.

2.4.3 The weighbridges will be serviced on a six monthly schedule and calibrated on a twelve monthly schedule.

2.4.4 A servicing and calibration contract shall be maintained with Weightron.

2.5 Notice Board and Signs

2.5.1 A notice board will be erected at the site entrance displays the following information:

- The site name and address.
- The name of the permit holder and operator.

- The Environmental Permit number and accompanying statement stating that the site is permitted by the Environment Agency.
- Environment Agency contact details, Emergency No. 0800 80 70 60 and
- General Enquires No. 03708 506 506.
- Operator's "out of hours" emergency contact details
- Operating hours.

2.5.2 Additional signs are displayed around the site for operational / health & safety purposes. All staff and visitors will be required to comply with the requirements of all signs whilst on site.

2.6 Site Security

2.6.1 The site benefits from metal security gates at the entrance to the yard and on the access road to the industrial estate, the gates will be locked when the site is not in operation. The perimeter of the industrial site is surrounded by a combination of:

- 2m high chain link fence
- 6ft high solid wooden boarding along visually sensitive boundaries, or
- 1m high stock fence on top of a 4ft soil embankment.

2.6.2 Site infrastructure is detailed on Drawing Nos. 634-003-03 and 634-004-03A.

2.6.3 The site security will be inspected on a daily basis and any defects which impair the effectiveness of the security will be repaired to the same or better standard within a suitable timescale. All repairs will be noted on the site diary repaired as soon as practically possible.

2.6.4 Heras 'readyfence' panels will be kept at the site and utilised to maintain site security until an appropriate fencing contractor can be sourced and fencing can be fixed or replaced.

2.6.5 In addition to the above, the site also benefits from a closed loop 24/7 CCTV system which covers all areas of the site. Off site security will be provided by a contractor which utilises the extensive CCTV system that has been installed at the site.

2.7 Fuel Storage

2.7.1 The location of fuel storage on site (if applicable) will be shown on Drawing Nos. 634-003-03 and 634-004-03A and procedures for fuel storage on site are as follows:

- Tanks will be surrounded by a bund capable of containing a minimum of 110% of the volume of fuel stored in the tank.
- All pipework and associated infrastructure will be enclosed within the bund.
- A lock will be fitted to the tank valve to prevent unauthorised operation.
- All valves and gauges on the bund will be constructed to prevent damage caused by frost.
- No combustible waste will be stored within 6 metres of the tank.

2.7.2 The tank will be clearly marked showing the product within and also its capacity.

2.8 Rejected Waste

2.8.1 Any waste which is rejected will be stored in a quarantine skip/tank and removed from the site when full. The location of these may vary as operating conditions permit (i.e. to permit the loading of rejected wastes but clear labelling and management control will ensure its use as specified). Rejected waste will be recorded on form NWR/RF/2 or similar.

2.9 Drainage

2.9.1 Site drainage will be maintained to prevent water collecting in waste storage areas.

2.9.2 Waste stored outside shall be restricted to storage within a container, or storage within the approved waste storage bays at the South of Unit A and East of Unit B.

2.9.3 The drainage arrangements for the site are clearly shown on Drawing Nos. 634-003-03 and 634-004-03A and summarised as follows:

a) Roof water, ground water and clean surface water arising from areas where waste is not stored will discharged directly into the Beck.

b) Surface water from external waste storage bays at Unit A will be directed to the FOG interceptor for storage and collection prior to disposal off site.

2.9.4 Agreements will be maintained with a tanker company to remove contaminated surface water from waste storage areas as required.

2.9.5 Silt traps/interceptors will be inspected on a weekly basis for floating debris and excessive build-up of silt. Where inspections of the drainage system identify necessary actions, these will be undertaken within an appropriate timescale. The findings of all inspections, along with actions taken will be recorded in the site diary.

2.9.6 Findings will be recorded in line with the following requirements and remedial actions will be implemented as required.

Table 2.2 – Remedial Action Requirements – Site Drainage

Findings	Rating	Remedial Action necessary	Timeframe for remedial action	Internal reporting to Environmental Manager & MD	Reporting requirements to EA
Acceptable	A	No	N/A	N/A	N/A
Failure on site / bad practice but likelihood of causing an accident or emission is negligible	B	Yes	Within 2 working days	3 occurrences within 5 working days	None
Minor Emissions/failure but not perceived to interfere with sensitive Receptors, and/or likely to cause an accident or emission	Not Applicable				
Emissions / failure occurred	C2	Yes	See below	Immediately	Immediately

2.9.7 Remedial action for a Category B finding shall include the following;

- Review of the Management System;
- Investigation to identify root cause of failure; and
- Training – within 2 weeks.

2.9.8 Remedial action for a Category C2 shall include those required for a category B, and may include any of the following as appropriate:

- Empty the interceptor within 3 working days and continue until the emission is adequately controlled;
- Servicing of the interceptor by an appropriate contractor – as soon as is feasible;
- Empty the Silt Trap(s) within 2 working days;
- Review systems for predicting surface water quantity; and,
- Review collection frequency with tanker supplier.

2.9.9 Employees shall be instructed of the permitting requirements for water emissions at induction and instructed to report any failings to comply with this condition immediately to the Site Manager.

2.10 Vehicles, Plant and Equipment

2.10.1 Waste will be handled using the plant listed in the table below. Only trained operators will be permitted to drive/operate the plant listed below.

Table 2.3 – List of Plant & Equipment

Item	Quantity under normal working conditions	Function	Critical Plant	Acceptable down time due to breakdown
Telescopic handler	4	Waste loading/ movement/sorting	1	Critical numbers must be maintained
Loading shovels	4	Waste loading/ movement/sorting	2	Critical numbers must be maintained
Excavators	3	Waste loading/ movement/sorting	1	Critical numbers must be maintained
Tractor (with trailer)	1	Waste loading/movement	No	5 working days, can be substituted with HGV
Road Sweeper	1	Road sweeping to control mud, dust and litter	No	5 workings days

Item	Quantity under normal working conditions	Function	Critical Plant	Acceptable down time due to breakdown
Water Bowser	1	Dust suppression	No	2 working days
Wood-chipper	1	Shredding/chipping	No	N/A
Screener	1	Size reduction & separation	No	5 working days
Power Shredder	1	Shredding/size reduction	No	N/A
Crusher	1	Crushing of aggregates	No	N/A
MEWP	1	Allows working at height	No	N/A
Fines (Glass and Stone) treatment line comprising long part separator and air separator	1	Refine qualifying fines	Yes	90 working hours
Red Line comprising conveyors, trommel, magnet and air blower system	1	Treatment of MMW, DMR and construction wastes	Yes	27 working hours
SRF lines comprising hopper, conveyors, shredder, screen, magnet, eddy current and air box	2	Treatment of residual wastes to produce SRF/RDF	Yes	90 working hours
Egger Line comprising hopper, density separator, flexdeck, magnet, eddy current and float	1	Treatment of contaminated wood chip waste (not containing dangerous substances)	Yes	90 working hours
Road vehicles comprising hook loaders, artic unit and walking floor trailer.	1	Removal and transport of waste off site.	Yes	2 working days

Note: The plant/equipment on site may vary and additional equipment may be hired-in to cope with busy periods, larger jobs or jobs with specific requirements.

2.11 Preventative Maintenance

2.11.1 All mobile and fixed plant on site including vehicles in the fleet are subject to annual manufacturer maintenance to ensure proper working order in the form of service contracts.

2.11.2 Site management will undertake or delegate additional preventative maintenance checks on a more frequent basis i.e. daily, before, during and 1 hour at the end of each working day using a checklist similar to that in Appendix II to ensure the following:

- Machinery is mechanically sound for use and no presence of black fumes or trailing liquids visible prior to use or following shutoff of plant/equipment;
- All plant engines and/or generators (if applicable) will be powered-down and completely shut off prior to cessation of operations on any given day;
- Plant which is not in use for any extended period is stored at least 6 metres from waste;
- All plant and equipment vehicles are fitted with fire extinguishers in the cab. Rubber strips are not considered appropriate as they are usually removed via uneven and bumpy ground; and,
- Dust from processing operations on site can settle throughout the working day onto processing plant, plant exhausts and engine parts so a fire-watch will be implemented after cessation of works and equipment powered down for 1 hour each day to remove any dust/fluff using brushes, hoses etc... Any build of dust/fluff will be removed from the equipment and deposited into a container to await removal from site and site management informed.

2.11.3 A ‘no-idling’ policy is in place which ensures that engines are switched off when vehicles or plant are not in use. This policy will ensure that tail pipe emissions are significantly reduced.

2.11.4 Daily inspections shall be carried out to monitor the condition of the following;

- Safety features (incl horns, beacons, guards, alarms, Emergency Stops);
- Hydraulic Pipes;
- Conveyor Belts;
- Motors;
- Bearings;
- Locations of waste build-up;
- Filters; and,
- Exhausts (where combustion engine fitted).

3 Site Operations

3.1 Preliminary Procedures

3.1.1 Guidance will be given by the site management to all employees, sub-contractors, other waste carriers and customers regarding the waste types and operations which are acceptable at the site. The site will be used for the acceptance, storage and processing of waste predominantly using North West Recycling Ltd's own vehicles/contracts and also for third-party users/hauliers whose details would be checked prior to the delivery/collection of waste.

3.1.2 The procedures below would be followed prior to the receipt of waste on site.

3.1.3 When a driver employed by the permit holder arrives at the waste producers premises, he/she will inspect the load for conformity with relevant regulations and safety procedures.

a) If the load is satisfactory the driver will sign the relevant paperwork (Duty of Care transfer note/delivery ticket) and remove the load from the premises.
b) If the load does not meet the description stated on the controlled waste transfer note the customer is advised to check the note and give a more detailed description of the waste.
c) If the more detailed description of the waste reveals that the waste is not/permitted at the recycling centre, then the customer is advised that the waste must be taken to another site which is appropriately permitted to accept the waste(s).
d) If further instructions are needed the driver may also report back to the site manager.
e) Where it is suspected that the details given on the transfer note are incorrect the EA may be contacted for advice.
f) Where the load contains soil from an industrial site the EA may be contacted for advice to ensure that the load to be removed does not contain contaminated soil.

3.1.4 If further instructions are needed the driver may also report back to the site manager.

3.1.5 Loads will not be accepted on site if the pre-acceptance information has not been collected, or if the waste may have adverse effects on the process.

3.2 BAT / Pre-acceptance Waste Procedures

3.2.1 The site will use Best Available Techniques (BAT) for the recovery/disposal of waste in accordance with Commission Implementing Decision (EU) 2018/1147.

3.3 Checking in & Inspection of Loads

3.3.1 All incoming vehicles are required to report to the weighbridge office. The details of the load will be recorded, and the Duty of Care transfer note and company documentation will be further checked by the operator to ensure that the load is acceptable at the site. Any deviation from these procedures or problems with any loads will be reported to the site manager.

3.3.2 Once a load has been accepted by the operator, the driver will be asked to unsheet the vehicle (if it is sheeted) and a visual inspection of the contents will be carried out to ensure that the waste types comply with the EP. If non-compliant waste is discovered before deposit, the load will not be accepted, the driver will be informed to leave the site and dispose of the material at alternative facility. In cases where the presence of unauthorised or unusual waste is discovered during initial inspection, the EA will be contacted immediately to agree a course of action.

3.3.3 The nature of bulk loads makes full inspection difficult until the load is deposited. If the load is acceptable the driver will be instructed to deposit it within the waste reception bay as shown on Drawing Nos. 634-003-03 and 634-004-03A. If the load is unacceptable following deposit, it will be reloaded and removed from the site or quarantined and removed within a timescale agreed with the EA.

3.4 Waste Acceptance Procedure

3.4.1 All incoming vehicles upon arrival are required to report to the person in charge of waste acceptance at the site. The details of the load will be recorded, and the duty of care note/company documentation will be further checked by the operator to ensure that the load is acceptable at the site, including a visual check prior to the vehicle proceeding to the tipping area. Any deviation from the procedures or problems with any loads will result in tipping facilities being suspended for the offending company. Loads which are not acceptable within the above terms will be rejected.

3.4.2 The operator currently implements detailed procedures for waste acceptance for each general waste stream type. These are contained within Appendix V.

3.5 Waste Acceptance / POPs Assessment

3.5.1 Staff will be trained in the identification of any waste which could contain POPs which will include the following:

- Sofas;
- sofa beds;
- armchairs;
- kitchen and dining room chairs;
- stools and foot stools;
- home office chairs;
- futons; and,
- bean bags, floor and sofa cushions.

3.5.2 If any of the above wastes are identified in the waste tipping and sorting area and contain leather, synthetic leather, other fabric, or foam, the items will be segregated and taken to another suitably permitted site for processing.

3.5.3 If there is a risk of contamination from the identified POPs waste i.e. if pieces of foam, cover, lining or wadding material are released from the item the whole load will be classified as POPs waste and sent for destruction.

3.6 Waste Deposit & Handling (19 12 12)

3.6.1 The operator will ensure that all delivery loads of 19 12 12 are clearly defined on waste transfer notes which will include a full description of the material i.e. residual / non-recyclable waste.

3.6.2 All staff will be trained to identify the different types of 19 12 12 material which could be accepted at the site.

3.7 Treatment Operations and Process

3.7.1 Once a load has been accepted by the operator the contents of the delivery vehicles is discharged into the reception area or appropriate bay in accordance with the following procedures:

a) Waste subject to the 'SRF/RDF activity' will be tipped into reception area and loaded into one of the two hoppers which conveys the materials into the SRF treatment lines which will be utilised to produce RDF/SRF for temporary storage prior to incineration.
b) Waste subject to the 'Red line' will be tipped into MRF feed pile and loaded into the feed hopper. The material will pass through trommel which results in fines being discharged into the bay beneath. The remaining material will be conveyed into to the picking line and discharge the separated material into the relevant bay below, the picking line comprises 12 bays. The remaining bulky hardcore will be discharged into an external bay outside of the building, this material may be transferred to the soils and aggregate treatment area for further processing.
c) Waste subject to the 'Glass and Stone line' will be fed into the hopper of the processing plant. Resultant material will be discharged and transferred to the relevant storage area.

d) Waste subject to soils and aggregate treatment will typically be subject to crushing and/or screening which will process material for recovery and resale purposes. Further details provided in Section 3.8 below.

3.7.2 A Full detailed layout of the above treatment lines and areas are shown on Drawing Nos. 634-003-03 and 634-004-03A. It is worth noting that material from both the red line and glass & stone line (fines processing) may also be subject to further processing through the SRF treatment lines.

3.7.3 The waste processing buildings (Units A & B) will include a Local Exhaust Ventilation (LEV) system, which will extract air via carbon filter and baghouse filter for emissions control, with air exhausted via external elevated flues for dilution and dispersion of residual emissions.

3.8 Sale of soils and Aggregates

3.8.1 The following procedures are implemented at the site:

- The receiving site MUST confirm the end use of the waste material it wishes to use is appropriate (eg Construction of a road, or building, landscaping) and that the site is receiving only the tonnage of waste it has use for.
- The site MUST have a valid U1 exemption registered before the waste is despatched from the weighbridge.
- The company can request from customers a 24hrs notice period with all new aggregates/soil orders to allow time for the site permitting / exemption requirements to be confirmed, and registrations submitted to the EA if appropriate.
- The customer must be informed of any exemption registration requirement. Where the customer requires the company to make an application for an exemption the customer must;
    - Confirm the approx. quantity of material required
    - Supply a contact address, telephone number and email.
- The customer shall be informed of the legal implications of the registration and advised to read the documentation forwarded by the Environment Agency upon registration.
- The transfer must have a Weighbridge ticket detailing:

- Full destination address and relevant permit/exemption number
- Full customer name
- Waste Description and EWC code
- Waste Carriers Name and Licence number
- Name of Waste Producer and SIC code
- Total tonnage being transferred

- The material must only be despatched from site by a registered waste carrier. All quotes shall include a delivery charge. Collection by a third party must be agreed prior to the despatch.
- Upon completion of the transfer the weighbridge ticket must be signed by a minimum of two parties (Waste Carrier, Waste Producer and/or Waste receiver).
- Rubble and Soil can only be despatched to Scotland if it is for a domestic site only. Where a customer orders more than 1 tipper load (20t), it will be assumed it is not domestic, unless the customer can provide evidence.

3.9 Waste Removal & Export

When a collection vehicle arrives at the site the driver will be instructed to report to the weighbridge office on arrival. All relevant documentation will be completed, and the vehicle will be passed to pick up the load and take it to the designated recycler/disposal site. The product or waste material will be loaded using the loading shovel or excavator and then weighed on the weighbridge prior to egress from the site.

3.10 Record Keeping

3.10.1 North West Recycling Ltd use detailed waste transfer and product notes in paper and electronic form to ensure compliance with the Waste Duty of Care Code of Practice - March 2016 (Section 34(9) of the Environmental Protection Act 1990). The following points detail the correct information required in order to comply with the Waste Duty of Care Code of Practice which the operator will provide on all documentation:

- a written description of the waste which has been agreed and signed by the operator and the next holder. The description is part of the waste information the operator will provide;
- a statement confirming that the operator has fulfilled the duty to apply the waste hierarchy as required by regulation 12 of the Waste (England and Wales) Regulations 2011 (see Waste Hierarchy Guidance for England and Wales);
- the description of the waste is accurate and contains all the information required to ensure the lawful and safe handling, transport, treatment, recovery or disposal by subsequent holders, including classification of the waste by using the appropriate codes (referred to as the List of Wastes (LoW) or European Waste Catalogue (EWC)) - Appendix A of the Waste Classification Technical Guidance provides a list of the codes as well as advice on how to assess and classify waste;
- the quantity and nature and whether it is loose or in a container, if in a container, the type of container;
- the time and place of transfer;
- the SIC code of the transferor (current holder of the waste);
- the name and address of the transferor and transferee (person receiving the waste) and their signatures (the signature can be electronic as long as an enforcement officer can view it); and,
- the capacity in which the transferor and transferee are acting (e.g. as a producer, importer or registered waste carrier, broker or dealer) and their relevant authorisation to act in that capacity (e.g. their permit number or registration number).

3.10.2 For non-hazardous waste this will be done by using:

- a paper WTN and form to fill in or alternative documentation e.g. an invoice, as long as it contains all the required information; and/or,
- a season ticket which is a single waste transfer note that covers a series of non-hazardous waste transfers. The season ticket will last up to one year and be used for regular transfers of the same type of non-hazardous waste with the same carrier. If the operator has several sites serviced by the same carrier with the same types of waste

collected, these can be listed in a schedule to the season ticket. The operator will keep a record of the collection times and the quantity of waste.

3.10.3 A waste information note will not be required for non-hazardous waste if the waste holder does not change on the transfer of waste e.g. the waste is moved to other premises belonging to the same business. However, it is best practice that the business understands who has responsibility for that waste and a record is kept of internal transfers for audit purposes.

3.10.4 **Hazardous waste:** The site is currently permitted to accept hazardous waste into the site, this will be done so using a fully completed hazardous waste consignment note and sent to a suitably permitted site, the records of which will be kept for 5 years.

3.10.5 A summary of waste types and quantities deposited at and removed from the site and origin and destination details are then forwarded to the EA, with submission due within one month of the end of each quarter as below:

a) Quarter 1: January to March (due on or before 30th April)
b) Quarter 2: April to June (due on or before 31st July)
c) Quarter 3: July - September (due on or before 31st October)
d) Quarter 4: October - December (due on or before 31st January of the following year)

3.10.6 Outcomes of inspections of waste types, transfer/treatment areas, storage areas, drainage, infrastructure etc., will be recorded on the site inspection form and detailed comments will be entered into the site diary (including action taken or proposed). NWR/RF/4,8 (or similar).

3.10.7 Visitors to the site will sign the sites visitor's book located in the main office reception upon arrival stating the purpose of their visit and whom they represent.

3.11 Management Techniques

3.11.1 All measures necessary to achieve a high level of protection of the environment and to ensure that the site is operated in accordance with this EMS and EP conditions will be strictly adhered to.

3.11.2 The manner in which the facility is managed is a critical element in ensuring emissions from the site operations are minimised. Therefore, management of this facility will ensure:

a) staff are competent to manage and operate the facility i.e. fit and proper persons;
b) waste acceptance procedures are in place;
c) appropriate storage and handling procedures are in place;
d) waste/product despatch procedures are in place;
e) procedures and control techniques in place to minimise potential emissions to air, land and water;
f) there is an EMS, i.e. this document, in place to ensure standards are maintained, including incidents and complaints management procedures;
g) a communication programme is in place; and,
h) a health and safety programme is in place and is coherently conveyed to all staff and rigorously enforced throughout the whole of the organisation.

3.12 Site Closure Plan

3.12.1 In the event that the site ceases to operate as a waste transfer/treatment facility as set out in the site's EP, the following steps will be followed to achieve site closure:

a) Contact the EA to advise the Environment Officer(s) that the site is planned to cease / has ceased the acceptance of wastes under the permit.
b) The amount of residual processed and unprocessed waste on site will be assessed by the TCM to set a timetable for the final processing and timely removal of waste from site.
c) Following removal of all waste, plant and machinery from site a Site Investigation will be undertaken to ascertain the ground conditions of the land to which the site relates.

d) A surrender application will then be submitted to the EA for determination.

4 Environmental Control, Monitoring And Reporting

4.1 General

4.1.1 The purpose of this EMS is to implement a system that enables the site to comply with ‘‘How to Comply’’ guidance by the Environment Agency on managing permitted sites and complying with our Environmental Permit. The site will implement systems to minimise emissions as our neighbours have a right to expect their environment will be free from emissions caused by our activities, if not on a continuous basis, at least frequent intervals.

4.2 Emissions Monitoring

4.2.1 The table below outlines emissions monitoring requirements, in accordance with BAT. This is for emission points A1 and A2, which release residual emissions to air following abatement, from Units A and B.

Table 4.1 – Emission Limits and Monitoring Requirements – Emission Points A1 and A2

Pollutant	Emission Limits ($mg.Nm^{-3}$) Expressed at Reference Conditions of 273.15K, 101.3kPa, dry gas	Monitoring Frequency	Monitoring Method
Dust	2-5	Every six months	Manual extractive test - EN 13284-1
Total Volatile Organic Carbon (TVOC)	10-30	Every six months	Manual extractive test - EN 12619 or EN ISO 13199

4.3 Breakdowns and Spillages

4.3.1 In the event of breakdown of the loading plant, an alternative machine will be brought on site until it is repaired. If an alternative machine cannot be used, then waste will be stored securely until the plant is repaired. The repair will be carried out at the most convenient location with absorbents used to clear oil or fuel spillages.

4.3.2 All site surfaces will be inspected daily when the site is in operation. Debris will be swept as required and placed in a skip for disposal to a suitably permitted site.

4.3.3 Any spillages of fuel/oil will be cleared immediately by depositing sand or absorbents on the affected area. The sand or absorbents will be placed in a skip to be taken to a suitably permitted site for disposal. All spillages of waste and windblown litter will be cleared by the end of the working day in which they occur. Spillage clearance procedures are detailed in Section 5.3.

4.3.4 All wastes liable to give rise to contamination will be removed from the site if the site is not secure or if operations cease or are temporarily suspended.

4.4 Site Inspections and Maintenance

4.4.1 The inspection frequencies for maintenance/housekeeping are listed on record form NWR/RF/4 or similar. The inspection form will be completed by a person who is familiar with the requirements of the EMS and EP for the site. All details of defects, problems and repairs carried out will be recorded on the form on the day that each event occurs. Detailed comments may also be recorded in the site diary. All repairs will typically be carried out within 5 working days unless agreed otherwise with the EA.

4.4.2 Any major defects found during the daily site inspection which are likely to lead to a breach of permit conditions will be recorded on the form NWR/RF/4 or similar with repairs/solutions being carried out by the end of the working day in which they are found, where possible. If a repair is not possible by the end of the working day and a potential breach of permit conditions or environmental containment may occur, the EA will be contacted to agree a suitable timescale for repair.

4.4.3 Essential spares for plant maintenance are kept on site.

4.5 Control of Mud, Debris and Litter

4.5.1 Vehicles will be visually inspected before exit to check that loads are safe and that no mud is carried out onto the public highway network from the wheels or bodies of HGVs. Visual inspections of the vehicle running surfaces at the site will be carried out daily (see NWR/RF

/4), however, staff will report any problems with mud or debris on the site roads immediately to the site manager.

4.5.2 Daily inspections for litter will be carried out for the presence of windblown litter and operatives will be instructed to collect the litter and place it in a skip for disposal/recovery before the end of the working day. In any event, all light waste will be placed in a designated skip/container before the end of the working day. Regular checks of the areas immediately beyond the site boundary will be carried out by site operatives

Articulated Vehicles

- All articulated vehicles sheeted before they leave the loading area.
- A fixed Working platform shall be available within Unit B and used to inspect the top of high sided vehicles, loaded with shredded waste, for free debris after loading. If the fixed platform is not available for use, then a MEWP shall be used.
- Site staff shall use a leaf blower, or fixed airline, to clear any free debris off the vehicle after its trailer has been sheeted.

Site surface and haul roads

- Roadways within the permitted area shall be serviced by a mechanical road sweeper. Residues shall be disposed of.
- The road sweeper shall be maintained as described in Plant and Planned Preventative Maintenance procedures.
- Where the road sweeper is unavailable a different mechanical, or manual, method shall be used, and this shall be recorded in the site diary.
- Where the road sweeper is not operational the company shall consider the hire of road sweeping services from a contractor where other means are not adequate

Waste storage, treatment and transfer

- Light wastes shall be transferred, treated and stored inside.
- Stockpiles of soil shall be kept below 4 metres.
- Stockpiles of aggregate shall be kept below 4 metres.

- Where waste treatment machines extend beyond the building walls all conveyor belts shall be enclosed to prevent material becoming windblown.
- Where waste treatment machines extend beyond the building, and the discharged waste is not a specified waste for outside storage it shall be discharged directly into a container.

4.5.3 The deposit of material on the access road or public highway will be treated as an emergency and will be cleared immediately by the operator using either a brush and shovel or road sweeper if necessary.

4.5.4 Where emission is considered unacceptable by the site management, it will be recorded in the site diary and remedial action shall be implemented in accordance with the following:

Table 4.2 – Remedial Action Requirements – Mud, Debris and Litter

Findings	Rating	Remedial Action necessary	Timeframe for remedial action	Internal reporting to Environmental Manager & MD	Reporting requirements to EA
Acceptable	A	No	N/A	N/A	N/A
Failure on site / bad practice but likelihood of causing an accident or emission is negligible	B	Yes	Within 2 working days	3 occurrences within 5 working days	None
Minor Emissions/failure but not perceived to interfere with sensitive Receptors, and/or likely to cause an accident or emission	C1	Yes	Within 12 hours	2 occurrences within 5 working days	3 occurrences within 5 working days
Emissions / failure occurred	C2	Yes	Immediately	Immediately	Immediately

4.5.5 The Site Manager is responsible for monitoring the frequency of any C ratings and shall notify the Environmental Manager. Where the occurrence requires notification to the EA this shall be the responsibility of the Environmental Manager and shall be made as soon as possible.

4.5.6 Remedial action may include the following:

- Identification and removal off site of waste producing litter, mud and/or debris
- Increased use of the road sweeper
- Litter picking

4.6 Control of Dust

4.6.1 The operator is aware that the containment of dust on site and the prevention of its escape is paramount to operational compatibility with local businesses and residents. The following sources of potential dust emissions have been identified:

- Crushing
- Soil screening
- Transfer of soils and aggregates
- Movement of vehicles and mobile plant around the site

4.6.2 A series of dust mitigation measures are implemented on site and when site conditions dictate to ensure dust emissions are controlled as far as is practically possible. The measures include:

- sheeting of vehicles delivering waste to the site (if necessary);
- sheeting of vehicles transporting potentially dusty loads off site;
- cleaning of any spillages using wet cleaning methods;
- use of crusting agents on stockpiles of finer materials, if required;
- stockpiles will be kept to a minimum as operating conditions allow;
- drop heights **ALWAYS** minimised to prevent dust emissions.
- A constant water supply will be available on site for dust suppression in all dry, hot weather conditions.
- The site utilises a water bowser whenever necessary to aid in dust suppression.
- 'Dusty wastes' which are pre-booked to arrive at the site will be required to report to the weighbridge where waste will be dampened down prior to tipping.

4.6.3 Site operatives will continuously monitor dust emissions whilst the site is in operation and will report back to the site supervisor for advice if required. The site supervisor will make a formal visual inspection of dust emissions at least two times per day. Results of monitoring will be entered into the site diary/record forms.

4.6.4 The deposit of material on the access road or public highway will be treated as an emergency and will be cleaned immediately using a brush and shovel or a road sweeper/vacuum tanker (hired-in) if necessary.

4.6.5 Where dust emission is considered unacceptable by the site management, it will be recorded in the site diary and remedial action shall be implemented in accordance with the following:

Table 4.3 – Remedial Action Requirements – Dust

Findings	Rating	Remedial Action necessary	Timeframe for remedial action	Internal reporting to Environmental Manager & MD	Reporting requirements to EA
Acceptable	A	No	N/A	N/A	N/A
Failure on site / bad practice but likelihood of causing an accident or emission is negligible	B	Yes	Within 2 working days	3 occurrences within 5 working days	None
Minor Emissions/failure but not perceived to interfere with sensitive Receptors, and/or likely to cause an accident or emission	C1	Yes	Within 12 hours	2 occurrences within 5 working days	3 occurrences within 5 working days
Emissions / failure occurred	C2	Yes	Immediately	Immediately	Immediately

4.6.6 Remedial action may include the following:

- Identification of dust waste and removal off site

- Identification and ceasing of dust generating activities undertaken externally (i.e. crushing)
- Further dampening down of dust wastes
- Use of sheet/tarpaulin to cover dusty wastes
- Increased dust suppression and road sweeper on site

4.6.7 The Site Manager is responsible for monitoring the frequency of any C ratings and shall notify the Environmental Manager. Where the occurrence requires notification to the EA this shall be the responsibility of the Environmental Manager and shall be made as soon as possible. All findings are recorded on weekly logs and the site diary.

4.7 Odour Control

4.7.1 The site will be operated in accordance with an approved Odour Management Plan (OMP) which is a stand-alone document dealing with the prevention and mitigation of odour related issues. Please refer to the OMP as the main site management document relating to this issue.

4.8 Control of Pests, Birds and other Scavengers

4.8.1 The operator has permanent pest control on-site via trained staff. The site will be inspected daily for the presence of vermin and the results of the inspection noted in the site diary or site inspection form.

Monitoring and Reporting of pests

4.8.2 As stated above, the site will be inspected daily for the presence of pests/vermin. Monitoring shall include inspection of the following for identification of pest infestation:

- Rat holes seen within waste stockpiles
- Witness of a rat
- Footprints within mud that indicates signs of rat activity
- Flies in and around machines and welfare areas

- Flies evident on stockpiles of waste
- Flies evident outside resting of warm surfaces.

4.8.3 Pest infestation and Scavenger problems shall be considered a non-conformance and shall be reported to the Environmental Manager.

4.8.4 Where pest and scavenger activity is considered unacceptable by the site management, it will be recorded in the site diary and remedial action shall be implemented in accordance with the following:

Table 4.4 – Remedial Action Requirements – Pests

Findings	Rating	Remedial Action necessary	Timeframe for remedial action	Internal reporting to Environmental Manager & MD	Reporting requirements to EA
Acceptable	A	No	N/A	N/A	N/A
Failure on site / bad practice but likelihood of causing an accident or emission is negligible	B	Yes	Within 2 working days	3 occurrences within 5 working days	None
Minor Emissions/failure but not perceived to interfere with sensitive Receptors, and/or likely to cause an accident or emission	C1	Yes	Within 12 hours	2 occurrences within 5 working days	3 occurrences within 5 working days
Emissions / failure occurred	C2	Yes	Immediately	Immediately	Immediately

4.8.5 The Site Manager is responsible for monitoring the frequency of any C ratings and shall notify the Environmental Manager. Where the occurrence requires notification to the EA this shall be the responsibility of the Environmental Manager and shall be made as soon as possible.

4.8.6 Remedial action may include the following:

- Regular inspections by nominated personnel
- Use of a qualified pest contractor to supervise a pest control regime

- Identification, isolation and removal of waste attracting pests
- Application of relevant pesticides
- Implementation of other relevant deterrent methods

4.9 Control and Monitoring of Noise & Vibration

4.9.1 The site will be operated in accordance with a standalone Noise and Vibration Management Plan which has been produced for the site and will ensure the noise levels at the site are managed appropriately by identifying: the likely sources of noise arising from the development; and, the actions to be taken / procedures to be followed or planned in order to prevent or minimise noise levels.

4.10 Complaints Procedure

4.10.1 All complaints are recorded on form NWR/RF/7 and will include a record of the complaint, particulars of the complainant and details of any action taken to alleviate the problem.

5 Emergency & Contingency Procedures

5.1 General

5.1.1 In addition to obligations imposed by RIDDOR '13 (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013) the permit holder will notify the EA of any serious injuries to employees of North West Recycling Ltd, other site users or members of the public arising as a result of operations on site. Minor injuries such as cuts and grazes etc. will be recorded in the accident book on site. Separate procedures will be used for different types of emergency. An emergency at the site is defined by the site management as follows:

"Any incident which is likely to result in harm to human health or pollution of the environment or serious breach of permit conditions and serious detriment to the amenities of the locality."

5.1.2 For all emergency situations, the deposit of any further waste will be suspended where necessary to allow action to be taken safely. If necessary, staff and other users of the site will be evacuated to an area which is a safe distance away from the hazards. Staff handling the emergency will be provided with and trained to use the necessary PPE (personal protective equipment) unless the manager instructs them that the hazard is too severe and outside help is needed from the emergency services or specialist waste contractors. A visitor's book will be kept to check who is on site at all times.

5.2 Fire

5.2.1 The site has a fire prevention plan (FPP) in place which has been prepared to in accordance with EA guidance to meet the following objectives:

- To minimise the likelihood of a fire happening;
- To aim for a fire to be extinguished within 4 hours;
- To minimise the spread of a fire within the site and to surrounding neighbouring sites; and,

- To minimise impact of fire on people, environment and businesses.

5.2.2 No waste will be burnt on site other than in plant specifically designed for the purpose and in accordance with the relevant statutory instruments. In the event of a fire occurring on site, the operator/site supervisor will exercise his judgement and extinguish the fire with the water hose or suitable fire extinguisher and/or call the fire service for assistance. Any fires will be reported to the EA on the working day that they occur. All staff will be evacuated from the site if necessary. Smoking is not permitted on site. Firefighting residues will be disposed of to a permitted waste management facility.

5.2.3 For quick reference, the following actions will be taken when fire is detected or suspected (Site operatives):

a) DON'T PANIC
b) RAISE THE ALARM (IF NOT DONE SO ALREADY)
c) NOTIFY THE SITE MANAGER (IF SAFE TO DO SO)
d) **DO NOT TRY TO TACKLE THE FIRE YOURSELF UNLESS YOU ARE TRAINED IN DOING SO AND YOU ARE SURE OF THE NATURE OF THE FIRE**
e) LEAVE THE USING THE MAIN ACCESS GATES AS QUICKLY AND AS ORDERLY AS POSSIBLE
f) ASSEMBLE AT THE SPECIFIED FIRE ASSEMBLY POINT WHICH IS LOCATED BY THE SITE ACCESS GATES.
g) THE SITE MANAGER OR DELEGATED OPERATIVE WILL BE IN CHARGE OF CALLING THE EMERGENCY SERVICES ON 999 AND ENSURING THAT ALL PERSONS WHO WERE WORKING ON THE SITE OR WHO SIGNED IN TO THE VISITOR'S BOOK ARE ASSEMBLED SAFELY
h) INFORM ALL NEIGHBOURING PREMISES WHO ARE LIKELY TO BE AFFECTED
i) INFORM THE ENVIRONMENT AGENCY
j) DO NOT RETURN TO THE SITE UNTIL YOU HAVE BEEN GIVEN THE ALL CLEAR BY THE EMERGENCY SERVICES AND THE SITE MANAGER

5.3 Spillages

5.3.1 Fuels and liquids which are stored on site will be contained within a bunded receptacle/container to contain any primary leaks and benefit from further secondary containment. If any oil and vehicle maintenance chemicals are kept on site, they will be stored securely. In the event of a spillage a spill containment kit (absorbent pads, booms or granules) will be used to prevent further spillage and the contaminated absorbents placed in a skip for disposal to a suitably permitted facility.

5.3.2 The site has two separate procedures for the different types of spillages that may occur at the site:

Small, isolated spill/leak

- Raise alarm and locate nearest spill kit
- Use booms to surround the spill and prevent spread
- Use absorbent granules, soil/sand, or pads to absorb liquid.
- Leave absorbent materials and booms on ground, replacing as necessary, until all free flowing liquid is absorbed.
- Dispose of contaminated material into a sealed container for correct disposal.

Large, Un-isolated spill/leak

- Raise alarm and locate nearest spill kit
- Consider the likely flow of liquid and identify the nearest drains and/or soak away and use booms to protect these services from the spill. It may be appropriate to install a bund of soil to protect services from the spill liquid.
- Where the liquid reaches a silt trap a test valve, stored in the weighbridge, shall be used to isolate the silt trap, and prevent the liquid from contaminating further into the drainage system.
- Prevent, as far as is possible, further spread of the spill.

- Identify the most appropriate methods for absorbing the spill. This may include using large quantities of absorbent granules, soils, using road sweeper, requesting assistance from a specialist company.
- Leave absorbent materials and booms on ground, replacing as necessary, until spill residues are collected and contained.
- Dispose of contaminated material into a sealed container for correct disposal.

5.3.3 Where a spill was contained by granules, pads and/or booms these wastes shall be removed to the appropriate 205lt drums within the garage which are kept for sealed containment of such contaminated materials.

5.3.4 Where the spill was substantial and has entered the interceptor via the drainage system a specialist contractor shall be utilised to empty the interceptor to ensure that the fuel / oil capacity of the interceptor is not been exceeded.

5.3.5 Where the oil/fuel has entered the drainage system but been retained in the silt trap, the silt trap shall be emptied by a suitably competent contractor as soon as possible to prevent the contamination from reaching the interceptor.

5.3.6 Silt removed from the silt trap as a result of this procedure shall be stored within a watertight container until adequate analysis has been completed to allow for disposal.

5.3.7 Where soil/sand/granules have been used to contain a spill and have been cleared up by the road sweeper, the resultant material shall be emptied into a container and temporarily stored on site pending disposal.

5.3.8 Waste samples shall be taken and supplied for analysis, within 1 working day of the waste being produced.

5.3.9 All site surfaces will be inspected daily for the presence of spillages when the site is in operation. Debris will be swept as required and placed in a skip for further processing on site and sent to a suitably permitted site.

5.3.10 Any wastes which would be classified as having the potential to cause polluting runoff are stored within the concrete area which is a sealed drainage system.

5.3.11 All wastes liable to give rise to contamination will be removed from the site within an EA agreed timescale.

5.4 Breakdowns

5.4.1 In the event of plant breakdowns, alternative plant will be sourced until the existing plant is repaired to prevent potential over stockpiling of waste. If an alternative plant cannot be used then waste will be stored securely until the plant is repaired and if necessary, waste will be diverted to an alternative site. The repair will be carried out at the most convenient location with absorbents used to clear oil or fuel spillages, most likely on the concrete surface.

5.4.2 Essential spares for plant maintenance are kept on site to ensure a repair can be carried out efficiently.

5.5 Adverse Reactions

5.5.1 The majority of wastes to be accepted do not present risk of adverse reactions. Any wastes accepted which have the potential to react and create adverse reactions will be stored in accordance with the relevant health and safety requirements and having regard to relevant hazards.

5.6 Staff Shortages

5.6.1 In the event of unforeseen staff shortages arising from illness, suspension or no shows, the operator will make a judgement whether to reduce the number of incoming loads and divert material to an alternative site. The operator will then seek further employment within a timely manner to ensure the site can continue to operate at its required capacity.

5.7 Adverse Weather Conditions

5.7.1 **High winds** – Operations will be predominantly undertaken within buildings. Therefore, high winds will not present a hazard to the operation of the process. The soils and aggregate treatment activities are undertaken externally; operational intensity of external activities will be reduced during periods of high winds.

5.7.2 **Poor visibility** - Operations will be predominantly undertaken within buildings. The site will reduce operational intensity in conditions of poor visibility such as dense fog to reduce the risk of vehicle collisions or other potential accidents.

5.7.3 **Droughts / warm weather** – Due to the nature of loads and how they are delivered, loaded, and unloaded at the site it is not anticipated that droughts or warm weather would have an impact on the operations. Operational intensity of external activities will be reduced during poor visibility. The site would source further dust suppression equipment for external operations that have the potential to generate dust.

5.7.4 **Long periods of rainfall or flood events** – Due to the site's concrete surface there is a low-risk of mud tracking off site. Vehicles will undergo a stringent check and vehicle chassis would be sprayed using hoses to reduce the risk of mud tracking off site. If these measures aren't ample following inspections or complaints, the operator would utilise a road sweeper to clear the mud/debris from the road until weather conditions improve.

5.7.5 The operator will set up a notification alert with the Met Office to receive prior notifications of the above unforeseen adverse weather conditions to ensure mitigation can be put in place prior to the event. The site may be forced to close during events which could cause a significant risk to staff, human health or the environment.

5.8 Operational Failure

5.8.1 The manager will be contacted by staff in the event of any operational failure such as the breakdown of plant, systems or equipment and will decide whether operations are to

continue or be suspended prior to corrective action being taken. Serious operational failures, which result in the closure of the site, will be recorded in the site diary.

5.9 Bomb Scare

5.9.1 In the unlikely event of a bomb scare, the site will be evacuated and the police contacted. The police will then assume control of the site until the threat has been verified or the device defused and removed. The EA will be kept informed of the events on site.

5.10 Accident Management Plan and Site Continuity Plan

5.10.1 The company has procedures implemented at the site to manage potential accidents or incidents which have been detailed in this EMS, re. drainage, fire, spillages etc.

5.10.2 Critical plant has been identified in Section 2.10. Should any of the critical plant be in a position that it cannot operate adequately the following provisions are in place:

Table 5.1 – Remedial Action Requirements – Plant and Machinery

Critical Plant	Standard Provisions / acceptable down time	Short term actions	Approved time frame to continue with short term actions	Long term actions to be considered and implemented where necessary
Red Line	16 production hours unplanned down time	Floor Sort DMR on delivery. Floor sort dry mixed municipal waste from stockpile. Refuse any loads of healthcare wastes until fully operational.	10 working days	Where floor sort of either waste is not handling input amount remove untreated waste from site to another transfer station to maintain stockpile limits. Reduce or Cease waste acceptance of inputs.
Glass and Stone Line	32 production hours unplanned downtime	None	6 working days	Cease waste acceptance of inputs
SRF Lines	32 production hours unplanned downtime	Stockpile up to maximum stock pile limits.	16 production hours	Hire equivalent machinery from a third party. Reduce or Cease waste acceptance of inputs.
Excavators	2 machines	Can operate with one machine for 5 working days.	5 working days	Hire equivalent machinery from a third party.

Critical Plant	Standard Provisions / acceptable down time	Short term actions	Approved time frame to continue with short term actions	Long term actions to be considered and implemented where necessary
				Reduce or Cease waste acceptance of inputs
Loading Shovels	2 machines	Can operate with one machine for 7.5 working days. Telehandler can be used in the interim.	5 working days	Hire equivalent machinery from a third party. Reduce or Cease waste acceptance of inputs

5.10.3 The site has the following critical output wastes that have the potential to affect the successful operation of the site.

- Wood
- All mixed residual treated waste
- Plasterboard
- Treated fines

5.10.4 The company shall ensure that they have two approved destinations available for critical outputs.

6 Adapting to climate change & weather conditions

6.1 Climate Change

6.1.1 The Met Office UK Climate Projections (UKCIP) has developed scenarios of climate change, which are summarised as:

- Warmer, wetter winters
- Hotter, drier summers
- Increased frequency and intensity of extreme weather (storms, droughts, intense downpours)

6.1.2 Reflecting these, the UK Climate Change Risk Assessment (CCRA) identifies a number of priority risks and opportunities. The likely direct climate change-related threats that can be considered to be of most relevance to minerals planning and management are:

- increases in the probability and severity of flooding (fluvial, groundwater, surface);
- exposure to high temperatures and heatwaves; and
- shortages in availability of water.

6.2 Flood Risk/Increased Rainfall

6.2.1 The site is located within a Flood Zone 1 which is classified as having the lowest probability and risk of fluvial flooding.

6.2.2 The site is located on previously developed land comprising a concrete pad and buildings. Drainage infrastructure has been detailed in Section 2.9 this EMS.

6.2.3 Therefore, it is considered that the site is not at risk from flooding and would not increase the risk of flooding elsewhere.

6.3 High Temperatures and Heatwaves

6.3.1 Dry weather periods may increase risk of dust arising from stockpiles of recycled aggregate. As outlined in this EMS, a range of dust mitigation measures would be employed including the sheeting of vehicles, dampening down stockpiles and surfaces, regular sweeping, and limiting stockpile and drop heights.

6.4 Availability of Water

6.4.1 The water use on site would be utilised for the dust suppression systems which are used for the treatment activities and dampening of stockpiles and surfaces during dry and windy conditions.

6.5 Weather Conditions

6.5.1 The site will be set up to receive weather alerts from the Met Office for the following weather conditions which could cause a potential complaint off site or potential breach of permit:

i) Prolonged periods of heavy rainfall causing mud and surface water ponding, causing odour.
ii) High winds creating a risk of litter and dust escaping beyond the site boundary.
iii) Droughts or periods of hot weather which could lead to water shortages, hosepipe bans
iv) Dense fog leading to poor visibility causing accidents.

6.5.2 The site will install the following preventative measures to ensure the above do not hinder operations:

HEAVY RAINFALL

- Vehicles exiting the site will undergo a more thorough check to ensure mud is not tracked off site.
- Should long periods of rainfall be likely, the site may consider hiring (as a result of daily inspections) a third-party road sweeper to cover the wet period to ensure surfaces are swept thoroughly throughout the day.

HIGH WINDS

- During conditions of high winds (>30mph) the site will monitor the impacts of dust and implement the suppression measures detailed within Section 4.
- Vehicles leaving the site will be sheeted to comply with the requirements of the Duty of Care legislation.
- Stockpiles will be reduced to a suitable height to prevent the material escaping beyond the site boundary.

DROUGHTS/WARM, DRY WEATHER

- In extreme cases such as a hosepipe ban or water shortage, the site will ensure there is additional water available to ensure suppression techniques can still function.
- For periods of prolonged dry conditions, stockpiles and processing heights may be reduced to a suitable level to reduce the risk of dust.
- If the above measures are not suitable, the site may look to install additional measures.
- Where dust is becoming a major concern then the operator will stop processing the material and cover the piles using tarpaulin (if feasible0 until conditions or dust suppression techniques are considered effective.

DENSE FOG (POOR VISIBILITY)

- The site will reduce operational intensity in conditions of poor visibility such as dense fog to reduce the risk of vehicle collisions or other potential accidents.

6.6 Conclusion

6.6.1 The options to mitigate and adapt to climate change are limited. The options identified in this section are considered to be proportionate, practicable and deliverable and it is considered this site would not be affected by climate change or adverse weather conditions.

7 Training for Site Staff

7.1 Training Needs Assessment

7.1.1 All new and existing site staff are subject to a specific training regime based on their responsibilities at the site to ensure all operations are carried out without harm to the environment or amenity of the surrounding area. Training in all aspects of the site and waste operations at the site with regard to the individual responsibilities of the site staff will help to prevent incidents occurring which may have an adverse impact on the environment and/or the employees and their co-workers.

7.1.2 An employee training record (i.e. NWR/RF /6 in Appendix II) shall provide a comprehensive checklist for the training needs of all new site staff and also serves as a training review for existing site staff which will be carried out annually or a period set at the operator's preference.

7.2 Site Rules and Infrastructure Training

7.2.1 This information is provided to all employees, visitors and contractors with a full understanding of the site's conditions of use, which is communicated and documented at induction for all staff with specific induction for visitors and contractors.

7.2.2 Competency should be demonstrated within this field to ensure the employee is fully aware of the sites surroundings and operations to ensure their safety and compliance with specific operating conditions at the site.

7.3 Emergency Procedures Training

7.3.1 All employees are required to be familiar with the Environmental Controls in Section 4.0 and the Emergency Procedures as detailed in the Section 5.0.

7.3.2 In addition to normal operating conditions as specified in the site rules, employees must also be trained in dealing with eventualities which may occur outside the scope of normal operating conditions, so they are aware of how to deal with these situations in advance of an occurrence.

7.4 Fire Safety /Firefighting Training

7.4.1 Management must provide all employees with appropriate fire safety training with regard to their individual responsibilities as detailed in the site's FPP.

7.4.2 Emergency procedures detailing what measures employees should adopt should a fire occur at the site are also detailed in Section 5.2 and are covered by the 'emergency procedures' training (see Section 7.3).

7.4.3 Regular fire drills are undertaken by site management to ensure proper procedures are followed by employees in the unlikely event that a fire incident occurs**.** These will be unannounced drills and will not form part of the induction or review training as specified in Section 7.1.

7.5 Recognition of Waste Types Training

7.5.1 All employees are given induction training and subsequent regular training to identify those waste types which are permitted for acceptance at the site under the sites EP and those wastes which are not. This will include specific training to identify those common wastes which may be found following deposit and are not permitted at the site and will also include more obscure wastes and how to handle these wastes safely. All employees are advised that they should refer any unrecognisable or unknown wastes to senior management, who should, in turn, follow procedures outlined in the EMS and/or contact the EA to agree a suitable method for removal.

7.5.2 Training is provided to all site users who handle waste on site and those in charge of administration and reporting. In-depth training will also be provided to drivers responsible

for collecting wastes from the site of production in accordance with Section 3.0. They will be trained to identify any wastes not covered by the EP for the site and inform the producer that an alternative facility must be sought for any non-compliant wastes.

7.6 Storage Areas /Limits Training

7.6.1 Those employees who carry out their responsibilities at the site and those in senior posts must be trained to identify appropriate waste storage areas to ensure that waste storage operations comply with the requirements of the EP for the site.

7.6.2 Employees in these roles must also be trained to recognise storage limits to ensure that they are in accordance with those specified in the EP.

7.7 Vehicle /Plant Preventative Maintenance Training

7.7.1 This training is provided specifically for the vehicle and plant operators in order to ensure that all plant and machinery is checked regularly to prevent any occurrences which may lead to any adverse impacts on the environment or human health.

7.7.2 Training will be in accordance with this document and will be based on the preventative maintenance schedule supplied by the plant/equipment manufacturer.

7.7.3 The same training will be provided to senior management enabling a dual-level maintenance programme.

7.8 Duty of Care Training

7.8.1 All employees dealing with consignments of waste are trained in the completion of Duty of Care Waste Transfer Notes and the appropriate auditing of destination sites and/or contractors to ensure compliance.

7.9 Plant Operation Training

7.9.1 Any employees who are required to operate loading or treatment plant for the movement or processing of waste will be required to undertake the necessary qualifications for the operation of the specific item of plant in question. This will be required prior to operating the plant and will be obtained through necessary external certification programmes.

7.9.2 Regardless of general plant operation certification, all operatives will be fully inducted in the operation of the specific make and/or model of plant used on site.

7.10 Permit /Management System/Fire Prevention Plan Training

7.10.1 All employees will be inducted into the operating conditions as prescribed in the EP for the site. Whilst much of the above training will provide specific guidance on many aspects of these documents, all employees will be made aware of the location of the EP and EMS in the site office. All managerial positions will be made fully aware of the sites operating conditions.

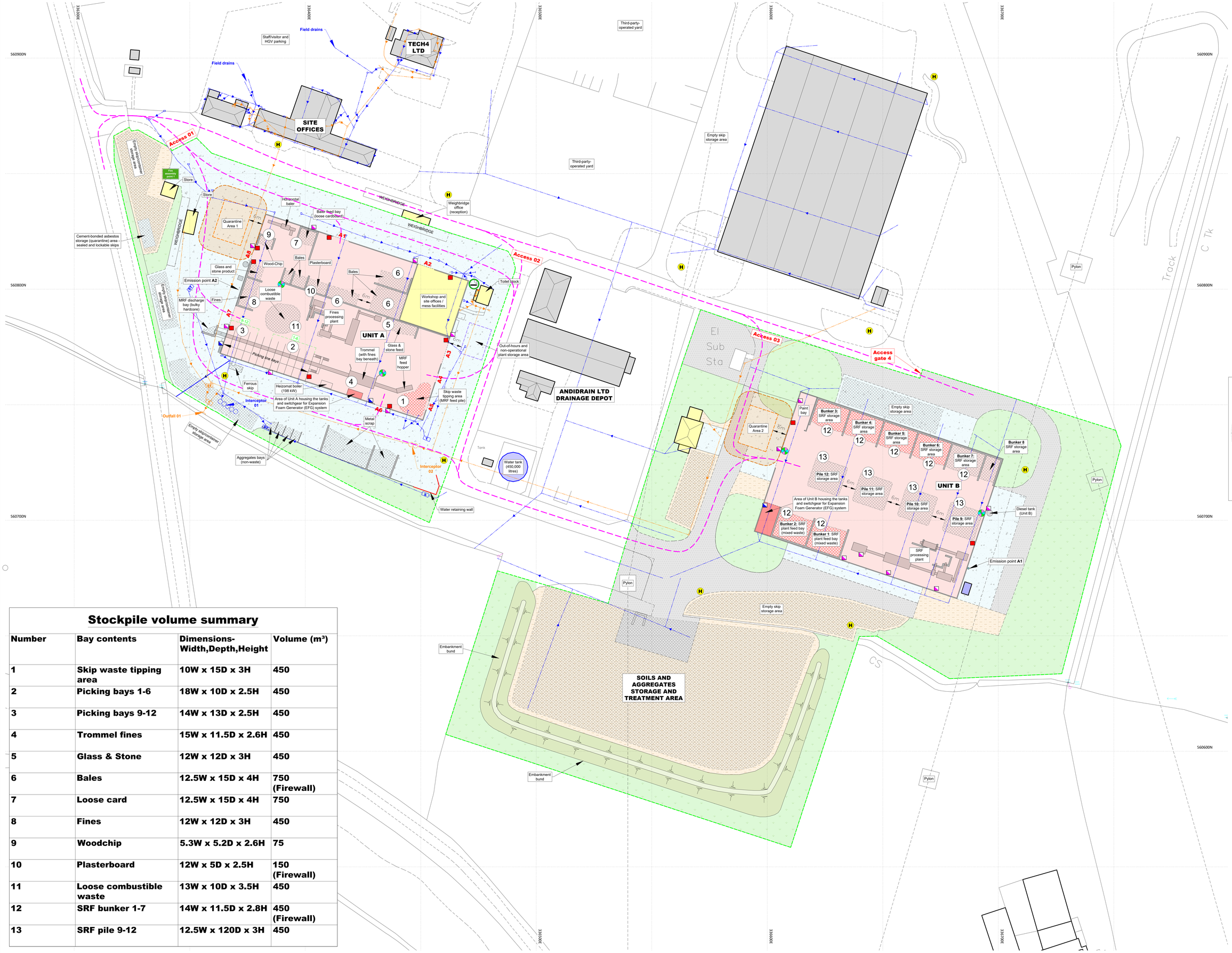
7.11 Training for Contractors

7.11.1 General site training will be provided to any contractors who are working on the site on a temporary basis as described in Sections 7.2, 7.3 and 7.4 above.

7.11.2 Additional training will be provided to contractors in their area of expertise. If they are dealing with specific items of plant/machinery, site operating conditions and a general understanding of the EP conditions will be provided to prevent any adverse impacts on the environment.

Appendix I

Drawings



Stockpile volume summary

Number	Bay contents	Dimensions- Width,Depth,Height	Volume (m³)
1	Skip waste tipping area	10W x 15D x 3H	450
2	Picking bays 1-6	18W x 10D x 2.5H	450
3	Picking bays 9-12	14W x 13D x 2.5H	450
4	Trommel fines	15W x 11.5D x 2.6H	450
5	Glass & Stone	12W x 12D x 3H	450
6	Bales	12.5W x 15D x 4H	750 (Firewall)
7	Loose card	12.5W x 15D x 4H	750
8	Fines	12W x 12D x 3H	450
9	Woodchip	5.3W x 5.2D x 2.6H	75
10	Plasterboard	12W x 5D x 2.5H	150 (Firewall)
11	Loose combustible waste	13W x 10D x 3.5H	450
12	SRF bunker 1-7	14W x 11.5D x 2.8H	450 (Firewall)
13	SRF pile 9-12	12.5W x 120D x 3H	450

NOTES

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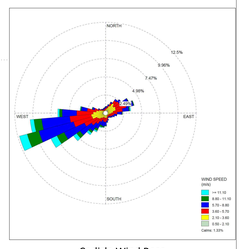
REVISION HISTORY

Rev:	Date:	Init:	Description:
-	18.02.22	RS	Initial drawing
A	18.02.22	RS	Client comments
B	14.02.22	RS/CP	EA comments
C	04.01.24	JH	Amendment
D	09.02.24	JH	Flue added
E	18.04.24	JH	Amendment
F	20.09.24	JH	Layout amendment
G	23.09.24	JH	Drainage added

KEY:

- Permit boundary
- Storage areas (general)
- Storage areas benefiting from Expansion Foam Generator (EFG) coverage
- Sealed buildings
- Concreted area
- Stone surface (free-draining)
- Other on-site buildings (offices, workshop, etc.)
- Tarmac surfacing
- Unsurfaced areas (grass / vegetation)
- Quarantine areas (with 6m buffer zones)
- Fire fighting equipment (extinguishers, etc.)
- Mains water
- Access routes for emergency vehicles
- Fire alarm call points
- Designated smoking area
- Penstock / shut-off valve for use in event of a fire or spillage for surface water drainage containment
- On-site fire hydrants (on 100mm and 200mm mains)
- Radiometric Thermal Camera & Monitor (RTCM)
- Indicative surface & roof drainage
- Indicative combined drainage
- Drainage fall direction
- T / T — Tanks
- S / S — Sump
- ST / ST — Silt trap
- Manhole
- Gully



Carlisle Wind Rose

Scale Bar (1:500)
0 m 5 10 15 20 25 m

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
LAYOUT & FIRE PLAN (PHASE 1)

CLIENT
North West Recycling Ltd

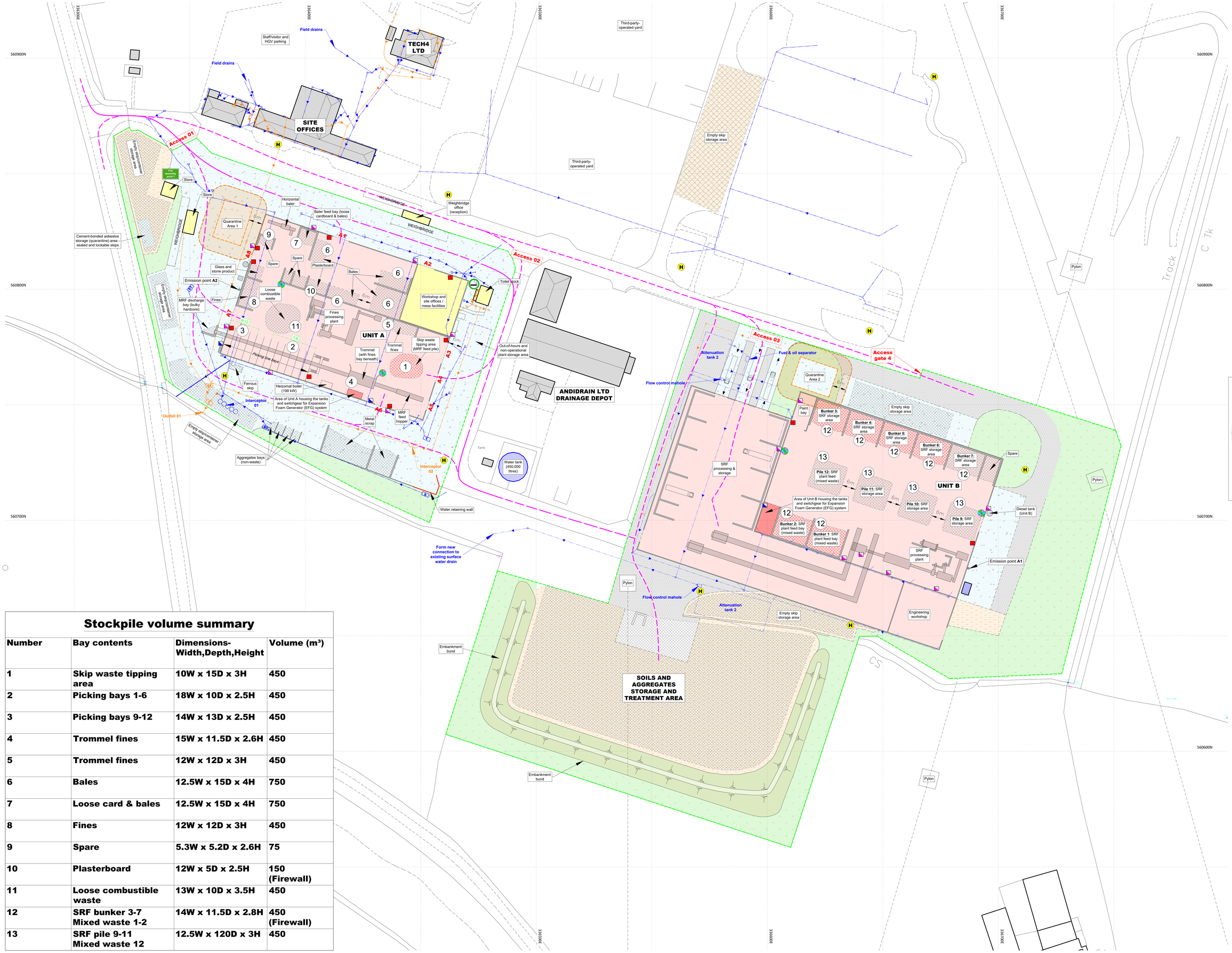
PROJECT/SITE
Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

SCALE @ A0	CLIENT NO	JOB NO
1:500	634	003

DRAWING NUMBER	SHEET NUMBER	REV	STATUS
634-003-03	1 of 1	G	Issued

DRAWN BY	CHECKED	DATE
RS/CP/JH	RS	23.09.24

Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
t: 01606 558833 | e: sales@oaktree-environmental.co.uk



Stockpile volume summary

Number	Bay contents	Dimensions-Width,Depth,Height	Volume (m³)
1	Skip waste tipping area	10W x 15D x 3H	450
2	Picking bays 1-6	18W x 10D x 2.5H	450
3	Picking bays 9-12	14W x 13D x 2.5H	450
4	Trommel fines	15W x 11.5D x 2.6H	450
5	Trommel fines	12W x 12D x 3H	450
6	Bales	12.5W x 15D x 4H	750
7	Loose card & bales	12.5W x 15D x 4H	750
8	Fines	12W x 12D x 3H	450
9	Spare	5.3W x 5.2D x 2.6H	75
10	Plasterboard	12W x 5D x 2.5H	150 (Firewall)
11	Loose combustible waste	13W x 10D x 3.5H	450
12	SRF bunker 3-7 Mixed waste 1-2	14W x 11.5D x 2.8H	450 (Firewall)
13	SRF pile 9-11 Mixed waste 12	12.5W x 120D x 3H	450

NOTES

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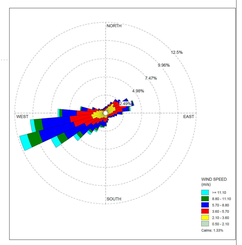
REVISION HISTORY

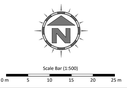
Rev:	Date:	Init:	Description:
-	31.07.24	RS/JH	Initial drawing
A	01.08.24	JH	Amendment
B	20.08.24	JH	Emission point added
C	28.08.24	JH	Table added
D	30.08.24	JH	Amendment
E	23.09.24	JH	Drainage added
F	26.09.24	JH	Table amendment
G	19.12.24	JH	Client comments

KEY:

- Permit boundary
- Storage areas (general)
- Storage areas benefiting from Expansion Foam Generator (EFG) coverage
- Sealed buildings
- Concreted area
- Stone surface (free-draining)
- Other on-site buildings (offices, workshop, etc.)
- Tarmac surfacing
- Unsurfaced areas (grass / vegetation)
- Quarantine areas (with 6m buffer zones)
- Fire fighting equipment (extinguishers, etc.)
- Mains water
- Access routes for emergency vehicles
- Fire alarm call points
- Designated smoking area
- Penstock / shut-off valve for use in event of a fire or spillage for surface water drainage containment
- On-site fire hydrants (on 100mm and 200mm mains)
- Radiometric Thermal Camera & Monitor (RTCM)
- Indicative surface & roof drainage
- Indicative combined drainage
- Drainage fall direction
- T / T Tanks
- S / S Sump
- ST / ST Silt trap
- Manhole
- Gully



Carlisle Wind Rose



Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
LAYOUT & FIRE PLAN (PHASE 2)

CLIENT
North West Recycling Ltd

PROJECT/SITE
Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

SCALE @ A0	CLIENT NO	JOB NO
1:500	634	004

DRAWING NUMBER	SHEET NUMBER	REV	STATUS
634-004-03A	1 of 1	G	Issued

DRAWN BY	CHECKED	DATE
RS/CP/JH	RS	19.12.24

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Appendix II

Record Keeping Forms

NORTH WEST RECYCLING LTD
REJECTED WASTE - RECORD FORM NWR/RF/2

DATE	
TIME	
WASTE DESCRIPTION	
QUANTITY OF WASTE	
PRODUCER/HOLDER'S NAME, ADDRESS & TELEPHONE No.	
NAME OF CARRIER	
VEHICLE REGISTRATION	
CARRIER REG. No.	
REASON FOR REJECTION OF WASTE	
ACTION TAKEN	

	NORTH WEST RECYCLING LTD SITE INSPECTION FORM – NWR/RF/4

WEEK STARTING								
TYPE OF INSPECTION	**FREQ**	**DAY**						
		M	**T**	**W**	**T**	**F**	**S**	**S**
SITE ENTRANCE/NOTICE BOARD	**WEEKLY**							
SECURITY - GATES	**WEEKLY**							
SECURITY - FENCING	**WEEKLY**							
SITE ROADS (CLEAR FROM HAZARDS)	**DAILY**							
IMPERMEABLE CONCRETE AREAS	**DAILY**							
BUND AROUND CONCRETE PAD (INTEGRITY)	**DAILY**							
DRAIN (FUNCTIONING)	**DAILY**							
HOLDING TANK / SUMP / INTERCEPTOR	**WEEKLY**							
WASTE CONTAINERS	**DAILY**							
WASTE STORAGE LIMITS	**DAILY**							
REJECTED WASTE TYPES / STORAGE	**WEEKLY**							
NOISE LEVELS	**DAILY**							
FIRES (ANY INCIDENTS REPORTED)	**DAILY**							
NO SMOKING SIGNS IN PLACE	**MONTHLY**							
SPILLAGES & ABSORBENTS	**DAILY**							
FUEL TANK/BUND INTEGRITY	**WEEKLY**							
LITTER	**DAILY**							
DUST	**DAILY**							
ODOUR	**DAILY**							
VERMIN	**DAILY**							
RECORDS	**WEEKLY**							
COMPLAINTS RECEIVED	**AS REQUIRED**							
OTHER (SEE NOTES BELOW)	**AS REQUIRED**							
INSPECTION CARRIED OUT BY								

	NOTES/ACTION (CONTINUE ON A SEPARATE SHEET IF NECESSARY):

CHECKED BY			**SIGNATURE**	
POSITION			**DATE**	
Sheet			***of***	

NORTH WEST RECYCLING LTD
PREVENTATIVE MAINTENANCE CHECKLIST– NWR/RF/5

CHECKED BY	**POSITION**
DATE	**DATE OF LAST CHECKLIST**

	EQUIPMENT ITEM					
OFFICIAL MAINTENANCE CHECK REQUIRED (Y/N)						
IF NO, DATE OF LAST CHECK						
IF YES, DATE OF NEXT CHECK						
IS ITEM IN CORRECT WORKING ORDER						
LEAKAGES OF OIL/DIESEL ON MOBILE PLANT / VEHICLES						
IF NO, WHAT REPAIRS ARE REQUIRED (USE SEPARATE SHEET IF REQUIRED)						
WERE REPAIRS DETAILED ON THE LAST CHECKLIST						
IF YES, HAVE THEY BEEN CARRIED OUT						
ADDITIONAL REPAIRS OR ACTIONS REQUIRED						

NORTH WEST RECYCLING LTD
EMPLOYEE TRAINING NEEDS ASSESSMENT / REVIEW - NWR/RF/6

EMPLOYEE NAME				**DATE COMPLETED**			
POSITION				**REVIEW DUE**			
TRAINER				**OUTCOME**	**PASSED**		
POSITION					**FURTHER TRAINING REQUIRED**		
CARRIED OUT /SIGN OFF >	**Y/N**	**SIGNED BY EMPLOYEE**	**SIGNED BY TRAINER**		**Y/N**	**SIGNED BY EMPLOYEE**	**SIGNED BY TRAINER**
ENVIRONMENTAL PERMIT				**FIRE PREVENTION PLAN**			
MANAGEMENT SYSTEM				**FIRE SAFETY**			
SITE RULES				**EMERGENCY PROCEDURES**			
RECORD KEEPING / TRANSFER NOTES				**STORAGE /PILE SIZE LIMITS**			
RECOGNITION OF WASTE TYPES				**STORAGE DURATION**			
SECURITY				**FIRE DETECTION**			
VEHICLE CHECKS				**FIRE ALARMS**			
PLANT OPERATION				**FIRE FIGHTING EQUIPMENT**			
PLANT CHECKS				**FIRE WATER CONTAINMENT MEASURES**			
AMENITY - LITTER, ODOUR, PESTS etc.				**SPILL CLEARANCE**			
NOTES AND ACTIONS:							

NORTH WEST RECYCLING LTD
COMPLAINTS REPORT FORM (NWR/RF/7)

Date Recorded:	**Reference Number:**
Name and address of caller	
Telephone number of caller	
Time and Date of call	
Nature of complaint (noise, odour, dust, other) (date, time, duration)	
Weather at the time of complaint (rain, snow, fog, etc.)	
Wind (strength, direction)	
Any other complaints relating to this report	
Any other relevant information	
Potential reasons for complaint	
The operations being carried out on site at the time of the complaint	
Follow Up	
Actions taken	
Date of call back to complainant	
Summary of call back conversation	
Recommendations	
Change in procedures	
Changes to Environmental Management System (EMS)	
Date changes implemented	
Form completed by	
Signed	
Date completed	

COMPLAINT RECORDING PROCEDURE:

Any complaints received will be recorded on form NWR/RF/7. This form will normally be completed, signed and dated by the Site Manager; if they are not available the Office Manager will complete the form.

1) The name, address and telephone number of the caller will be requested.

2) Each complaint will be given a reference number.

3) The caller will be asked to give details of:

    a) the nature of the complaint;
    b) the time;
    c) how long it lasted;
    d) how often it occurs;
    e) Is this the first time the problem has been noticed; and
    f) what prompted them to complain.

4) The person completing the form will then, if possible, make a note of:

    a) the weather conditions at the time of the problem (rain, snow, fog etc.);
    b) strength and direction of the wind; and
    c) the activity or activities taken place on the site at the time the noise was detected, particularly anything unusual.

5) The reason for the complaint will be investigated and a note of the findings added to the report.

6) The caller will then be contacted with an explanation of the source of the complaint if identified and the action taken to prevent a recurrence of the problem in future.

7) If the caller is unhappy about the outcome or unwilling to identify themselves the caller will be invited to contact the Environment Agency and or the Local Authority.

Note: Following any complaint the relevant management plan(s) will be reviewed to ensure appropriate actions are in place to counter any problems.

Appendix III

Environmental Permit & Accepted EWC Codes (to be added)

Appendix IV

Health & Safety – Conditions of Site Use

HEALTH AND SAFETY - CONDITIONS OF SITE USE

The following guidelines apply to all site personnel, contractors and visitors using the site (where applicable).

1) The site is covered by the Health and Safety at Work Act 1974 and its associated regulations and all users must abide by any relevant provisions. Any person found to be in contravention of the requirements of this Health and Safety Statement will be asked to leave the site.

2) All visitors and contractors must sign the visitor's book upon entry to and exit from the site. All vehicle drivers must report to the office and await instruction from the site manager/deputy before proceeding to deposit waste at the site.

3) All accidents, diseases, injuries or dangerous occurrences shall be reported to the site manager. All instructions issued by the site manager in respect of health and safety at the site must be followed by all site users.

4) A first aid box (including eye-wash bottles) is kept in the site office. If you are injured on site please alert a member of staff/trained first-aider for assistance.

5) All persons must wear the appropriate PPE on site including high visibility jackets and hard hat.

6) Safety boots must be worn by all persons in the waste treatment/storage areas.

7) Protective gloves must be worn for any operations which present a hazard of puncture to or laceration of the skin or for any manual handling work carried out on site.

8) Ear defenders, safety helmets (hard hats) and eye protection will be issued when deemed necessary and must be worn by all employees and contractors where required by the site manager or other site representatives.

9) Fire extinguishers are kept on site to deal with any fires - fires shall only be dealt with by employees of North West Recycling Ltd unless alternative instructions are given by the site manager. Access to fire exits and firefighting equipment must be kept clear at all times. When the fire alarm sounds please follow instructions and leave the site in an orderly fashion.

10) Persons who are suspected to be under the influence of drugs or alcohol will be removed from the site.

11) Smoking is not permitted on the site.

12) Observe and follow all traffic directions and traffic/safety signs.

13) Drivers must comply with all safety instructions given by the site manager or appointed deputy.

14) All drivers are responsible for ensuring that their vehicle is safely loaded. Unsafe loads will not be accepted at the site and will not be allowed to leave the site until they have been made safe.

15) Drivers waiting to tip at the recycling centre shall follow the instructions of the operator and shall only tip in the designated area, unless advised otherwise. No tipping shall take place over sorted stockpiles.

16) Drivers must remain in the cab or stand well clear of the vehicle during loading or tipping. Once the vehicle has been loaded it must be securely sheeted (if necessary) before leaving the site. When sheeting and unsheeting the vehicle ensure that the engine is switched off, the ignition key removed and the parking brake is on. Do not gain access using the mudguards and wheels. Ensure that your ropes, hooks and sheets are in good condition.

17) Never travel with the vehicle body raised. Ensure you know the maximum height of the raised body of your vehicle.

Declaration: To be completed by site users

I have read and understand the conditions of use for this site and agree to comply with them at all times. I accept that neither North West Recycling Ltd nor their employees shall be liable for any loss or injury arising from my non-compliance with the above conditions.

Signed..... Print name.....

Company/Organisation..... Date.....

Note: these conditions are included in the EMS for information only and may be revised regularly as part of the site health and safety policy.

Appendix V

Detailed Waste Acceptance Procedures

NorthWest RECYCLING	Units A and B Rockcliffe Est Rockcliffe Carlisle CA6 4RW		

NWR-5.3/1 Non Hazardous Waste Acceptance Procedure - SKIPS

1. PURPOSE

This procedure shall ensure that waste acceptance for skip waste is carried out according to a pre-defined process that complies with legal requirements

2. PROCEDURE

Loads containing healthcare wastes whose treatment and disposal does not require special controls for the prevention of infection shall be booked into site a minimum 12 hours prior to arrival. Each booking will be confirmed with the Production Manager. The booking shall be refused by the Production Manager where breakdowns, maintenance or stock levels prevent the load from being transferred and treated within 24 hours of arrival.

Upon entering the site the driver shall be guided by signs to drive to the incoming weighbridge. Upon arriving on the incoming weighbridge the driver shall use their mobile phone to ring the weighbridge office telephone.

The weighbridge operator shall have a clear view of the inbound weighbridge at all times.

The weighbridge operator shall identify the incoming load on the companies waste management software using booking numbers provided by the incoming driver. The weighbridge operator will verbally confirm the booking information with the driver – including waste type and container, and advise them of the appropriate tipping location.

The weighbridge operator will notify the receiving area operative of the incoming vehicle and waste type / quantity i.e. 40yd mixed construction waste via the 2 way radio system.

The receiving operative will then confirm receipt and inspect the load as it is tipped off the vehicle/container. If the load contains any non-conforming, or non-permitted waste the load will be immediately transferred back into the container and the weighbridge shall be notified. If the waste is not as initially described, but is conforming and permitted on site, the weighbridge operator shall be notified by the site staff of the correct waste description and the paperwork shall be corrected before the delivery driver signs the Weighbridge ticket.

Staff responsible for booking out skips, or other waste collection services, staff managing receipt of waste (including manning the weigh bridge), drivers employed by Green Waste Ltd, and site staff responsible for managing receipt of waste (including visual inspections of wastes at tipping locations) will be trained so they are familiar with this procedure and the sites following waste acceptance rules;

i. Wastes that are either Solely, or mainly consist of dust, loose fibres, liquids or sludges are not accepted
ii. Only wastes specified on the Sites environmental Permit shall be accepted onto site
iii. Empty used containers which have contained chemicals or hazardous waste must be triple rinsed or certified as clean before they will be accepted.
iv. Paints tins or other containers that have residues in will be accepted ONLY if those residues are solid and non-hazardous.
v. Potentially dusty loads have to be notified in advance to ensure that suitable plant and equipment is available to reduce dust emissions.
vi. Some powdered waste will have to be bagged prior to receipt to prevent a dust problem. No whole loads of powdered waste will be accepted.
vii. EWC 17 06 05 and 17 06 01 Asbestos shall be accepted only if it is double bagged / wrapped and is stored immediately in a lockable container
viii. Fridge Freezers, Televisions/Screens and Fluorescent Tubes have to be booked in advance.
ix. EWC 18 01 04 Shall not contain any Sharps, anatomical waste (eg body parts, organs or blood), chemical medicines, dental amalgam or any waste that is infectious (ie clinical waste), no more than 50t shall be accepted in any one day

Customers shall be notified at the point of ordering a skip that the following waste acceptance rules apply;

- Wastes that are either solely, or mainly consist of dusts, loose fibres, liquids or sludges are not accepted onto site
- Empty paint tins will only be accepted if the residuals are solid and non-hazardous
- Empty chemical containers will only be accepted if the container has been triple rinsed, or certified clean.
- Asbestos shall be accepted under the permit provided it is double bagged / wrapped and is stored in a lockable container
- Fridge Freezers, Televisions/Screens and Fluorescent Tubes have to be notified in advance.
- Other Hazardous Wastes not accepted onto site
- No Hot Wastes

At the time of ordering a skip the following information shall be taken from the customer;
- Waste Producer Name and SIC code
- Source of Waste including postcode
- Source and Nature of the waste going in the skip

Customers shall be questioned at the time of ordering a skip collection;
- Source and nature of the waste that is in the skip
- Any Asbestos, Televisions, Fridge Freezers of Fluorescent Tubes in the skip
- Any significant dust, loose fibres, liquids or sludge's

Where a hook lift skip is booked for segregated green wastes the company shall endeavour to divert that skip immediately to the composting facility rather than bringing it to this site.

Skip, hooklift and trade waste drivers employed by Green Waste Ltd shall visually inspect every skip for non conforming or non-permitted waste, before collecting the skip from a customer.

Where this visual inspection identifies any prohibited or non conforming waste wastes they shall contact the customer to request the removal of this waste before proceeding to collect the skip. If it is not possible to remove this from the skip the skip shall be left on site and the Customer Service Team and Environment Manager shall be informed. The Customer Service Team and/or Environment Manager shall liaise with the customer to rectify the situation.

Staff responsible for booking out skips, or other waste collection services and drivers employed by Green Waste Ltd will be trained so they are familiar waste pre-collection inspection routines and with the approved procedure for dealing with non conforming, or non permitted wastes found during a pre-collection inspection.

Where this visual inspection identifies that the waste description does not match the order as described on their electronic device the driver will contact the customer to corroborate the waste type. Where this requires the order to be amended this shall be done before the skip is loaded onto the vehicle.

Prohibited wastes identified on the permitted site shall be quarantined and dealt with according to the Non-Conforming Wastes procedure.

The permitted site shall use a waste management software programme to manage all of its waste delivers and despatches.

A maintenance contract shall be maintained with the software provider for daily support. The provider shall be responsible for ensuring adequate back up is made of the data via use of external 'clouds'.

Should the system fail, or a failure occur with mains power, weighbridge tickets shall be completed manually and recorded on the software program once power is resumed.

Where they waste management software requires internet access to operate, mobile internet access shall be maintained as a back up to cable supplied internet.

3. RECORDS

Weighbridge Ticket
Skip Delivery Ticket
Skip Collection Ticket

NorthWest RECYCLING	Units A and B Rockcliffe Est Rockcliffe Carlisle CA6 4RW		

NWR-5.3/2 Non Hazardous Waste Acceptance Procedure – Third Party

1. PURPOSE

This procedure shall ensure that waste acceptance from third parties is carried out according to a pre-defined process that complies with legal requirements

2. PROCEDURE

Loads containing healthcare wastes whose treatment and disposal does not require special controls for the prevention of infection shall be booked into site a minimum 12 hours prior to arrival. Each booking will be confirmed with the Production Manager. The booking shall be refused by the Production Manager where breakdowns, maintenance or stock levels prevent the load from being transferred and treated within 24 hours of arrival.

Each source of offensive waste shall supply a completed Waste Pre-Acceptance audit prior to any wastes being accepted at this facility. This audit shall meet the requirements of the Environment Agency Guidelines for Healthcare Wastes – Appropriate measures for permitted facilities July 2020. Where an audit report supplied is incomplete or inadequate you must request the missing information. Where an audit report supplied is acceptable the report will be technically assessed with specific attention to the waste streams the site proposes to accept and review them for suitability for acceptance.

All third party vehicles entering the site to deposit waste will be directed, by signs, through the main gates and onto the weighbridge. New Customers to the site in non-articulated vehicles will be directed to attend the manned outbound weighbridge to receive instruction / direction from the weighbridge operative.

Third party articulated vehicles will be directed by signs, through the main gates onto the first weighbridge.

A speaker or telephone communication system shall be maintained between the first weighbridge and the weighbridge office. Copies of the site rules and site layout drawing will be available adjacent to the site phone.

Where the telephone system fails a temporary alternative procedure shall be introduced.

The weighbridge operator shall have a clear view of the inbound weighbridge at all times.

All customers will be issued with a copy of the site rules and site layout drawing.

The first time a vehicle enters the site for the customer they shall be asked to provide a copy of their Waste Carriers Licence, or the company shall be checked on the EA Public Register for evidence of a valid Waste Carriers Licence being held.

Without a Waste Carriers Licence the customer shall be refused to site.

If un-registered a customer may be offered the facility to make the registration using an NWR computer. This shall be at the weighbridge operators discretion.

When a driver enters the site for the first time they shall be instructed on;
- Mandatory PPE
- Traffic system
- 10mph Speed Limit

Before continuing beyond the weighbridge the customer shall be notified of the following wastes that the Transfer Station will NOT accept;
- Wastes that are either solely, or mainly consist of dusts, loose fibres, liquids or sludges
- Any Hazardous Wastes that is not Asbestos, refrigeration units, televisions or Fluorescent tubes
- Hot Wastes

In addition to the above restrictions the following strict requirements will apply to certain waste types;

x. Empty used containers which have contained chemicals or hazardous waste must be triple rinsed or certified as clean before they will be accepted.
xi. Paints tins or other containers that have residues in will be accepted ONLY if those residues are solid and non-hazardous.
xii. Potentially dusty loads or loads containing powder have to be notified in advance to ensure that suitable plant and equipment is available to reduce dust emissions.
xiii. Some powdered waste will have to be bagged prior to receipt to prevent a dust problem. No whole loads of powdered waste will be accepted.
xiv. EWC 17 06 05 and 17 06 01 Asbestos shall be accepted only if it is double bagged / wrapped and is stored in a lockable container, no more than 10t on site at any one time
xv. Fridge Freezers, Televisions/Screens and Fluorescent Tubes are accepted under an S2 exemption and have to be notified in advance.
xvi. EWC 18 01 04 Shall not contain any Sharps, anatomical waste (eg body parts, organs or blood), chemical medicines, dental amalgam or any waste that is infectious (ie clinical waste), no more than 50t accepted in any one day.

Customers onto site shall provide the following information before they proceed to the tipping point;
- Vehicle Registration No.
- Company Name. and SIC code
- Waste Type and EWC code
- Gross Weight

- Source of Waste
- Any existing applicable Duty of Care/Waste Transfer Note documents

Using the 2 way radios the weighbridge operator will confirm waste description to the receiving area operative that the vehicle / customer is ok to proceed.

The weighbridge operator will notify the customer of which doorway to proceed to using the doorway identification numbers.

The receiving operative will then confirm receipt of the vehicle, assess the waste to be transferred against the above criteria, and notify the weighbridge of any non-conformances / contamination or variances to the waste description given.

Non Conforming wastes identified at this point shall be returned to the customer. If the rejected waste is a healthcare waste the form 'Rejected Healthcare Waste' shall be completed. This form will then be supplied to the sites senior management and the waste producer.

Once acceptable wastes have transferred the driver shall return to the manned weighbridge.

The weighbridge ticket shall be produced and shall include;

- Date and time of transfer
- Full name, address and SIC code of producer
- Where different to above, source of the waste
- Weight being transfered
- Waste Description and EWC code
- Name, Address and Waste Carrier Licence number of carrier
- Vehicle Registration number
- Name, Address and Permit number of receiving location

The weighbridge ticket shall be signed by a minimum of 2 parties (producer, carrier and/or disposer).

Weighbridge tickets shall be supplied by email or electronically, depending on customers preference.

Where a non-conforming waste is identified after the customer has left the site the Non-conforming Wastes Procedure shall be followed.

Where a customer arrives on site with no evidence of a current Waste Carriers Licence the weighbridge operator shall use the public registers available from the EA (Environment Agency), NRA (National Resource Wales) and SEPA (Scottish Environment Protection Agency) to identify the registration status of the customer.

Where the customer has produced their own Duty of Care / Waste Transfer Note for the transaction this shall be signed as required, and a copy attached and retained with our weighbridge ticket (Waste Transfer Note/ Duty of Care).

3. RECORDS/FORMS

Weighbridge Ticket
Rejected Healthcare Waste

NorthWest RECYCLING	Units A and B Rockcliffe Est Rockcliffe Carlisle CA6 4RW		

NWR-5.3/3 Hazardous Waste Acceptance Procedure

1. PURPOSE

This procedure shall ensure that hazardous waste is accepted correctly with associated Hazardous / Special Waste Consignment Note in order to comply with legislation.

2. PROCEDURE

Unit A shall accept Asbestos (Bonded and Fibrous) under the conditions of permit EA WML 100741.

Where an asbestos skip is being booked for collection the company shall endeavour to transport this material direct to landfill.

Where asbestos waste is being presented to the weighbridge for transfer the waste must be double bagged or wrapped and stored in a lockable container.

Where the waste does not comply with the acceptance criteria it shall be rejected and the customer advised on the acceptable condition for acceptance onto site.

Bags must not be opened.

Where skips arrive on site with asbestos, with the exception of the initial acceptance inspection the container shall be kept locked at all times when on site and no further asbestos shall be added to that container.

Double Bagged asbestos waste received into the site not contained in a skip shall be placed immediately into a lockable container. That container must remain locked when asbestos wastes are not being deposited into it.

Asbestos shall only be accepted where it will not cause the site to exceed 10t in total of 17 06 05* and 17 06 01*. Where it would cause the site to exceed this limit the load will be rejected.

Fluorescent Tubes must be whole, otherwise the waste shall be rejected.

The Production Manager will be notified of the details of any rejected loads to recorded them in the site diary.

In addition to the relevant Non Hazardous Waste Acceptance procedure the following shall apply to all Hazardous Waste consignments.

Where the waste is a hazardous EWC code as described in the List of Wastes the load should be accompanied by a Consignment Note. Unless the waste is not asbestos being received immediately from a domestic producer.

Failure to supply an adequately completed Consignment Note shall be reported to the customer as non-compliant with the Regulations and advice shall be given on the correct documentation.

In the event of no, or an unacceptable, Consignment Note being presented to the weighbridge, the weighbridge operator shall produce an acceptable document for the customer the sign.

Where a customer has needed guidance/advice due to incomplete, or no, consignment note a record shall be kept in the weighbridge of the customers name, address and the advice given.

Where advice is given and a customer returns to site again without the appropriately completed paperwork the load shall be rejected.

Details of the rejected consignment, accompanied by a consignment note, shall be reported to the Environment Agency via the Consignee Returns.

Where a load of hazardous waste has been presented for transfer without consignment note despite previous advice, the rejected load shall be reported to the Environment Agency, by either the Production Manager or Environmental Manager within 1 working day.

Where the hazardous waste has originated from Scotland the Special Waste Consignment Note must have been pre-notified to SEPA at least 3 working days before the waste is presented for transfer. Should hazardous waste be presented to site for transfer without the adequate Special Waste Consignment Note completed, or pre notification being done, SEPA will be contacted for advice. Telephone SEPA 01387 720 502.

Consignment Notes shall be completed by the weighbridge operator. Consignments of hazardous waste will be reported to the Environment Agency via the Consignee Returns spreadsheets.

Consignors shall be notified of their completed transfer of hazardous waste by supplying a copy of the completed Consignment note, either by email or post.

Weighbridge operator shall be provided with training and written guidance on how to record on the consignment note a rejected load and how it should be reported to the Environment Agency.

3. RECORDS / FORMS

Weighbridge Ticket
Consignment Notes

Permit Application Supporting Document Appendix IV

Fire Prevention Plan

Contents

Document History

Document Versions	Date	Status	Section / page Amended	Details	Prepared by
0.0	January 2015	Preparation	whole document		R Oliver / Andy Orr
1.0	01 December 2015	Issued	whole document	removed from EMS	R Oliver
1.01	01 December 2015 - 22 December 2015	Preparation for Permit Variation Application	whole document and Appendix A	submitted for Permit Variation Application	R Oliver
1.02	22 January 2016 - 18th February 2016	Reviewed in response to Schedule 5 notice	Whole Document and Appendix A	submitted for Permit Variation Applications	R Oliver / D Bamber
1.03	13/10/2016	Reviewed in response to Application	Table 5 pg 13, pg 38 - 30 and Appendix A	submitted to Adam Larbalestier	D Bamber / R Oliver
1.04 1.05	18/01/2017	Reviewed in Response to Fire Pannel feedback, Insurance requirements and Site Operational Review	Whole Document, Appendix A, Appendix B and Appendix C		R Oliver / D Bamber
1.06	20/03/2017	Reviewed in Response to Fire Pannel feedback	Pg 7, pg 21, pg 29, Appendix A		R Oliver / D Bamber
1.07	16/11/2017	Changes in Fire Supression system, waste storage and other amendments		Submitted to John Bunn, Environment Agency	R Oliver / D Bamber
1.08	26/06/2018	Changes in site activities	Pg 10, 14, 24		R Oliver / D Bamber
2.00	27/11/2018	Changes in site activities	pg 8, 13, 14, 23	Submitted to EA	R Oliver / D Bamber
2.01	13/01/2022	Changes in site activities	pg 5, 6, 7, 9, 10, 11, 12, 13, 14, 17, 19, 22, 23, 25, Appendix A		M Turner / D Bamber / R Oliver
2.02	23/02/2022	Changes in site operations	Whole Document		R Sims & I Allen (Oaktree Environmental Ltd)
2.03	14/10/2022	EA comments	Whole Document	Submitted to EA	R Sims & C Parry(Oaktree Environmental Ltd)
2.04 2.05	24/03/2024 27/08/2024	Reviewed Detail added	whole document Whole document	submitted to EA submitted to EA	D Bamber and Oaktree Environmental Ltd D Bamber

2.06	19/03/2025	detail added to confirm the fire rating of the concrete blocks	Page 16	Submitted to EA	D Bamber
2.07	19/03/2025	Minor amendments	All	Submitted to EA	D Bamber

PURPOSE

This documented Fire Management Plan has been written in line with the Environment Agency Guidance Fire Prevention Plans: environmental permits, November 2016.

This procedure shall assess the potential for a fire on site and shall identify site management systems in order to

i) Prevent a fire,
ii) Minimising fire spread,
iii) Control a fire should one occur
iv) Assess smoke emissions
v) Manage firewater and containment
vi) Manage clean up after a fire

This Fire Management Plan shall be reviewed at least Annually, or where any changes on site affect fire risk. This review shall include points i – vi above and shall include consideration of legal requirements and current best available techniques.

SITE SECURITY

Secure metal gates at the entrance of the yard and on the access road to into the industrial estate.

Gates at the main entrance to the site are shut and locked when the site is not in operation.

The perimeter of the industrial site is surrounded by a combination of;

- 2m high chain link fence
- 6ft high solid wooden boarding along visually sensitive boundaries, or
- 1m high stock fence on top of a 4ft soil embankment.

The site perimeter will be inspected daily and recorded in the Site Diary.

If the fence or gates are found to be damaged and security of the site is compromised the fence will be repaired within 5 working days.

Heras ‘readyfence’ type panels will be kept on site and utilized to maintain site security until an appropriate fencing contractor can be sourced.

The site is covered by a closed loop CCTV system.

Off site security shall be provided by a contractor using the extensive CCTV system installed on site.

PUBLICATION

This document has been written by the management team at the waste facility and shall be kept available to them, for reference, both as a physical document and as an electronic document on the company server.

This Fire Management Plan and the Appendices shall be supplied to the Fire Service to keep on record should they be required to attend to the site.

All new employee’s shall be made aware of this Fire Management Plan and the Emergency Plan at induction.

TRAINING/COMMUNICATION

Employee/Management

This Fire Management Plan shall be reviewed to identify the relevant training requirements for members of staff on site. Training to staff on site shall be specific to the work teams on site. (Eg Machine Operators, Recycling Operatives)

Emergency Evacuation training shall be given immediately to all staff at the time their employment begins.

General Manager, Environmental Manager and Site Supervisors shall be provided with this Fire Management Plan immediately on their employment commencing.

Further induction training to Machine Operators, whom may be required to implement mitigating activities, shall be completed within one month of their employment commencing.

Any changes to the FIRE MANAGEMENT PLAN shall be communicated to the relevant employees immediately.

General Fire Notice shall be written including immediate actions to be taken in event of a Fire being discovered. Copies of the General Fire Notice shall be displayed in all welfare facilities.

Contractors/Sub Contractors

Visitors to site are required to sign in, undertake inductions, issued with site rules and attended to by a member of staff at all times.

All Contractors/Subcontractors shall be inducted on the Emergency Fire Plan with regards to raising the alarm of a fire, and for emergency evacuation.

All contractors/subcontractors shall be informed that only authorised contractors shall carry out Hot work Permit System on site.

All contractors/subcontractors carrying out hot work on site shall receive training on the Hot Work Permit system in place on the site.

FIRE PREVENTION

Table 1 ; Causes of Fire

Causes of Fire	Operational hours Between 7:00 hrs and 22.45 hrs		Out of Hours*	
	Inside Building	Outside Building	Inside Building	Outside Building
Arson or Vandalism	N	N	N	Y
Self-Combustion	Y	N	Y	N
Plant or equipment failure	Y	Y	Y	N
Electrical faults	Y	N	Y	N
Naked lights	Y	N	Y	N
Discarded smoking materials	N	Y	N	Y
Hot works	Y	Y	Y	Y
Industrial heaters	N	N	N	N

Hot exhausts	Y	N	Y	N
Open burning	N	N	N	N
Damaged or exposed electrical cables	Y	N	Y	N
Reactions between incompatible materials	N	N	N	N
Neighbouring site activities	N	N	N	N
Sparks from loading buckets	Y	N	Y	N
Hot loads deposited at the site	Y	Y	Y	Y

* out of hours includes activities where maintenance may be being carried out but the site is not open for waste acceptance

** Industrial heaters are not used on site. Heating is supplied in the hand sort cabin and garage/workshop area by hot air ducting from a biomass boiler installed in the garage/workshop.

INSIDE

Risk of fire inside is high without adequate management, as materials inside are more combustible by nature and the above assessment has identified a number of different causes of fire, both during operational hours and out of hours.

Sources of ignition within the waste transfer buildings can be grouped into the following categories
Arson / Vandalism
Electrical
Mechanical
Chemical reaction
Smoking
Hot Work (welding etc)
Self-Combustion

These have been considered and the following management techniques shall be utilised to control these risks

Arson / Vandalism

The site shall be secured by gates at the entrance to the Estate which shall be locked when the site is closed.

CCTV system shall be maintained on site and shall be reviewed where there is any suspicion of unauthorised access or activities.

The site shall operate a Maintenance Team overnight who shall conduct and record regular fire checks.
During the day the shift Supervisor in each area will monitor the site continuously for hot exhaust and vehicle engines.

Staff shall raise any suspicious activity with site management at the earliest opportunity.

Possible attempts of intruders to access the site shall be reported to the police. These reports shall be made public to show active management and deter intruders.

Electrical

All electrical equipment shall be PAT tested in a schedule that is appropriate to its working environment.

All electrical equipment shall be turned off at the plug when not in use.

The company employs a qualified contractor to carry out all electrical requirements, including annual inspections, PAT testing, reactive works and any new installations.

Annual electrical installation inspections shall be carried out by a qualified contractor operating with all necessary professional, employees and third party insurance to the value of £1,000,000. All installation inspections must be passed with any Code 1 (Danger Present) and Code 2 (Potentially Dangerous) findings being repaired immediately. Where a Code 3 (Improvement Recommended) observation is found this shall be discussed with the contractor with an appropriate Schedule for repairs being agreed and completed. Appendix D shows the latest Electrical Inspection Reports Cover Page and Observation Summary and Declaration page.

Mechanical

Design of processing plant shall take into account potential contact of wastes, with mechanical parts that have the potential to generate heat.

Engineering structures shall be inspected 5 yearly by a competent person.

Wherever possible bearings and other mechanical parts which create heat via friction shall be protected, by a physical barrier, to prevent waste build up. Where this is not possible these parts shall be inspected daily, be in view of the thermal cameras, and cleaned as necessary to prevent build up.

Mobile plant shall be operated in a way which prevents wastes coming into direct contact with exhausts and other heat sources.

All plant shall be maintained in good working order to prevent malfunction which may start a fire. Planned Preventative Maintenance shall be carried out on site in accordance with the sites EMS, which includes commitments to complete all manufactures recommendations. Please see Appendix B; EMS 5.3/12 Planned Preventative Maintenance.

Daily plant inspections shall be carried out, and recorded, by operators when machines/plant are in use.

Daily plant inspections and servicing/maintenance programmes shall be specific to machine (static and fixed) and shall be based upon manufacturers recommendations and industry standards. Requirements shall be identified before a machine is used on site and daily inspections checklists and servicing/maintenance schedule shall be produced and used whilst the machine is in use on site.

Daily plant inspections shall include oil and fuel hoses (including joints and attachments), exhaust inspections and the removal of dust/fluff. These shall be recorded by use of the detailed Daily Inspection Checklists and supervised by the Site Manager.

Spill kit provisions shall be maintained according to NWR EMS 5.3/19 Fuel/Oil Storage and Spill Controls. Refer to Appendix B Environment Management System (EMS).

Operators shall be trained in completing these inspections and notices shall be displayed providing instruction and advice on inspections and reporting of faults.

Maintenance activities on all plant and machinery shall be recorded in machine maintenance logs.

When not in use, including out of hours, all mobile plant shall be parked outside. This area shall be inspected as part of the daily site inspection by the Site Manager for evidence of fuel and oil leaks.

At the end of the day, 15 minutes after diesel engines have been turned off, a final inspection of the site shall be made to ensure that exhausts, bearings, and other hot mechanical parts, have cooled safely. This inspection shall be made by a Shift Supervisor and shall be recorded in the Site Diary.

Fire inspection shall be carried out during the daily breaks to ensure that there are no instances of fire during this break when activity within the building is minimal. This lunch inspection shall be recorded daily in the Site Diary.

Boilers shall be inspected annually by a competent person. All heating pipes from the boilers are insulated/lagged. A daily PPM schedule for boilers shall be maintained and implemented.

Thermal cameras installed on site monitor the surface temperature of waste stockpiles and fixed plant within the shed. These are checked regularly throughout the day. For further information on the Thermal Camera monitoring system please see section titled Thermal Cameras.

Diesel power generators shall be kept within vented containers outside the waste transfer building.

All mobile plant and vehicles are fitted with handheld fire extinguishers.

The Site Manager and Site Supervisor inspects the site and records any build up of combustible waste, dust and fluff in the site diary.
The nightshift cleaning team have a schedule of cleaning activities on the fixed plant which is a routine to remove all loose debris and detritus. This is recorded in the site EMS.

Chemical reaction

Waste acceptance procedure for chemical containers requires all containers to be triple rinsed and empty.

Waste acceptance procedure to prevent the waste acceptance of liquid wastes EMS 5.3/1 Non Hazardous Waste Acceptance – Skips, and EMS 5.3/2 Non Hazardous Waste Acceptance – Third Party

Discarded Smoking Materials

Smoking shall only be authorised on site in the outside smoking area as indicated on the Site Plan.

Appropriate, and sufficient, waste containers shall be provided at the designated smoking areas. This shall be dependent upon the maximum likely number of employee's expected to use the smoking area at any one time.

Hot Work (welding etc)

The site has Safe System of Work in place for all welding and cutting.

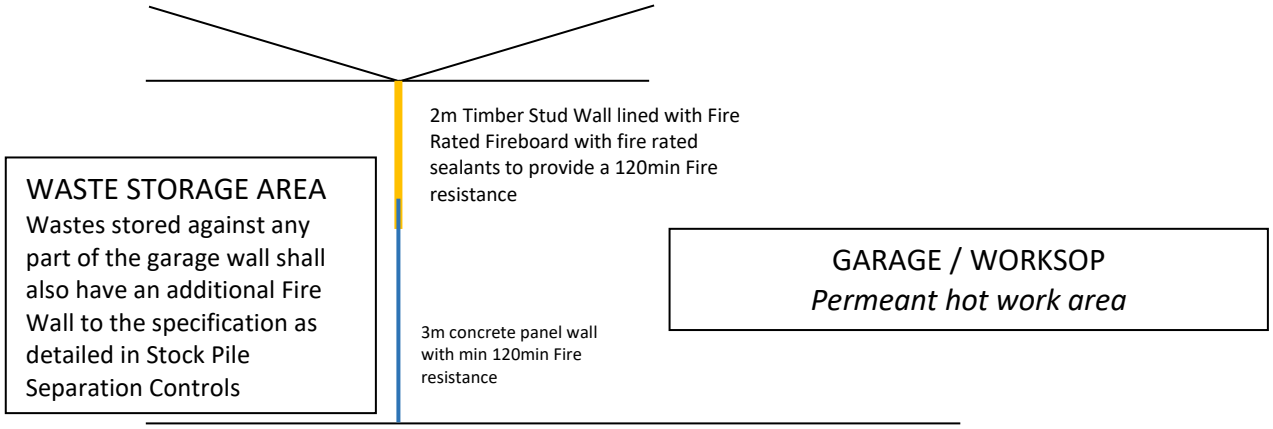
The site shall operate a Hot Work Permit, to manage naked flames and sources of ignition, within the waste transfer area of the site.

The Hot Work permit system includes the following features;

- Minimum separation of 6 meters from any combustible waste
- Minimum of two persons carrying out the hot work, one shall be designated 'Fire watch monitoring the surrounding areas for errand sparks / flames
- Minimum of one fire extinguisher immediately available at the location of the Hot Work
- The fire watch will monitor the area the hot works was carried out at least 1 hour after the work has been completed.

All gas bottles, including operational bottles for welding, cutting etc, are stored and left in the external cage overnight. This requirement shall be communicated to all relevant staff and included in the Safe System of Work for Welding/Cutting.

Garage / Workshop and Fire Station area shall be considered a permanent area of hot work. This means that the whole area is operated to comply with all of the requirements of the Safe Systems of Work for Welding / cutting at all times, as such they do not need a Hot Works Permit. With respect to the Garage the below drawing details the physical barriers to be installed and maintained, to prevent potential sparks/sources of ignition from hot work activities coming into contact with waste. The below is designed to provide 120min fire resistance by use of 15mm Fire Rated Plasterboard, 120min Fire rated sealant and expanding foam, and concrete panel assessed to a minimum 120min fire resistance. All wastes stored against a Garage Wall will also have a secondary Class A Concrete Block Fire wall, as described in stock pile separation controls, between the garage wall and the waste.



Biomass Boiler and Feed Stock

For Boiler location, please refer to Site Plan.

Risks from self-heating in the feed stock, self-ignition within the material, and boiler itself as a fire source.

Any biomass feedstock shall be stored inside, within a designated bay constructed of Concrete Blocks.

The immediate hopper feed is replenished as required and has the max storage capacity of 10m^3.

The boiler is inspected daily and maintained according to the manufacturer's recommendations.

Hot Loads

As waste is being delivered to site by third parties there is the potential for these loads to be hot. The EMS for the site includes the exclusion of 'Hot Wastes' being accepted on site.

In order to control this risk specific instructions have been included in the sites EMS system as part of the Waste Acceptance Procedure. Please refer to Appendix B; EMS r 3.05, 5.3/1 Non Hazardous Waste Acceptance Procedure – SKIPS, and 5.3/2 Non Hazardous Waste Acceptance Procedure – Third Party for site procedures controlling acceptable wastes on site and necessary pre-waste acceptance inspections.

Should hot wastes be identified within a load this will be considered a non-conformance and the risks shall be managed in accordance with the sites EMS procedure 5.3/4 Non Conforming Wastes Procedures.

Self Combustion

The risk of self-combustion varies between waste types. The waste types stored inside have been assessed and appropriate stock management approaches have been identified to reduce the risk of self-combustion. These are described in Table 2 and Table 3 and include considerations for;

- Waste characteristics (self-heating potential, moisture content, fragment size etc)
- Stock size
- Stack Separation (distance, barriers)
- Waste storage time
- Effects of processing

The Site Manager is expected to manage storage on site so quantities of combustible wastes do not exceed those detailed below in Table 4, Table 5 and Table 6. For the purpose of Fire Management, two stock levels have been identified depending upon turnover rate, expected stock is that expected during standard operations, maximum is the maximum stock potential during the high demand, or machine downtime.

Where a stack contains more than one waste stockpile these stocks will be managed so as the total stack size does not exceed those detailed below.

Stock rotation shall be managed to allow treatment and removal of oldest wastes first. Stock rotation shall also take into consideration any spikes identified in temperature monitoring.

Waste tyres shall be transferred, at the earliest operational opportunity, to the external storage containers. When received into the shed the quantity inside shall not exceed 1 loadall bucket. They shall be stored at the tipping bays.

No stock of tyres shall be kept at the garage/workshop. Only those awaiting repair, fitting or disposal shall be on site.

All asbestos waste shall be stored as indicated in the site plan.

Self-combustible wastes are protected from direct sunlight. Opaque, as opposed to transparent, plastic sheets shall be used on the roof of both waste storage buildings to allow light into the shed.

During Operational hours there is always two machine operators within both buildings, including break times.

A temperature probe shall be available on site and used to check stack temperatures should a stockpile appear to be excessively heating.

Each stockpile will be within the maximum dimensions and minimum separation distances as per the FPP guidance.

BATTERIES

Lithium batteries will not be routinely accepted on site as part of planned waste acceptance. If these are received, they are dealt with in accordance with existing waste rejection procedures and stored pending removal.

Waste Accepted for treatment and Waste treatment capacity

Please refer to the tables below:

Table 2; Waste Type accepted into site

Waste Type	Treatment Line	Maximum Processing Capacity	Waste received (Weekly)	Output (Waste Type)	Destination (Internal or External)	Facility Type	Seasonal fluctuation in destination availability	Number of potential external off-takers available
MIXED C, D & I WASTES	Red Line	25t per hr	1000t	Residual Waste	Internal – SRF line	n/a	NO	2
				Fines	Internal - Glass & stone Line	n/a	NO	2
				Plastic (various)	Baled / internal	Export / reprocessors	NO	2
				Paper/card	Baled / internal	Export / reprocessors	NO	2
				Metals	Internal and External	Reprocessors	NO	2
				Minerals/aggregates	Internal and external	WRAP Protocol	YES	Non Waste
				Green Waste	External	Composter	NO	2
				Wood – A & B grade	External	Reprocessors	NO	2
				Wood –B grade	External	Reprocessor	NO	2
External Transfer Station Residual Waste & RCV	SRF Line	20t per hr	500t	Pre-treated waste for SRF production	External	Reprocessor	NO	2
				Fines	External	Landfill	NO	2
				Metals	External	Reprocessor	NO	2
DMR	Red Line	15t per hr	50t	Paper/card	Baled / internal	Export / reprocessors	NO	2
				Plastic	Baled / internal	Export / reprocessors	NO	2
				Metal	External	Reprocessor	NO	2
MBT	Glass & Stone Line	5t per hr	200t	Glass / Minerals	External	Reprocessor	NO	2
				Plastic	Internal SRF	n/a	NO	2
				Organic Fines	External	Treatment	NO	1

Table 3; Production process for Wastes produced from on- site production lines

Waste Type	Treatment Line	Processing Capacity (Weekly)	Waste received (Weekly)	Output (Waste Type)	Destination (Internal or External)	Facility Type	Seasonal fluctuation in destination availability	Number of potential off takers available
C, D & I Trommel Fines	Glass & Stone Line	5t per hr	250T	Plastic	Internal – SRF Line	n/a	NO	2
				Metal	External	Reprocessor	No	2
				Inert Fines	External	Landfill	NO	3
				Minerals	External	WRAP Protocol	NO	Non Waste
Residual Waste	SRF Line	25t per hr	1000t	Pre-treated waste for SRF production	External	Reprocessor	NO	2
				Fines	External	Landfill	NO	2
				Metals	External	Reprocessor	NO	2

SRF Line requires to be operated for 60 hours per week, at maximum throughput rate, to treat input quantities.
Glass and Stone Line requires to be operated for 40 hours per week, at maximum throughput rate, to treat input quantities.
Red line requires to be operated for 40 hours per week, at maximum throughput rate, to treat input quantities.

Baler

The following waste types may require Baling before being despatched. However, Baling is not mandatory for removal of these waste.

Plastic
Paper
Cardboard
UPVC
Metallic packaging

Table 4; UNIT A INSIDE Combustible Waste Storage Capacity, Duration and Controls -

(a) Waste Type	(b) Location / Waste Zone	(c) Characteristics of waste		(d) Stock Management Methods		(e) Max Stack Size (meters)				(f) Max. storage capacity of this waste stock (M^3)	(g)Maximum Storage time	(h)Minimum Stack Separation Distance/ feature
		Nature / core temperature/	Risk of Self Combustion	Comments	Expected stock M^3	h	W	d	Total stack capacity m^3			
Mixed Skip Waste	Skip waste tipping area (MRF feed pile)	Dry, low decomposition -30% paper, -15% plastic, -50% wood, -5% metals, -5% soils, aggregates, green waste	Yes – when stored longer than 3 months	- Tyres may be stored in this area pending bulking for transfer to segregated storage area. Maximum 1 telehandler bin (<3m3) shall be stored pending removal -Maximum Stock Turn Around 1 week	100	3	10	15	450	450	1 week	Fire Wall / Floor level gradient 1:7.5
Residual Waste and Segregated Combustible Waste Bays	Loose in Picking Line Bay9, 10, 11and 12	-Dry, higher core temp, potentially self-combustible but large piece size mitigates combustion risk -Wastes likely to heat in trommel but cool down when on conveyor and deposited in the holding bay -processing has removed metals and high proportion of glass -Holding bay 10 storing residual waste. -Holding bays 9 and 10 containing combustible segregated waste, sizes greater than 150mm - holding bays 12 containing metal	Yes - When stored longer than 3 months	-Continual removal of waste during processing -Bay 11 completely emptied at least weekly. -Holding Bays 9 and 10 emptied at least two weekly -	(Bays /9/10/11,12) (	2.5	14	13	450	450	1 day	Fire Walls Bunkers 7 & 8 left clear for 6m fire gap
Segregated Combustible Recyclable	Loose in Bays 1, 2, 3, 4,5 and 6	- Dry, low internal temp - segregated bays for paper, plastic (various grades), wood, - sizes greater than 150mm	No	-Continual baling on site, -Bays shall be emptied at least every fortnight.	165	2.5	18	10	450	450	2 weeks	Fire Wall between segregated recyclates bays, maximum 6 consecutive bays of combustible wastes
Trommel Fines from C, D & I treatment	Beneath trommel	-High decomposition -contains soils, plastics, metal, aggregates, glass -less than 65 mm	Yes - When stored longer than 3 months	-This waste is processed daily, unless in case of maintenance or breakdown. -Max Stack Size 450m3 per stack, - Average Stock Turn Around up to 1 week -Weekly temperature monitoring when at maximum storage capacity	250	2.6	15	11.5	450	450	2 weeks	6m separation distances between other waste stockpiles
Fines	Loose in fines storage bay under flex deck	- Damp - higher core temp, fast decomposition, small size, potentially self - combustible	Yes – when stored longer than 3 months	- Stock Turnover maximum 7 days - Daily visual inspection recorded in site diary	25	2.6	4	3	31	31	1 week	6m separation distances between other waste stockpiles
Glass and Stone product	Loose in storage bay	- Dry, low internal temp,	No	- Daily visual inspection recorded in site diary	N/A	3	12	12	450	450	3 months	Fire Wall
Bales Plastic Cardboard paper	In storage bay	- Baled Mill Size - Dry - Low core temperature - low decomposition rate	Yes – When stored longer than 3 months	- Use two stacks to rotate and manage storage times - Use Tags to identify date baled	750	4	12.5	15	750	750	3 months	6m separation distances between other waste stockpiles
Baler feed (loose cardboard)	Loose in storage bay	- Dry, low internal temp, - Low decomposition - 100% cardboard	Yes – When stored longer than 3 months	-Stock Turnover maximum 7 days - Daily visual inspection recorded in site diary	750	4	12.5	15	750	750	1 week	6m separation distances between other waste stockpiles.
Fines	Loose in two separate fines storage bays	- Damp - Higher core temp, fast decomposition, small size, potentially self - combustible	Yes – when stored longer than 3 months	See above	150	2.6	10	6.1	170	170	1 week	Fire Wall
						2.6	11	16	375	375	1 week	Fire Wall
Wood chip	Loose in storage bay	Dry, low internal temp, -low decomposition - <5mm wood chip with fines	Yes - When stored longer than 3 months	See above	50	2.6	5.3	5.2	75	75	1 week	Fire Wall
Plasterboard	Loose in storage bay	- Dry, low internal temp	No	See above	50		12	5	150	150	1 week	Fire Wall
Loose combustible waste	Loose against firewall	- Dry, higher core temp, potentially self-combustible but large piece size mitigates combustion risk	Yes – when stored longer than 3 months	- Tyres may be stored in this area pending bulking for transfer to segregated storage area. Maximum 1 telehandler bin (<3m3) shall be stored pending removal -Maximum Stock Turn Around 1 week	100	3.5	13	10	450	450	2 weeks	6m separation distances between other waste stockpiles.

Thermal imaging cameras are installed within Unit A. The thermal cameras monitor the surface temperature of waste stacks and have 360º capabilities. The location of waste stacks with high self-combustion risks will be within view of the thermal cameras. These locations are shown in Appendix A Site Plan – Fire Management

Table 5; UNIT B INSIDE Combustible Waste Storage Capacity, Duration and Controls

(a) Waste Type	(b) Location	(c) Characteristics of waste		(d) Stock Management Methods			(e)Max Stack Size (meters)				(f) Max. storage capacity of this waste stock (M^3)	(g)Maximum Storage time	(h)Minimum Stack Separation Distance/ feature
				Standard levels		Peak Levels							
		Nature / core temperature/	Risk of Self Combustion After 3 months storage		Expected stock M^3	In addition to Standard Levels Management Methods the following shall be carried out	h	W	d	Total stack capacity m^3			
SRF plant feed bay including RCV waste and residual wastes (mixed waste)	Bunker 1	-Dry, higher core temp, potentially self-combustible but large piece size mitigates combustion risk -Wastes likely to heat during treatment but cool down when on conveyor and deposited in the holding bay -processing has removed metals and high proportion of glass	Yes – when stored longer than 3 months	- Stock Turnover 1 week - Stock rotation by batches stored in Bays constructed by blocks - Stock treatment shall be managed to keep waste in its largest form, considering the end market and transport methods, for as long as possible.	450	- Daily temperature monitoring using thermal probe - Turn waste weekly.	2.8	14	11.5	450	450	2 weeks	Fire Wall
SRF plant feed bay including RCV waste and residual wastes (mixed waste)	Bunker 2	-Dry, higher core temp, potentially self-combustible but large piece size mitigates combustion risk -Wastes likely to heat during treatment but cool down when on conveyor and deposited in the holding bay -processing has removed metals and high proportion of glass	As above	As above	450	As above	2.8	14	11.5	450	450	2 weeks	Fire Wall
SRF storage area	Bunker 3	-Loose -Dry - Low core temp provided low moisture content, -Highly combustible due to low moisture content -processing has removed metals, fines and high proportion of glass	As above	As above	450	- As above	2.8	14	11.5	450	450	2 weeks	Fire Wall
SRF storage area	Bunker 4	- As above	As above	As above	450	As above	2.8	14	11.5	450	450	2 weeks	Fire Wall
SRF storage area	Bunker 5	As above	As above	As above	450	As above	2.8	14	11.5	450	450	2 weeks	Fire Wall
SRF storage area	Bunker 6	As above	As above	As above	450	As above	2.8	14	11.5	450	450	2 weeks	Fire Wall
SRF storage area	Bunker 7	As above	As above	As above	450	As above	2.8	14	11.5	450	450	2 weeks	Fire Wall
SRF storage area	Bunker 8	As above	As above	As above	150	As above	2.8	6.5	10.3	190	190	2 weeks	Fire Wall
SRF storage area	Pile 9	As above	As above	As above	450	- Daily temperature monitoring using thermal probe	3	12.5	12	450	450	2 weeks	6m separation distance
SRF storage area	Pile 10	As above	As above	As above	450	- Turn waste weekly.	3	12.5	12	450	450	2 weeks	6m separation distance
SRF storage area	Pile 11	As above	As above	As above	450	- Daily temperature monitoring using thermal probe	3	12.5	12	450	450	2 weeks	6m separation distance
SRF storage area	Pile 12	As above	As above	As above	500	- Turn waste weekly.	3	12.5	12	450	450	2 weeks	6m separation distance

The thermal cameras monitor the surface temperature of waste stacks and have 360° capabilities. The location of waste stacks with high self-combustion risks will be within view of the thermal cameras. These locations are shown in Appendix A Site Plan – Fire Management

Stockpile Separation Controls

Unless in fire walls then separation distances of 6m between stacks shall be maintained throughout the working day, and whilst the site is closed.

The site Manager is responsible for ensuring that separation distances are checked at the end of the working day. This includes making sure that no mobile plant have been parked within the building.

This fire plan authorises the use of firewalls, in place of separation distance according to the Appendix A Site Plan;

Where a separation distance of 6m cannot be maintained a concrete fire wall shall be used to separate stacks. Firewall constructed to provide fire protection (as indicated on the site plan) shall be constructed of Class A1 fire resistant interlocking concrete blocks, BS EN 13501 - 2002. These blocks are also proven to be fire resistant classification with the REI 240 standards which is fireproof for at least 4 hours.

These Fire walls shall;

- Extend at least 1m higher than the waste stack (therefore minimum 1m Freeboard space)
- Extend at least 1m beyond width/depth/length of the stack
- Be at least 600mm wide
- Not contain any rebar, recycled product, or any other materials considered thermal conductors

Waste Treatment and Handling Controls

The following controls are put in place to reduce heat created through friction during treatment;

i) Wastes produced from the skip waste processing line (Commercial, Municipal and light construction waste) shall be allowed to be deposited into a holding area and cooled before being transferred to the appropriate storage area.

ii) Wastes produced from the screening of SRF Production line, shall be deposited onto the floor and allowed to cool before being transferred into the stock pile.

iii) Design of processing plant shall take into account potential contact of wastes, with mechanical parts that have the potential to generate heat.

iv) All motors shall be covered.

v) Wherever possible bearings and other mechanical parts which create heat via friction shall be protected, by a physical barrier to prevent waste build up. Where this is not possible these parts shall be inspected daily, be in view of the thermal cameras, and cleaned as necessary to prevent build up.

Stock turn over has been considered in tables 4, 5 & 6.

No waste shall be stored in a production stockpile for longer than 3 months.

Weekly stockpile assessments shall be undertaken and recorded. These shall be produced no more 7 working days apart to monitor stock sizes and to assist in the planning of waste acceptance, production and waste removal from site.

Produced SRF/RDF Wastes shall be stored for a maximum of 3 months in either the internal or external storage areas.

Where SRF is baled and wrapped this shall be to international shipping standards and as such present a lower risk of self-combustion. Although there is likely to be a number of bales within each stockpile, each bale is physically separated from the other by plastic wrapping, and in conjunction with reduced air flow and oxygen levels, they are less likely to function as one complete stockpile of loose SRF

The following procedures have been written as part of the site's inspection and control activities. The Operations Manager, Site Manager and site Supervisor shall receive training in this procedure.

Where breakdown with fixed plant results in delay in the processing the following management techniques shall be considered, and implemented, in order to manage stockpiles sizes during the breakdown period;

- Assessment of stockpiles of combustible waste to ascertain storage capacity
- Incoming supply may be reduced or stopped so that the stockpiles do not exceed the maximum dimensions as shown in Appendix A and detailed in Tables 4, 5 & 6.
- The SRF will continue to be turned which removes the risk of spontaneous combustion
- Remove loose SRF to an alternative facility for processing and disposal
- Removal of segregated recyclates loose, as opposed to baled

Shut Down Fire Watch Procedure

This shall be carried out by the Site Manager or Operations Manager.

As dust settles within the transfer building at the end of the day it may settle on hot machinery.

A final inspection of the site shall be made 20 minutes after machinery has been turned off. This inspection shall be completed as follows;

- Preliminary review of the thermal cameras to check surface temperatures of machinery.
- Collect a spare fire extinguisher
- Walk through the shed and visually inspect the following
    - Bearings
    - Motors
    - Rollers
- Should there be any signs of fire use Fire extinguisher to make the area safe
- Report the incident immediately to the Site Manager
- Where there a no signs of fire, return the Fire Extinguisher

Each end of day Fire Watch will be recorded in the Site Diary. Where any incidents have occurred, this shall be investigated as to the cause of the burning, and the potential effects should it have gone un-noticed.

Any incident controlled in this manner shall be reported to the Environment Agency within 24 hours.

Visual Waste Inspection

This shall be carried out by the site Manager,.

These inspections are required as part of peak stock management to facilitate early detection of fire.

These inspections shall be carried out as follows;

- Preliminary review of the thermal cameras to check surface temperatures of machinery.
- Carry the temperature probe throughout the whole inspection
- Walk through the shed and visually check for signs of fire (smoke, burning/smouldering odour). Paying particular attention to;
    - Fixed Machinery Moving parts
    - Waste heaps – Ensure total stock pile is inspected
    - Separation Distances
    - Fire Walls
- Should there be any signs of fire take full set of temperature readings on the pile
- Report the incident immediately to the Site Manager
- Where temperature readings indicate temperature of 65^{O} C or higher the waste shall be turned according to the Waste Turning and Reporting Procedure
- Where there a no signs of fire return the temperature probe to the appropriate location

Each visual inspection for Fire will be recorded in the Site Diary. Where any incidents have occurred this shall be investigated as to the cause of the burning, and the potential effects should it have gone un-noticed. Where the start of the potential fire was a waste stockpile the investigation shall include an assessment of how long the waste has been on site.

Any incident controlled in this manner shall be reported to the Environment Agency within 24 hours.

OUTSIDE

Risk of fire in external areas is minimal. Table 1 Causes of Fire WITHOUT Management has identified the following causes of fire in external areas

a) Arson or vandalism
b) Hot work (welding etc) is being completed.
c) Discarded smoking materials
d) Self-Combustion

These are considered and the management tools identified below shall be applied to the external operation of the site.

Arson / Vandalism

The site shall be secured by gates at the entrance to the Estate which shall be locked when the site is closed.

The site shall operate a Maintenance Team overnight who shall conduct and record regular fire checks.

Staff shall raise suspicious activity with site management at the earliest opportunity.

Possible attempts of intruders to access the site shall be reported to the police. These reports shall be made public to show active management and deter intruders.

Where stored outside combustible wastes shall be stored at least 3m from the permit boundary or a fire wall between the boundary and combustible waste.

Wherever possible pre-segregated wood waste and green waste shall be transferred directly to the approved recovery facility. Where this isn't possible the wood shall be tipped outside in the designated bay.

All waste gas cylinders shall be stored outside in the designated area.

All gas cylinders in the maintenance garage shall be turned off when not in use. Overnight all gas cylinders shall be stored securely outside within a cage. This requirement is included in the SSOW.

All gas cylinders, pipes and nozzles shall be inspected by the user before use.

When the site is not in use the diesel fuel tank hose and discharge nozzle shall be locked within the steel container.

diesel fuel tank shall be located at a point that is a minimum of 6m from the waste transfer and storage building containing combustible wastes.

Unless within the fuel tank of a machine or vehicle all fuel shall be stored within the appropriate dedicated, bunded, fuel tank.

Hot Work (welding etc)

The site shall operate a Hot Work Permit, to manage naked flames and sources of ignition, within the waste transfer area of the site.

The Hot Work permit system includes the following features;

- Minimum separation of 6 meters from any combustible waste
- Minimum of two persons carrying out the hot work, one shall be designated 'fire watch man' monitoring the surrounding areas for errand sparks / flames
- Minimum of one fire extinguisher immediately available at the location of the Hot Work

Garage, Workshop and Fire Station area shall be considered a permanent area of hot work. This has been considered earlier in this Fire Management Plan.

Discarded Smoking Materials

Smoking shall only be authorised on site in the outside smoking area as indicated on the Site Plan.

Appropriate, and sufficient, waste containers shall be provided at the designated smoking areas. This shall be dependent upon the maximum likely number of employee's expected to use the smoking area at any one time.

Self-Combustion

The risk of self-combustion varies between waste types. The waste types stored inside have been assessed and appropriate stock management approaches have been identified to reduce the risk of self-combustion. These are described in Table 4 & 5 and include considerations for;

- Waste characteristics (self-heating potential, moisture content, fragment size etc)
- Stack size
- Stack Separation (distance, barriers)
- Waste storage time
- Effects of processing

The Site Manager is expected to manage storage on site so quantities of combustible wastes do not exceed those detailed in NWR-5.3/6 Waste Handling and Storage Limits, and Appendix D Waste Storage and Treatment Locations. For the purpose of Fire Management two stock levels have been identified depending upon turnover rate.

Where a stack contains more than one waste stockpile these stocks will be managed so as the total stack size does not exceed those detailed below.

Stock rotation shall be managed to allow treatment and removal of oldest wastes first. Stock rotation shall also take into consideration any spikes identified in temperature monitoring.

Waste tyres shall be transferred, at the earliest operational opportunity, to the external container storage area. No stock of tyres shall be kept at the garage/workshop. Only those awaiting repair, fitting or disposal shall be on site.

All asbestos waste shall be stored as indicated in the site plan. This containment area is away from the main waste transfer building.

The Site Manager is expected to manage storage on site so quantities of combustible wastes do not exceed those detailed below in Table 6.

Stock turnover has been considered in table 6. No waste shall be stored in a production stockpile for longer than 3 months.

Weekly stockpile assessments shall be undertaken, and recorded, weekly. These shall be produced no more 7 working days apart to monitor stock sizes and to assist in the planning of waste acceptance, production and waste removal from site.

Wastes containing POPs

Staff will have obtained suitable training from site management identify wastes containing POPs and to ensure any wastes containing POPs is segregated and stored separately pending removal to a suitably permitted site for destruction.

Items will be treated as POPs-containing until an assessment is carried out. POPs items could include the following:

- All upholstered seating of a domestic type from any source, such as sofas, dining or office chairs, armchairs, stools, anything with fabric of any nature and foam.
- Internal and external cables and wiring (i.e. including those separated from the devices)
- Non-WEEE cables, cables from construction and demolition activities as well as cable off cuts produced as part of the manufacturing process

Once waste has been tipped into one of the tipping areas at the site, staff will segregate the above items and store them separately on site prior to sending off for destruction at a suitably permitted waste site.

Bales Special Storage Provisions

The company recognises the different risks associated with storing combustible wastes and has considered that storing some waste in bale form requires consideration of the following factors;

- Compaction encouraging deep-seated, slow burn/smouldering
- Higher tonnage of waste in a smaller volume
- Compacted, sealed, bales reduce ability of water to penetrate the waste
- Separate stockpiles with either 6m separation distances or a firewall

Baled Wastes will be stored for no longer than 3 months.

Onsite RDF or SRF bales will be baled and wrapped to international shipping standards and as such present a lower risk of self-combustion. Although there is likely to be a number of bales within each stockpile, each bale is physically separated from the other by plastic wrapping, and in conjunction with reduced air flow and oxygen levels, they are less likely to function as one complete stockpile of loose material.

Each bale shall display its date of production by a spray mark on the bale.

Bales loaded for despatch from site shall always be prioritised by date, oldest first in order to minimise the time each bale/stockpile is on site.

Daily inspections shall be carried out by the Site Manager or Site Supervisor to ensure all visible bales are intact and ensure there are no signs (visual or odour) of smoke.

Each stack shall have a minimum separation distance of 6m as well as a Fire Wall, refer Stockpile Separation Controls, to give each bay maximum separation to prevent the spread of fire and allow persons (eg FRS, NWR staff under FRS instruction) maximum time to empty any bales from neighbouring stacks.

External heating from hot weather

It is considered that external waste will not be at risk from over-heating as the only combustible waste stored externally will be sorted waste in bays (see table overleaf) and as waste in each bay will be subject to continual movement and monitoring, the waste will not be stored for a period where it could combust from exposure to sunlight.

To further reduce the risk of self-combustion:

Any rags will be stored in sealed containers inside the building out of direct sunlight to prevent self-ignition and stored away from heat sources, these containers are monitored throughout the day for heat build-up.

No hot works or cutting take place in external areas of the site near combustible waste piles.

All fuels and fluid storage are shaded from direct sunlight due to their position inside other buildings on site.

Due to the volume, type and duration of other wastes stored at the site, it is considered that exposure from sunlight will not lead to the waste combusting.

Table 6; OUTSIDE COMBUSTIBLE WASTE Storage Capacity, Duration and Control

Waste Type	Location	Characteristics of waste		Stock Management Methods		Max Stack Size (meters)				Number of stacks on site	(f) Max. storage capacity of this waste stock	(g)Maximum Storage time	(h)Minimum Stack Separation to nearest stack/plant
				Standard levels									
			Risk of Self Combustion	Stock turnover 1 month	M^3 or T	h	w	d	Total volume per stack M^3				
metal	External Bays, south elevation of Unit A	Scrap metal itself is not considered combustible, however components that can be found within are (eg plastics, fibres, rubber etc)	Low	- A designated storage bay will be provided for the purpose of transferring scrap metal from one container to another. - At least 3 meters from an un-boarded perimeter fence	450 m^3	3	12.5	12	450	2 weeks	450 m3	3 months	Fire wall

RESPONSE AND MITIGATION

Any fires shall be reported as soon as is possible to the Environment Agency, by either the Operations Manager or Site Manager. A schedule 6 notice shall be supplied to the Environment Agency for any fires on site.

Operational Hours;
Where a fire occurs on site the alarm shall be raised by site staff.

Weighbridge operator shall be responsible for contacting Emergency Services on **999** immediately.

Emergency evacuation shall be carried out and all persons on site shall gather at the emergency assembly point, in the aggregates processing area at the entrance to the site.

Site Manager shall be responsible for producing the Roll Call report and visitors signing in book to the Fire Warden.

Site Manager or Site Supervisor on site at the time shall assess the wind direction. Where it is safe to do so, the appropriate roller shutter doors shall be shut to minimise wind/draft into the building and spreading the fire.

Outside Operational Hours;
Outside of operational hours site monitoring and security is supplied by a contractor off site, facilitated by use of the site security and thermal cameras. This contractor shall be subject to commercial contract to sustain this security and shall have full access to emergency contacts for the company, as well as the right to contact emergency services directly if required.

SENSITIVE RECEPTORS

See Appendix C Sensitive Receptors

Prevailing Wind Direction; East

Smoke;
Unit B contains Crysotile (white) Asbestos in the building cladding. Asbestos was historically used as it is fire retardant. However should fire reach temperatures high enough smoke from fire may contain asbestos fibres?

Description/type of Receptor	Distance from site	Direction
Business within Ind Est; Andidrain Ltd	immediately adjacent Unit A	East
Business within Ind Est; Cubby Ltd	12m	North
Stock Farm and Residence; Bank End Farm	323m	South East
Railway	455m	East
Residence - Village of Rockcliffe	502m	North East
M6 Motorway	1.59km	North East
A689 – Access road to M6	2.29km	South East
A7 – Access road to M6	3km	East
Harker Sub Station	1.581km	North East

Fire Water;
Fire Water is potentially likely to contain high quantities of suspended solids.

Description/type of Receptor	Distance from site	Direction
Un-named Beck	2m	South
River Eden via un-named Beck	511m	South
Waste Water Treatment Works	513m	North West
(There are no drains to this facility that any water from site can access)		

ON SITE UTILITIES/FACILITIES;

Description/type of Receptor	Distance from site	Direction
Pylon (on site rear of Unit B)	54m	East
Pylon (on site ground between A and B)	71m	South

FIRE FIGHTING STRATEGIES

ATTEMPTS SHOULD ONLY BE MADE TO FIGHT A FIRE BY TRAINED PERSONS WHERE IT DOES NOT PUT THAT PERSONS HEALTH OR SAFETY AT RISK.

FIRE APPLIANCE ACCESS – *refer to Appendix A Site Plan*
There are several access points to the site for Fire Appliances.

Unit A:

Access 01 - North West– Main entrance for waste facility. Entrance board is located just within this Entrance

Site Manager, Site Supervisor and Managing Director each have the code to Access the front entrance gate.

CONTROLLED BURN

There is no clear case for the use of a controlled burn as a means for managing a fire. The consideration of this type of fire managing technique is the responsibility of the Fire and Rescue services and Environment Agency.

SMOTHERING

The site has access to large amounts of inert, non-combustible material comprising soils and stones and using the loading shovel, the material can be scooped and dropped on the fire to smother and reduce the oxygen. Using inert materials to extinguish/suppress a small fire would be preferable to using water as this method minimises the need to deal with potentially contaminated firewater. If this method is used, the residual material would be sent to a suitably permitted site.

Heavy equipment on site shall be made available for moving or turning smouldering waste to allow direct placement of water jets under the guidance and instruction of Fire and Rescue Services.

When the site is shut appropriate trained plant operatives shall be contacted to instruct attendance to site. Consideration shall be taken of expected travelling distance to site, and operator training standards/competence.

SEPERATING UNBURNT MATERIAL

Where a fire is underway within a waste pile, unburnt material from that pile shall be separated.

Depending on the size of the fire the following activities need to be considered to establish which, if any, will be safe and effective in mitigating fire;

a) Start removing unburnt, combustible waste to the second, unaffected building. Care should be taken at moving any waste stock from a building with fire to ensure that the material being moved is NOT going to move the fire to the second building.
b) Move burning material to the quarantine area to isolate it from the rest of the facility. Due to the size of the site there are two quarantine areas. See below.
c) Move burning material to the tipping bay. This can only be done if there is guarantee that this will isolate the fire to allow for concentrated water application, as the tipping bays are also a primary water containment method.

QUARANTINE AREA'S

Refer to Appendix A

Unit A – West side of the building between the shed and the site boundary. The available area identified as the quarantine area is 13m x 17m = 221m^2. The largest loose stockpile on site at Unit A is 450m^3 and the largest baled stack size is 90m^3

Unit B – West side of the shed, the area available is 13m x 17m = 221m^2. The largest loose stockpile on site at Unit B is 450m^3.

Both quarantine areas have the potential to be increased in area if required in the event of a fire, but still maintain the minimum 6m perimeter of clear area.

Both quarantine areas shall be clear and available at all times. They shall have a clear area of **at least** 6m around the perimeter to aid separation and management of wastes during an incident. Some of the clear area is unmade, grassed area, however this does not prevent the area from being accessed in the case of a fire and the quarantine area being used as it contains no stockpiles or structures. The unmade ground does not make up part of the quarantine area, only the clear area around it which is necessary to allow access and provide the required fire break.

Where movement of unburnt waste is appropriate this should be done using onsite plant i.e., site artic trailers and hook lifts to maximise the volume of waste moved in as quick a manor as possible. Consideration must still be made to prevent litter as this would further contaminate fire-fighting water.

All heavy equipment on site shall be made immediately available for separating waste.

Concrete blocks on site may be used to build a barrier to protect unaffected portions of the shed. This must only be done under supervision of the Fire Services as a barrier in the wrong place may interfere with fire-fighting techniques.

Use foam on unburnt material, applied by Fire Appliances, will reduce spread of fire. Whilst foam is preferable as it has a minimal run-off, if foam is not available water may be used.

FIRE FIGHTING WITH FOAM

The FRS have confirmed that all appliances stationed at Carlisle branches are now fitted with Compressed Air Foam Systems (CAFS). They have stated that this would be the preferred method of firefighting and that this uses a fraction of the amounts required compared to supressing fire with water.

The company has also identified that foam is a preferred method of firefighting by onsite provisions.

Foam performs a variety of functions upon application;

- Smothers
- Extinguishes
- Inerts
- Prevents re-ignition
- Provides a security blanket
- Creates time to take action
- Uses inside air – reduces smoke

Foam uses 1/1000th of the water of deluge monitors, therefore reduces water run-off, eliminates the need for flood/water retention barriers. The foam additive is bio-degradable, non-toxic and has a high expansion rate.

The foam additive used by the internal suppression system and mobile ERG unit has been approved as environmentally friendly. See Appendix 8 for COSHH information. Despite this the site shall maintain water/foam retention methods to prevent the runoff from leaving site and entering a water course as the run off potentially may contain waste residues.

FIRE SUPRESSION SYSTEMS

GENERIC BUILDING PROVISIONS

Due to the potential height of stock piles water sprinklers are not appropriate to fight, or control, deep seated fires.

Due to the size (length and width) of the buildings water curtains are not appropriate to control, or fight, fire within the shed.

Due to the location of the site and restricted drainage system water deluge system has been identified as creating further environmental risks due to high levels of water run off.

The Expansion Foam Generators (EFG) shall be situated in strategic points ensuring every internal waste storage bay is within reach of at least one EFG. See Appendix A Site Plan.

Each unit can be activated manually. Primarily they shall be operated as a fire prevention tool by networking with the sites thermal imaging cameras, identifying hotspots and being activated to eliminate risk hot spots before a fire breaks out.

The trigger point for automatic application from the thermal cameras shall be 175 degrees Celsius (trigger point set according to specialist advice from system installation contractors).

During daytime operations the EFG's may also be activated manually. Fire Wardens on site shall have been provided with training on how to do this.

Each EFG is built from corrosion resistant materials and are enclosed in lightweight cabinets that automatically release when unit is activated. These cabinets prevent the units from getting damaged from dusty/dirty atmospheres.

Each EFG installed is of sufficient size to fight fire within a 450m^3 stock pile of waste. Each EFG can fill a void of 450 m3 within 4 minutes (generates 120m^3 foam per minute) using 400 litres of water.

In addition to the fixed EFG installations a self contained EFG fire extinguishing trailer shall be available on site to deploy to any site location required. The unit carries a 30m manual hose and 20m jet length. The unit carries 10 minutes of water and wetting agent

The mobile EFG unit available on site at all times. This unit can be deployed anywhere on site and includes its own water supply and foam additive.

The Mobile EFG unit shall be based at the old Fire Station, being the most central area of the site.

Each EFG (fixed and mobile shall be tested monthly. A record shall be kept of each test.

INDEPENDENT FIRE SUPRESSION PROVISIONS

Jupiter and Komet Shredders – fixed waste shredder is installed with a dry powder suppression system. This suppression system is activated automatically.

This suppression system shall be maintained by qualified persons only and in accordance with the manufacturers recommendations.

Records of maintenance, services and inspections shall be kept in the Site Office.

FIRE FIGHTING WITH WATER

Each FRS appliance arrives on site with 2000ltr, and there is an additional 8000ltr available upon request by the FRS at Penrith.

450,000 ltr of water is available within the industrial estate from a water storage tank which supplies water to the onsite fire hydrants (see Appendix A Site Plan). Once water levels within this tank fall below 2 ft the tank automatically begins re-filling from the mains water supply.

Fire Hydrants from this supply are capable of discharging a minimum of 2,500 ltr per minute each. All water hydrants on site are 100mm hydrants and are capable of supplying 2,500 ltr per minute, each, simultaneously.

At Unit B there are three hydrants available for the FRS. Each hydrant supplying 2,500ltr makes 500ltr/min available at Unit B,

At Unit A there are two hydrants available for the FRS services, as well as the option to hook up directly to the main water storage tank.

The following information has been supplied by the FRS on their expected requirements on site with the largest stack of 450m3 of waste being on fire.

"Most Fire engines in Cumbria have 2 sizes of nozzles on board, one that can deliver up to 600 Litres of water per min max, and one that can provide 500 max per minute, they also have 2 hose reel branches that can provide around 300 LPM max each, we would never use all 4 together as the pump would struggle to deliver such huge quantities so this would be divided between a number of pumps, realistically the most amount of water required would probably be less than 2000 of water per minute."

Stuart Graham GIFireE, Cumbria Fire and Rescue Services, 14th December 2016

If fighting with water, they would expect to apply one main branch and two smaller branches to fight a fire in a stack as described.

The main branch would have a nozzle of 20mm, with the smaller branch having nozzles of 15mm on the hose reels.

Calculation for FRS water demand based on a single large branch and two smaller branches;

"Litres per minute (LRM) = (2 x diameter^2 x √pressure)/3

Nozzle of 15mm Delivering 3.5 Bars pressure delivers 280 LPM
Nozzle of 20mm Delivering 5 Bars pressure delivers 600 LPM"
Stuart Graham GIFireE, Cumbria Fire and Rescue Services, 14th December 2016

Total demand = 600 + (280x2)
= 1,160 LPM

FIRE FIGHTING PROVISIONS FOR BALES

A minimum of 2 x 16yd open, water-tight skips, shall be available on site at all times and be immediately filled and available to the FRS should there be a fire within the bales.

Each storage bay is isolated with a minimum of 1m high water retaining wall for the retention of water/foam run off within that bay to allow the FRS to either of the following;

- split a bale, spread it, and apply foam within a bay
- collect water run off for re-circulation

PRIMARY WATER CONTAINMENT - PERMANENT WATER RETENTION SCHEMES

There are no drain mats required to be kept on site to aid with water retention. Please see below for further provisions.

Based on a previous fire, topographical data and drainage data containment of fire water would be managed as follows;

UNIT A
refer to Appendix E, Drainage Plan
In the event of a fire in Unit A, or its surrounding area, and potential for fire water to be produced the surface water shut of valve shall be closed to prevent surface water from leaving the site.

Sealed Shed – The waste transfer building is sealed and surrounded by a water retaining feature (including door ways, ie kerb/ramp) to the height of 0.1m. The total water retaining capacity this provides is calculated as following;

(90m x 60m x 0.1m) x 1000 = 540,000 ltr

Tipping Bays – Within the bunded area of the shed are Tipping Bays which are sumps with a sloping floor that goes from the shed floor level to -2m.

Capacity ;
= ((2m x 15m) / 2 x 25m) x 1000 = 375,000 ltr

The available capacity for the tipping bays could be reduced by half, due to the storage and mechanical treatment of waste in this area. Meaning worst case scenario water retention in these bays could be 187,500ltrs.

Above the top of these sumps is at the main floor level within the building, 100mm below the water retaining features of the shed. Therefore, these shall fill with water before water starts to over flow the perimeter shed containment.

The total water containment capacity within the building is;

Tipping Bays	187,500 ltr
Shed floor Surface	540,000 ltr
TOTAL	**727,500 ltr**

UNIT B
Please refer to Appendix E, Drainage Plan

In the event of a fire in Unit B, or its surrounding area, and potential for fire water to be produced, the permanent drain valve at the Unit B – Unit K crossroads will be shut to prevent water run-off from leaving the site.

Sealed Shed - The waste transfer building shall be surrounded with a water retaining kerb, at a height of 0.1m, with sealed concrete flooring. This feature shall have the capacity to retain;

(90m x 60m x 0.1m) x 1000 = 540,000 ltr.

SECONDARY WATER RETENTION SCHEMES

Water Run off landing outside the building, or overflowing the capacity of the primary containment schemes shall be contained by either of the following features, depending on location of site;

UNIT A
South External Area
Gradients of the impermeable surface on site will force the water run off towards the south east corner of the Unit. This area shall be maintained with an impermeable surface, kerbed upstand to allow water retention as indicated in Drainage Plan Appendix E.

The pump at the south east corner of the yard, part of the sealed drainage system, shall continue to run as this will allow water run off to enter the sealed drainage system and be retained within any

spare capacity of an Interceptor. At the point of the interceptor being full the drainage system will back up to the south east corner of the yard and retain there. This area would retain a minimum of 63,000 ltr. Area A5-A6 on site plan.

As part of the sealed drainage system the interceptor shall also overflow with water collecting in the top bay of the external waste exemption area and flowing down these external bays as each bay reaches full capacity.

West External Area
Water falling to the west of Unit A would flow towards the silt trap at the centre of the west yard area. This silt trap ordinarily flows off site as clean surface water. In the event of a fire and the application of water or foam the Silt Trap discharge pipe valve shall be shut off preventing any discharge from leaving the silt trap. This would allow water retention of 233,000 ltr in this yard area. See Area A7 on Site Plan

North External Area
Retaining Tank – storage capacity 25,000ltr
Open surface drain leads to Isolated Tank. This has a capacity of 25,000ltr. Except following significant heavy rain fall, the tank shall have 80% available capacity. This shall be controlled by a submersible pump discharging into the surface water drain. Therefore 20,000 ltr capacity shall be available. In the event of water being applied to fight fire the surface drain discharging from the yard shall be shut off, allowing water to back up the drainage system and collect within the tank.

Once this tank reaches maximum capacity the drainage pipes back up and water collects along the drainage channel at the North yard of the shed where fire water shall be retained until it levels with the shed. This area will retain a minimum of 47,000 ltr before it will begin to overflow into the shed through doorway A1. If this area is already flooded it will push the water through to the South yard area.

UNIT B
Retaining/collection area– External surface gradient shall divert any fire water which escapes the primary water retention of Unit B, to a retaining area at the cross-roads to Unit K. This retaining area shall hold a minimum of 15,000ltr.

It is possible to increase the water retention of this area by utilising Tertiary equipment (see below Tertiary (Temporary) Water retention Schemes), along the corner Kerb at Unit K.

TERTIARY (TEMPORARY) WATER RETENTION SCHEMES

Where there is the risk of primary and secondary water retention schemes reaching maximum capacity additional tertiary equipment may be used by the local FRS, such as inflatable boom, to contain firewater. Though this would be at their discretion during a fire incident.

The company also has an agreement with its neighbour, Andidrain Ltd, that in the case of emergency all local tankers will be supplied by the company to assist with fire water containment, and that any available storage tanks on their unit on Rockcliffe Est, may be used in the short term to contain fire water run-off pending disposal.

ASSESSING RISK TO GROUNDWATER

The external areas of the site comprising hardstanding shall not be used for storage, or transferring of wastes. All combustible waste is stored inside and/or on an impermeable concrete surface with sealed drainage.

The above firewater containment measures demonstrate that any firewater would be contained within buildings or on the impermeable concrete surface meaning the risk of fire water escaping to ground is negligible.

FIRE RESPONSE EXERCISES / DRILLS

Fire Response exercises/drills shall be carried out regularly. Every aspect of the above Fire Fighting Strategies and Water Retention Scheme shall be tested at least 6 monthly. This shall be carried out in the form of an 'exercise', with a detailed exercise plan being written showing the aspects being included in the drill. This detailed exercise plan will then be used, in conjunction with this FPP, to analysis the readiness, and effectiveness of the sites procedures, in the case of a Fire.

The Fire Response Exercise will include the testing of the water deluge system, but shall not require the full application of the water stored, as this would put the site at risk whilst its water reserves are replenished and the deposited water treated. To ensure that the water supply is sufficient and that the water retention scheme is fit for purpose all necessary stop valves shall be shut as part of the exercise and the water deluge system shall be released for a minimum period but water retention capacity shall be calculated mathematically.

Following a Fire Response Exercise a report shall be produced and supplied to the Board of Directors showing any failures in the systems, and the corrective action being taken to rectify the identified shortcomings.

FIRE EMERGENCY SYSTEMS

Fire Alarm system shall be maintained inside both Unit A and Unit B. Fire Alarm system is linked to numerous 'break glass' points in the waste transfer buildings and office and welfare facilities.

The alarm system includes smoke detectors within the office and welfare facilities.

Emergency Lighting systems are installed through out emergency escape routes in both Unit A and Unit B.

All alarm systems and illumination systems are to be inspected by a competent person annually.

Fire Alarm systems shall be checked monthly by the Maintenance Manager.

A Fire evacuation drill shall be conducted at least 6 monthly. A false alarm for fire may be considered a fire drill provided a full evacuation was carried out and all responsible persons reported to their appropriate tasks.

THERMAL CAMERAS

Thermal cameras shall be operated within Unit A and Unit B. These cameras shall be used to monitor surface temperatures of waste stacks and machines and equipment, inside the transfer buildings.

Thermal cameras shall be positioned appropriate to view surface of self-combustible waste stacks.

Thermal cameras shall be serviced at least annually by a competent person.

Thermal cameras shall be monitored throughout the day.

Where there is any suspicion that the readings are not accurate shall be reported to the servicing provider and investigated within 1 week.

When the site is not operational the thermal camera system shall include an alarm system for temperatures above 60°C which shall email the Operations Manager, Site Manager, Site Supervisor and Managing Director.

Where an alarm is triggered, this shall be immediately investigated and recorded in the site diary. Where the alarm is triggered by a waste stack the temperature probe shall be used to identify core temperatures and identify any action necessary to reduce temperature and remove the waste off site.

OTHER FIRE FIGHTING EQUIPMENT

Other Fire Fighting equipment (fire blankets, Fire extinguishers etc) shall be inspected weekly either by the Fire Warden or Site Manager

All firefighting equipment must be inspected by a competent person annually.

Engineering structures shall be inspected 5-yearly by a competent person.

Fire extinguishers are provided in all Mobile Plant and at various points around the site.

When any fire extinguisher is used it shall be taken to the General Manager for replacement. The use of that extinguisher shall be investigated and reported as a non-compliance, whether its use was as a firefighting tool or not.

ALTERNATIVE FIREFIGHTING MEASURES

The operator has access to large amounts of inert, non-combustible material comprising soils and stones and using the loading shovel, the material can be scooped and dropped on the fire to smother and reduce the oxygen. Using inert materials to extinguish/suppress a small fire would be preferable to using water as this method minimises the need to deal with potentially contaminated firewater.

RECOVERY STEPS

In the event of a fire the company will work with the EA, Fire and Rescue Services and the insurers to dispose of any waste combustion product material to a suitable location as quickly as possible to reduce the risk of the material posing a risk to the environment.

Management techniques to control the burnt combustible wastes prior to its disposal;

- Keeping the material wet to prevent it blowing off site
- Covering the material to protect it from adverse weather
- Blocking the drainage system to control any contaminated run-off
- Bunding around the combustion product

Where soil is used to fight fire the residual material from the fire shall be tested under the guidance of the Environment Agency for dangerous substances before identifying an appropriate disposal route.

Burnt materials shall be correctly described and disposed of appropriately.

If any waste containing persistent organic pollutants (POPs) is involved in a fire, residues from that fire and the firewater may contain POPs and must be treated in accordance with the POPs Regulations

Water retention provisions shall only be released after a review of any retrained water. Only areas that have not retained fire water/foam run off shall be released for discharge as usual.

Retained fire water on site shall be tested under the guidance of the Environment Agency and shall be removed from site via tankers for appropriate treatment.

Equipment on site affected by the fire shall be safely re-commissioned.

The fire shall be investigated. This shall include the following;

i. Identification of correct root cause
ii. Review of actions taken to control fire and implement changes if required
iii. Review and improvement of Fire Response Plan and implement changes
iv. Review training requirements and implement changes
v. Review fire prevention and mitigation measures and implement changes

The fire investigation may require the services of an external fire expert. This may be carried out by the insurance company,

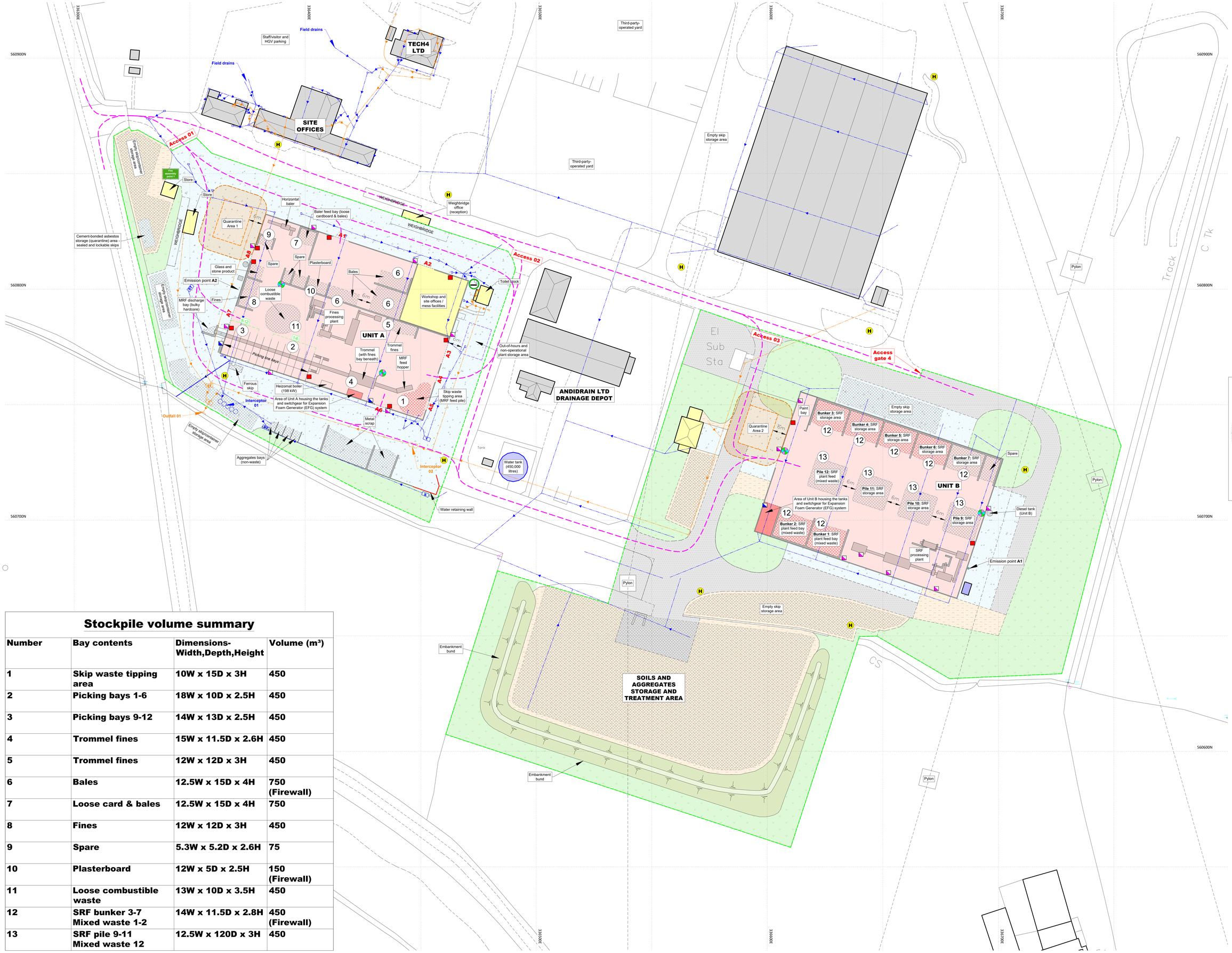
Contingency Plan

In the event of a fire at the site, all incoming wastes would be stopped until the site is operational again.

The site is not contractually obliged to receive or make arrangements for any customer. The companies own vehicles would be recalled to the transport yard and prevented from trying to deposit any waste into the facility, irrespective of the location of the incident or the waste type on the vehicle.

Depending on the length of time that the site remains non-operational following a fire, additional measures may be required to manage any stored waste at the site. This would include daily monitoring of combustible wastes outlined in tables 4,5 & 6 of this document and/or removal of combustible wastes to other treatment facilities.

APPENDIX A – Site Plan



Stockpile volume summary

Number	Bay contents	Dimensions- Width,Depth,Height	Volume (m³)
1	Skip waste tipping area	10W x 15D x 3H	450
2	Picking bays 1-6	18W x 10D x 2.5H	450
3	Picking bays 9-12	14W x 13D x 2.5H	450
4	Trommel fines	15W x 11.5D x 2.6H	450
5	Trommel fines	12W x 12D x 3H	450
6	Bales	12.5W x 15D x 4H	750 (Firewall)
7	Loose card & bales	12.5W x 15D x 4H	750
8	Fines	12W x 12D x 3H	450
9	Spare	5.3W x 5.2D x 2.6H	75
10	Plasterboard	12W x 5D x 2.5H	150 (Firewall)
11	Loose combustible waste	13W x 10D x 3.5H	450
12	SRF bunker 3-7 Mixed waste 1-2	14W x 11.5D x 2.8H	450 (Firewall)
13	SRF pile 9-11 Mixed waste 12	12.5W x 120D x 3H	450

NOTES

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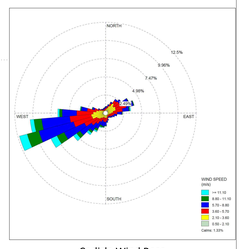
REVISION HISTORY

Rev:	Date:	Init:	Description:
-	18.02.22	RS	Initial drawing
A	18.02.22	RS	Client comments
B	14.02.22	RS/CP	EA comments
C	04.01.24	JH	Amendment
D	09.02.24	JH	Flue added
E	18.04.24	JH	Amendment
F	20.09.24	JH	Layout amendment
G	23.09.24	JH	Drainage added
H	26.09.24	JH	Table amendment

KEY:

- Permit boundary
- Storage areas (general)
- Storage areas benefiting from Expansion Foam Generator (EFG) coverage
- Sealed buildings
- Concreted area
- Stone surface (free-draining)
- Other on-site buildings (offices, workshop, etc.)
- Tarmac surfacing
- Unsurfaced areas (grass / vegetation)
- Quarantine areas (with 6m buffer zones)
- Fire fighting equipment (extinguishers, etc.)
- Mains water
- Access routes for emergency vehicles
- Fire alarm call points
- Designated smoking area
- Penstock / shut-off valve for use in event of a fire or spillage for surface water drainage containment
- On-site fire hydrants (on 100mm and 200mm mains)
- Radiometric Thermal Camera & Monitor (RTCM)
- Indicative surface & roof drainage
- Indicative combined drainage
- Drainage fall direction
- T / T Tanks
- S / S Sump
- ST / ST Silt trap
- Manhole
- Gully



Carlisle Wind Rose

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
LAYOUT & FIRE PLAN (PHASE 1)

CLIENT
North West Recycling Ltd

PROJECT/SITE
Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

SCALE @ A0	CLIENT NO	JOB NO
1:500	634	003

DRAWING NUMBER	SHEET NUMBER	REV	STATUS
634-003-03	1 of 1	H	Issued

DRAWN BY	CHECKED	DATE
RS/CP/JH	RS	26.09.24

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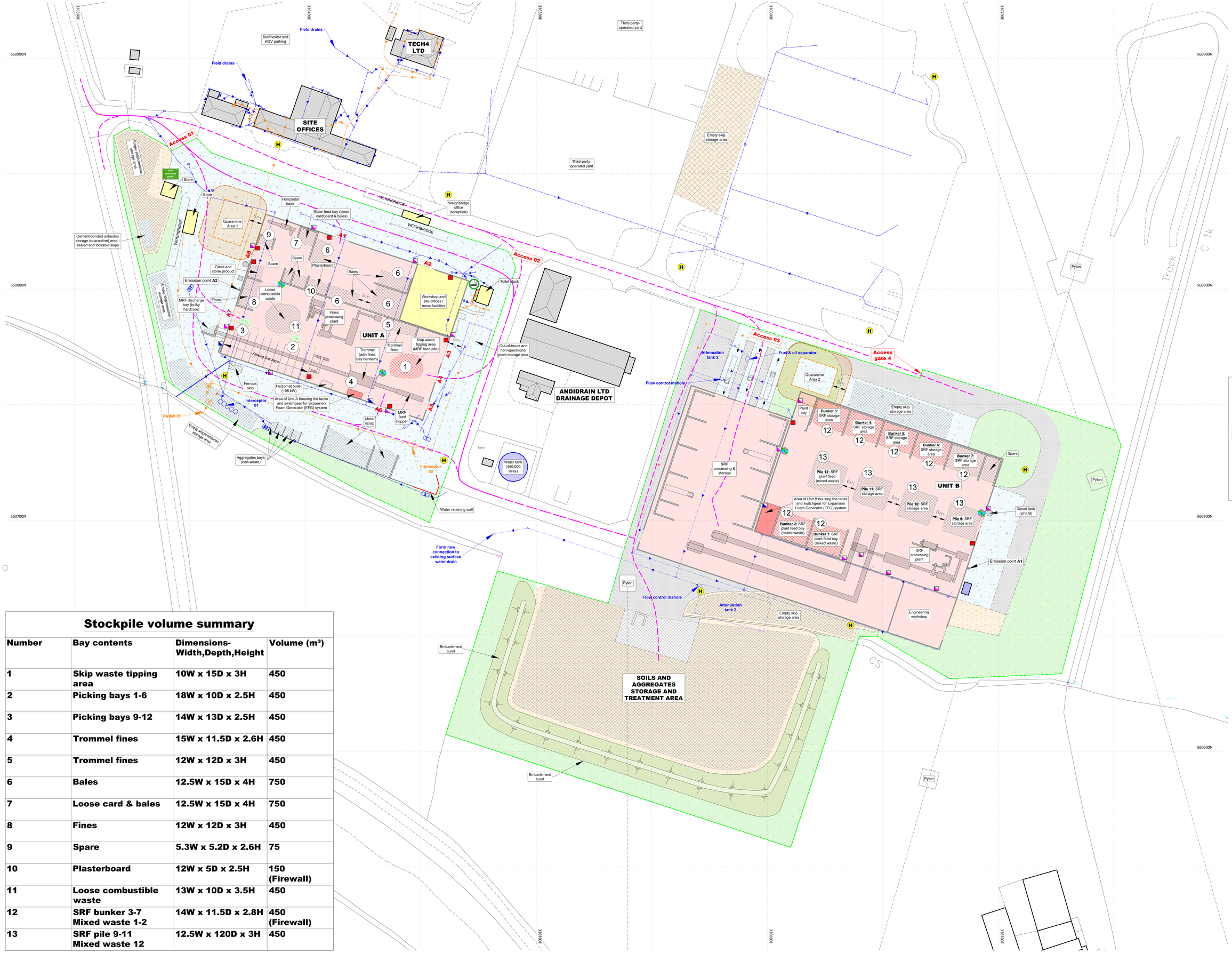

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REVISION HISTORY

Rev:	Date:	Init:	Description:
-	31.07.24	RS/JH	Initial drawing
A	01.08.24	JH	Amendment
B	20.08.24	JH	Emission point added
C	28.08.24	JH	Table added
D	30.08.24	JH	Amendment
E	23.09.24	JH	Drainage added
F	26.09.24	JH	Table amendment
G	19.12.24	JH	Client comments

KEY:

- Permit boundary
- Storage areas (general)
- Storage areas benefiting from Expansion Foam Generator (EFG) coverage
- Sealed buildings
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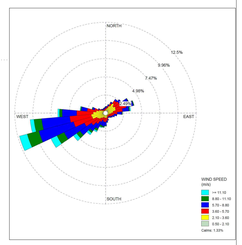
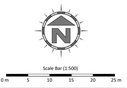


Carlisle Wind Rose



Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
LAYOUT & FIRE PLAN (PHASE 2)

CLIENT
North West Recycling Ltd

PROJECT/SITE
Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

SCALE @ A0	CLIENT NO	JOB NO
1:500	634	004

DRAWING NUMBER	SHEET NUMBER	REV	STATUS
634-004-03A	1 of 1	G	Issued

DRAWN BY	CHECKED	DATE
RS/CP/JH	RS	19.12.24

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APPENDIX B – Environment Management System (EMS)

APPENDIX C – Sensitive Receptors Map

APPENDIX D – Electrical Installation Report (Cover and Declaration Pages)

APPENDIX E – Drainage Plan

APPENDIX F – Foam Additive COSHH Sheet

Permit Application Supporting Document Appendix V

Odour Management Plan

ODOUR MANAGEMENT PLAN

Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

North West Recycling Ltd

Version:	1.2	**Date:**	21/03/2025		
Doc. Ref:	634-004-I	**Author(s):**	IA/DY	**Checked:**	NWR
Client No:	634	**Job No:**	004		

Oaktree Environmental Ltd

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REGISTERED IN THE UK | COMPANY NO. 4850754

Document History:

Version	Issue date	Author	Checked	Description
1.0	16/09/2024	DY/IA	NWR	Draft for client comment
1.1	29/10/2024	DY/IA	NWR	Amendment to Section 1
1.2	21/03/2025	DY/IA	NWR	Drawing refs amended

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List of Tables

List of Appendices:

Appendix I - **Drawings**

Appendix II - **Record Keeping Forms (to be used if presented with odour problems)**

Odour Complaints Report Form

Odour Diary

1 Introduction

1.1 General

1.1.1 Oaktree Environmental Ltd has been instructed by North West Recycling Ltd to prepare an Odour Management Plan ("OMP") for their waste transfer and treatment facility at Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW.

1.1.2 The registered address and contact details for North West Recycling Ltd (i.e. the 'site operator') is:

North West Recycling Limited Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW	**Contact:** Richard Allan **Position:** Managing Director

1.1.3 The site is operated in accordance with an Environmental Management System (EMS) and Fire Prevention Plan (FPP) along with other documents targeted to specific environmental considerations including this OMP.

1.1.4 As is described throughout this OMP, the processes undertaken on-site which include the most odourous wastes will be predominantly enclosed with abatement plant used as necessary. As such, potential odour impacts are not expected to be significant. However, this OMP will allow North West Recycling Limited to implement an action plan should the site operatives detect an odour presence, receive complaints from local businesses or residents and if the EA suspects odour emissions from the site during an inspection.

1.2 Relevant Guidance

1.2.1 Reference has been made to the following relevant guidance during the drafting of this OMP:

- H4 Odour Management: How to Comply with your Environmental Permit, EA, March 2011.

1.2.2 Appendix 4 of the EA H4 guidance outlines information considered to be essential for inclusion within an OMP. This OMP has covered the following aspects, in accordance with the H4 guidance:

- Details of potential odour sources, including descriptions and quantities;
- Details of relevant receptors sensitive to odour;
- Details of local meteorological conditions;
- Assessment of potential risks from odours at sensitive receptors, taking account of receptor sensitivity, location, prevailing meteorological conditions and odour potential from operations on site, using an established risk assessment approach;
- Outline of control measures to be used to control potential odour risks to an acceptable level;
- Outline of contingency measures for dealing with incidents or emergencies;
- Details of odour monitoring procedures to be used; and,
- Details of complaints response procedure.

1.3 Site Location

1.3.1 The site is located on Land at Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW.

1.3.2 The site is predominantly located in a rural area to the northwest of Carlisle, there are mixed industrial, commercial, and residential land uses in the surrounding area.

1.4 Waste Facility Overview

1.4.1 The operator holds an existing Environmental Permit (EP) for the operation of a waste recycling facility for the receipt and recycling of Household, Commercial and Industrial Wastes. Part of the existing process includes the separation of non-recyclable wates with significant calorific value, which are then shredded and processed into a Solid Recovered Fuel (SRF), which is sent to suitably licenced energy recovery facility.

1.4.2 The operator proposes to increase the permitted volume of material that is pre-treated for incineration above 75 tonnes/day. As such, this will be classed as an installation activity under the Environmental Permitting (England and Wales) Regulations 2016 (as amended) ("the regulations"). A variation to the existing EP is therefore required to include an installation activity within the permit.

1.4.3 An approved OMP is currently implemented by the operator on a day to day basis at the site. A new OMP has been created as part of the permit application process to ensure compliance with latest EA requirements.

1.4.4 The location of the operational and storage areas are shown on Drawing Nos. 634-003-03 and 634-004-03A.

1.5 Site Infrastructure

1.5.1 The site includes two buildings which are used for the reception and processing of Household, Commercial and Industrial Wastes. Wastes with the highest potential for odour are received and processed within these buildings. Wastes with much lower potential for odour are processed externally, including soils and aggregates. Additional changes to infrastructure are proposed, including the installation of extraction systems on both buildings for the collection of diffuse emissions, including odour, from mechanical processing plant. Air will be filtered by activated carbon filters prior to discharge via elevated flues. This will provide an additional line of odour control.

Alternative Measures:

- **Monitoring** – The site carries out Olfactory/Sniff assessments which have been outlined further in Section 5 of this OMP.
- **Stock rotation** – All potentially odourous wastes will either be contained within bays within a building or within a container and will undergo continuous monitoring. The wastes with highest odour potential i.e. the mixed waste piles and SRF/RDF awaiting treatment has material extracted from it several times throughout the operational day ensuring that it is a dynamic stockpile and continuously rotated. The site follows the first

in, first out principle which ensures that the oldest wastes are removed from the site first and aren't left to stand for a long period of time.

- **Housekeeping** – The site will carry out regular cleaning (minimum once daily) of all operational areas at the site paying special attention to storage areas for odorous wastes. The site has a housekeeping schedule shown in section 4.
- **Storage procedures** – All potentially odourous wastes are contained within a building, bays or container.

1.5.2 Site management will visually monitor the bay walls and buildings on a daily basis and will carry out quarterly monitoring of their integrity. In the event that there are any issues the maintenance/repair works will be carried out within 48 hours.

1.6 Waste types

1.6.1 The waste types handled on site will be 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.

1.6.2 The following summarises the type of wastes the facility will accept:

- Road Collection Vehicle (RCV) Wastes – mixed wastes, may include odourous material from catering and hospitality sources;
- Mixed Municipal Wastes – may contain rejected food wastes;
- Construction and Demolition Wastes – typically clays, bricks, soils and rubble with smaller amounts of other materials such as wood, plastics, general wastes;
- Dry Mixed Recycling (DMR) Wastes – carboard, plastics and metal packaging;
- Green Wastes – grass, tree and bush trimmings; and,
- Residual wastes from treatment of municipal wastes – fines such as soil, sawdust, ash, small stones, shredded paper and some organic content and Solid Recovered Fuel (SRF), predominantly including paper and plastic, with small fraction of wood.

1.7 Site Management

1.7.1 The site will be assigned a Technically Competent Manager (TCM) who will be responsible for the general management of the site including the acceptance and handling of any potentially odourous wastes.

1.7.2 The company, through the TCM, will ensure that a nominated deputy is sufficiently trained and familiar with all site management documentation (which includes this OMP) in addition to all relevant company procedures who, in the absence of the TCM, will act the competent person.

2 Odour Risk Assessment

2.1 Methodology

2.1.1 This OMP has been completed to identify where the likely risks are in relation to surrounding land uses. This assessment has been used to inform Section 5.0 of this OMP with regard to specific odour monitoring procedures.

2.2 Odour Intensity

2.2.1 Table 2.1 below highlights the intensity of the odour and provides a description by which to measure the intensity using the hedonic tone:

Table 2.1 - Odour Intensity Scale & Description

Odour Intensity	Criteria
Negligible	No detectable odour
Low	Faint odour (barely detectable)
Moderate	Moderate odour easily detected while walking, possible interference)
High	Strong odour (bearable, but offensive)
Severe	Very strong odour (this is when you really wish you were somewhere else)

2.3 Receptor Sensitivity

2.3.1 Table 2.2 below outlines the receptor sensitivity to odour which will be used when determining nearby odour sensitive receptors:

Table 2.2 - Receptor Sensitivity Criteria for odour

Sensitivity of Receptor	Criteria
Low	Industrial workplaces
Medium	Residential and commercial areas >200 m
High	Residential and commercial areas <200m

2.4 Sensitive Receptor Locations

2.4.1 The main potential sensitive odour receptors within 400m are listed in Table 2.3 below:

Table 2.3 - Potential Sensitive Odour Receptors within 400m of Site

Receptor	Receptor Type	Direction from Site	Approximate distance from site boundary (m)	Receptor Sensitivity
Bank End	Residential/commercial	South-East	120	High
Holme View	Residential	South	400	Medium
West View	Residential	East	400	Medium
Meldrun House and Crookdyke)	Residential/commercial	North	370m	Medium
Andidrain Limited	Industrial	Adjacent	<10m	Low

2.4.2 Total distances are from the boundary of the waste facility closest to the nearest receptor point. In reality, distances to the waste storage/treatment areas may be greater.

2.5 Prevailing Meteorological Conditions

2.5.1 The wind rose below shows wind speed and direction frequency between 2015 and 2019 measured at Carlisle meteorological station. This is considered to provide the most representative data for prevailing meteorological conditions at the site. As is shown, prevailing wind direction is predominantly from the West-South-West. As a general rule, any odours will be transported by prevailing winds to locations downwind of a source with little or no odour detectable upwind of a source. The exception to this is during calm conditions when odours may travel/be dispersed against wind direction. Consideration should be given to these factors when assessing risk and mitigation.

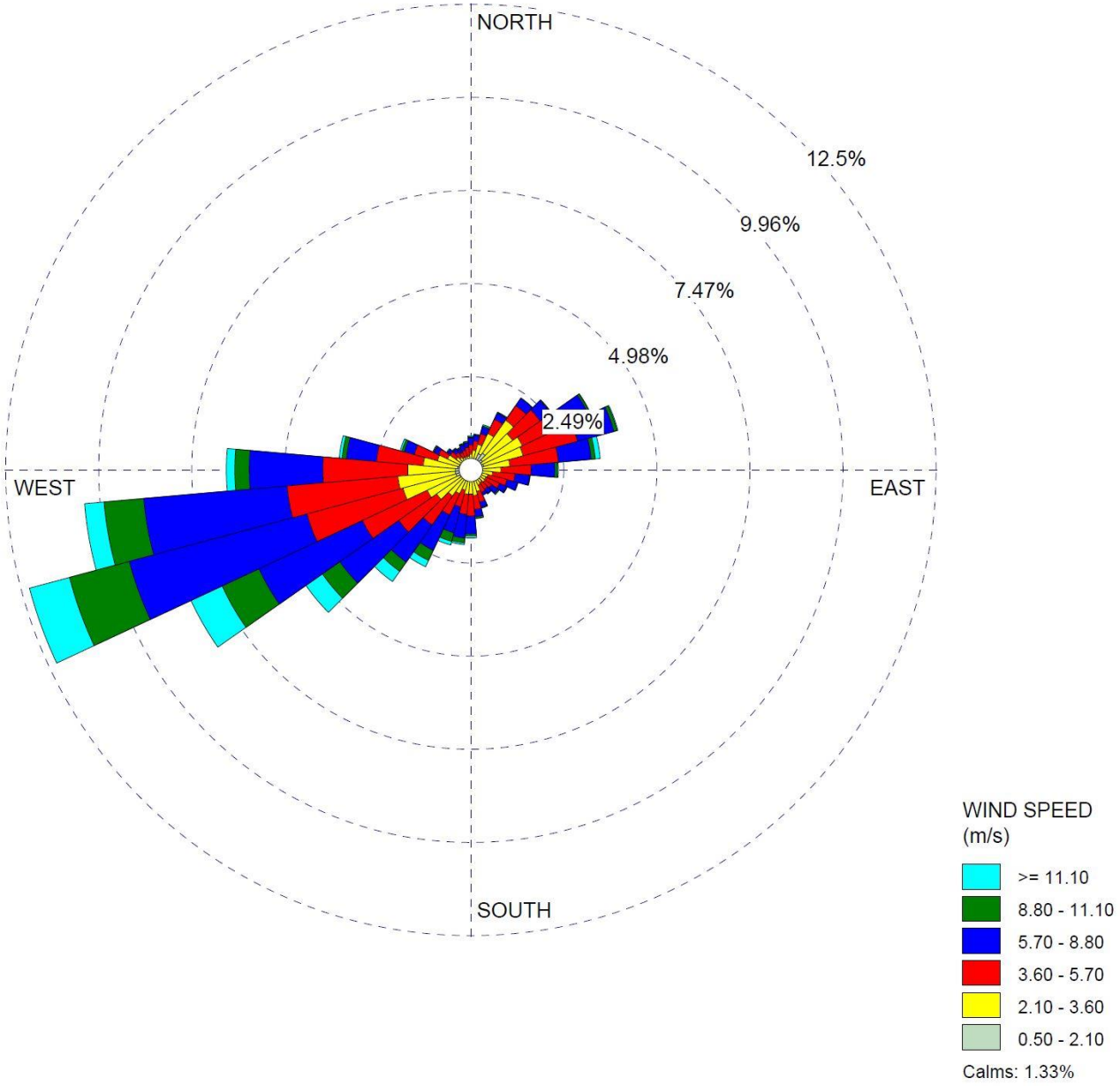


Figure 1 - Wind Speed and Direction Frequency Between 2015and 2019, Based on Observations at Carlisle Meteorological Station

2.6 Risk Matrix

2.6.1 The odour risk in any particular event can be established using the risk assessment matrix given in Table 4 below.

Table 2.4 - Resultant Risk Matrix (Colour-Coded)

		Sensitivity		
		Low	**Medium**	**High**
INTENSITY	**Negligible**	**NEGLIGIBLE**	**LOW**	**LOW**
	Low	**LOW**	**LOW**	**MEDIUM**
	Moderate	**LOW**	**MEDIUM**	**MEDIUM**
	High	**MEDIUM**	**MEDIUM**	**HIGH**
	Severe	**MEDIUM**	**HIGH**	**VERY HIGH**

3 Potential sources of On-Site odour

3.1 Receiving Wastes

3.1.1 There is potential for odour to arise from the transportation of wastes to site. Wastes will be delivered to site in vehicles which will be sheeted/covered as far as is practicably possible. Wastes will be unloaded within enclosed buildings. Therefore, this is not expected to create a significant source of odour.

3.2 Waste Acceptance and Storage Areas

3.2.1 The principal source of potential odour arises from the receipt and storage of wastes on-site. The vast majority of wastes will be stored and treated/sorted within buildings, including all wastes with the highest potential for odour.

3.2.2 Waste storage areas are defined on the layout plans within Appendix I. The table below summarises storage areas, types of waste stored, volume and odour potential.

Table 3.1 – Stored Wastes and Odour Potential

Reference on Layout Plan	Waste Type	Number of Stockpiles/Bays	Storage Location	Volume per Stockpile/Bay/Skip (m^3)	Unmitigated Odour Risk
1	Skip waste	1	Internal	450m^3	High
2	Picking bays 1-6 – general household/commercial and industrial waste	6	Internal	450m^3	High
3	Picking bays 9-12 - general household/commercial and industrial waste	4	Internal	450m^3	High
4	Trommel fines	1	Internal	450m^3	High
5	Glass and Stone	1	Internal	450m^3	Low
6	Bales	1	Internal	750m^3	Low
7	Loose card	1	Internal	750m^3	Low
8	Fines	1	Internal	450m^3	High
9	Woodchip	1	Internal	75m^3	Medium
10	Plasterboard	1	Internal	150m^3	Low

Reference on Layout Plan	Waste Type	Number of Stockpiles/Bays	Storage Location	Volume per Stockpile/Bay/Skip (m^3)	Unmitigated Odour Risk
11	Loose combustible waste	1	Internal	450m^3	High
12	SRF bunker 1-7	7	Internal	450m^3	High
13	SRF pile 9-12	4	Internal	450m^3	High
MRF Discharge Bay – bulky hardcore	Stone/aggregates	1	External	450m^3	Low
Ferrous skip	Recycled ferrous metals	N/A – stored in 40-yard skip	External	31m^3	Low
Metal scrap	Scrap metal	2	External	450m^3	Low
Aggregates bays (non-waste)	Soil, sand and stones	4	External	80 tonnes	Low
Green waste	Garden wastes, including grass, tree and hedge trimmings	N/A – Stored in 40- yard roll on-roll off container	External	31m^3	Medium
Soils and aggregates storage and treatment area	Soils and aggregates	N/A	External	Soil = 25,000 tonnes Aggregates = 10,000 tonnes	Low

3.3 Site Drainage System

3.3.1 The drainage system will be monitored regularly to ensure it is functioning correctly. However, periodically skips which have stood on producer sites for a long time often contain foul smelling waster which can cause problems when tipped.

3.4 Background Odour Sources in the Area

3.4.1 Potential local off-site sources of odour would be associated with the other industrial/commercial activities which are present in the immediate area and the wider areas surrounding the site.

3.4.2 This means that there are other potential sources of odour in the immediate surrounding area which have the potential to generate complaints.

3.4.3 Odour release could also be the result of abnormal weather conditions, machinery breakdowns and human error.

3.4.4 In order to determine whether complaints are the result of activities from the site or from other nearby sites an odour complaints form will need to be completed in line with the company's complaints procedure which is attached in Appendix II.

4 Odour control

4.1 Site operations

4.1.1 Limiting odour from the waste recycling facility can best be achieved through employing effective site management and good general practice. It is much easier to minimise odours in the first instance rather than dealing with problems when they occur.

4.1.2 This section addresses the general site management guidelines and identifies specific procedures to mitigate against odourous emissions.

4.2 Receiving Wastes

4.2.1 Rigorous control of wastes delivered to the site is required, with contaminated or odorous wastes (stored too long) rejected in line with the procedures in the EMS and EP. Trained competent staff are in place to recognize odorous material and to inspect incoming wastes as it is deposited at the site. Malodorous waste will be returned to the producer or sent to another authorised facility for treatment.

4.2.2 Strict waste acceptance procedures are in place at the site as shown below and the following details will be recorded for every load deposited at the site:

a) The date and time of delivery.
b) The name and address of the waste producer.
c) The detailed and accurate description of the waste including type, quantity (in tonnes and/or cubic metres) and EWC codes.
d) How the waste is contained e.g. loose, container type.
e) The carrier's name and address.
f) Driver’s name, signature and vehicle registration No.
g) Signature or initials of person(s) producing/ accepting/ inspecting/ carrying the waste.
h) Additional handling details/notes made by the driver after inspection of the load.
i) SIC code of the premises which produced the waste (where relevant).
j) Waste hierarchy declaration.

k) Information on previous treatment of the waste e.g. manual or mechanical.

4.2.3 Any wastes identified during the incoming waste inspections which do not conform to site acceptance criteria will not be accepted. If the non-conforming waste is discovered following deposit, the waste will be loaded back onto the tipper vehicle and removed off site or and quarantined immediately in a sealed/covered skip or container to await safe removal.

4.2.4 Waste suppliers and HGV skip vehicle drivers are required to ensure that only acceptable material is brought to site to minimise the incidence of rejection. If staff continually bring odorous waste to the site, the operator will initiate their three-strike rule:

a) Additional waste type recognition training (see EMS)
b) A verbal and written warning
c) Refused entry into the site or potentially disciplinary.

4.2.5 The site may accept waste from other transfer stations so it is difficult to provide an average age of waste but upon reception of waste after visual checks, any loads which contain significant amounts of odourous waste will be rejected as above.

4.2.6 Deliveries of general waste are directed to reception areas to await processing therefore receiving wastes will not present an odour nuisance due to their storage within a bay or container.

4.2.7 The company receives waste through three different avenues as follows:

- Its own skip services;
- Long term contracts; and,
- Spontaneous deliveries of waste from irregular customers.

4.2.8 The operator has a degree of control over the condition of the material received on site arising from its own vehicles and within the terms of long term contracts, and full control of the day/time a load is received in relation to its treatment cycle. With regards to these

services/contracts, wherever possible, the company will consider and agree some contract terms, in relation to the wastes potential for creating odour. These will allow the waste to:

- Be collected in a schedule that considers the condition of the waste for its arrival onto site. This will also influence its recyclability as the earlier the treatment (segregation) of waste for recyclables, before any breakdown of biodegradable waste occurs, the higher the potential for recycling; and,
- Be delivered to site on a day, and/or time, which allows the waste to be treated/segregated and removed from site in the shortest time scale possible to reduce the potential for the waste to start its degrading process, or where it has already begun to breakdown, it may be treated and despatched from site in a rapid turnaround.

4.2.9 Should a customer request a collection of a container due to odorous content or on inspection of a load by the driver prior to collection the material is identified as being already highly odorous, arrangements will be made with the customer to have this load either-

- Collected by an alternative contractor;
- Transferred to an alternative facility for processing / disposal; and,
- Only collected for delivery to site at a pre-arranged time so load can be immediately dispatched to an appropriate disposal location.

4.2.10 Where delivered waste has already broken down significantly it shall be quarantined and removed from site as soon as is reasonably practicable. This material shall be directly handled as little as possible to minimise the introduction of oxygen to the breakdown process and to prevent the release of odour from within the waste.

4.2.11 In relation to ad-hoc, spontaneous waste deliveries from irregular customers, the company has no opportunity to manage the wastes condition and timing of arrival. These wastes must be thoroughly inspected by the receiving staff to assess its condition. All loads from spontaneous or irregular customers are inspected by the Site Operational staff prior to tipping to ensure-

- Waste type and constituents are permitted at this facility;
- Appropriate tipping location is designated to the load;
- Waste condition is acceptable – i.e. not odorous, liquid, sludge etc; and,
- The correct disposal charge rate is applied. Deliveries of waste from spontaneous or irregular customers do not arrive at site in the operator's own vehicles and therefore can be rejected at the weighbridge and not permitted to enter site. All rejected loads will be recorded in the site diary and where rejected loads are thought to contain potentially hazardous material the EA will be notified.

4.3 Stock Rotation/Waste Turnaround

4.3.1 General

4.3.1.1 Incoming mixed waste will be processed as soon as practicably possible. The operator works to a standard turnaround time of up to two weeks, but during peak periods, this may increase to 4 weeks. The following table summarises waste turnaround times.

Table 4.1 – Waste Turnaround Times

Waste Type	Location	Waste Management Methods	
		Standard Operation	Peak Operation
Lights	Unit A. Opposite Red processing line hopper	This waste is processed continually, except in case of maintenance or breakdown. Processed within 2 weeks.	Where stock exceeds 1-week turnover rate, stock loaded from right, removed from left, stock moved continually to prevent degradation and internal heating. Processed within 4 weeks.
Trommel fines	Unit A	Bay management to rotate stock removed and enable turning when required by temperature monitoring. Processed within 2 weeks.	As per standard operation
Red line residual wastes	Unit A; Holding bay at end of red line	Holding Bay, only pending transfer to storage location at Unit B	N/A
Residual wastes	Unit B	Rotate bays to rotate stock .storage, Number of bays in use for SRF production depends on stock levels of input and output. Each bay is considered a separate stack	N/A – wastes shall not be accumulated on site beyond standard 2-week period

Waste Type	Location	Waste Management Methods	
		Standard Operation	Peak Operation
RDF/SRF Wastes	Unit B	Rotate bays to rotate stock storage, Number of bays in use for SRF output depends on stock levels of input and output Each bay is considered a separate stack.	As per standard operation
Green wastes	Outside South West corner of Unit A, in 40yd hook bin	One bin on site at any one time, Waste transferred directly into bin and stored outside. Container removed from site and disposed of direct to composting facility as required. Processed within 4 weeks	As per standard operation

4.3.2 Mixed Municipal Wastes

4.3.2.1 Under standard production, waste of this type is expected to remain in the stockpile for up to 1 week. Under peak season conditions with high stockpile levels, waste may potentially remain in the stockpile up to 2 weeks. Stockpiles will be rotated.

4.3.3 Green Wastes

4.3.3.1 This waste type is stored separately in containers to prevent mixing with other degradable waste. Larger quantities such as 40 yard roll on roll off containers shall be, wherever possible, taken directly to the destination for composting. Green wastes accepted onto site shall be stored in a separate container and shall be transferred to a licensed composting facility at a regular interval. This stockpile shall be cleared at least once per month.

4.3.4 SRF Stockpiles within Unit B

4.3.4.1 Management shall ensure on a weekly basis that there are sufficient bulk vehicles booked to remove SRF output. Management shall also assess input quantities against SRF processing capacity. If there appears to be a surplus of waste for the SRF production process, additional bulk vehicles shall be arranged to remove this overstock to a suitably licenced facility.

4.3.4.2 Residual waste stockpiles are expected to have a turnaround of 5 days maximum. The capacity of the residual waste stockpile area will be restricted by stack sizes as detailed

above. These are maximum stack sizes and would only be expected to reach full capacity during peak season.

4.3.4.3 Where a bank holiday is imminent, additional vehicles will be sourced as necessary to ensure minimal waste is stored over the bank holiday weekend to prevent waste being allowed to biodegrade.

4.4 Abatement and Containment

4.4.1 Waste stockpiles with the potential to generate odour will be located internally within Units A and B. This will prevent the material from being in direct sunlight. This is not expected to prevent the breakdown of waste from happening, although in warm weather it is anticipated that this will not speed up the degradation of the material.

4.4.2 The Redline storage bays are used to hold the segregated recyclable waste material picked from the lines such as cardboard, plastics and wood. The feedstock materials are kept in segregated stockpiles whilst awaiting processing.

4.4.3 The Stockpiles each have a pre-determined maximum volume with limitations set at a maximum 4m height and 20m maximum widths. Appropriate management of stockpiles will maintain 'fire break' gaps between the stockpiles.

4.4.4 When stockpiled waste material is moved, greater quantities of evaporation and therefore odour release can occur. The principles of reducing evaporation and therefore odour release adopted by the operator are as follows:

- **Reduced temperatures -** Utilisation of mist air system to reduce ambient air temperature;
- **Reduce access to air-** (low surface area)- Stockpiling of waste to reduce surface area;
- **Increase relative humidity in the immediate vicinity**- Utilisation of mist air system to increase relative humidity in immediate vicinity; and,

- **Providing wind breaks immediately around loading areas**- Loading occurs within Unit A and B, therefore reducing wind speeds to very low levels reducing evaporation and preventing transport of any odour away from waste.

4.4.5 Plant operators monitoring and supervising the loading of mixed residual waste for despatch will also take note of evaporation and odour release during the loading process and, where wind direction will impact upon local sensitive receptors, they will report to the Site Manager.

4.4.6 Green wastes will be stored within a roll-on off container keeping quantities on site low and to reduce the need to handle the waste. Reducing the handling / disturbance of the material will decrease degradation and evaporation. Keeping quantities stored on site low will also reduce heat generation within a 'stockpile' and further reduce the breakdown of this material onsite.

4.4.7 Any residual wastes left in skips has the potential to start breaking down, therefore creating an odour. To prevent this, waste containers shall be checked, by the driver, after tipping, to ensure they are completely empty of waste before being returned to the storage area.

4.4.8 Vehicles and plant that deal with handling waste directly (shredders, magnets, loading shovels, trommels, screens etc) shall be cleaned at least once per week to ensure that no opportunity is given for waste to sit on a vehicle and degrade.

4.5 Secondary Abatement

4.5.1 The operator will install extraction and abatement systems on Units A and B in order to comply with Best Available Techniques (BAT). This will include collection and abatement of diffuse emissions arising from mechanical treatment of general wastes in each unit. Extracted air will be treated within an activated carbon filtration system, with residual air released via elevated flues, which will provide further dilution and dispersion of residual odours.

4.6 Loading and Transport of Wastes

4.6.1 All waste vehicles leaving the site containing light and/or potentially malodorous wastes will be securely sheeted or enclosed at all times.

4.7 Housekeeping

4.7.1 Regular cleaning of operational areas (i.e. minimum once daily) such as roads, drainage channels and storage areas will be carried out using mobile plant and water supplies to discourage odour generation from old degrading materials. The odourous materials will then be placed in a sealed rejected waste skip.

4.7.2 In addition to daily visual monitoring of the site; site management will monitor the integrity of the buildings on a quarterly basis. In the event that there are any issues resulting in odour escaping from the buildings then maintenance works will be carried out within 48 hours.

4.7.3 The operator will avoid fugitive odorous emissions by committing to the following housekeeping:

1. Maintain a clean, well-organised site
2. Jet spray and disinfect storage bays when emptied
3. Clean equipment that has been in contact with odorous materials
4. Carry out a deep clean of the reception / processing areas once a quarter and record this in the site diary
5. Concrete floors designed with a slope towards drainage system and designed in a way that allows easy cleaning.
6. Floors sealed to prevent absorption and adsorption of odour producing residues.
7. Solid waste storage containers will be robust, easily cleanable, designed for safe handling, and constructed to prevent loss of wastes from the equipment during storage. If such equipment is used to store other wet or liquid producing wastes, or wastes composed of fine particles, such equipment shall in all cases be non-absorbent and leak-resistant.
8. Periodically treat drainage systems with bacteria-inhibiting solution.

4.8 Liaison with Neighbours

4.8.1 In the extreme event of significant but temporary odour releases outside of normal operations, neighbours will be contacted to advise them of what is occurring, and the action being taken. The EA will also be notified.

4.8.2 An open-door policy will be encouraged by the operator to enable any complaints (if received) to be dealt with immediately. The complainant will then be supplied with remedial actions taken and any procedures or measures put in place by the operator to reduce or ideally eradicate the likelihood of a subsequent complaint.

4.8.3 If any odour complaints are received, the complaint will be assigned to an operative familiar with the sites operation who will complete a 'complaints and events log' and detailed individually on the complaints form (in Appendix II), both of which will be kept for inspection on request by the EA. Details of information to be completed are dates, nature of the complaint, weather conditions at the time of complaint, investigation details, action taken and a signature (as a minimum). Odour complaints will be investigated and responded to within 24 hours and suitable reviewed by the site manager who is ultimately responsible.

4.8.4 The operator would also be required to make a note of any unavoidable events plant/equipment malfunctions in the site diary, rather than just actual complaints received. This will ensure that if complaints are received retrospectively from either the Council/EA or directly, any circumstances which led to that complaint as a result of elements outside of the operator's control would be able to be attributed to the cause of the complaint. If there are significant odour releases outside normal operations, the operator will cease operation, investigate and resolve the issue before continuing.

4.8.5 The company undertakes an active role engaging with the local community of Rockcliffe. A representative director of the operating company attends the Rockcliffe Parish Council meetings to provide members of the local community a regular opportunity to ask questions and raise any concerns or complaints about the facility.

4.8.6 If abnormal conditions were to occur at the facility and odour generation could impact the Rockcliffe community, the representative of the operator will contact the Parish Council meeting Chairman and arrange a meeting to re-assure the community corrective action is being undertaken and that normal operations will be resumed at the earliest opportunity.

4.9 Training

4.9.1 All employees and sub-contractors of North West Recycling Ltd involved with potentially odorous materials and their handling will receive training in Sniff testing (including office/admin workers allocated to undertake the Sniff test) and complaint reporting (management and operations staff).

4.9.2 Training will be given to all relevant persons to make sure they are competent in completing olfactory assessment survey forms, odour complaint report forms and the odour diary to ensure sufficient monitoring of odours can be carried out. All training records will be kept within the site office.

5 Monitoring (if required)

5.1 Monitoring Odorous Releases

5.1.1 North West Recycling Ltd will use the following techniques to monitor odorous releases:

a) Olfactory Monitoring
b) Complaints Monitoring
c) Odour Diaries (when necessary)

5.2 Olfactory Monitoring

5.2.1 Odour will be monitored daily during normal weather conditions and 3 hourly intervals during periods of dry, warm, windy weather and an Odour Diary will be completed (Appendix II). Meteorological conditions such as the wind speed and direction at time of monitoring and external monitoring locations will be taken into account.

5.3 Odour Monitoring Procedure

5.3.1 Sniff testing will be carried out by trained; competent staff weekly or as necessary (please see Section 4.9 for information on training). Assessments will be carried out both routinely and in response to specific complaints.

5.3.2 The assessor should not:

a) Smoke or consume strongly flavoured food or drink for at least 30 minutes before the assessment.
b) Consume confectionary or soft drinks immediately before the assessment.
c) Apply scented toiletries, such as perfumes or aftershave immediately before an assessment.

5.3.3 Starting points of assessments outside the site should first be upwind of the site as far as access and safety factors in the surrounding area allows, progressing towards the site boundary. The next starting point should be downwind of the site as far as access and safety

factors in the surrounding area allows, progressing towards the site boundary and then moving away from the site in an upwind direction. The person carrying out the assessment should walk slowly and breathe as normal. The points have not been provided on the site plan due to the regular variations in wind speed and direction.

5.4 Complaints Monitoring

5.4.1 All odour complaints will be investigated promptly and appropriate remedial action will be taken if the complaint is validated e.g. remove odorous materials off site as soon as reasonably possible. Complaints will be recorded on the form found in Appendix II.

5.4.2 Complaints to the Local Authority / Environment Agency will also be recorded and taken into account. An olfactory assessment survey will be carried out from where the complaint was made and from any convenient locations between the complainant/receptor and the site so that the complaint can be validated or rejected.

5.5 Odour Diaries

5.5.1 If members of the local community are frequently reporting odour issues in the vicinity, then they will asked (if agreeable) to keep an odour diary. This will help to build up an account of when the odour occurs, their location and the site operations that were being carried out at the time, as well as the duration of the activities taking place. Any obvious problems can then be addressed.

6 Contingency Plans

6.1 Contingencies and Emergency Plans

6.1.1 In accordance with the Environment Agency's guidance on OMPs, contingency plans have been prepared to react to situations 'where monitoring indicates that a potential odour source is not completely under control, meteorological conditions are unfavourable or that adverse impact has occurred'.

6.1.2 If excessive odours are detected at the site boundary, other monitoring point or a complaint is received, the following remedial procedures will be taken and the contingency measures shown in this section will be implemented:

a) Firstly identify the odour source; is it from:

i) Site operations; or,
ii) An off-site source (e.g. agricultural spreading operation)

b) If on site:

i) Report incidence to the site or technically competent manager;
ii) Identify the point of release of the odour;
iii) Identify the cause if the release i.e. machine breakdown, leakage, etc.;
iv) Identify a solution;
v) Implement a solution;
vi) Carry out olfactory tests to check if fix is working;
vii) Record actions taken on relevant forms and site diary as required by this plan

6.1.3 Then actions taken if odour is being produced on site will be:

a) Normal Operations: The offending odour will be traced and the reason for the cause of the problem will be investigated. Once solutions are in place, olfactory monitoring will be carried out to ensure the solutions put in place are having the desired effect.

b) Abnormal Conditions: Adverse weather conditions can promote generation of odour and inhibit its effective dispersion e.g. hot weather with little wind, resulting in increased risk of odour to receptor locations. If this happens odour causing operations will be minimized until more favourable meteorological conditions return.

6.2 Corrective Actions for Various Situations

6.2.1 Table 6.1 below summarises the various problems that could arise at the site and the standard responses available, which will assist in reducing odour potential.

Table 6.1 - Corrective Actions

Process	Problem	Corrective Action
Waste Delivery (Tipping)	Deposit of odorous load	Isolate material. Reject material giving rise to odour.
Waste storage and treatment areas	Odorous emissions detected	Olfactory/SNIFF test required to pinpoint source. Ensure procedures outlined in Section 5 are adhered to in full. Implement liaison programme if risk deemed HIGH or VERY HIGH.

6.3 Staff Shortages/Industrial Action/Human Error

6.3.1 In the event of unforeseen staff shortages arising from industrial action, illness, suspension or no shows, the operator will make a judgement whether to reduce the number of incoming loads, thus reducing processing frequency and storage of potentially odourous wastes. The operator will then seek further employment within a timely manner to ensure the site can continue to operate at its required capacity.

6.3.2 All staff are trained and undergo toolbox talks every 6 months (or sooner if operations change) to reduce the impact of human error. In instances where a human error has caused to an odour issue, the site may suspend operations until the issue has been rectified and the member of staff will be warned and re-trained accordingly.

6.4 Weather Conditions/Emergency Situations

6.4.1 The site will set up a notification alert system with the Met Office to receive updated weather information for the following weather conditions which could cause a potential on or off-site odour issue:

- High winds >30mph which could exaggerate an odour;
- Droughts or periods of hot weather exceeding 3 major dry days which could lead to water shortages, hosepipe bans and excessive odour; and,
- Flooding.

6.4.2 The site would install a combination of one or more of the following preventative/contingency measures as appropriate (in addition to control measures in Section 4) to avoid serious odour issues as a result of the above weather conditions or fire incident:

- Stockpiles containing any odourous waste may be covered with tarpaulin in the event ongoing procedures are not considered effective;
- Contact an additional haulier to help remove the waste on site;
- Suspend any further waste deliveries to the site;
- Contact the Environment Agency to agree a suitable course of action; and, or,
- Contact members of the public or any other persons who could be affected by the odour and advise of the contingency measures the site has employed and timescales when the odour is likely to be reduced.

6.4.3 In the event that the site receives any dangerous or unexpected loads; they will be rejected as part of the waste acceptance procedures discussed in Section 4. In the unlikely event that the site deposits the load, it will be immediately transferred to the rejected waste skip and removed from site within <48 hours.

6.5 Operational Failure

6.5.1 The manager will be contacted by staff in the event of any operational failure such as the breakdown of plant, systems or equipment and will decide whether operations are to continue or be suspended prior to corrective action being taken. Serious operational failures, which result in the closure of the site, will be recorded in the site diary.

6.5.2 All repairs to site security will be made as soon as possible on the discovery of the damage and the site will be made secure until the repair has been carried out.

6.5.3 Any major defects found during the daily site inspection which are likely to lead to a breach of permit conditions will be repaired by the end of the working day in which they are found, where possible. If a repair is not possible by the end of the working day and a potential breach of permit conditions may occur, the EA will be contacted to agree a suitable timescale for repair.

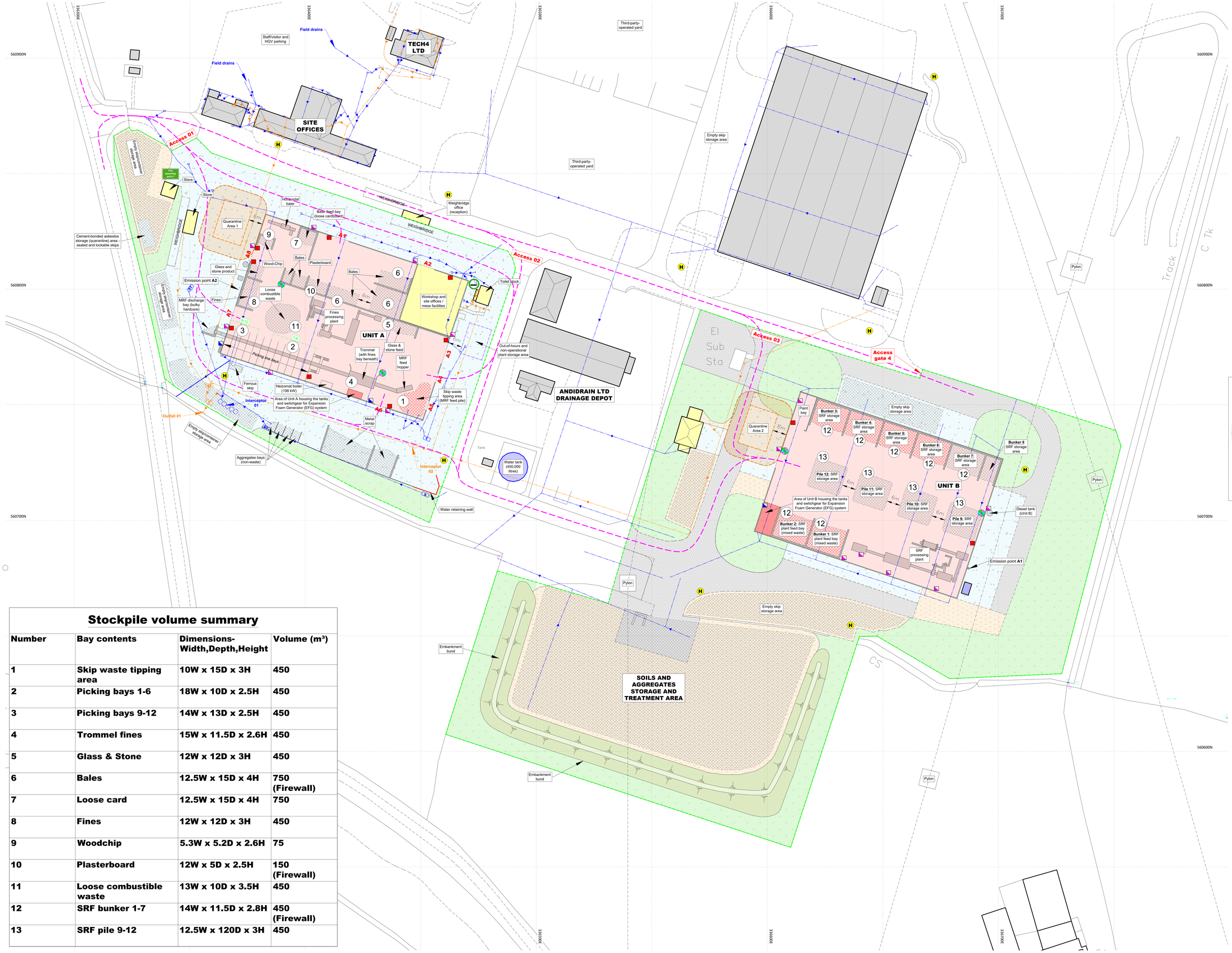
6.5.4 All defects and problems likely to give rise to odour will be recorded on the form NWR/RF/4 or the operators own recording procedures with repairs/solutions being carried out immediately; neighbours will be alerted if the problem cannot be rectified immediately and provided a timescale when the problem will cease.

7 OMP Review

7.1 This OMP will be reviewed at least annually unless it becomes apparent that the activities are giving rise to pollution outside the site due to odour, in which case it will be revised within 7 days and a copy forwarded to the Environment Agency for approval before implementation.

Appendix I

Drawings



Stockpile volume summary

Number	Bay contents	Dimensions- Width,Depth,Height	Volume (m³)
1	Skip waste tipping area	10W x 15D x 3H	450
2	Picking bays 1-6	18W x 10D x 2.5H	450
3	Picking bays 9-12	14W x 13D x 2.5H	450
4	Trommel fines	15W x 11.5D x 2.6H	450
5	Glass & Stone	12W x 12D x 3H	450
6	Bales	12.5W x 15D x 4H	750 (Firewall)
7	Loose card	12.5W x 15D x 4H	750
8	Fines	12W x 12D x 3H	450
9	Woodchip	5.3W x 5.2D x 2.6H	75
10	Plasterboard	12W x 5D x 2.5H	150 (Firewall)
11	Loose combustible waste	13W x 10D x 3.5H	450
12	SRF bunker 1-7	14W x 11.5D x 2.8H	450 (Firewall)
13	SRF pile 9-12	12.5W x 120D x 3H	450

NOTES

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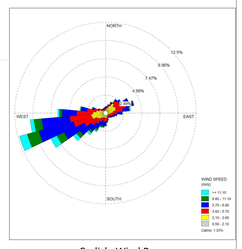
REVISION HISTORY

Rev:	Date:	Init:	Description:
-	18.02.22	RS	Initial drawing
A	18.02.22	RS	Client comments
B	14.02.22	RS/CP	EA comments
C	04.01.24	JH	Amendment
D	09.02.24	JH	Flue added
E	18.04.24	JH	Amendment
F	20.09.24	JH	Layout amendment
G	23.09.24	JH	Drainage added

KEY:

- Permit boundary
- Storage areas (general)
- Storage areas benefiting from Expansion Foam Generator (EFG) coverage
- Sealed buildings
- Concreted area
- Stone surface (free-draining)
- Other on-site buildings (offices, workshop, etc.)
- Tarmac surfacing
- Unsurfaced areas (grass / vegetation)
- Quarantine areas (with 6m buffer zones)
- Fire fighting equipment (extinguishers, etc.)
- Mains water
- Access routes for emergency vehicles
- Fire alarm call points
- Designated smoking area
- Penstock / shut-off valve for use in event of a fire or spillage for surface water drainage containment
- On-site fire hydrants (on 100mm and 200mm mains)
- Radiometric Thermal Camera & Monitor (RTCM)
- Indicative surface & roof drainage
- Indicative combined drainage
- Drainage fall direction
- T / T — Tanks
- S / S — Sump
- ST / ST — Silt trap
- Manhole
- Gully



Carlisle Wind Rose

Scale Bar (1:500)
0 m 5 10 15 20 25 m

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
LAYOUT & FIRE PLAN (PHASE 1)

CLIENT
North West Recycling Ltd

PROJECT/SITE
Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

SCALE @ A0	CLIENT NO	JOB NO
1:500	634	003

DRAWING NUMBER	SHEET NUMBER	REV	STATUS
634-003-03	1 of 1	G	Issued

DRAWN BY	CHECKED	DATE
RS/CP/JH	RS	23.09.24

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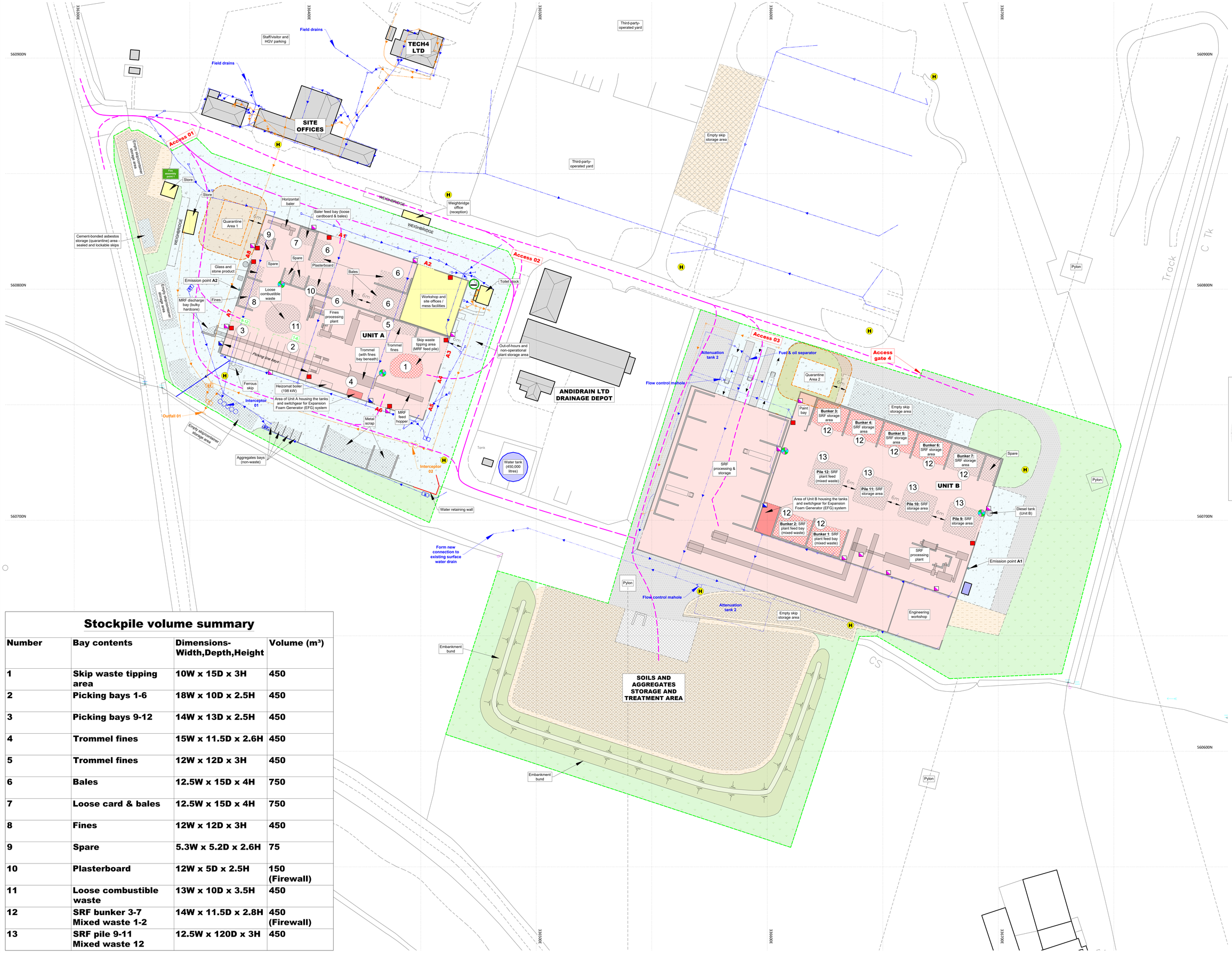

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6	Bales	12.5W x 15D x 4H	750
7	Loose card & bales	12.5W x 15D x 4H	750
8	Fines	12W x 12D x 3H	450
9	Spare	5.3W x 5.2D x 2.6H	75
10	Plasterboard	12W x 5D x 2.5H	150 (Firewall)
11	Loose combustible waste	13W x 10D x 3.5H	450
12	SRF bunker 3-7 Mixed waste 1-2	14W x 11.5D x 2.8H	450 (Firewall)
13	SRF pile 9-11 Mixed waste 12	12.5W x 120D x 3H	450

NOTES

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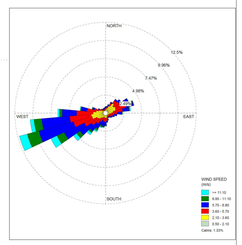
REVISION HISTORY

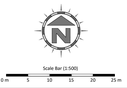
Rev:	Date:	Init:	Description:
-	31.07.24	RS/JH	Initial drawing
A	01.08.24	JH	Amendment
B	20.08.24	JH	Emission point added
C	28.08.24	JH	Table added
D	30.08.24	JH	Amendment
E	23.09.24	JH	Drainage added
F	26.09.24	JH	Table amendment
G	19.12.24	JH	Client comments

KEY:

- Permit boundary
- Storage areas (general)
- Storage areas benefiting from Expansion Foam Generator (EFG) coverage
- Sealed buildings
- Concreted area
- Stone surface (free-draining)
- Other on-site buildings (offices, workshop, etc.)
- Tarmac surfacing
- Unsurfaced areas (grass / vegetation)
- Quarantine areas (with 6m buffer zones)
- Fire fighting equipment (extinguishers, etc.)
- Mains water
- Access routes for emergency vehicles
- Fire alarm call points
- Designated smoking area
- Penstock / shut-off valve for use in event of a fire or spillage for surface water drainage containment
- On-site fire hydrants (on 100mm and 200mm mains)
- Radiometric Thermal Camera & Monitor (RTCM)
- Indicative surface & roof drainage
- Indicative combined drainage
- Drainage fall direction
- T / T Tanks
- S / S Sump
- ST / ST Silt trap
- Manhole
- Gully



Carlisle Wind Rose



Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
LAYOUT & FIRE PLAN (PHASE 2)

CLIENT
North West Recycling Ltd

PROJECT/SITE
Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

SCALE @ A0	CLIENT NO	JOB NO
1:500	634	004

DRAWING NUMBER	SHEET NUMBER	REV	STATUS
634-004-03A	1 of 1	G	Issued

DRAWN BY	CHECKED	DATE
RS/CP/JH	RS	19.12.24

Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
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Appendix II

Record Forms

Odour Diary				**Sheet No**
Name: **Telephone Number:**	**Address:**			
Date of odour:				
Time of odour:				
Location of odour, if not at above address:				
Weather conditions (dry, rain, fog, snow etc):				
Temperature (very warm, warm, mild, cold or degrees if known):				
Wind strength (none, light, steady, strong, gusting):				
Wind direction (e.g. from NE):				
What does it smell like? How unpleasant is it? Do you consider this smell offensive?				
Intensity – How strong was it? (see below 1-5):				
How long did go on for? (time):				
Was it constant or intermittent in this period:				
What do believe the source/cause to be?				
Any actions taken or other comments:				

Intensity (Detectability)

1 No detectable odour
2 Faint odour (barely detectable, need to stand still and inhale facing into the wind)
3 Moderate odour (odour easily detected while walking & breathing normally)
4 Strong odour
5 Very strong odour (possibly causing nausea depending on the type of odour)

NORTH WEST RECYCLING LTD
COMPLAINTS REPORT FORM (NWR/RF/7)

Date Recorded:	**Reference Number:**
Name and address of caller	
Telephone number of caller	
Time and Date of call	
Nature of complaint (noise, odour, dust, other) (date, time, duration)	
Weather at the time of complaint (rain, snow, fog, etc.)	
Wind (strength, direction)	
Any other complaints relating to this report	
Any other relevant information	
Potential reasons for complaint	
The operations being carried out on site at the time of the complaint	
Follow Up	
Actions taken	
Date of call back to complainant	
Summary of call back conversation	
Recommendations	
Change in procedures	
Changes to Environmental Management System (EMS)	
Date changes implemented	
Form completed by	
Signed	
Date completed	

COMPLAINT RECORDING PROCEDURE:

Any complaints received will be recorded on form NWR/RF/7. This form will normally be completed, signed and dated by the Site Manager; if they are not available the Office Manager will complete the form.

1) The name, address and telephone number of the caller will be requested.

2) Each complaint will be given a reference number.

3) The caller will be asked to give details of:

    a) the nature of the complaint;
    b) the time;
    c) how long it lasted;
    d) how often it occurs;
    e) Is this the first time the problem has been noticed; and
    f) what prompted them to complain.

4) The person completing the form will then, if possible, make a note of:

    a) the weather conditions at the time of the problem (rain, snow, fog etc.);
    b) strength and direction of the wind; and
    c) the activity or activities taken place on the site at the time the noise was detected, particularly anything unusual.

5) The reason for the complaint will be investigated and a note of the findings added to the report.

6) The caller will then be contacted with an explanation of the source of the complaint if identified and the action taken to prevent a recurrence of the problem in future.

7) If the caller is unhappy about the outcome or unwilling to identify themselves the caller will be invited to contact the Environment Agency and or the Local Authority.

Note: Following any complaint the relevant management plan(s) will be reviewed to ensure appropriate actions are in place to counter any problems.

Permit Application Supporting Document Appendix VI

Environmental Noise Assessment and Noise Management Plan

NOISE IMPACT ASSESSMENT

Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

North West Recycling Ltd

Version:	1.7	**Date:**	21st March 2025		
Doc. Ref:	634-004-NIA	**Author(s):**	JU/JC	**Checked:**	JC
Client No:	634	**Job No:**	004		

Oaktree Environmental Ltd

Waste, Planning & Environmental Consultants

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REGISTERED IN THE UK | COMPANY NO. 4850754

Document History:

Version	Issue date	Author	Checked	Description
1.0	25/09/2023	TB/JU	DY	Internal draft
1.1	25/09/2023	TB/JU	DY	Updated draft
1.2	26/09/2023	TB/JU	DY	Minor client revisions
1.3	13/02/2024	TB	DY	Inclusion of flue and extraction systems
1.4	22/08/2024	JU/JC	JC	Amendments based on changes to the sites layout.
1.5	17/09/2024	JU/JC	JC/DY	Internal amendments
1.6	19/09/2024	JU/JC	JC/DY	Internal amendments
1.7	21/03/2025	JU/JC	DY	Tonnage references amended

Key Technical Personnel & Qualifications

Author	Description
Jack Caton	BEng, AMIOA, CCENM + 7 years' experience
Josh Ulyatt	BSc, CCENM +1 year experience.

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1 Introduction

1.1 General

1.1.1 Oaktree Environmental have been commissioned by North West Recycling Ltd to undertake a Noise Impact Assessment (NIA) for their waste management site at Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW.

1.1.2 The report has been produced by Josh Ulyatt and Jack Caton of Oaktree Environmental. The credentials comply with the recently revised national guidance produced by Environment Agency (EA) and have been provided previously.

1.1.3 The purpose of this document is to accompany an application to vary the site Environmental Permit (EP) to include an installation activity. Reference should be made to the proposed site layout plans within Appendix I.

1.1.4 The operator holds an existing EP for the operation of a waste recycling facility for the receipt and recycling of Household, Commercial and Industrial Wastes. Part of the existing process includes the separation of non-recyclable wates with significant calorific value, which are then shredded and processed into a Solid Recovered Fuel (SRF), which is sent to a suitably licenced energy recovery facility.

1.1.5 The operator proposes to increase the permitted volume of material that is pre-treated for incineration above 75 tonnes/day. As such, this will be classed as an installation activity under the Environmental Permitting (England and Wales) Regulations 2016 (as amended) ("the regulations").

1.1.6 The development will proceed in two phases as follows:

i) **Phase 1:** The first phase will allow the operator to operate one SRF production line within Unit B which will accept 174,175 tonnes of waste/annum. The proposed waste throughput for non-installation waste activities within Unit A and external soils and

aggregates processing will be 225,825 tonnes/year, resulting in an overall throughput of 400,000 tonnes/annum across all activities on-site during Phase 1.

ii) **Phase 2:** The second phase will be to extend Unit B and install two feed lines into the single SRF production line within Unit B. This will increase the throughout in Unit B to 374,175 tonnes/annum. The throughput of the waste operations within Unit A and external soils and aggregates processing will remain at 225,825 tonnes per year. The overall site throughput will be 600,000 tonnes/annum across all activities undertaken at the site during Phase 2.

1.1.7 Layout plans are included within Appendix I which illustrate each phase of the development.

1.2 Site Description and Location

1.2.1 The site is located on Land at Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW. The national grid reference for the site is NY 36522 60772. The surrounding land uses includes various agricultural, industrial, commercial and residential use. Notable industrial/commercial uses include the Network Rail site East of the site, a drainage company adjacent to the site and farming uses to the South and North of the site.

1.2.2 The nearest receptor is located approximately 190m to the South with other dwellings located approximately 400m to the South and North of the site.

1.3 Hours of Operation

1.3.1 The site will be open for the delivery of waste between 07.00 to 18.00 Monday to Friday and 07.00 to 15.00 on Saturdays.

1.3.2 Operational hours (comprising primarily internal processing) will occur Mon-Friday from 07.00 to 22.45 and on Saturdays from 07.00 to 15.00.

1.3.3 Crushing/screening of aggregates will be limited to Monday to Friday from 09:00 to 17:00.

1.4 Environmental Regulation

1.4.1 An EP will be required to be in place for the site, with day-to-day operations regulated by the EA. Potential impacts on air, land and water will be fully controlled and regulated under the EP.

2 Planning Policy

2.1 Environment Agency Guidance

2.1.1 This document has been produced in accordance with the EA's guidance "Noise and vibration management: environmental permits" updated 31 January 2022.

2.2 Noise Policy Statement for England

2.2.1 The Noise Policy Statement for England (NPSE), March 2010, sets out the Government's long-term noise policy, the aims of which are:

"Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:

- *Avoid significant adverse effects on health and quality of life:*
- *Mitigate and minimise adverse effects on health and quality of life;*
- *Where possible, contribute to the improvement of health and quality of life."*

2.2.2 The first aim of the NPSE is to avoid significant adverse effects, considering the shared UK principles of sustainable development.

2.2.3 The second aim provides guidance on the scenario when the potential noise impact falls between the LOAEL (Lowest Observed Adverse Effect Level) and the SOAEL (Significant Observed Adverse Effect Level), in which case it is stated*, "all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life while also taking into account the guiding principles of sustainable development".* However, it is also stated, *"This does not mean that such adverse effects cannot occur"*.

2.2.4 With regards to the SOAEL, the document states, *"It is not possible to have a single objective noise-based measure that defines SOAEL that is applicable to all sources of noise in all situations"*, thus acknowledging that this is very much dependent on the noise source, the receptor, and the time of day. Therefore, the NPSE provides the necessary policy flexibility until further guidance / evidence is available.

2.2.5 Other guidance will need to be taken into account when applying the principles of the NPSE, as well the nature of the proposed development and its specific circumstances.

2.3 National Planning Policy Framework

2.3.1 The NPPF, revised in December 2023, states that Planning policies and decisions should also ensure that new development is appropriate for its location, taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:

- Mitigate and reduce to a minimum potential adverse impact resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;
- Identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.

2.3.2 Planning policies and decisions should ensure that new development can be integrated effectively with existing businesses and community facilities (such as places of worship, pubs, music venues and sports clubs). Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or 'agent of change') should be required to provide suitable mitigation before the development has been completed.

2.3.3 The revised document also makes reference to the Noise Policy Statement for England.

2.4 Planning Practice Guidance – Noise

2.4.1 Further to the guidance set out in the NPPF, Planning Practice Guidance for Noise advises that the Local Authority should consider the following when decision making:

- Whether or not a significant adverse effect is occurring or likely to occur.
- Whether or not an adverse effect is occurring or likely to occur.
- Whether or not a good standard of amenity can be achieved.

2.4.2 As previously discussed within the NPSE, the guidance discusses the LOAEL and SOAEL and provides scenarios that could be expected for the perception level of noise, plus the associated activities that may be required to bring about the desired outcome. Again, as with the NPSE, no objective noise levels are provided for LOAEL or SOAEL.

2.4.3 It is stated that "the subjective nature of noise means that there is not a simple relationship between noise levels and the impact on those affected. This will depend on how various factors combine in any particular situation". These factors include:

- The absolute noise level of the source and the time of day it occurs.
- Where the noise is non-continuous (intermittent), the number of noise events along with any patterns of occurrence.
- The frequency of content and acoustic characteristics (tonality etc.) of the noise.
- The effects of noise on the surrounding wildlife.
- The acoustic environment of external amenity areas provided as an intrinsic part of the overall design.
- The impact of noise from certain commercial developments such as night clubs and pubs where activities are often at their peak during the evening and night.

3 Noise Assessment Criteria

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

- BS8233:2014
- BS4142:2014+A1:2019 (BS4142)
- World Health Organisation (WHO) Guidelines on Community Noise

3.2 BS8233:2014

3.2.1 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 BS8233:2014 with regards to residential properties:

Table 1 - BS8233:2014 Internal Criteria

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

3.3 BS4142

3.3.1 BS4142 provides a method for "assessing and rating industrial 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.

3.3.2 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 exceedance 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 exceedance 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.

3.3.3 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 - 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

3.4 WHO Guidelines for Community Noise

3.4.1 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.

3.4.2 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.

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

4 Background Noise Monitoring

4.1 Procedure and Monitoring Locations

4.1.1 An attended background noise survey was completed on the 15th June, 17th June and the 22nd June 2023 in accordance with BS 7445-1: 2003 by Thomas Benson of Oaktree Environmental Ltd.

4.1.2 To ensure that the background monitoring survey is representative of the existing noise climate in the vicinity of the noise sensitive receptors, the inactivity of associated processes was agreed with the operator, it was agreed with site management that in order to accurately measure the background noise there would be pre agreed shutdowns.

4.1.3 Due to the nature of operations, and the need to restrict operations (including incoming HGVs, tipping etc. which would be audible during background monitoring) this could only be undertaken between the hours of 06:00-09:00 and 20:00-23:00 Monday to Friday and between the hours of 12:45-16:00 on the weekend. Whilst this is not an ideal scenario, these are the times when background levels are likely to be at their lowest and therefore sufficient for a worst-case scenario assessment. It is considered that additional monitoring between the hours of 09:00 and 20:00 would not alter the assessment outcome.

4.1.4 Figure 1 overleaf details the location of the monitoring positions. Locations chosen were chosen to be representative of the nearest noise sensitive receptors, with NMP1 being generally representative of the cluster of houses/farms to the north and NMP2 being representative of the farmhouse to the southeast.

4.1.5 To support the background survey conducted by Oaktree Environmental it was decided to utilise more extensive unattended background measurements in order to gather a representative background level for the weekday and weekend period for the proposed increase in throughout and the extension of Unit B. This data was previously obtained by Sol Acoustics Limited.

Figure 1 - Site location and noise monitoring positions - attended measurements

4.2 Oaktree Environmental Equipment Used During the Survey

4.2.1 Details of the equipment used during the attended measurements obtained by Oaktree Environmental Limited are shown in the table below:

Table 3 - Survey Equipment Used for Monitoring

Description	Model	Manufacturer	Serial No.	Calibration Date
Class 1 Sound Analyser	NOR 150	Norsonic	15030504	October 2022
Microphone	Norsonic Type 1225	Norsonic	305208	October 2022
Field Calibrator	NOR 1251	Norsonic	35205	March 2022
Class 1 Sound Analyser	Nor 145	Norsonic	14530082	May 2023
Microphone	Nor 1209	Norsonic	23775	May 2023
Field Calibrator	Nor1227	Norsonic	527239	May 2023

4.3 Equipment Used by Sol Acoustics

4.3.1 Background noise monitoring undertaken by Sol Acoustics[1] was conducted using a Class 1 Precision Grade noise monitoring equipment (conforming to BS EN 61672:2013 'Electroacoustics- Sound Level meters Part 1: Specifications standards). The complete sound measuring systems were field calibrated immediately prior to and following the noise survey period.[2]

4.4 Weather during Sol Acoustics Survey

4.4.1 Meteorological data was recorded at Noise Monitoring Position 2 for the duration of the noise survey, using a Professional Grade Vaisala 'WXT530' weather station. Brief periods of significant rainfall, exceeding 1mm.h^{-1}, occurred during 7th October 2023 (noise data recorded during these periods has been omitted from the assessment). The measured, average wind speed throughout the survey remained below 5m.s^{-1}. Notwithstanding the weather conditions recorded, the microphone system was entirely weatherproofed and fitted with all-weather environmental windshield, with bird spike used.

4.5 Weather During Oaktree Survey

4.5.1 The weather during the background surveys undertaken by Oaktree Environmental is summarised in the table below:

[1] Environmental Noise Impact Assessment (Report ref: P2238-REP01-REV I-BDH), Sol Acoustics Limited, 6th June 2024

Table 4 - Weather Conditions during noise monitoring

Date	Wind Speed (max)	Cloud Cover	Temperature	Precipitation
Thursday 15/06/2023	Max gusts of 4.5m/s, although generally more still.	0-25%	13°C-20°C	None recorded whilst on site
Saturday 17/06/2023	Max gusts of 2m/s	0-20%	13°C-18°C	None recorded whilst onsite.
Thursday 22/06/2023	Max gust of 2m/s	50-75%	10 °C-12 °C	None recorded whilst onsite.

4.6 Attended Background Noise Survey Results

4.6.1 The results of the attended background noise monitoring survey are tabulated below in the tables below.

Table 5 - Weekday background monitoring results for NMP 1

Measurement Time	LA_{eq} (dB)	LA_{max} (dB)	LA_{90} (dB)	LA_{10} (dB)
15/06/2023 06:10-07:10	58.6	81.2	45.4	60.0
15/06/2023 07:10-08:10	60.8	82.6	46.8	63.9
15/06/2023 08:10-09:10	63.1	93.3	46.9	66.1

Table 6 - Weekday background monitoring results for NMP 2

Measurement Time	LA_{eq} (dB)	LA_{max} (dB)	LA_{90} (dB)	LA_{10} (dB)
15/06/2023 06:00-07:00	55.1	77.7	43.8	54.0
15/06/2023 07:00-08:00	58.2	84.3	40.5	59.3
15/06/2023 08:00-09:00	60.6	79.0	46.9	66.1

Table 7 Weekday background monitoring results for NMP 1

Measurement Time	LA_{eq} (dB)	LA_{max} (dB)	LA_{90} (dB)	LA_{10} (dB)
22/06/2023 20:17-21:17	51.5	79.1	30.6	50.5
22/06/2023 22:02-23:02	60.4	86.1	29.3	51.0

Table 8 - Weekday background monitoring results for NMP 2

Measurement Time	LA_{eq} (dB)	LA_{max} (dB)	LA_{90} (dB)	LA_{10} (dB)
22/06/2023 20:20-21:20	55.2	79.1	38.7	56.8
22/06/2023 21:20-21:50	56.7	83.6	38.9	58.1
22/06/2023 22:06-23:06	57.3	89.6	37.7	56.8

Table 9- Weekend background monitoring results for NMP 1

Measurement Time	LA_{eq} (dB)	LA_{max} (dB)	LA_{90} (dB)	LA_{10} (dB)
17/06/2023 13:50-14:50	58.9	79.7	40.4	*62.0*
17/06/2023 14:52-15:52	58.4	89.4	40.1	61.2

Table 10 - Weekend background monitoring results for NMP 2

Measurement Time	LA_{eq} (dB)	LA_{max} (dB)	LA_{90} (dB)	LA_{10} (dB)
17/06/2023 12:45-13:45	54.5	80.2	41.8	57.0

4.7 Background Data Used in Assessment

4.7.1 It was decided to utilise the unattended long-term background noise monitoring data in order to get a representative background level for the site for both the weekday and weekend period. The Sol Acoustics survey was undertaken at the positions shown in Figure 2 below. The measurement positions were considered to be commensurate with the attended measurement locations, Measurement Position 1 (MP1) being commensurate with NMP1 and Measurement Position 2 (MP2) being commensurate with NMP2.

Figure 2 - Site location and noise monitoring positions – unattended measurements

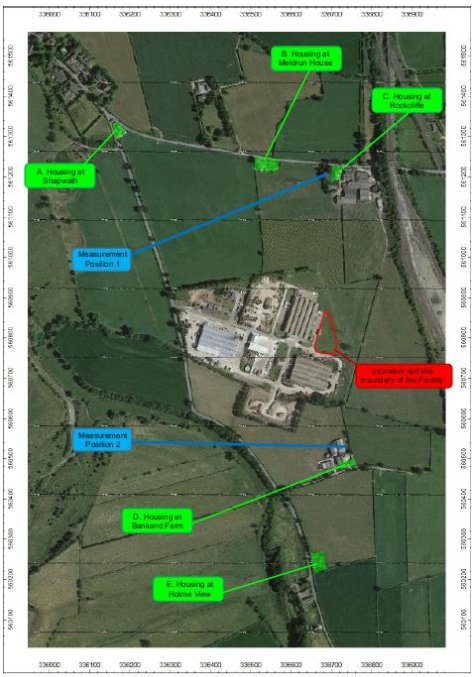


Figure 1: Aerial photo overlaid with noise sensitive receptors and monitoring locations in relation to the Facility (Google 2024)

4.7.2 The results of the background survey conducted by Sol Acoustics are tabulated in the tables below. The results were obtained during the daytime and nighttime period between the Friday the 6th of October and Tuesday the 10th of October 2023. Daytime survey data has only been displayed as the site does not operate past 23:00.

Table 11- Weekday background monitoring results for MP1

Measurement Time	**La_a (dB)**	**LA_{max} (dB)**	**LA_{90} (dB)**	**L_{90} (dB) *lowest***
6th October				
12:00-13:00	53.4	66.9	48.1	46.6
13:00-14:00	52.6	64.5	48.6	48.1
14:00-15:00	53.0	71.5	48.4	47.8
15:00-16:00	50.9	60.6	47.5	46.4
16:00-17:00	48.7	65.8	45.2	44.5
17:00-18:00	50.0	64.8	45.3	44.0
18:00-19:00	54.0	68.0	48.5	45.6
19:00-20:00	50.7	63.3	45.9	45.5
20:00-21:00	47.4	57.8	43.1	42.4
21:00-22:00	43.8	56.7	41.5	41.2
22:00-23:00	46.9	59.3	41.3	39.3
9th October				
07:00-08:00	48.4	64.9	44.4	40.5
08:00-09:00	47.5	70.3	44.1	43.6
09:00-10:00	46.9	65.4	43.1	42.5

Measurement Time	**La_a (dB)**	**LA_{max} (dB)**	**LA_{90} (dB)**	**L_{90} (dB) *lowest***
10:00-11:00	49.8	78.5	43.4	43.1
11:00-12:00	45.6	60.2	42.8	42.1
12:00-13:00	45.4	61.1	42.1	41.7
13:00-14:00	46.6	64.1	42.2	41.9
14:00-15:00	44.4	60.8	41.6	41.1
15:00-16:00	46.2	60.0	43.1	42.6
16:00-17:00	46.0	68.3	43.5	42.4
17:00-18:00	44.9	59.5	42.4	41.8
18:00-19:00	44.3	62.6	42.6	41.4
19:00-20:00	46.3	65.1	41.4	40.6
20:00-21:00	42.7	60.6	40.6	39.6
21:00-22:00	43.2	56.1	41.3	39.6
22:00-23:00	37.7	54.1	32.6	30.1
10th October				
07:00-08:00	48.3	71.3	43.7	43.0
08:00-09:00	49.8	63.8	45.0	44.5
09:00-10:00	48.6	68.9	44.2	43.1
10:00-11:00	50.3	75.2	43.5	42.9
Most frequently occurring lowest LA90 value: 42dB				

Table 12 - Weekend background monitoring results for MP1

Measurement Time	**La_a (dB)**	**LA_{max} (dB)**	**LA_{90} (dB)**	**L_{90} (dB) *lowest***
7th October				
07:00-08:00	*49.3*	*68.4*	*45.4*	*44.6*
08:00-09:00	48.0	61.2	43.8	42.3
09:00-10:00	50.4	68.4	46.8	46.0
10:00-11:00	48.3	60.2	44.8	44.1
11:00-12:00	52.2	64.1	47.4	45.4
12:00-13:00	50.8	61.8	46.3	45.9
13:00-14:00	48.8	61.2	44.9	44.5
14:00-15:00	50.1	60.8	46.5	41.1
15:00-16:00	50.5	62.6	47.9	47.4
16:00-17:00	50.2	65.9	47.4	47.1
17:00-18:00	47.3	60.3	41.4	36.0
18:00-19:00	47.0	61.2	43.0	42.5
19:00-20:00	45.0	59.3	42.5	41.0
20:00-21:00	43.7	55.4	41.9	41.4
21:00-22:00	43.6	58.3	41.2	40.3
22:00-23:00	43.6	62.1	39.9	38.9
8th October				
07:00-08:00	49.1	62.8	46.0	45.1
08:00-09:00	48.3	68.6	44.1	43.0

Measurement Time	La_a (dB)	LA_{max} (dB)	LA_{90} (dB)	L_{90} (dB) *lowest*
09:00-10:00	49.9	67.7	44.9	44.1
10:00-11:00	64.6	78.5	49.6	44.7
11:00-12:00	65.2	82.3	41.9	40.8
12:00-13:00	44.5	61.4	40.7	39.5
13:00-14:00	43.6	60.1	40.9	39.1
14:00-15:00	45.1	59.2	42.9	42.5
15:00-16:00	46.3	59.2	43.8	43.3
16:00-17:00	48.1	68.6	42.8	38.3
17:00-18:00	47.7	66.7	44.9	43.8
18:00-19:00	45.5	60.1	42.2	40.7
19:00-20:00	43.0	53.2	41.1	40.2
20:00-21:00	39.4	48.6	37.7	37.0
21:00-22:00	39.7	54.2	37.5	36.8
22:00-23:00	41.2	46.9	38.5	37.3
Most frequently occurring lowest LA90 value: 44dB				

Table 13 - Weekday background monitoring results for MP2

Measurement Time	La_a (dB)	LA_{max} (dB)	LA_{90} (dB)	L_{90} (dB) *lowest*
6th October				
12:00-13:00	5*7.0*	6*9.4*	5*0.2*	4*8.6*
13:00-14:00	57.6	69.6	51.0	50.5
14:00-15:00	57.1	68.9	50.3	49.8
15:00-16:00	56.4	70.7	49.4	48.0
16:00-17:00	55.4	65.4	48.8	47.7
17:00-18:00	57.3	67.4	51.5	47.9
18:00-19:00	56.7	73.5	49.8	47.6
19:00-20:00	53.8	64.2	47.8	46.7
20:00-21:00	50.2	64.3	43.7	41.4
21:00-22:00	47.7	63.2	39.2	38.1
22:00-23:00	50.9	64.6	43.9	40.8
9th October				
07:00-08:00	53.0	66.2	42.5	42.0
08:00-09:00	55.3	67.8	44.2	42.0
09:00-10:00	53.8	65.8	43.0	41.7
10:00-11:00	53.2	68.3	41.6	40.3
11:00-12:00	53.1	68.6	42.9	41.8
12:00-13:00	50.7	69.6	39.4	38.5
13:00-14:00	53.2	69.7	42.0	39.8
14:00-15:00	53.4	69.6	43.2	41.4
15:00-16:00	53.6	69.5	43.1	41.1
16:00-17:00	52.6	69.4	45.0	41.9
17:00-18:00	56.2	67.2	46.4	37.4

Measurement Time	**La_a (dB)**	**LA_{max} (dB)**	**LA_{90} (dB)**	**L_{90} (dB) *lowest***
18:00-19:00	51.8	70.8	35.6	34.2
19:00-20:00	46.2	62.1	34.7	34.0
20:00-21:00	45.5	61.8	30.1	29.2
21:00-22:00	44.2	61.8	29.3	28.0
22:00-23:00	44.9	63.9	28.5	27.6
10th October				
07:00-08:00	51.6	68.4	41.9	40.1
08:00-09:00	53.5	66.2	43.5	42.3
09:00-10:00	52.8	72.4	40.2	38.8
10:00-11:00	56.5	84.3	39.8	37.5
Most frequently occurring lowest LA90 value: 41Db				

Table 14 - Weekend background monitoring results for MP2

Measurement Time	**La_a (dB)**	**LA_{max} (dB)**	**LA_{90} (dB)**	**L_{90} (dB) *lowest***
7th October				
07:00-08:00	5*1.8*	6*6.3*	4*5.1*	4*4.2*
08:00-09:00	53.6	68.9	45.0	41.0
09:00-10:00	54.4	67.1	47.2	46.5
10:00-11:00	53.6	66.0	44.0	43.6
11:00-12:00	56.2	65.6	49.2	47.0
12:00-13:00	55.9	70.4	48.6	47.0
13:00-14:00	53.0	66.0	45.7	45.1
14:00-15:00	54.6	68.1	47.5	44.8
15:00-16:00	52.8	68.0	45.6	45.1
16:00-17:00	51.0	67.4	39.9	37.9
17:00-18:00	52.9	78.4	38.3	37.2
18:00-19:00	49.6	75.7	39.6	39.0
19:00-20:00	45.8	67.5	38.6	37.9
20:00-21:00	45.0	64.1	38.2	37.2
21:00-22:00	44.5	61.6	37.6	36.8
22:00-23:00	43.6	63.5	36.2	35.3
8th October				
07:00-08:00	46.6	66.0	36.6	35.8
08:00-09:00	48.2	64.4	37.0	35.9
09:00-10:00	51.9	65.5	44.1	37.6
10:00-11:00	49.9	64.4	37.3	35.0
11:00-12:00	49.9	65.2	35.1	34.2
12:00-13:00	49.2	68.7	33.3	32.6
13:00-14:00	48.4	64.9	32.4	31.3
14:00-15:00	49.2	66.7	32.7	31.9
15:00-16:00	50.3	64.8	35.0	34.6
16:00-17:00	50.8	67.8	40.2	36.2

Measurement Time	La_a (dB)	LA_{max} (dB)	LA_{90} (dB)	L_{90} (dB) *lowest*
17:00-18:00	51.1	65.3	38.2	36.8
18:00-19:00	47.3	67.9	34.2	33.4
19:00-20:00	45.9	63.7	31.9	30.1
20:00-21:00	41.5	62.3	29.2	28.5
21:00-22:00	41.3	60.5	27.6	27.4
22:00-23:00	39.1	60.1	27.1	26.9
Most frequently occurring lowest LA90 value: 37dB				

4.7.3 The representative background level chosen is the most frequently occurring for the lowest LA90 figures which is displayed at the end of each of the Tables 11-14. For MP1, the representative value for weekday is 42dB and for weekend is 44dB. For MP2, the representative weekday background figure is 41dB and for weekend is 37dB. An assessment of the predicted noise level coming from the proposed site, including the extension to Unit B and the increase in throughput from Unit B from 170,000tpa to 340,00tpa has been undertaken.

4.8 Existing Noise climate (Sol Acoustics Survey)

4.8.1 The existing noise climate as described by Sol Acoustics ltd is as follows:

- **Measurement Position 1:** Tripod-mounted at 1.5 meters above local ground level and within the gardens of the housing at Rockcliffe (designated as “NSR C”). The microphone was mounted in so-called “free field” acoustic conditions. Key noise sources included road traffic on the local road network, distant road traffic from the M6 motorway, industrial noise (mobile plant) from nearby industrial uses. The background sound levels as recorded at this position are deemed to be representative of those as expected at the housing at Shapworth, Meldrum and Rockcliffe.
- **Measurement Position 2:** Tripod- mounted microphone at 1.5 metres above local ground level and within the rear gardens of the housing at Bankend Farm (designated as “NSR D”). The microphone was mounted in so-called “free-field” acoustic conditions. Key noise sources included road traffic on the local road network, distant road traffic from the M6 motorway, industrial noise (mobile plant)

from nearby industrial uses. The background sound level as recorded at this position are deemed to be representative of those as expected at the housing at Bankend Farm and Holme View.

4.9 Existing Noise Climate (Oaktree Survey)

4.9.1 During the monitoring survey undertaken at NMP 1 to the north of the site, it was observed that the main contributors to the existing noise climate comprised primarily:

- Road traffic which comprised a mix of smaller private vehicles, heavy goods vehicles and HGVs.
- Distant road traffic from the surrounding road network and intermittent noise from the rail line to the east.
- Birdsong and barking dogs,
- Overhead aviation.
- Noise from the farmyard to the east including noise from livestock, vehicle and tractor movements.

4.9.2 During the weekend monitoring, noise from the farmyard was considered greater than during the week, as a tractor was observed within the adjacent field for much of the monitoring period.

4.9.3 With regards to the second monitoring location to the south, adjacent to the farm, the contribution of road traffic was increased, likely due to the closer proximity of the A-Road and the busier nature of this carriageway.

4.9.4 Should It be required, photographs and videos can be provided, along with the noise measurement files in order to corroborate the above observations. These are available upon request by the LA/EA.

5 Noise Impact Assessment

5.1 Introduction

5.1.1 It is considered the most significant noise sources associated with the development are:

- Activities associated with Unit A, including the fines processing plant and MRF. Individual items comprising these sources are described within the following sections.
- Activities associated with Unit B, including the SRF processing plant and MRF. Individual items comprising these sources are described within the following sections.
- The loading and operation of the Soils and Aggregates area, this is seasonal and generally limited to the operation of a screener and/or crusher 1 or 2 days a week, dependent on need.
- Ancillary operations such as tipping, loading HGVs, movement of containers etc.

5.2 Background Levels

5.2.1 With regards to background levels, BS4142:2014 states that "*the objective is not simply to ascertain a lowest measured background sound level, but to quantify what is typical during particular time periods"* and also *"In practice there is no "single" background sound level as this is a fluctuating parameter. However, the level for the assessment should be representative of the period being assessed".*

5.2.2 With this in mind, the assessment will utilise the range of levels from Tables 11-14.

5.3 BS4142: Assessment

5.3.1 The CadnaA noise models were constructed using OS mapping Opendata and Google Earth satellite imagery, whilst topographical data was downloaded from DEFRA in the form of a digital terrain model.

5.3.2 The following assumptions/parameters are made within the models:

- The intervening land between the site boundary and residential properties was modelled with G = 1.0 as it was considered that the surrounding land is predominantly acoustically absorptive (i.e. soft ground). This is with the exception of the concrete pad and industrial area which has been modelled as 0.0.
- Buildings were set as acoustically reflective, with a reflection loss of 0.6 dB.
- Receivers are placed at 1.5m height in areas representative of the nearest residential receptors indicative of the height of the ground floor of a building. An additional receiver has been placed at a height of 4.0m which is indicative of the height of the first storey of a building.
- Predicted grid noise levels were also calculated as free-field, A-weighted, sound pressure levels. The noise contours generated within the model are also at a height of 1.5 m, assumed to be the worst-case scenario for amenity areas.
- Surrounding residential properties have been modelled at a height of 7.0m for the majority of residential buildings whilst the surrounding commercial/agricultural buildings are based on onsite observations.
- Barrier heights and waste storage bays have also been modelled based on onsite observations. These have been modelled with a reflection loss of 0.1dB.
- Unit A is modelled as 8.80m high based on a recent drone survey undertaken by Oaktree Environmental and assumed to comprise 190mm steel cladding, with the exception of the roller shutters which have been modelled as 1mm steel sheeting. The internal area of Unit A is 7760m^3 and internal absorption is considered to be low. Unit B is modelled as 190mm steel trapezoidal cladding with the roller shutters being modelled at 4 mm steel sheeting, the internal area of Unit B being 11506.38 m^2 which includes the extension area. The proposed extension area has a surface area of 5592.73m^2. The height of the extension area has been modelled at 13.10m whilst the original Unit B building has been modelled at a height of 9.35m.
- The roller shutter door on the east side of Unit B has been modelled with an associated on time of 30 minutes within the worst case hour foe the door being open, with 30 minutes of the door being closed within the hour.

- The activities associated with Units A and B have been modelled to be active as sources in steady state in order to provide a worst case 1 hour (reference time) for the daytime period.
- The majority of roller shutters have been assumed to be closed. The only exception to this will be at times whereby access is required for HGVs. Roller shutter A7 on the western façade of Unit A will be required to be open for movement of materials to relevant bays and is modelled as such.

5.3.3 Additional screening and many intervening structures associated with the surrounding industrial land uses have not been included within the model due to their construction and potentially transient nature. These have been excluded in order to ensure a robust assessment.

5.3.4 Tables 15-18 includes the measured noise levels for the anticipated activities which have been measured by Oaktree Environmental. The table also includes relevant data from the CadnaA modelling (geometry, "on-times" etc.).

Table 15 – Measured levels of activities associated with Unit A

Activity	**Noise Level (Lw= Sound Power level)**	**Source/comments**
Trommel	116	Measurement taken by Oaktree Environmental at the site on the 22nd of June 2023. Modelled within the building, parameters and assumptions described previously. Noise source assumed to operate as a source in steady state. 2no. trommels are located inside of Unit A which have been added to the model in the form of an area source located south of the MRF building in the south, whilst one is located within the fines processing plant. This measurement has been taken from the southern MRF line and is considered to be the noisier of the two. The trommel associated with the fine's processing plant is much quieter due to the much finer nature of material and could

Activity	Noise Level (Lw= Sound Power level)	Source/comments
		not be accurately measured due to the close proximity of adjacent plant which essentially made the trommel inaudible. This is therefore considered a worst-case assumption, leading to a more robust assessment.
Bulky Hardcore Bay	101	Measurement taken by Oaktree Environmental at the site on the 22nd of June 2023. Modelled as a point source 1m high. Noise sources assumed to operate as a source in steady state.
Baler	106	Measurement taken by Oaktree Environmental at the site on the 22nd of June 2023. Modelled within the building, parameters and assumptions described previously. Noise was observed to be primarily from the associated compressor rather than from the baling activity itself. Noise sources assumed to operate as a source in steady state.
Extraction System	83	These have been modelled internally inside of Unit A and the power level has been used. The number added for the modelling is 19. Details of this extraction system will be sent as part of the application. 12 The on time for this system has been assumed to be a source in steady state.
Flue (Phase 1 and 2)	74.2	Measurement taken by Oaktree Environmental at a similar site. Modelled as an external point source located on the roof of the Unit A building which protrudes 2.0m above the height of the roof of Unit A.

Activity	Noise Level (Lw= Sound Power level)	Source/comments
		Modelled as a source in steady state at a height of 10.8m. Octave bands have been utilised within the model.
Fines discharge	90.5	Measurement taken by Oaktree Environmental at the site on the 22nd of June 2023. Modelled within the building, parameters and assumptions described previously. Noise sources assumed to operate as a source in steady state.
Fines processing unit	97	Measurement taken by Oaktree Environmental at the site on the 22nd of June 2023. Modelled within the building, parameters and assumptions described previously. Noise sources assumed to operate as a source in steady state.
ZAC 800 (Cased Axial Fan)	104.3	Measurement taken by Oaktree Environmental at the site on the 22nd of June 2023. Modelled within the building, parameters and assumptions described previously. Noise sources assumed to operate as a source in steady state.
Tipping of skips	103.6	Measurement taken by Oaktree Environmental of a similar activity. Modelled within the building, parameters and assumptions described previously. Noise sources assumed to operate as a source in steady state.
Loading and operation of plant	94	Measurement taken by Oaktree Environmental of a similar activity. The measured vehicle is a JCB 540-140 and is therefore commensurate with that onsite. Modelled within the building, parameters and assumptions described previously.

Activity	Noise Level (Lw= Sound Power level)	Source/comments
		Noise sources assumed to operate as a source in steady state.

Table 16 – Measured levels of activities associated with Unit B

Activity	Noise Level (LAeq)	Source/comments
Feed hopper	101	Measurement taken by Oaktree Environmental at the site on the 7th of July 2023 Modelled within the building, parameters and assumptions described previously. Noise sources assumed to operate as a source in steady state.
Wood shredder (Mccloskey Shredder)	103.6	Measurement taken by Oaktree Environmental at a similar site. Sound power level utilised within the area source. Modelled within the building. Noise sources assumed to operate as a source in steady state.
Trommel (fines section)	105.6	Measurement taken by Oaktree Environmental at the site on the 7th of July 2023 Modelled within the building, parameters and assumptions described previously. Noise sources assumed to operate as a source in steady state.
Metal sorting	102.7	Measurement taken by Oaktree Environmental at the site on the 7th of July 2023 Modelled within the building, parameters and assumptions described previously. Noise sources assumed to operate as a source in steady state.
Waste Systems MaxXtract	105.8	Measurement taken by Oaktree Environmental at the site on the 7th of July 2023

Activity	Noise Level (LAeq)	Source/comments
		Modelled within the building, parameters and assumptions described previously. Noise sources assumed to operate as a source in steady state.
Trommel	98	Measurement taken by Oaktree Environmental at the site on the 7th of July 2023 Modelled within the building, parameters and assumptions described previously. Noise sources assumed to operate as a source in steady state.
Loading of HGVs	94	Measurement taken by Oaktree Environmental of a similar activity. The measured vehicle is a JCB 540-140 and is therefore commensurate with that onsite. Modelled within the building, parameters and assumptions described previously. Noise sources assumed to operate as a source in steady state.
Flue (Phase 1 and 2)	74.2	Measurement taken by Oaktree Environmental at a similar site. Modelled as an external point source located on the roof of the Unit B building which protrudes 2.0m above the height of the roof of Unit B. Modelled as a source in steady state at a height of 11.35m (Phase 1). For Unit B Phase 2 the height of the flue is proposed to be extended to 15.10m.Octave bands have been utilised within the model.
Extraction System	83	These have been modelled internally inside of Unit B and the power level has been used. The number added to the area source is nine in total. Details of this extraction system will be sent as part of the application. The on time for this system has been assumed to be a source in steady state.

Table 17 – Measured levels of activities for the proposed extension of Unit B.

Activity	Noise Level (LAeq)	Source/comments
Feed hopper as part of the SRF processing plant. (Internal)	101	Measurement taken by Oaktree Environmental at the site on the 7th of July 2023 Modelled within the building, parameters and assumptions described previously. Noise sources assumed to operate as a source in steady state.
HGV tipping area. (Internal)	98.6	Measurement taken by Oaktree at the site. Octave bands have been utilised within the model. These have been modelled internal inside the extension of the Unit B building. Noise sources assumed to operate as a source in steady state.

Table 18 - Measured levels of activities associated with external aggregates processing area

Activity	Noise Level (LAeq)	Source/comments
Loading and operation of the crusher	108	Measurement taken by Oaktree Environmental of a similar activity. The measured plant is a McCloskey J45 and is therefore commensurate with that onsite. Modelled as a point source 2m in height. Noise source assumed to operate as a source in steady state which is considered a significant over estimation.

Activity	Noise Level (LAeq)	Source/comments
Loading and operation of the screener	104.3	Measurement taken by Oaktree Environmental of a similar activity. The measured plant is a Terex 883+ and is therefore commensurate with that onsite. Modelled as a point source 2m in height. Noise source assumed to operate as a source in steady state which is considered a significant over estimation.
HGV Movements	94.7	Measured by Oaktree at a similar site. Added as a line source with a single 'on time' correction. For the existing site the predicted number of HGVs for the worst-case hour is likely to be 5 per hour based on the combined throughput of Unit A and Unit B being 340,000tpa (Phase 1). The line source here has been repeated for Unit A and for Unit B and therefore for the Phase 1 operations there is 5 per hour movements of HGVs for Unit A and 5 per hour HGVs for Unite B. For Phase 2, the HGV movements are likely to increase to 8 per hour per based on the throughput being approximately 600,000tpa. Therefore, two line sources have been included, one with 8 per hour for Unit A and one with 8 per hour for Unit B. Modelled at a height of 0.5m. Octave bands have been utilised within the model.

5.3.5 In addition to the above sources, an additional point source has been added to the external building (Unit A) with the height of the flue being 2m above that of the height of the building. The external flue height for Unit B has been modelled at a height of 10.8m for both the Phase 1 and Phase 2 stages of the proposed development. External to Unit A is

the storage bays to the south with aggregate storage/processing area also assigned in the model.

5.3.6 Noise sources associated with the proposed extraction system within Unit B comprise 9no. internal extraction hoods and an external flue of 11.35m in height. Whist no noise data has been provided for these sources and they are not yet operational, assumptions have been made with regards to these sources. A sound power level of 77.1dB has been applied to the external flue (corresponding to a sound pressure level of 72.2 at 0.5m) whilst a sound power level of 83dB has been assumed for the internal hoods (75dB at 1m). These would be considered to be conservative assumptions. The proposed extension to Unit B has been modelled at a height of 13.10m, with the flue extending to 15.10m in height.

5.3.7 For the sources listed in the above Tables 15-18 the assumed-on times for both the existing site and proposed site have all been modelled as sources in steady state in order to assess the worst case 1 hour period.

5.3.8 Figures 3-4 below detail the predicted noise models associated with Phase 1 and Phase 2, with assessment in comparison to background levels detailed in Tables 19 and 20.

Figure 3- Assessment of typical daytime noise sources associated with the site (07:00-23:00). Phase 1

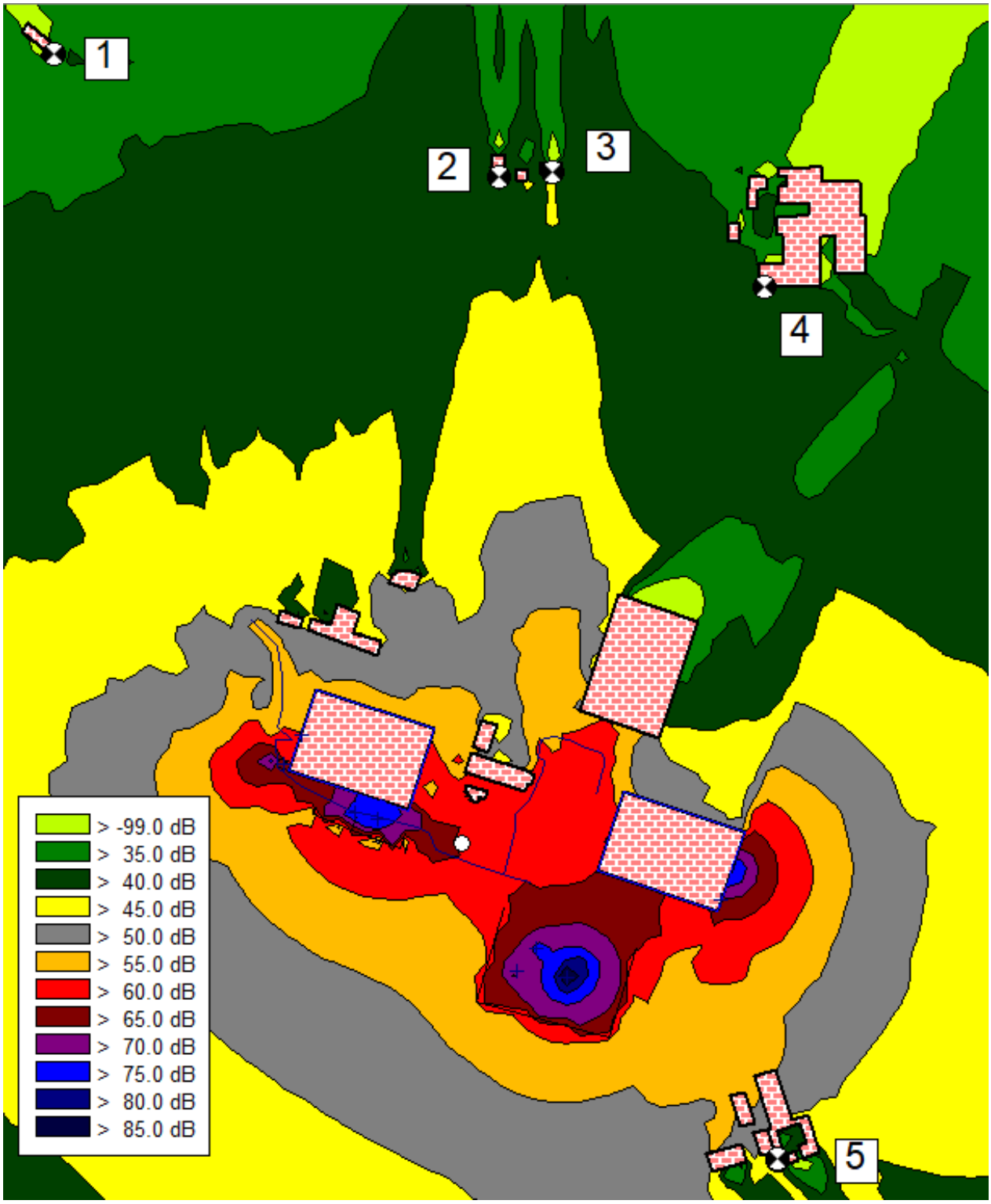
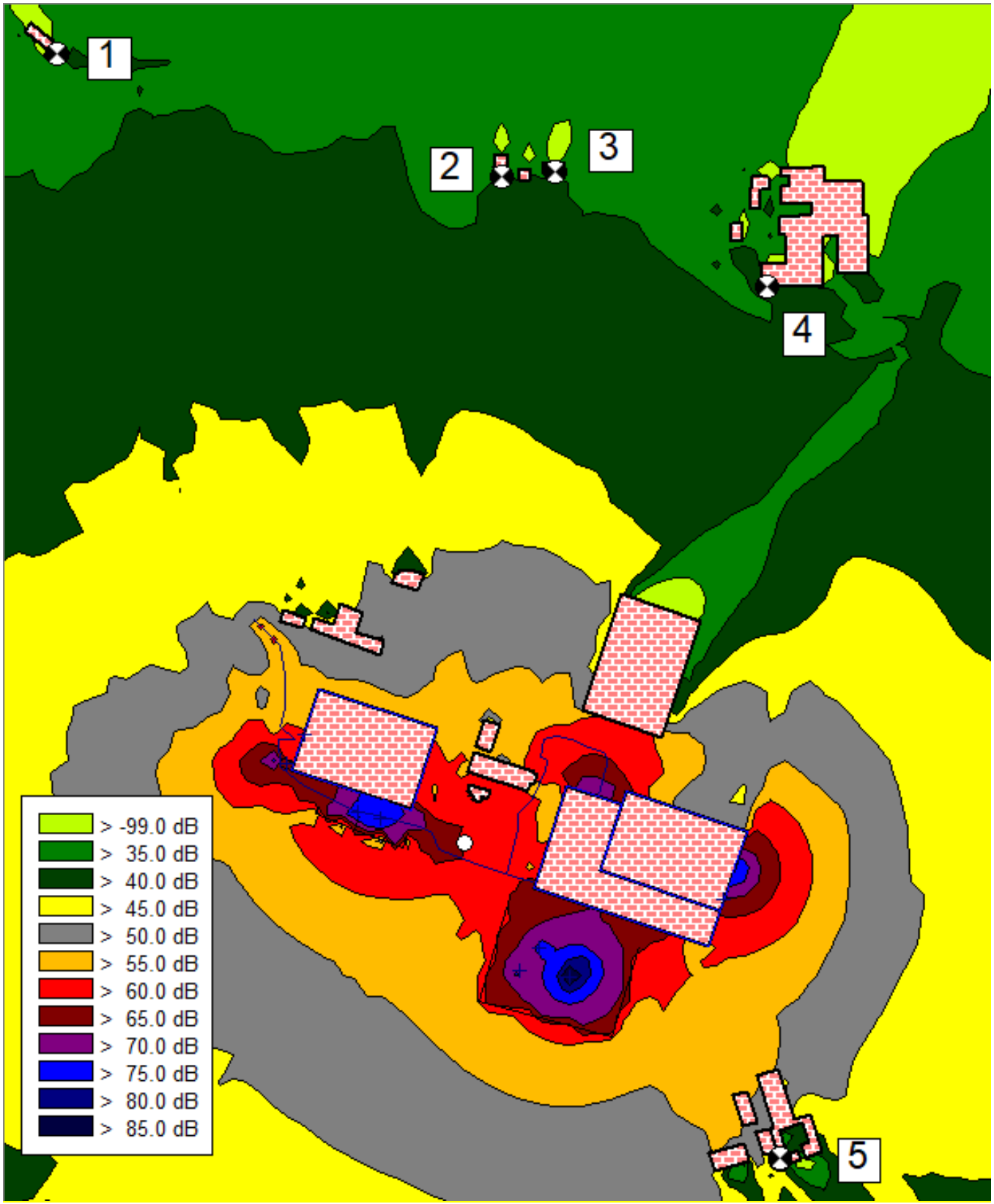


Figure 4- Assessment of typical daytime noise sources associated with the site (07:00-23:00). Phase 2



5.3.9 With regards to penalties/acoustic correction features these are mentioned in BS4142 outlined as intermittent/impulsive/tonal. With this in mind the nature of the noise emanating from the site is likely to just be perceived at the NSRs MP1 and MP1 with regards to the impulsive nature of the noise coming from the external crusher and therefore a +3Db penalty is deemed necessary. With regard to the tonal nature of the noise emanating from the site, it is deemed that the vast majority of the noise sources operate as sources in steady state. The tonal nature of the noise is predicted to be just perceptible at the nearest sensitive receptors, therefore a +2 dB penalty has been applied. Therefore, the penalty applied to both MP1 and MP1 is +5Db. The assessment below is based on the background levels taken from the Sol Acoustics survey data and the predicted sound pressure levels at the receptors detailed in Figure 2 above.

Table 19 - Assessment of typical daytime noise sources associated with the site as per BS4142:2014 – Phase 1

	Calculated noise level at Residential Dwellings (MP1,3)[3], dB	**Calculated noise level at (MP2,5),[3] dB**	**Comments**
Calculated noise level as per figure 3 (1.5m receiver)	36.6	31.6	As per Figure 3.
Calculated noise level as per figure 3 (4.0m receiver)	36.8	35.9	
Addition of relevant penalties as per BS4142:2014	+5	+5	As per Section 5.3.9
Comparison to background levels (Weekday worst case)	41.8-42= 0.8 below	40.9-41= 0.1 below	Low impact as per BS4142. See discussion below.
Calculated to background levels (Weekend worst case)	41.8-44= 2.2 below	40.9-37= 3.9 above	Adverse impact as per BS4142. See discussion below

Table 20 - Assessment of typical daytime noise sources associated with the site as per BS4142:2014 – Phase 2

	Calculated noise level at Residential Dwellings (MP1,3), dB[3]	**Calculated noise level at (MP2, 4),**[3] **dB**	**Comments**
Calculated noise level as per figure 4 (1.5m receiver)	33.0	32.4	As per Figure 4.
Calculated noise level as per figure 4 (4.0m receiver)	33.9	36.7	
Addition of relevant penalties as per BS4142:2014	+5	+5	As per Section 5.3.9
Comparison to background levels (Weekday worst case)	38.9-42= 3.1 below	41.7-41= 0.7 above	Low impact as per BS4142. See discussion below
Calculated to background levels (Weekend worst case)	38.9-44= 5.1 below	41.7 -37= 4.7 above	Adverse impact as per BS4142. See discussion below

5.3.10 Table 19 shows that during Phase 1, the predicted rating level does not exceed the background level at MP 1 and the predicted rating level is below the representative background level. However, at MP 2, the worst case predicted rating level is above the representative background level. However, this exceedance is classed as being a low impact as per BS4142 as it is less than the 5dB threshold, above which an adverse impact may occur.

5.3.11 Table 20 shows that during Phase 2 of the proposed development, the rating level does not exceed the background level at MP 1 and therefore the impact at this receptor can be classed as negligible. At MP 2 the predicted rating level is above the background level, the

[3] Numbers 3, 4 and 5 refer to the receptor number in the Figures 3 and 4 above showing the modelling.

highest exceedance is shown when comparing to the weekend background level which is +4.7Db above. This is indicative of a low impact as per BS4142.

5.3.12 The difference between the rating levels for Phase 1 and 2 at MP1 is shown in the above tables, which indicate that the sound pressure levels at MP1 decrease during Phase 2 and therefore, the proposed extension to Unit B provides a betterment to the impact of noise at MP1. In regard to the impact at MP2 there is a +0.8db increase in the predicted rating level compared to the background level for Phase 2.

5.3.13 However, the simple comparison of the rating level to the background level should be considered as a starting point to an assessment, with the outcome modified by contextual and subjective factors. The EA guidance considers that whilst context allows you to interpret impact thresholds (to a degree), there are practical limits to the extent of the interpretation. It is unlikely you could adjust the assessment outcome beyond the next band (for example, modifying a BS 4142 outcome of more than 10dB to be less than an 'adverse impact').

5.3.14 The context of the noise should be taken into account, including "what the sound means – meaningful sound is one that conveys an unpleasant meaning beyond its mere acoustic content, for example noise from an abattoir".

5.3.15 As previously discussed, noise from the internal processing alone is present in the form of a tonal element of the plant which likely to be just perceptible at the nearest residential dwellings. It can be considered that this noise is generally non-invasive and is of a nature which would be likely to cause less disturbance than would normally be the case.

5.3.16 In addition, the receptor MP2 is located within active livestock farms which will have their own noise sources. Background monitoring has been taken up to 40m from these locations due to access. It is likely that the setting of the dwellings within these farms would lower their sensitivity to noise issues and they would be considerably less sensitive than a typical residence.

5.4 Control of Uncertainty

5.4.1 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.
- The measurement locations are considered representative of the existing noise climate outside the nearest residential dwellings to the proposed development.
- Worst-case assumptions have been made with regards to modelling factors such as ground absorption and intervening screens/structures.
- Background monitoring was undertaken during favourable weather conditions (e.g. dry and under 5m/s wind speed).

6 Best Available techniques (BAT)

1.1 Summary & Recommendations

1.1.1 The following will be considered when operating the site:

- Prevent generation of noise by good design and maintenance
- Daily maintenance checks – operational and maintenance staff
- Preventative maintenance schedule – based on manufactures guidance and historical data, experience. Pro-active and pre-emptive
- Noise monitoring and audits – noise monitoring as part of the daily site inspection. Any abnormal findings are recorded in the site log and reported to the site supervisor, eg rattles, hums, squeaks, relief valves, irregular sounds etc
- Prioritising maintenance activities – short and long-term action plans, monitor reliability.
- Critical spares or supplier identified – spares available on demand.
- Daily operational checks - external doors are closed when not in use, hatchways or access doors left open, acoustic hoods not attached/fixed correctly, engines idling when not in use, suitable PPE being used as required.
- Daily operational checks – perimeter checks to assess noise levels, changes in level tone, intermittent noise, nuisance noise. This noise assessment is subjective, dependent on experience, familiarisation.
- Records – site logs record operational and maintenance issues/findings.
- Communication – open 2-way communication, listen to concerns raised, investigate as required and feedback to group or individual.
- Procurement – equipment selection, noise rating, inclusive attenuation, replacement policy, life cycle of product
- Signage – Appropriate signage denoting noise control areas and quite zones.

1.1.2 Site specific noise control techniques, include the following:

- The bund surrounding the aggregates processing area located south of the site between Units A and B will be increased by 1.5m. This is deemed necessary in order to undertake the proposed Phase 1 and Phase 2 amendments. This ensures that the impact on those NSRs especially MP 2 is deemed a low impact.
- The roller shutter door located east of the Unit B building has been modelled to be closed for 30 minutes during each hour, this is deemed necessary to ensure the impact is low, but is considered a realistic scenario.
- The site will ensure the speed limit on site is below 5mph (8km/hr) to minimise the effects of the HGVs and other onsite plant to NSRs, in particular those located to the west of the site.

7 Conclusion

7.1 Summary & Recommendations

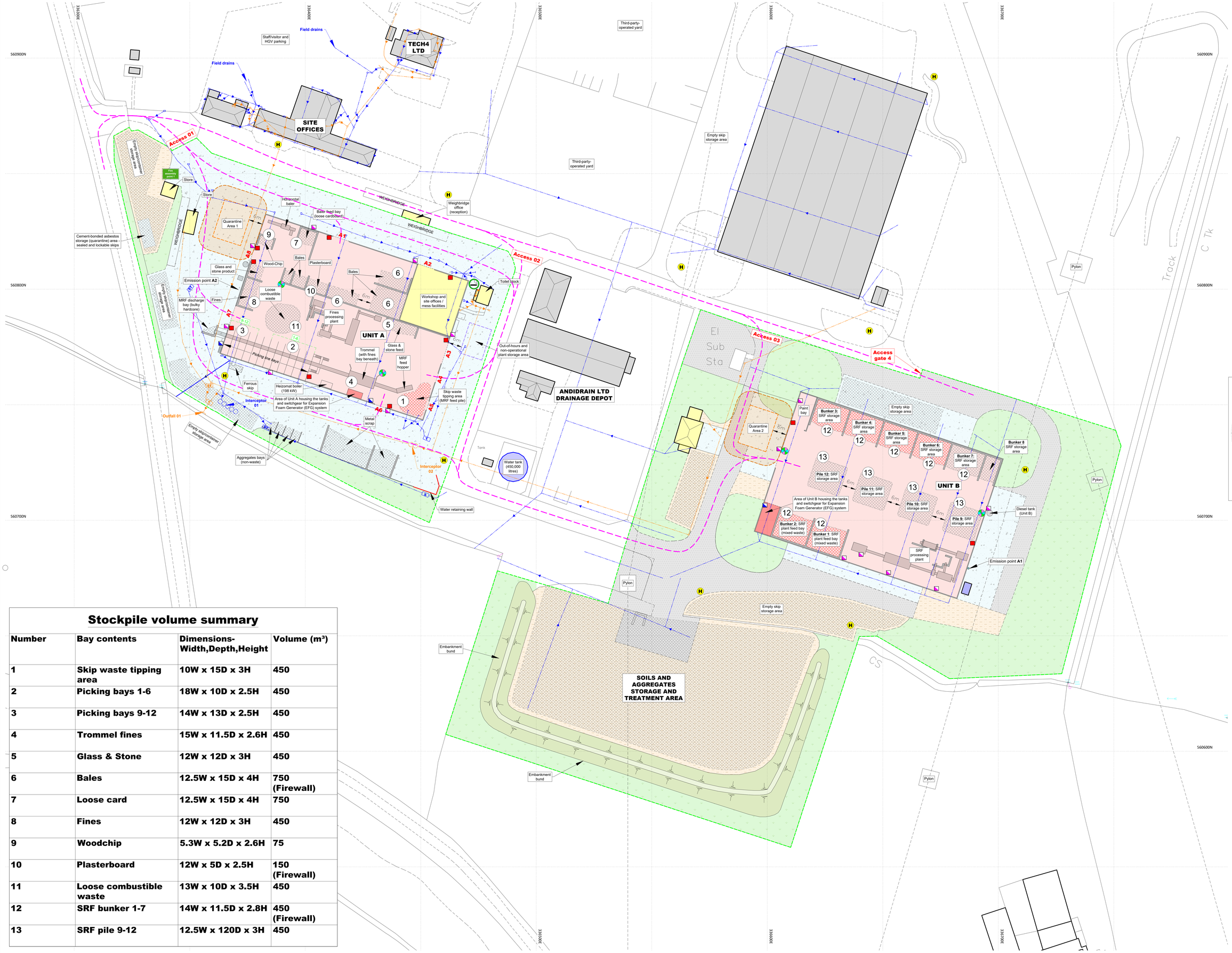
7.1.1 Oaktree Environmental Limited have undertaken a Noise Impact Assessment for the operation of a waste transfer station at Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW.

7.1.2 The site has been assessed with regards to BS4142:2014 and it is considered that the impacts associated with the proposed operation of the site are acceptable based on the comparison of the calculated rating level to the background level as per BS414:2014 and the associated contextual/subjective assessment with the proposed specific mitigation measures mentioned in Section 6.0.

7.1.3 Therefore, based on the above, noise levels associated with the proposed development are acceptable based on the specific noise mitigation measures.

APPENDIX I

DRAWINGS



Stockpile volume summary

Number	Bay contents	Dimensions- Width,Depth,Height	Volume (m³)
1	Skip waste tipping area	10W x 15D x 3H	450
2	Picking bays 1-6	18W x 10D x 2.5H	450
3	Picking bays 9-12	14W x 13D x 2.5H	450
4	Trommel fines	15W x 11.5D x 2.6H	450
5	Glass & Stone	12W x 12D x 3H	450
6	Bales	12.5W x 15D x 4H	750 (Firewall)
7	Loose card	12.5W x 15D x 4H	750
8	Fines	12W x 12D x 3H	450
9	Woodchip	5.3W x 5.2D x 2.6H	75
10	Plasterboard	12W x 5D x 2.5H	150 (Firewall)
11	Loose combustible waste	13W x 10D x 3.5H	450
12	SRF bunker 1-7	14W x 11.5D x 2.8H	450 (Firewall)
13	SRF pile 9-12	12.5W x 120D x 3H	450

NOTES

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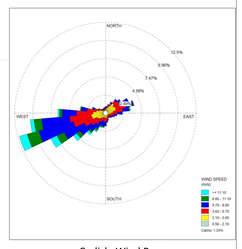
REVISION HISTORY

Rev:	Date:	Init:	Description:
-	18.02.22	RS	Initial drawing
A	18.02.22	RS	Client comments
B	14.02.22	RS/CP	EA comments
C	04.01.24	JH	Amendment
D	09.02.24	JH	Flue added
E	18.04.24	JH	Amendment
F	20.09.24	JH	Layout amendment
G	23.09.24	JH	Drainage added

KEY:

- Permit boundary
- Storage areas (general)
- Storage areas benefiting from Expansion Foam Generator (EFG) coverage
- Sealed buildings
- Concreted area
- Stone surface (free-draining)
- Other on-site buildings (offices, workshop, etc.)
- Tarmac surfacing
- Unsurfaced areas (grass / vegetation)
- Quarantine areas (with 6m buffer zones)
- Fire fighting equipment (extinguishers, etc.)
- Mains water
- Access routes for emergency vehicles
- Fire alarm call points
- Designated smoking area
- Penstock / shut-off valve for use in event of a fire or spillage for surface water drainage containment
- On-site fire hydrants (on 100mm and 200mm mains)
- Radiometric Thermal Camera & Monitor (RTCM)
- Indicative surface & roof drainage
- Indicative combined drainage
- Drainage fall direction
- T / T — Tanks
- S / S — Sump
- ST / ST — Silt trap
- Manhole
- Gully



Carlisle Wind Rose

Scale Bar (1:500)
0 m 5 10 15 20 25 m

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
LAYOUT & FIRE PLAN (PHASE 1)

CLIENT
North West Recycling Ltd

PROJECT/SITE
Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

SCALE @ A0	CLIENT NO	JOB NO
1:500	634	003

DRAWING NUMBER	SHEET NUMBER	REV	STATUS
634-003-03	1 of 1	G	Issued

DRAWN BY	CHECKED	DATE
RS/CP/JH	RS	23.09.24

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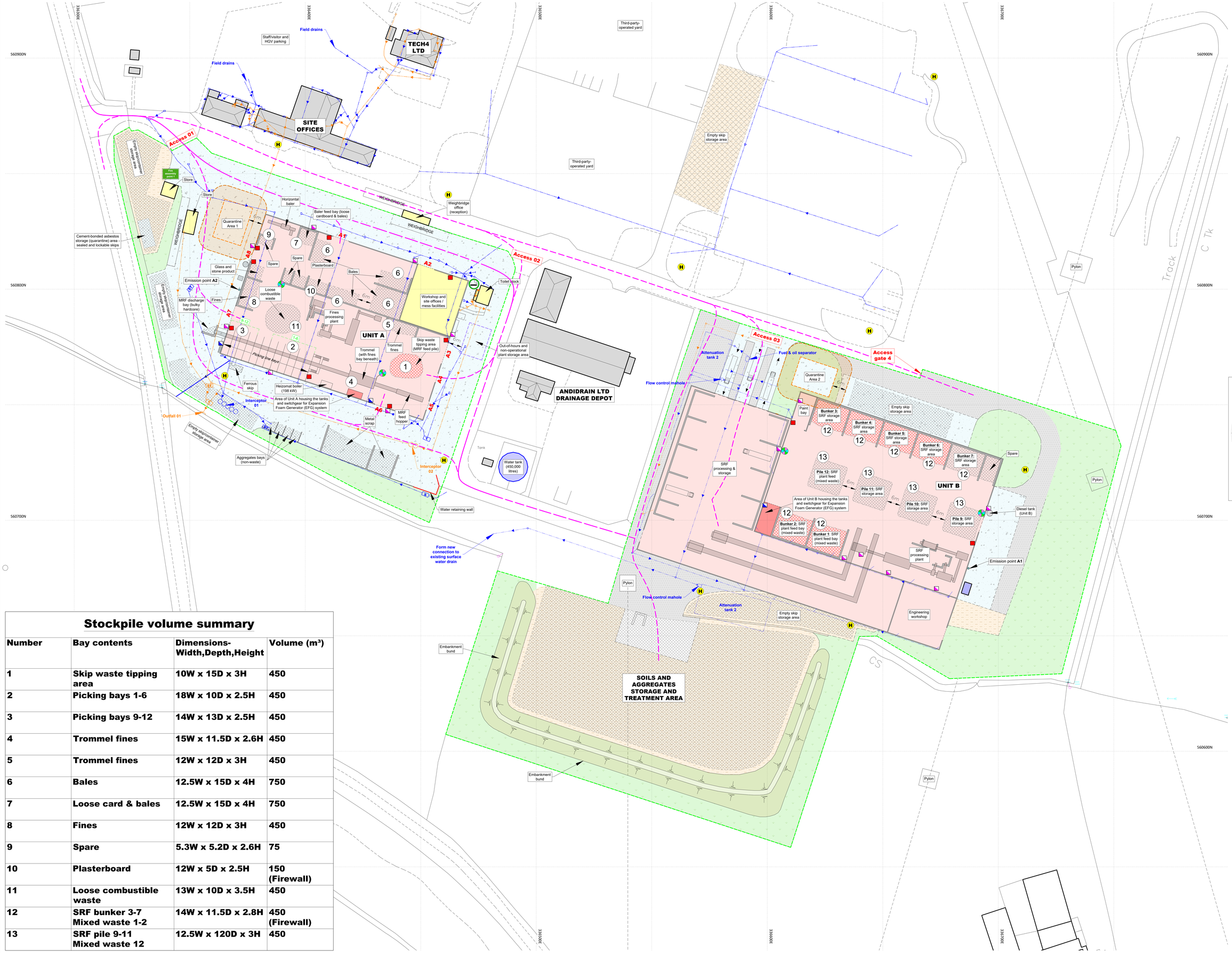

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7	Loose card & bales	12.5W x 15D x 4H	750
8	Fines	12W x 12D x 3H	450
9	Spare	5.3W x 5.2D x 2.6H	75
10	Plasterboard	12W x 5D x 2.5H	150 (Firewall)
11	Loose combustible waste	13W x 10D x 3.5H	450
12	SRF bunker 3-7 Mixed waste 1-2	14W x 11.5D x 2.8H	450 (Firewall)
13	SRF pile 9-11 Mixed waste 12	12.5W x 120D x 3H	450

NOTES

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REVISION HISTORY

Rev:	Date:	Init:	Description:
-	31.07.24	RS/JH	Initial drawing
A	01.08.24	JH	Amendment
B	20.08.24	JH	Emission point added
C	28.08.24	JH	Table added
D	30.08.24	JH	Amendment
E	23.09.24	JH	Drainage added
F	26.09.24	JH	Table amendment
G	19.12.24	JH	Client comments

KEY:

- Permit boundary
- Storage areas (general)
- Storage areas benefiting from Expansion Foam Generator (EFG) coverage
- Sealed buildings
- Concreted area
- Stone surface (free-draining)
- Other on-site buildings (offices, workshop, etc.)
- Tarmac surfacing
- Unsurfaced areas (grass / vegetation)
- Quarantine areas (with 6m buffer zones)
- Fire fighting equipment (extinguishers, etc.)
- Mains water
- Access routes for emergency vehicles
- Fire alarm call points
- Designated smoking area
- Penstock / shut-off valve for use in event of a fire or spillage for surface water drainage containment
- On-site fire hydrants (on 100mm and 200mm mains)
- Radiometric Thermal Camera & Monitor (RTCM)
- Indicative surface & roof drainage
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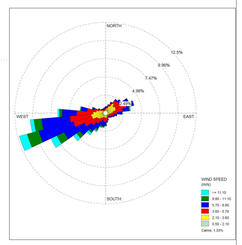
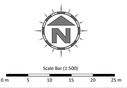
- Drainage fall direction
- T / T Tanks
- S / S Sump
- ST / ST Silt trap
- Manhole
- Gully



Carlisle Wind Rose



Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
LAYOUT & FIRE PLAN (PHASE 2)

CLIENT
North West Recycling Ltd

PROJECT/SITE
Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

SCALE @ A0	CLIENT NO	JOB NO
1:500	634	004

DRAWING NUMBER	SHEET NUMBER	REV	STATUS
634-004-03A	1 of 1	G	Issued

DRAWN BY	CHECKED	DATE
RS/CP/JH	RS	19.12.24

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NOISE & VIBRATION MANAGEMENT PLAN

Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

North West Recycling Ltd

Version:	1.1	**Date:**	21/03/2025		
Doc. Ref:	634-004-N-NVMP	**Author(s):**	DY	**Checked:**	NWR
Client No:	004	**Job No:**	004		

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Document History:

Version	Issue date	Author	Checked	Description
1.0	24/09/2024	DY	NWR	Internal draft
1.1	21/03/2025	DY	NWR	Updated drawing references

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Appendix I - **Drawings**

Drawing No. 634-003-03 and 634-004-03A –Site Layout Plans

Drawing No. 634-004-04 – Receptor Plan

Appendix II - **Complaints Procedure and Recording Form**

1 Introduction

1.1 Site history / background

1.1.1 Oaktree Environmental Ltd have prepared a Noise & Vibration Management Plan (NVMP) for their site situated at Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW.

1.1.2 North West Recycling Ltd is currently permitted to accept, store and treat household, industrial and commercial (HIC) and Construction, Demolition & Excavation (CDE) wastes and is applying for a variation to include the following installation activity:

- Pre-treatment of non-hazardous wastes for incineration / co-incineration

1.1.3 This NVMP will assess risks arising from the activities on-site and allow North West Recycling Ltd to provide mitigation measures. The measures outlined in this NVMP will be put in place by site management of North West Recycling Ltd to ensure noise and vibration is controlled using Best practicable means (BPM) to ensure the receptors listed in Section 2.1 below are not affected by the above proposals.

1.2 Site location

1.2.1 The site is located at Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW. Surrounding land uses comprise rural and residential land uses.

1.2.2 The nearest receptor is located approximately 190m to the South with other dwellings located approximately 400m to the South and North of the site.

1.3 Facility overview

1.3.1 This NVMP accompanies a Noise Impact Assessment (NIA) which has been produced due to the proposed variation the operator is seeking approval for off the Environment Agency (EA) as follows:

- The addition of an activity under Schedule 1 Part 2 Section 5.4 Part A1(b)(ii) of The Environmental Permitting (England and Wales) Regulations 2016, a non-hazardous waste installation – pre-treatment for incineration or co-incineration

1.4 Hours of operation

1.4.1 The site will be open for the delivery of waste between 07.00 to 18.00 Monday to Friday and 07.00 to 15.00 on Saturdays.

1.4.2 Operational hours (comprising primarily internal processing) will occur Mon-Friday from 07.00 to 22.45 and on Saturdays from 07.00 to 15.00.

1.4.3 Crushing/screening of aggregates will be limited to Monday to Friday from 09:00 to 17:00.

1.5 Site Layout

1.5.1 The development of the site will proceed in two phases. Reference should be made to Appendix I for layout plans for Phase 1 (634-003-03) and Phase 2 (634-004-03A).

2 Sensitive Receptors

2.1 Site Receptors

2.1.1 The receptors are detailed in the table below with approximate distances to them. Receptors which are over 500m have not been included within the table below as it is considered that they will not be affected by any noise pollution arising from the site.

Table 2.1 – Distances to Selected, Representative Sensitive Locations

Receptor Identifier	Receptor	Receptor Type	Direction from Site	Approximate distance from site boundary (m)
1	Residential Properties (Bank End and Holme View)	Residential	South/South-East	120 - 400
2	Residential Properties (West View and Middle Farm)	Residential	East	400
3	Residential Properties (Meldrun House and Crookdyke)	Residential	North	370

2.2 Other Noise Sources

2.2.1 Other industrial / commercial land uses which will contribute to the background noise level are tabulated below.

Table 2.2 – Other Noise Emitting Operators

Company	Address	Type of Business	Approximate distance & location from site (m)
Nixon Hire	Westmoor, Rockcliffe, Carlisle CA6 4BH	Industrial/Commercial	860 / east
N*etwork Rail (Kingmoor)*	Carlisle CA6 4BE	Industrial/Commercial	600 / east / southeast
Commercial/ Industrial users on Rockcliffe industrial estate	Rockcliffe Industrial Estate	Waste/ Industrial / Commercial	Adjacent / surrounding

2.2.2 Other sources of noise comprise birdsong and noise generated by other vehicle movements on other nearby road networks.

3 Site Operations

3.1 Waste Deliveries

3.1.1 Waste is delivered and removed from the site via the existing access. Upon arrival, an operative will direct the driver to the relevant area on site which is usually the weighbridge where the contents of the vehicle and waste transfer/consignment note are inspected.

3.1.2 Deliveries/removals from the site primarily consist of North West Recycling Ltd's own vehicles/contracts but there will also be vehicles associated with third parties. The typical types of vehicles are shown below:

- HGV skip vehicles
- fixed body bulk loaders
- 8-wheeled tipper vehicles which can carry loads of up to 18-20 tonnes
- Articulated Lorries.

3.2 Waste Acceptance

3.2.1 Waste is delivered to the site via an existing access and upon arrival all waste will undergo a visual inspection on arrival at site prior to progressing through to the weighbridge. Once the vehicle has passed the initial inspection, the vehicle will be directed to the weighbridge where the waste consignment notes (including hazardous) and transfer documentation will be fully checked to ensure the waste matches the pre-acceptance information received.

3.2.2 Any wastes identified during the incoming waste inspections which do not conform to site acceptance criteria will not be accepted and/or removed and quarantined immediately to await safe removal from site and the EA will be contacted (where necessary) if the non-conforming waste discovered is likely to lead to a breach of permit conditions or a potential risk of combustion. Most of all waste delivered to the site will comprise North West Recycling Ltd's own vehicles with some occasional third-party deliveries.

3.3 Site Processes

3.3.1 Once a load has been accepted by the operator the contents of the delivery vehicles will be discharged the material into the relevant 'tipping area' within Units A and B. This will include the majority of wastes received on-site, including mixed household, commercial and industrial wastes and the enclosure of such operations within building swill provide significant noise control.

3.4 Soils & Aggregates Procedure

3.4.1 On site processing of soils and aggregates will be undertaken externally using mobile plant to produce material to the desired specification for re-sale on the commercial market.

3.4.2 Below shows the procedure of the external treatment operations carried out on site:

SCREENER

a) Waste will be loaded into the feed hopper of the screening plant will be loaded using a 360^{o} tracked excavator or a 4-wheel loading shovel equipped with a bucket. This process will then separate the soil from the stone/hardcore.
b) The screening plant utilises a vibrating grid with evenly spaced vertical bars to separate out the different fractions within the material. Such screens have interchangeable mesh screens to permit the production of a wide range of product sizes (<3 mm to 20 mm).
c) Soil will be discharged into two different stockpiles depending on its size via conveyors.
d) The stone/hardcore material off the front conveyor of the screener should consists of stone/hardcore which will consist of a saleable aggregate. Larger items may then be transferred to the crusher.

CRUSHER

e) The bulky inert/stone waste will be loaded into the feed hopper of the crusher; this then passes into the crushing chamber which uses hydraulically operated jaws to reduce the size of the material.

f) Small feed/fines pass through the grid bars/mesh at the base of the crushing chamber and out of the plant via a small side conveyor with a discharge height of approximately 1.5 - 3.0 metres. The larger crushed material falls onto the delivery conveyor which will discharge the material in one of two ways: either onto a conveyor feeding the grid of the mobile screen or onto the ground to form a stockpile.

g) Before the crushed material exits the delivery conveyor (discharge height of up to 3.0 metres) any extraneous metal is extracted using a permanent overband magnet. If the material requires further grading after crushing the mobile screening plant used will have up to 3 discharge conveyors, forming 3 stockpiles of different product.

h) Soil will be discharged into a stockpile where it will be bulked and removed off site.

i) The stone/hardcore material off the screener will be loaded into the feed hopper of the crusher; this then passes into the crushing chamber which uses hydraulically operated jaws to reduce the size of the material.

j) Small feed/fines pass through the grid bars/mesh at the base of the crushing chamber and out of the plant via a small side conveyor with a discharge height of approximately 1.5 - 3.0 metres. The larger crushed material falls onto the delivery conveyor which will discharge the material in one of two ways: either onto a conveyor feeding the grid of the mobile screen or onto the ground to form a stockpile.

k) Before the crushed material exits the delivery conveyor (discharge height of up to 4.0 metres) any extraneous metal is extracted using a permanent overband magnet. If the material requires further grading after crushing the mobile screening plant used will have up to 3 discharge conveyors, forming 3 stockpiles of different product.

l) The stockpiled material which is discharged from the crushing plant will be transferred to the appropriate storage areas by loading shovel.

3.5 Plant and Equipment

3.5.1 The table below details the plant/equipment on site. Only trained operators will be permitted to drive/operate the plant/equipment listed below.

Table 2.1 – Plant and Machinery

Item	Quantity under normal working conditions	Function
Telescopic handler	4	Waste loading/ movement/sorting
Loading shovels	4	Waste loading/ movement/sorting
Excavators	*3*	Waste loading/ movement/sorting
Tractor (with trailer)	1	Waste loading/movement
Road Sweeper	1	Road sweeping to control mud, dust and litter
Water Bowser	1	Dust suppression
Wood-chipper	1	Shredding/chipping
Screener	1	Size reduction & separation
Power Shredder	1	Shredding/size reduction
Crusher	1	Crushing of aggregates
MEWP	1	Allows working at height
Fines (Glass and Stone) treatment line comprising long part separator and air separator	1	Refine qualifying fines
Red Line comprising conveyors, trommel, magnet and air blower system	1	Treatment of MMW, DMR and construction wastes
SRF lines comprising hopper, conveyors, shredder, screen, magnet, eddy current and air box	2	Treatment of residual wastes to produce SRF/RDF
Egger Line comprising hopper, density separator, flexdeck, magnet, eddy current and float	1	Treatment of contaminated wood chip waste (not containing dangerous substances)
Road vehicles comprising hook loaders, artic unit and walking floor trailer.	1	Removal and transport of waste off site.

3.5.2 All plant on site is subject to annual manufacturer maintenance to ensure proper working order in the form of service contracts.

3.5.3 Site management will undertake or delegate additional preventative maintenance checks on a more frequent basis i.e. daily, before, during and 1 hour at the end of each working day using a checklist similar to that in Appendix II to ensure the following:

- Plant and machinery is mechanically sound for use and no presence of black fumes or trailing liquids visible prior to use or following shutoff of plant/equipment.
- Mobile plant will be stored at least 6m form any stored combustible wastes on site or other potentially flammable materials (e.g., any fuel tanks onsite) following the cessation of daily waste management activities.
- In the building, all plant will be powered down and completely shut off prior to cessation of operations on any given day.
- Plant which is not in use for any extended period is stored at least 6 metres from combustible or flammable material.
- All mobile plant will contain firefighting equipment in the cab.
- Dust from processing/treatment operations on site can settle throughout the working day onto processing plant, plant exhausts and engine parts so a fire-watch will be implemented after cessation of works and equipment powered down for 1 hour each day to remove any dust/fluff using brushes, hoses etc... Any build of dust/fluff will be removed from the equipment and deposited into an adjacent refuse bin which will be emptied when full.

4 Noise Management and Controls

4.1 Noise Sensitive Receptors

4.1.1 The site lies within an industrial setting, the receptors of highest sensitivity to noise include dwellings within 400m to the South and North.

4.1.2 In terms of potential noise impact, whilst the development proposed will be operated using the Best Practicable Means at all times, this site-specific NVMP has been prepared in order to ensure the noise levels at the site can be managed appropriately and reduce any impact on the surrounding receptors. This has been informed by quantitative Noise Impact Assessment (NIA).

4.2 Noise Sources

4.2.1 The main sources of noise which could arise from the site operations are as follows:

a) Skip lorries/HGVs travelling to and from the site for delivery / collection of vehicle waste in loose and skip form
b) Tipping and loading of waste into tipping areas, storage bays at the site including their loading and unloading
c) Loading of waste into mechanical treatment plants i.e. trommel, screener, crusher and shredders
d) Use of treatment plant
e) Loading of waste into containers for storage on site and into articulated vehicles for removal off site
f) Manoeuvring of mobile plant around external areas of the site
g) Small vehicles travelling to and from the site (e.g. staff and visitor's cars, courier van deliveries etc.)
h) Repairs

4.3 Noise Management Table

4.3.1 A site-specific NVMP table overleaf details the above noise sources and how the current and proposed infrastructure on site will reduce the impact of noise to surrounding properties.

4.3.2 In addition to the existing controls in this NVMP, the complaints procedure further discussed in section 5 will be used if any noise complaints are received. If a noise complaint is received and the applicant has been made aware, immediate action will be undertaken, reviewing and identifying whether any changes to existing procedures are required or if new procedures need to be put in place. Any changes which may be required will be implemented immediately.

Source(s)	Receptor(s)	Consequence	Magnitude of noise source	Characteristic of noise source	Probability of noise disturbance	Remedial Action / Recommendations / Comments	Assessment Outcome following actions / recommendations
A = Skip lorries/HGVs travelling to and from the site for delivery / collection of vehicle waste in loose and skip form	See Section 2.1	Noise pollution	Medium	Continuous (Low Pitch)	Medium	Engines will be switched off when the vehicles are not being used. Waste deliveries and collections will only be permitted during the operational hours with no works on Sundays or Bank/Public Holidays. These hours are considered 'normal' working operational hours within an industrial area. The existing access road to the operational area site will be maintained in good state of repair to prevent unnecessary noise being generated. All skip lorries operated by North West Recycling Ltd be fitted with chain socks in order to reduce the noise produced by the loose chains banging on the side of the skip. Implementation of a 5mph speed limit onsite. Drivers must lower the tipper body before driving away from the tipping area. All drivers are required to enter and exit the site with due consideration for neighbours. Drop heights will be a maximum 1m from the ground to allow for clearance of the relevant vehicle. Management will ensure that all vehicles involved in the tipping of waste operated by North West Recycling Ltd are functioning suitable i.e. vehicles must be well maintained and operated with silencers and moving parts to be regularly lubricated. The proposed use of the HGV servicing building will ensure this policy is followed strictly. All mobile plant and other vehicles used will benefit from white noise reverse alarms. A no idling policy will be in place and staff/third party drivers will be told not to rev engines. The majority of wastes are to be unloaded to, and processed with buildings, which provide noise control.	Low due to background noise levels being high and mitigation measures to be implemented.

Source(s)	Receptor(s)	Consequence	Magnitude of noise source	Characteristic of noise source	Probability of noise disturbance	Remedial Action / Recommendations / Comments	Assessment Outcome following actions / recommendations
B = Tipping and loading of waste into tipping areas, storage bays at the site including their loading and unloading	See Section 2.1	Noise pollution	Medium	Continuous (Low Pitch)	High	Refer to the above actions shown above.	Low due to background noise levels being high and mitigation measures to be implemented.
C = Loading of waste into mechanical treatment plants i.e. trommel, screener, crusher and shredders D = Use of treatment plant	See Section 2.1	Noise pollution	Medium	Continuous (Low Pitch)	High	Refer to the above actions shown in A and additional actions/proposals are shown below. The loading of waste into the treatment plants is done using a 360^0 grab/crane as opposed to a loading shovel meaning the material can be inserted into the plant with minimal drop height to prevent any crashing, banging or vibration. It is proposed to operate this machinery during the operational hours which are not considered unsociable hours. Management will ensure that all loading plant operated by North West Recycling Ltd is functioning suitably i.e. moving parts to be regularly lubricated. Operatives will be informed to turn off engines of the mobile plant when it is not in use and no revving of engines will be permitted at the site. Any malfunctions in plant i.e. missing screws/bolts which result in excessive noise will be de-commissioned until an alternative loading plant sourced.	Low due to background noise levels being high and mitigation measures to be implemented.

Source(s)	Receptor(s)	Consequence	Magnitude of noise source	Characteristic of noise source	Probability of noise disturbance	Remedial Action / Recommendations / Comments	Assessment Outcome following actions / recommendations
E = Loading of waste into containers for storage on site and into articulated vehicles for removal off site	See Section 2.1	Noise pollution	Medium	Infrequent (High Pitch)	High	Refer to the above actions shown in A and additional actions/proposals are shown below. Site management have instructed the grab operators to load the containers by placing the material in them rather than dropping it. Site management also closely monitoring the staff loading the material continuously (in addition to the daily monitoring) to make sure that the revised loading operations are carried out. Management will ensure that all loading plant operated by North West Recycling Ltd is functioning suitably i.e. moving parts to be regularly lubricated. Operatives will be informed to turn off engines when the plant is not in use and no revving of engines will be permitted at the site. Any malfunctions in loading plant i.e. missing screws/bolts which result in excessive noise will be de-commissioned until an alternative loading plant sourced.	Low due to background noise levels being high and mitigation measures to be implemented.
F= Manoeuvring of mobile plant around external areas of the site	See Section 2.1	Noise pollution	Low	Intermittent (Low Pitch)	Med	Refer to the above actions shown in A and additional actions/proposals are shown below. Management will ensure that all site vehicles operated by North West Recycling Ltd are functioning suitable i.e. vehicles must be well maintained and operated with silencers and moving parts to be regularly lubricated. All manoeuvring areas using mobile plant are surfaced with impermeable concrete which is generally flat and well maintained to prevent unnecessary banging of vehicles on uneven ground leading to excessive vibration. External aggregates processing area benefits from a bund to the South, East and West of operations. This is to be increased in height. This provides control of noise from external operations and screening of noise from Units A and B.	Low due to background noise levels being high and mitigation measures to be implemented.
G = Small vehicles travelling to and from the site (e.g. staff and visitor's cars, courier van deliveries etc.)	See Section 2.1	Noise pollution	Low – Very Low	Intermittent (Low Pitch)	Low	All those working on and visiting the site to be made aware of need for considerate driving and keeping vehicles well maintained. Small vehicles are not considered to be an issue in relation to excessive noise which could cause a complaint. Implementation of a 5mph speed limit onsite. All drivers are required to enter and exit the site with due consideration for neighbours.	Very Low / Negligible due to background noise levels being high and mitigation measures to be implemented.

Source(s)	Receptor(s)	Consequence	Magnitude of noise source	Characteristic of noise source	Probability of noise disturbance	Remedial Action / Recommendations / Comments	Assessment Outcome following actions / recommendations
H = Repairs	See Section 2.1	Noise pollution	Very Low	Occur at a specific time (Low Pitch)	Low	If repairs to the site are required, the work is to be undertaken with due regard for the possible noise nuisance and during working day hours. In the event of major repair work being undertaken which is likely to cause significant noise and disruption, neighbouring residents and the Environment Agency will be notified in advance and would not commence without agreement unless in extenuating circumstances i.e. to minimise a fire occurring.	Very Low / Negligible due to background noise levels being high and mitigation measures to be implemented.

4.4 Monitoring

4.4.1 It is proposed that any offsite monitoring would primarily comprise the subjective onsite observations by site management. Given that the noise assessment has determined that noise levels from the operations will not be highly significant, it is difficult to justify the requirement to undertake routine pro-active offsite monitoring.

4.4.2 To have any certainty in evaluating the true noise level as a result of the operations at the receptor measurements would have to be made during time of inactivity at neighbouring sites. This would introduce a great level of difficulty and eradicates the opportunity to arrange for a routine, weekly time for noise monitoring.

4.4.3 It would seem reasonable to propose that noise levels are subjectively monitored by site management. Site management will be able to monitor noise levels throughout the day whilst onsite and would notice a rise in noise levels because of plant failure, staff negligence, incompatible loads or other extenuating circumstances. If site management identify these issues, the operator they can then take steps to remedy the situation (i.e. cease the activity if needed). Should a noise a complaint be received, site management would review the nature of the complaint, and should it be deemed necessary (i.e. numerous complaints relating to a particular item of plant) then an investigation may be commenced and advice sought from a professional acoustician.

4.5 Recording

4.5.1 Site management will record complaints in the site diary or complaints report from in Appendix II and contract the EA within 24 hours if a complaint is received.

4.5.2 Site management will be required to make a note of any unavoidable events such as plant failure, in the site diary, rather than just actual complaints received and notify the EA within 24 hours. This will ensure that if complaints are received retrospectively from either the EA or directly, any circumstances which led to that complaint as a result of elements outside of the operator's control would be able to be attributed (or, at least, in part) to the cause of the complaint. Where all appropriate measures fail to

prevent an activity causing unacceptable levels of noise pollution, the activity will be stopped.

4.6 Emergencies

4.6.1 In the event of any unforeseen circumstances i.e. faulty equipment, the site manager will make an assessment of whether to cease activities/all operations with the main emphasis on site will be to reduce any noise impacts.

5 Actions When Complaints Are Received

5.1 Complaints Procedure

5.1.1 If any noise complaints are received, site management will complete a 'complaints and events log', detailed individually on the complaints form (in Appendix II), both of which will be kept for inspection on request by the LA, EA or third parties. Details of information to be completed are dates, nature of complaint, weather conditions at the time of the complaint, investigation details, action taken and a signature (as a minimum).

5.1.2 Noise complaints will be prioritised and investigated without delay or by end of working day only in extenuating circumstances. This will also apply to complaints received both directly and via other sources (e.g. EA or local authority). Where investigation substantiates the complaint, fully or partially, then remedial action will be taken immediately and if measures taken fail to stop the pollution, then the activity must be stopped and not restarted unless and until additional measures have been implemented to prevent the emission causing pollution. The EA will be contacted in the event the complaint cannot be escalated. Following a complaint and if it is deemed correct following investigation, the appropriate action will be taken to prevent the issue from reoccurring i.e. evaluation of current abatement measures, site operations, additional abatement measures and re-training of staff via toolbox talks.

5.1.3 The operator will make a note of any unavoidable events plant/equipment malfunctions in the site diary, rather than just actual complaints received. This will ensure that if complaints are received retrospectively from either the Council/EA or third parties, any circumstances which led to that complaint as a result of elements outside of the operator’s control would be able to be attributed to the cause of the complaint.

5.1.4 In the event of a complaint, the operator will substantiate the complaint to identify whether the complaint is valid, eg to confirm whether the issue has arisen due to operations at North West Recycling Limited or neighbouring premises. If the complaint

is valid, the site will implement the complaint procedures check and if required, amend site operations, and provide additional attenuation around the site. This would typically involve using a level 2 sound meter and comparing this information from the background levels recorded from the recent Noise Impact Assessment.

5.1.5 If the source cannot be ascertained with 100% confidence, site management will either suspend or reduce the likely noise generating activities, i.e. mechanical treatment plant comprising shredder, screener, crusher etc…

5.1.6 If the source is within the site's control, site management will take appropriate action to ensure the issue has been rectified. This may take the form of the following:

a) Investigating the source to prevent a re-occurrence.
b) Suspending operations which are giving rise to excessive noise due to potential plant malfunction
c) Investigate noise mitigation measures
d) Logging findings of a – c in the site diary / complaints form and also in the reporting template within the EP.
e) Report actions to the complainant and/or EA within 24 hours.
f) If following the above complaints are still received, the site will cease operations until the issues have been rectified.

5.1.7 The EA will be notified by email of any third-party noise complaints received within 24 hours including the complainant and the outcome of the investigation. Where complaints are substantiated as causing or likely to cause significant noise pollution, then the EA will be notified.

5.2 Complaints Recording

5.2.1 Any complaints received in relation to noise and vibration will be recorded on the form shown in Appendix II. This form will normally be completed, signed and dated by site management, if they are not available, another suitably trained staff member.

5.2.2 The following details as a minimum will be completed on the form:

a) The name, address and telephone number of the caller will be requested.

b) Each complaint will be given a reference number.

c) The caller will be asked to give details of:

- the nature of the complaint;
- the time;
- how long it lasted;
- how often it occurs;
- is this the first time the problem has been noticed; and,
- what prompted them to complain.

d) The person completing the form will then, if possible, make a note of:

- the weather conditions at the time of the problem (rain snow fog etc.)
- strength and direction of the wind; and,
- the activity on the installation at the time the noise, dust or odour was detected, particularly anything unusual.

e) The reason for the complaint will be investigated and a note of the findings added to the report.

f) The caller will then be contacted with an explanation of the source of the complaint if identified and the action taken to prevent a recurrence of the problem in future.

g) If the caller is unhappy about the outcome or unwilling to identify themselves the caller will be referred to the appropriate department of the EA or Local Council.

h) Following any complaint, the complaints procedure will be reviewed to see if any changes are required or if new procedures need to be put in place.

6 Training

6.1 Training Regime

6.1.1 All employees and sub-contractors of North West Recycling Ltd involved with potentially noisy operations will receive training in noise and vibration monitoring and complaint reporting.

6.1.2 Training will be given to all relevant persons to make sure they are competent in completing noise and vibration survey forms, noise and vibration complaint report forms and the site diary to ensure sufficient monitoring of noise and vibration can be carried out and any problems addressed correctly.

6.1.3 When selecting new plant and equipment, consideration shall be given to the need to meet all legislation and statutory guidance on noise levels and to minimise levels of noise from selected equipment.

6.2 Vehicle/Plant Preventative Maintenance Training

6.2.1 This training is provided specifically for the vehicle and plant operators in order to ensure that all plant and machinery is checked regularly to prevent any occurrences which may lead to any adverse impacts on the environment or human health.

6.2.2 Training will be based on the preventative maintenance schedule supplied by the plant/equipment manufacturer.

6.2.3 The same training will be provided to senior management enabling a dual-level maintenance programme.

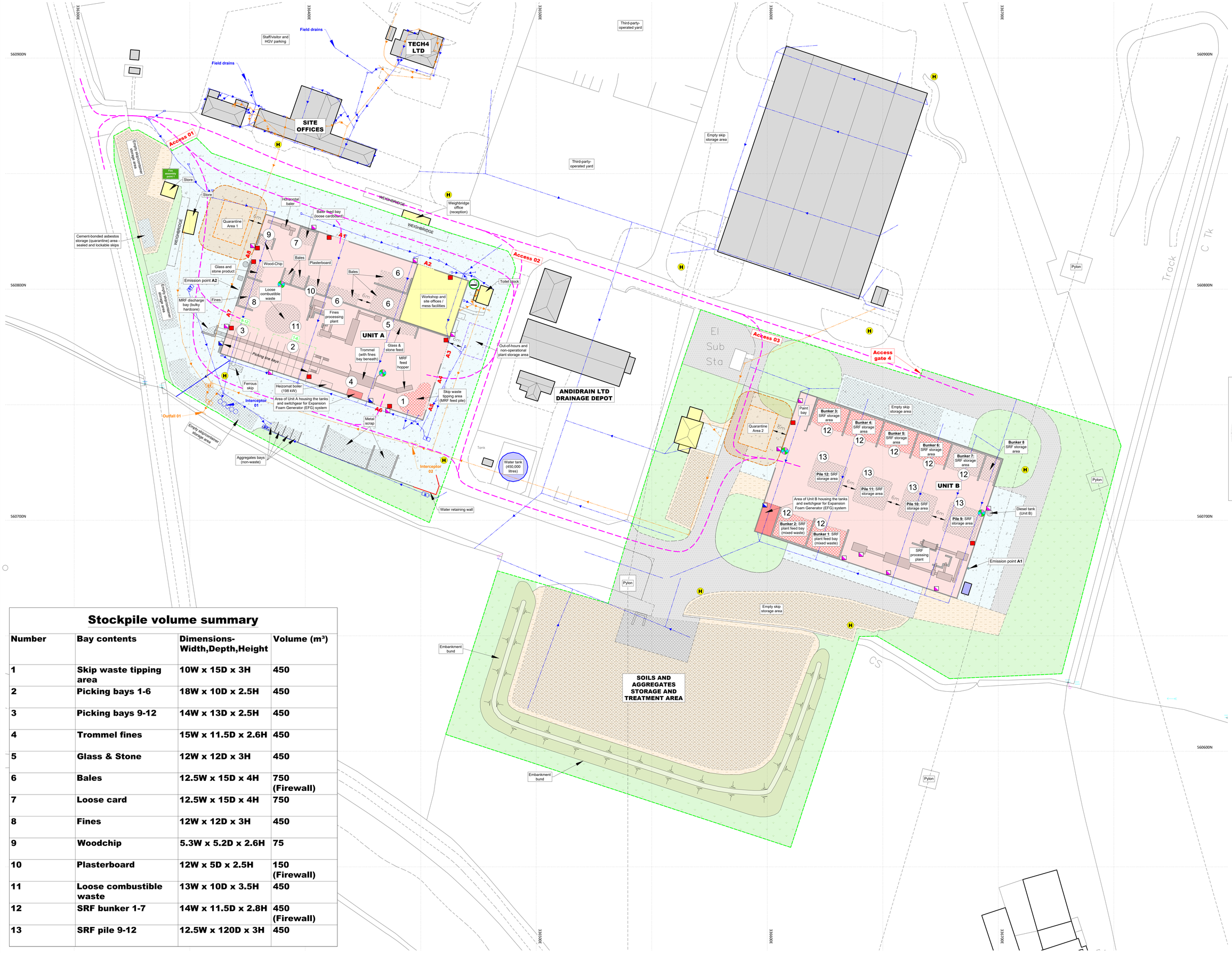
6.3 Liaison with Neighbours

6.3.1 In the extreme event of a significant, but temporary, increase in noise and vibration from the site, neighbours will be contacted to advise them of the occurrence and action being taken to remediate the issue on site.

6.3.2 An open-door policy will be encouraged by the operator to enable any complaints from neighbouring premises (if received) to be dealt with immediately. The complainant will then be supplied with remedial actions taken and any procedures or measures put in place by the operator to reduce or ideally eradicate the likelihood of a subsequent complaint.

Appendix I

Drawings



Stockpile volume summary

Number	Bay contents	Dimensions- Width,Depth,Height	Volume (m³)
1	Skip waste tipping area	10W x 15D x 3H	450
2	Picking bays 1-6	18W x 10D x 2.5H	450
3	Picking bays 9-12	14W x 13D x 2.5H	450
4	Trommel fines	15W x 11.5D x 2.6H	450
5	Glass & Stone	12W x 12D x 3H	450
6	Bales	12.5W x 15D x 4H	750 (Firewall)
7	Loose card	12.5W x 15D x 4H	750
8	Fines	12W x 12D x 3H	450
9	Woodchip	5.3W x 5.2D x 2.6H	75
10	Plasterboard	12W x 5D x 2.5H	150 (Firewall)
11	Loose combustible waste	13W x 10D x 3.5H	450
12	SRF bunker 1-7	14W x 11.5D x 2.8H	450 (Firewall)
13	SRF pile 9-12	12.5W x 120D x 3H	450

NOTES

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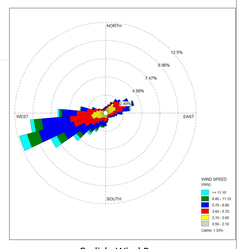
REVISION HISTORY

Rev:	Date:	Init:	Description:
-	18.02.22	RS	Initial drawing
A	18.02.22	RS	Client comments
B	14.02.22	RS/CP	EA comments
C	04.01.24	JH	Amendment
D	09.02.24	JH	Flue added
E	18.04.24	JH	Amendment
F	20.09.24	JH	Layout amendment
G	23.09.24	JH	Drainage added

KEY:

- Permit boundary
- Storage areas (general)
- Storage areas benefiting from Expansion Foam Generator (EFG) coverage
- Sealed buildings
- Concreted area
- Stone surface (free-draining)
- Other on-site buildings (offices, workshop, etc.)
- Tarmac surfacing
- Unsurfaced areas (grass / vegetation)
- Quarantine areas (with 6m buffer zones)
- Fire fighting equipment (extinguishers, etc.)
- Mains water
- Access routes for emergency vehicles
- Fire alarm call points
- Designated smoking area
- Penstock / shut-off valve for use in event of a fire or spillage for surface water drainage containment
- On-site fire hydrants (on 100mm and 200mm mains)
- Radiometric Thermal Camera & Monitor (RTCM)
- Indicative surface & roof drainage
- Indicative combined drainage
- Drainage fall direction
- T / T — Tanks
- S / S — Sump
- ST / ST — Silt trap
- Manhole
- Gully



Carlisle Wind Rose

Scale Bar (1:500)
0 m 5 10 15 20 25 m

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
LAYOUT & FIRE PLAN (PHASE 1)

CLIENT
North West Recycling Ltd

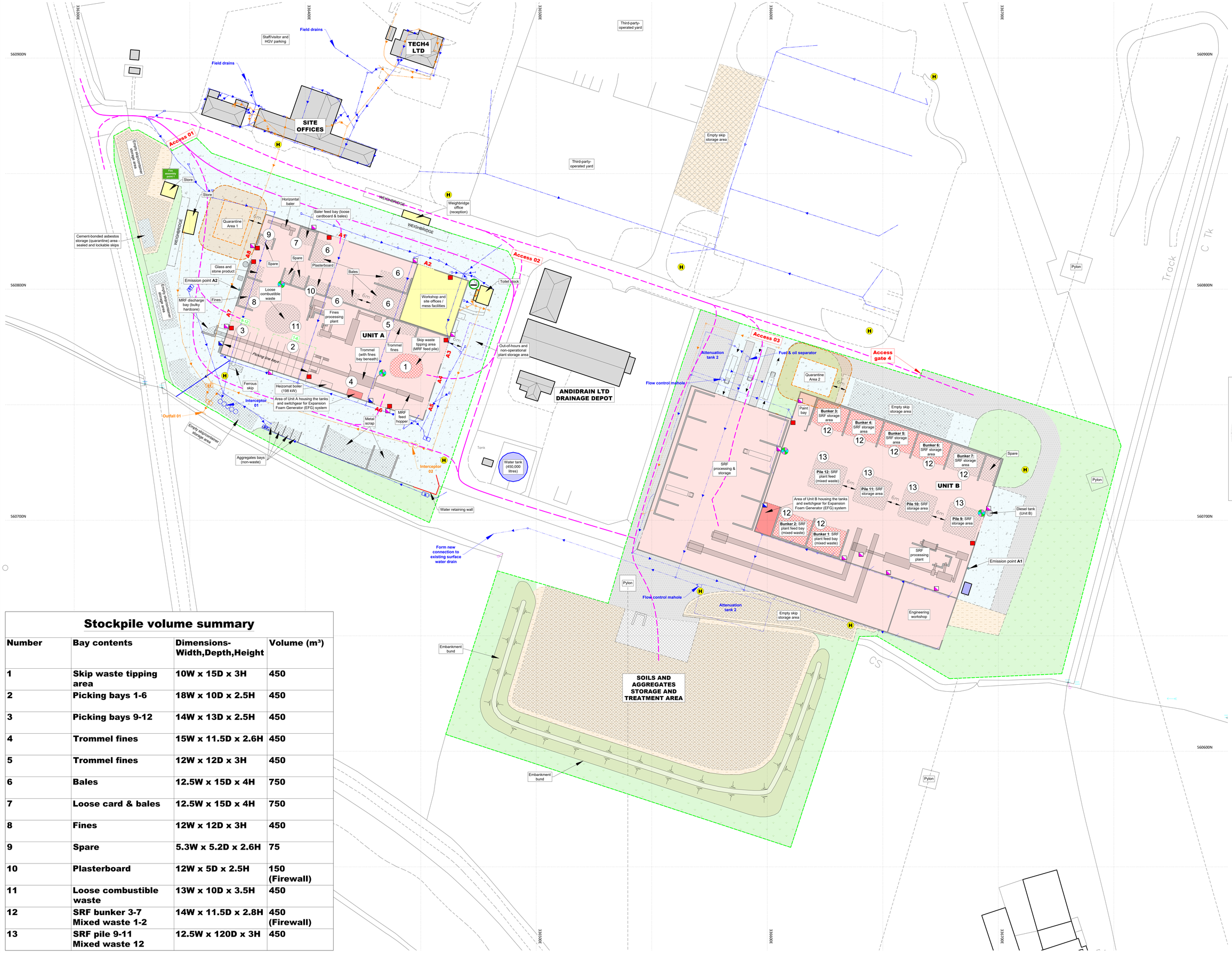
PROJECT/SITE
Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

SCALE @ A0	CLIENT NO	JOB NO
1:500	634	003

DRAWING NUMBER	SHEET NUMBER	REV	STATUS
634-003-03	1 of 1	G	Issued

DRAWN BY	CHECKED	DATE
RS/CP/JH	RS	23.09.24

Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
t: 01606 558833 | e: sales@oaktree-environmental.co.uk



Stockpile volume summary

Number	Bay contents	Dimensions-Width,Depth,Height	Volume (m³)
1	Skip waste tipping area	10W x 15D x 3H	450
2	Picking bays 1-6	18W x 10D x 2.5H	450
3	Picking bays 9-12	14W x 13D x 2.5H	450
4	Trommel fines	15W x 11.5D x 2.6H	450
5	Trommel fines	12W x 12D x 3H	450
6	Bales	12.5W x 15D x 4H	750
7	Loose card & bales	12.5W x 15D x 4H	750
8	Fines	12W x 12D x 3H	450
9	Spare	5.3W x 5.2D x 2.6H	75
10	Plasterboard	12W x 5D x 2.5H	150 (Firewall)
11	Loose combustible waste	13W x 10D x 3.5H	450
12	SRF bunker 3-7 Mixed waste 1-2	14W x 11.5D x 2.8H	450 (Firewall)
13	SRF pile 9-11 Mixed waste 12	12.5W x 120D x 3H	450

NOTES

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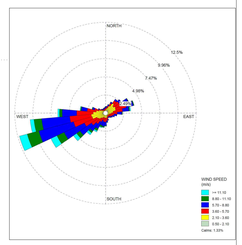
REVISION HISTORY

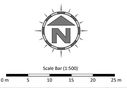
Rev:	Date:	Init:	Description:
-	31.07.24	RS/JH	Initial drawing
A	01.08.24	JH	Amendment
B	20.08.24	JH	Emission point added
C	28.08.24	JH	Table added
D	30.08.24	JH	Amendment
E	23.09.24	JH	Drainage added
F	26.09.24	JH	Table amendment
G	19.12.24	JH	Client comments

KEY:

- Permit boundary
- Storage areas (general)
- Storage areas benefiting from Expansion Foam Generator (EFG) coverage
- Sealed buildings
- Concreted area
- Stone surface (free-draining)
- Other on-site buildings (offices, workshop, etc.)
- Tarmac surfacing
- Unsurfaced areas (grass / vegetation)
- Quarantine areas (with 6m buffer zones)
- Fire fighting equipment (extinguishers, etc.)
- Mains water
- Access routes for emergency vehicles
- Fire alarm call points
- Designated smoking area
- Penstock / shut-off valve for use in event of a fire or spillage for surface water drainage containment
- On-site fire hydrants (on 100mm and 200mm mains)
- Radiometric Thermal Camera & Monitor (RTCM)
- Indicative surface & roof drainage
- Indicative combined drainage
- Drainage fall direction
- T / T Tanks
- S / S Sump
- ST / ST Silt trap
- Manhole
- Gully



Carlisle Wind Rose



Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
LAYOUT & FIRE PLAN (PHASE 2)

CLIENT
North West Recycling Ltd

PROJECT/SITE
Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

SCALE @ A0	CLIENT NO	JOB NO
1:500	634	004

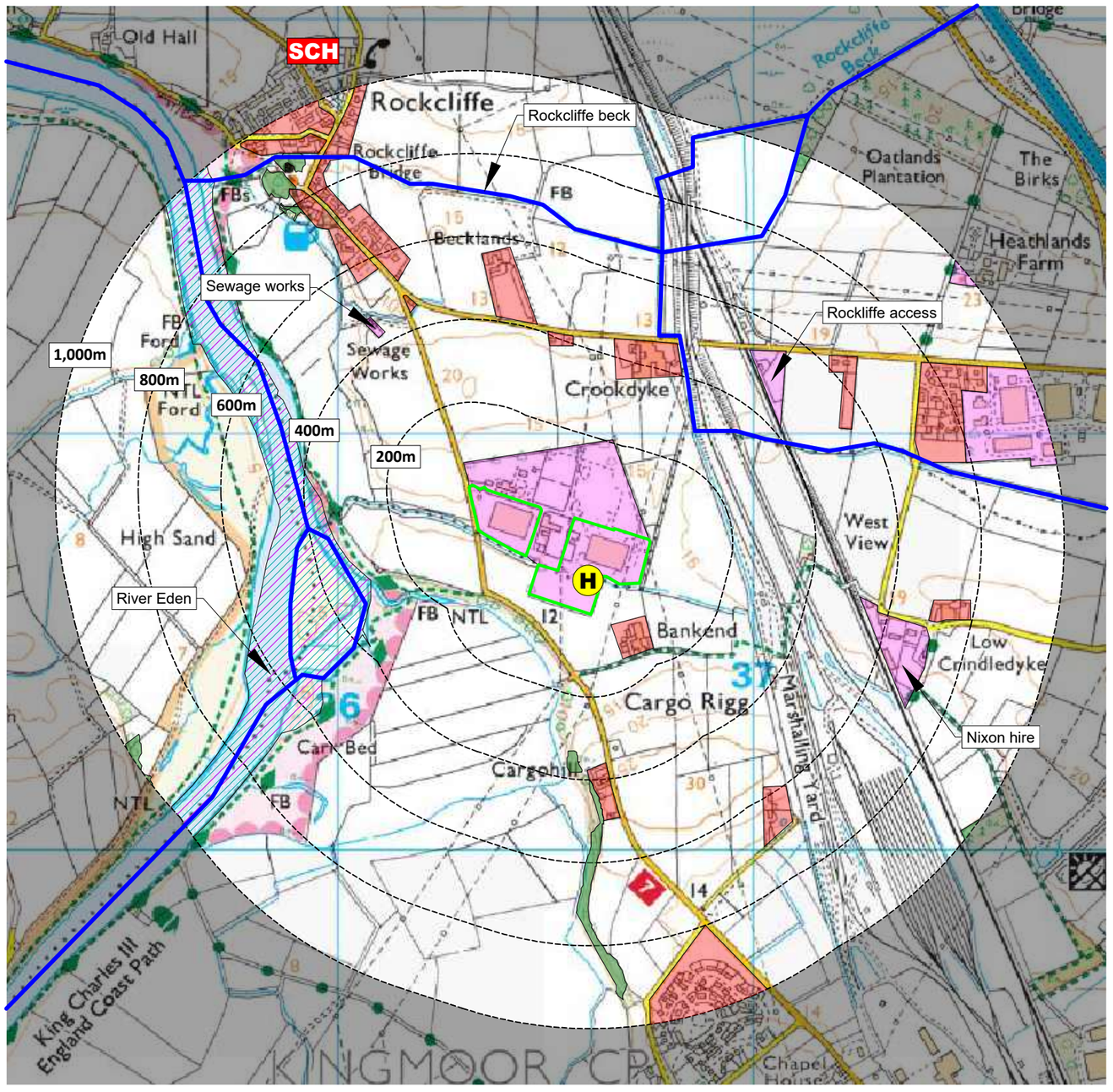
DRAWING NUMBER	SHEET NUMBER	REV	STATUS
634-004-03A	1 of 1	G	Issued

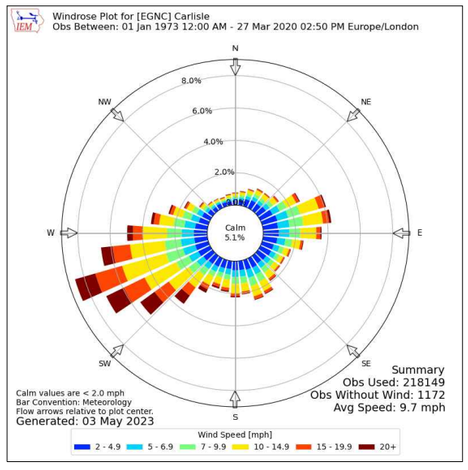
DRAWN BY	CHECKED	DATE
RS/CP/JH	RS	19.12.24

Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
t: 01606 558833 | e: sales@oaktree-environmental.co.uk

KEY:

- Permit boundary
- Main River
- Surface water body (river / stream / pond / pool / lake)
- Workplaces (includes agriculture industry, commerce and retail)
- Areas with mix of residential, retail and commercial properties
- Residential blocks
- Class A, B, C roads
- Nearest fire hydrant
- Railway line
- School
- Woodland areas
- Sites of special scientific interest
- Special areas of conservation
- Priority habitat inventory (deciduous woodland)





Compass Wind Rose for (EGNC) Carlisle Period 1973-2020
- source: Iowa State University

NOTES

1. Boundaries are shown indicatively.
2. Wind rose data shows the prevailing wind direction to be Southerly.

REVISION HISTORY

Rev:	Date:	Init:	Description:
-	12.09.24	JH	Initial drawing

N

Scale Bar (1:12,500)
0 100 200 300 400 500m

TITLE:
RECEPTOR PLAN

CLIENT:
North West Recycling Ltd

PROJECT/SITE:
Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

SCALE @ A3:	CLIENT NO:	JOB NO:
1:12,500	0634	004
DRAWING NO:	REV:	STATUS:
0634-004-04	-	Issued
DATE:	DRAWN:	CHECKED:
12.09.24	JH	RS

Oaktree Environmental
Waste, Planning & Environmental Consultants

Appendix II

Complaints Procedure and Report Form

COMPLAINTS PROCEDURE

1) Any complaints received in relation to noise and vibration will be recorded on the form below. This form will normally be completed, signed and dated by the site operator, if they are not available, the Office Manager will complete the form.

2) The name, address and telephone number of the caller will be requested.

3) Each complaint will be given a reference number.

4) The caller will be asked to give details of:
   - the nature of the complaint;
   - the time;
   - how long it lasted;
   - how often it occurs;
   - is this the first time the problem has been noticed; and,
   - what prompted them to complain.

5) The person completing the form will then, if possible, make a note of:
   - the weather conditions at the time of the problem (rain snow fog etc.)
   - strength and direction of the wind; and,
   - the activity on the site at the time the noise was detected, particularly anything unusual.

6) The reason for the complaint will be investigated and a note of the findings added to the report.

7) The caller will then be contacted with an explanation of the source of the complaint if identified and the action taken to prevent a recurrence of the problem in future.

8) If the caller is unhappy about the outcome or unwilling to identify themselves the caller will be referred to the EA.

9) Following any complaint the complaints procedure will be reviewed to see if any changes are required or if new procedures need to be put in place.

Complaints Report Form	
Date Recorded	Reference Number
Name and address of caller	
Telephone number of caller	
Time and Date of call	
Nature of complaint (noise, vibration) (date, time, duration)	
Weather at the time of complaint (rain, snow, fog, etc.)	
Wind (strength, direction)	
Any other complaints relating to this report	
Any other relevant information	
Potential reasons for complaint	
The operations being carried out on site at the time of the complaint	
Follow Up	
Actions taken	
Date of call back to complainant	
Summary of call back conversation	
Recommendations	
Change in procedures	
Changes to Noise & Vibration Management Plan	
Date changes implemented	
Form completed by	
Signed	
Date completed	

Permit Application Supporting Document Appendix VII

Accident Management Plan

ACCIDENT PREVENTION AND MANAGEMENT PLAN

Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

North West Recycling Ltd

Version:	1.2	**Date:**	21st March 2025		
Doc. Ref:	634-004-L	**Author(s):**	IA/DY	**Checked:**	NWR
Client No:	634	**Job No:**	004		

Oaktree Environmental Ltd

Waste, Planning & Environmental Consultants

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REGISTERED IN THE UK | COMPANY NO. 4850754

Review Log:

Version	Issue date	Author	Checked	Description	Date of Next Review of Document
1.0	11/09/2024	IA/DY	NWR	Draft	
1.1	29/10/2024	IA/DY	NWR	Amendment to Table 2.1	
1.2	21/03/2025	IA/DY	NWR	Drawing references updated	

CONTENTS

List of Appendices:

Appendix I - Drawings

Drawing No. 634-003-03 – Site Layout Plan (Phase 1)

Drawing No. 634-004-03A – Site Layout Plan (Phase 2)

Drawing No. 634-004-04 – Sensitive Receptors Plan

1 Introduction

1.1 This Accident Prevention and Management Plan (APMP) has been prepared as part of an Environmental Permit Application for the operation of a bespoke facility at Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW.

1.2 The site will be operated by North West Recycling Ltd in accordance with a fully comprehensive Environmental Management System (EMS) and Environmental Permit (EP).

1.3 An operational layout of the facility is shown on Drawing Nos. 634-003-03 and 634-004-03A in Appendix I of this AMP.

1.4 This document primarily considers environmental risks associated with accidents and outlines appropriate mitigation. This has been prepared to meet permitting requirements and does not aim to provide detailed Health and Safety risk assessments as required separately through the necessary legislation.

1.5 Reference is made to the site Environmental Management System (EMS)

2 Emergency and Key Contacts

2.1 Emergency and key contacts are outlined within the table below.

Table 2.1 – Key Contacts

Site Address:	Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW
Site Operator:	North West Recycling Ltd

CONTACT	DESCRIPTION	OFFICE HOURS	OUT OF HOURS
Richard Allan	**Managing Director**	**01228 672999**	**N/A**
Cumberland Infirmary **Newtown Rd, Carlisle CA2 7HY**	**Local NHS Hospital (Main)**	**01228523444**	**999**
Cumbria Constabulary **Brunel Way, Carlisle CA1 3NQ**	**Local Police Non-Emergency**	**101**	**999 or 112**
Cumbria Fire & Rescue Service **Carlisle West Community Fire Station, Brookside, Carlisle, CA2 7GW**	**Fire and Rescue Service (in Emergency Dial 999)**	**0300 303 8623**	**999**
Environment Agency	**Environmental Regulator**	**03708 506506**	**0800 807060**
Cumbria County Council **County Hall, Kendal, Cumbria, LA9 4RQ**	**County Council General Enquiries**	**01228 606060**	**999 or 112**
United Utilities	**Mains water & sewerage provider**	**0345 672 3723**	**0345 672 3723**
Oaktree Environmental Ltd **Lime House, 2 Road 2, Winsford, Cheshire CW7 3QZ**	**Specialist Advisor (Waste and Planning Issues)**	**01606 558833**	**N/A**

3 Potential environmental hazards

3.1 The table below outlines potential environmental hazards and mitigation.

Table 3.1 – Potential Environmental Hazards and Mitigation

Hazard	Pathway	Receptor	Mitigation Measures
Inadequate waste acceptance procedures	Airborne, land	Site operatives, visitors and local residents	The site will only accept conforming wastes listed in the EP onto the site. The site has strict waste acceptance procedures which have been detailed within the EMS.
Waste Storage	Airborne, land and water	Site operatives, visitors and local residents	Waste will be restricted to storage areas detailed within Fire Prevention Plan (FPP)
Operational failure of plant, equipment and infrastructure	Airborne, land and water	Site operatives, visitors and local residents.	The operator undertakes daily visual monitoring of all plant and infrastructure and has a preventative maintenance schedule in place.
Emissions from plant and equipment	Airborne, land and water	Site operatives, visitors, local residents and atmosphere.	The operator undertakes daily visual monitoring and has a preventative maintenance schedule in place to ensure that plant and equipment are maintained in accordance with manufacturers recommendations. Emission limits and monitoring requirements will apply to new building extraction system exhausts
Breach of fuel storage tank(s)	Airborne, land and water	Site operatives, visitors, local residents, surface water, groundwater, soils.	Any fuel tanks will be stored in bunded tanks and on an impermeable concrete surface.
Incompatible Substances	Airborne, land and water	Site operatives, visitors, local residents, surface water, groundwater, atmosphere and soils.	The site will only accept conforming wastes listed in the EP onto the site. The site has strict waste acceptance procedures which have been detailed within the EMS.
Failure of Main Services, i.e electricity.	Airborne	Site Operatives, visitors, local residents and atmosphere.	Operational failure procedures are detailed in the EMS

Hazard	Pathway	Receptor	Mitigation Measures
Failure to contain firewater	Land and water	Site operatives, visitors, local residents, surface water, groundwater, soils, on site buildings.	The site operates in accordance with a FPP which details procedures for the containment of fire water.
Site security failures/Vandalism	Airborne, land and water	Site operatives, visitors, local residents, surface water, groundwater, soils.	Please refer to the EMS and FPP for details of the site security. The site security will be inspected on a daily basis and any defects which impair the effectiveness of the security will be repaired to the same or better standard within a suitable timescale. All repairs will be noted on the site diary or daily inspections forms and repaired as soon as practically possible. The security measures at the site are under constant daily review under the site inspection regime. If unauthorised access becomes apparent as a problem at the site the security measures will be reviewed and improvements implemented.
Operator/Human error	Airborne, land and water	Site operatives, visitors, local residents, groundwater, surface water, soil, and atmosphere.	All staff are trained and undergo toolbox talks to reduce the impact of human error. In instances of a human error, the site may suspend operations until the issue has been rectified and the member of staff will be re-trained accordingly.
Dust from waste handling operations and from traffic on internal roads	Airborne	Site operatives, visitors, local residents, and atmosphere.	Procedures for the control of dust are detailed in the EMS.
Mud and debris on the public highway	Airborne	Local residents, road users, atmosphere.	Procedures for the control of mud and debris are detailed in the EMS.
Vehicle collision	Airborne, land and water	Site operatives, visitors and local residents.	All vehicle movements will be carried out under the supervision of an on-site operative.

4 Accident Risk and Mitigation

4.1 This section outlines potential accidents that could occur and an outline of appropriate mitigation to avoid the accident occurring and in the event an accident should occur, measures to minimise the impact.

4.2 In accordance with the relevant guidance, the likelihood and consequences of each accident/incident have been outlined using the definitions described within the following tables.

Table 4.1 – Likelihood of Accident/Incident

Abbreviation	Probability	Evaluation
1	Very likely	Could occur during any working day
2	Likely	Could occur regularly
3	Possible	Event possible
4	Unlikely	Event very unlikely

Table 4.2 – Consequences of Accident/Incident

Abbreviation	Consequences
A	Minor Injury
B	Major Injury
C	Death
D	Air Pollution
E	Water Pollution
F	Pollution of Land

In order to quantify the level of risk and identify the appropriate management procedures, the potential effects must be considered, as outlined in the table below:

Table 4.3 – Potential Effects

Abbreviation	Effect of Consequences	Management Required?
S	SEVERE	In all cases
Mo	MODERATE	In most cases
Mi	MILD	Occasionally
N	NEGLIGIBLE	No

Table 4.4 - Resultant Risk Matrix (Colour-Coded)

		Consequence			
		S	**Mo**	**Mi**	**N**
Probability	**1**	- High	- High	- Medium	- Low
	2	- High	- Medium	- Low	- Near-Zero
	3	- Medium	- Low	- Near-Zero	- N/A
	4	- Low	- Near-Zero	- N/A	- N/A

Table 4.5 – Accident Risk Assessment

Accident/Incident Description	Likelihood of Accident/ Incident	Environmental Consequences of Accident/Incident	Potential Effects	Assessment Risk Outcome (Prior to Mitigation)	Measures to Prevent Accident/Incident Occurring	Assessment Risk Outcome (with mitigation)	Measures to be Taken in Event of Accident/Incident Occurring to Reduce Harm
Fire causing the release of fire and polluting materials to air (smoke or fumes). Incident could occur as a result of arson or other incidents	3	A,B,C,D	Mo	Low	Site benefits from security fencing and gates which will be locked when the site is not in operation. Closed Circuit Television (CCTV) installed to enable 24-hour monitoring of the site. Such measures are in place to prevent unauthorised access FPP in place containing appropriate measures to reduce risk of fire during routine operation. Reference should be made to the sites FPP	Near-Zero	Reference should be made to the FPP and EMS for procedures to be taken in the event of fire to reduce harm
Vandalism	3	A,B,C,D	Mi	Near-Zero	Site benefits from security fencing and gates which will be locked when the site is not in operation. CCTV installed to enable 24-hour monitoring of the site. Such measures are in place to prevent unauthorised access	Near-Zero	Inspection of all plant and machinery on-site for damage In the event that damage to plant and machinery identified which may lead to pollution, operation of equipment will cease until damage is rectified/repaired. In the event of spillages/leaks as a result of equipment damage, spill response procedure within site EMS will be followed. Should spillages be considered likely to result in significant off-site impacts, the EA will be informed immediately. In the event of more serious event such as fire, the fire response procedures within the site FPP and EMS will be followed.
Equipment malfunction/ breakdown	3	A,B,E,F	Mi	Near-Zero	Planned Preventative maintenance schedules to be in place for all plant and machinery to be used Plant and equipment inspected regularly to ensure it remain in good working order	Near-Zero	In the event of equipment malfunction/breakdown please refer to EMS which has detailed emergency and contingency procedures outlining how the site will deal with equipment failure, breakdown and spillage. Use of plant/machinery will cease until fault can be rectified.

Accident/Incident Description	Likelihood of Accident/ Incident	Environmental Consequences of Accident/Incident	Potential Effects	Assessment Risk Outcome (Prior to Mitigation)	Measures to Prevent Accident/Incident Occurring	Assessment Risk Outcome (with mitigation)	Measures to be Taken in Event of Accident/Incident Occurring to Reduce Harm
Spillages of wastes/fuels	3	A,B,E,F	Mo	Low	The site has procedures in place for any fuel/oil storage on site which are as follows: - The containers used for the storage of hazardous fluids will be surrounded by a bund capable of containing a minimum of 110% of the volume of fuel stored in the tank. - All pipework and associated infrastructure will be enclosed within the bund. - A lock will be fitted to the tank valve to prevent unauthorised operation. - Any storage of oil will comply with the Control of Pollution (Oil Storage) (England) Regulations 2001 SI No.2954 or any subsequent legislation. - All valves and gauges on the tank will be constructed to prevent damage caused by frost. - The tanks will be clearly marked showing their capacity and product within.	Near-Zero	In the event of spillages, please refer to the site EMS for actions required.
Flooding/abnormal weather such as heavy rainfall	3	A,B,C,D,E,F	Mo	Low	Site has suitable drainage system in place. Site is located within a Flood Zone 1 and therefore has a low probability of flooding from rivers and the sea. The operator will set up a notification alert with the Met office which ensures mitigation can be put in place prior to an extreme weather event.	Near-Zero	Please refer to the sites EMS which details the procedures taken in the event of high winds, poor visibility, droughts and high rainfall or flood events. The site will cease operations during extreme weather events.
Explosion Zones	3	A,B,C,D,E,F	S - Mo	Medium	Given the nature of the process, there is unlikely to be the requirement for any explosion zones.	Low	In the event of an emergency i.e. an explosion please refer to the EMS which has detailed emergency and contingency procedures outlining how the site will deal with an emergency.

5 Reporting

5.1 All incidents/ accidents are responded to promptly with a clear step by step procedure. This includes informing the site management and the emergency services of the incident.

5.2 In addition to obligations imposed by RIDDOR '13 (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013) the permit holder will notify the EA of any serious injuries to employees of North West Recycling Ltd, other site users or members of the public arising as a result of operations on site. Minor injuries such as cuts and grazes etc. will be recorded in the accident book on site. Separate procedures will be used for different types of emergency. An emergency at the site is defined by the site management as follows:

"Any incident which is likely to result in harm to human health or pollution of the environment or serious breach of permit conditions and serious detriment to the amenities of the locality."

5.3 For all emergency situations, the deposit of any further waste will be suspended where necessary to allow action to be taken safely. If necessary, staff and other users of the site will be evacuated to an area which is a safe distance away from the hazards. Staff handling the emergency will be provided with and trained to use the necessary PPE (personal protective equipment) unless the manager instructs them that the hazard is too severe and outside help is needed from the emergency services or specialist waste contractors. A visitor's book will be kept to check who is on site at all times.

6 Training

6.1 Staff Training

6.1.1 Operational staff will be subject to site inductions which includes basic emergency procedures by site management. If necessary, a third-party consultant will be contacted to carry out additional training.

6.1.2 A full test (drill) of the controls and procedures in this document will be carried out every 12 months to test that the plan works. The outcome and any follow up training for staff will be documented in the site diary and relevant forms in the EMS.

6.1.3 Further details on training are detailed within the EMS.

6.2 Toolbox talks

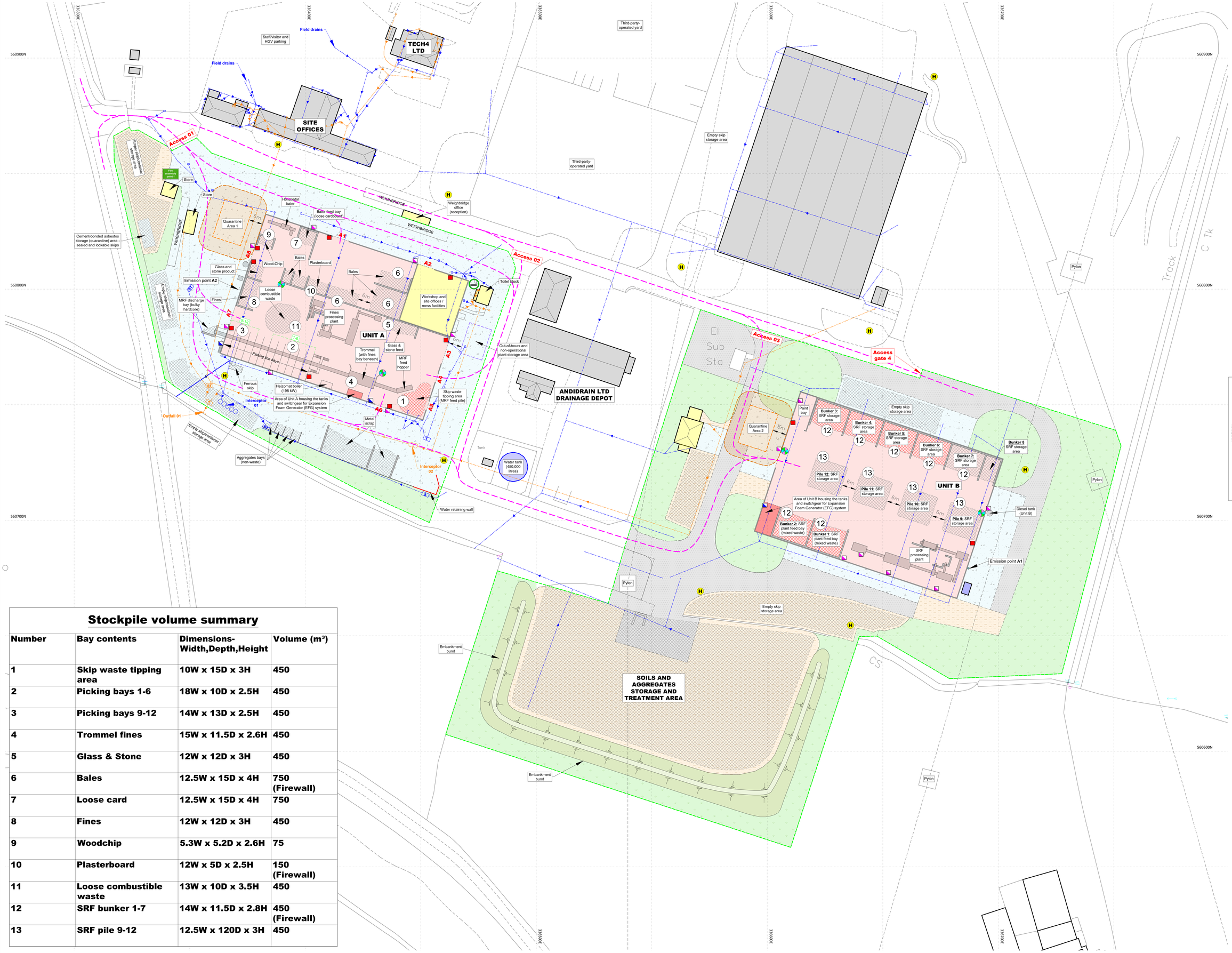
6.2.1 All operational staff including will receive training/toolbox talks by trained site management to minimise the chance of an accident occurring, which will also include the procedures within other management plans.

7 Review of AMP

7.1 This AMP will be reviewed annually, or sooner in the event of significant accident/incident.

Appendix I

Drawings



Stockpile volume summary

Number	Bay contents	Dimensions- Width,Depth,Height	Volume (m³)
1	Skip waste tipping area	10W x 15D x 3H	450
2	Picking bays 1-6	18W x 10D x 2.5H	450
3	Picking bays 9-12	14W x 13D x 2.5H	450
4	Trommel fines	15W x 11.5D x 2.6H	450
5	Glass & Stone	12W x 12D x 3H	450
6	Bales	12.5W x 15D x 4H	750 (Firewall)
7	Loose card	12.5W x 15D x 4H	750
8	Fines	12W x 12D x 3H	450
9	Woodchip	5.3W x 5.2D x 2.6H	75
10	Plasterboard	12W x 5D x 2.5H	150 (Firewall)
11	Loose combustible waste	13W x 10D x 3.5H	450
12	SRF bunker 1-7	14W x 11.5D x 2.8H	450 (Firewall)
13	SRF pile 9-12	12.5W x 120D x 3H	450

NOTES

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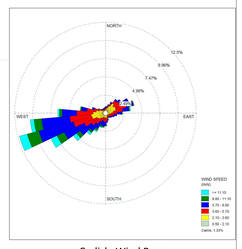
REVISION HISTORY

Rev:	Date:	Init:	Description:
-	18.02.22	RS	Initial drawing
A	18.02.22	RS	Client comments
B	14.02.22	RS/CP	EA comments
C	04.01.24	JH	Amendment
D	09.02.24	JH	Flue added
E	18.04.24	JH	Amendment
F	20.09.24	JH	Layout amendment
G	23.09.24	JH	Drainage added

KEY:

- Permit boundary
- Storage areas (general)
- Storage areas benefiting from Expansion Foam Generator (EFG) coverage
- Sealed buildings
- Concreted area
- Stone surface (free-draining)
- Other on-site buildings (offices, workshop, etc.)
- Tarmac surfacing
- Unsurfaced areas (grass / vegetation)
- Quarantine areas (with 6m buffer zones)
- Fire fighting equipment (extinguishers, etc.)
- Mains water
- Access routes for emergency vehicles
- Fire alarm call points
- Designated smoking area
- Penstock / shut-off valve for use in event of a fire or spillage for surface water drainage containment
- On-site fire hydrants (on 100mm and 200mm mains)
- Radiometric Thermal Camera & Monitor (RTCM)
- Indicative surface & roof drainage
- Indicative combined drainage
- Drainage fall direction
- T / T — Tanks
- S / S — Sump
- ST / ST — Silt trap
- Manhole
- Gully



Carlisle Wind Rose

Scale Bar (1:500)
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Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
LAYOUT & FIRE PLAN (PHASE 1)

CLIENT
North West Recycling Ltd

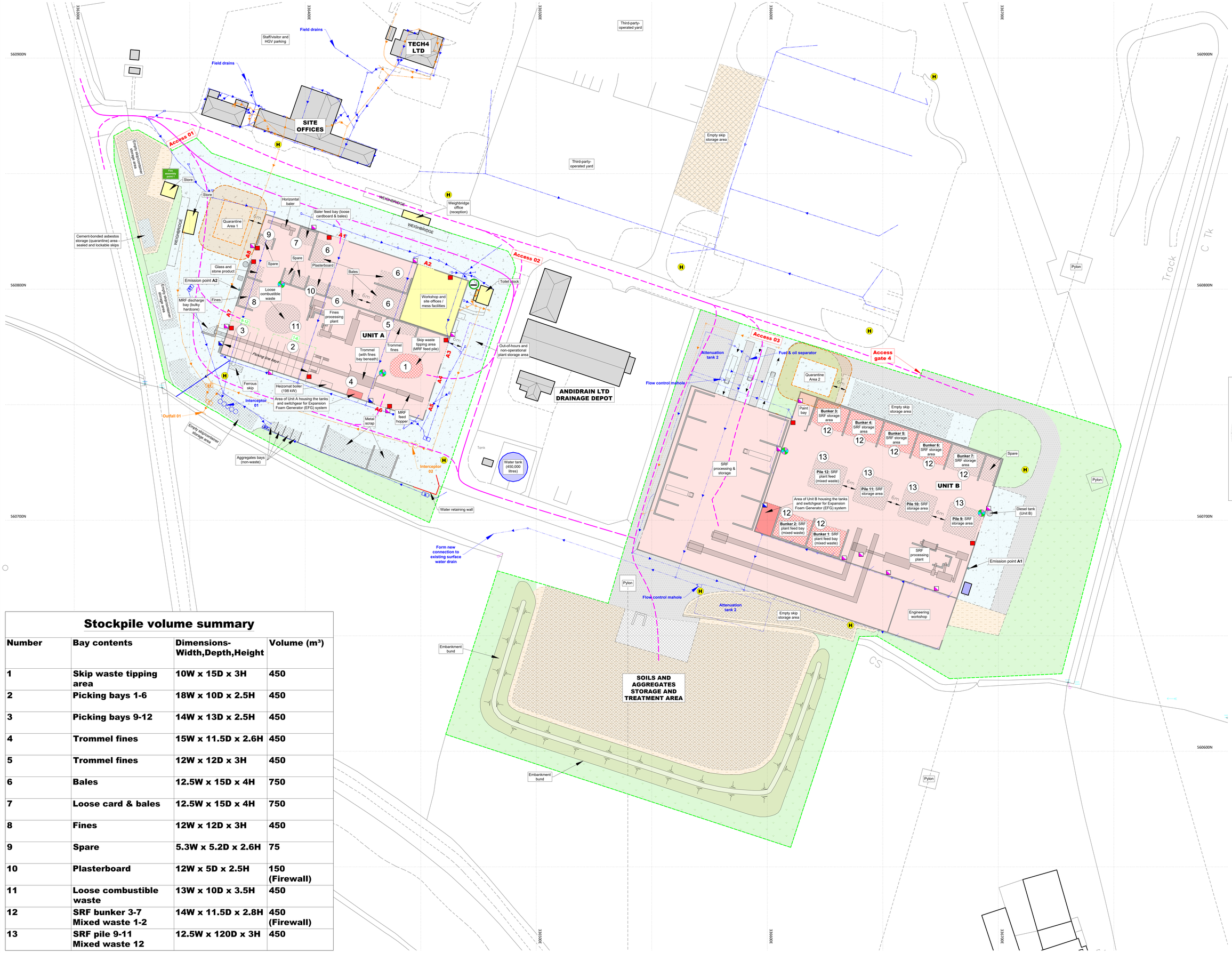
PROJECT/SITE
Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

SCALE @ A0	CLIENT NO	JOB NO
1:500	634	003

DRAWING NUMBER	SHEET NUMBER	REV	STATUS
634-003-03	1 of 1	G	Issued

DRAWN BY	CHECKED	DATE
RS/CP/JH	RS	23.09.24

Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
t: 01606 558833 | e: sales@oaktree-environmental.co.uk



Stockpile volume summary

Number	Bay contents	Dimensions-Width,Depth,Height	Volume (m³)
1	Skip waste tipping area	10W x 15D x 3H	450
2	Picking bays 1-6	18W x 10D x 2.5H	450
3	Picking bays 9-12	14W x 13D x 2.5H	450
4	Trommel fines	15W x 11.5D x 2.6H	450
5	Trommel fines	12W x 12D x 3H	450
6	Bales	12.5W x 15D x 4H	750
7	Loose card & bales	12.5W x 15D x 4H	750
8	Fines	12W x 12D x 3H	450
9	Spare	5.3W x 5.2D x 2.6H	75
10	Plasterboard	12W x 5D x 2.5H	150 (Firewall)
11	Loose combustible waste	13W x 10D x 3.5H	450
12	SRF bunker 3-7 Mixed waste 1-2	14W x 11.5D x 2.8H	450 (Firewall)
13	SRF pile 9-11 Mixed waste 12	12.5W x 120D x 3H	450

NOTES

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REVISION HISTORY

Rev:	Date:	Init:	Description:
-	31.07.24	RS/JH	Initial drawing
A	01.08.24	JH	Amendment
B	20.08.24	JH	Emission point added
C	28.08.24	JH	Table added
D	30.08.24	JH	Amendment
E	23.09.24	JH	Drainage added
F	26.09.24	JH	Table amendment
G	19.12.24	JH	Client comments

KEY:

- Permit boundary
- Storage areas (general)
- Storage areas benefiting from Expansion Foam Generator (EFG) coverage
- Sealed buildings
- Concreted area
- Stone surface (free-draining)
- Other on-site buildings (offices, workshop, etc.)
- Tarmac surfacing
- Unsurfaced areas (grass / vegetation)
- Quarantine areas (with 6m buffer zones)
- Fire fighting equipment (extinguishers, etc.)
- Mains water
- Access routes for emergency vehicles
- Fire alarm call points
- Designated smoking area
- Penstock / shut-off valve for use in event of a fire or spillage for surface water drainage containment
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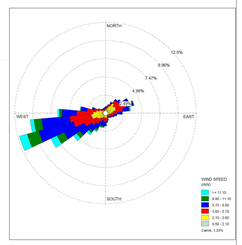
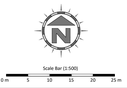
- Indicative surface & roof drainage
- Indicative combined drainage
- Drainage fall direction
- T / T Tanks
- S / S Sump
- ST / ST Silt trap
- Manhole
- Gully



Carlisle Wind Rose



Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
LAYOUT & FIRE PLAN (PHASE 2)

CLIENT
North West Recycling Ltd

PROJECT/SITE
Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

SCALE @ A0	CLIENT NO	JOB NO
1:500	634	004

DRAWING NUMBER	SHEET NUMBER	REV	STATUS
634-004-03A	1 of 1	G	Issued

DRAWN BY	CHECKED	DATE
RS/CP/JH	RS	19.12.24

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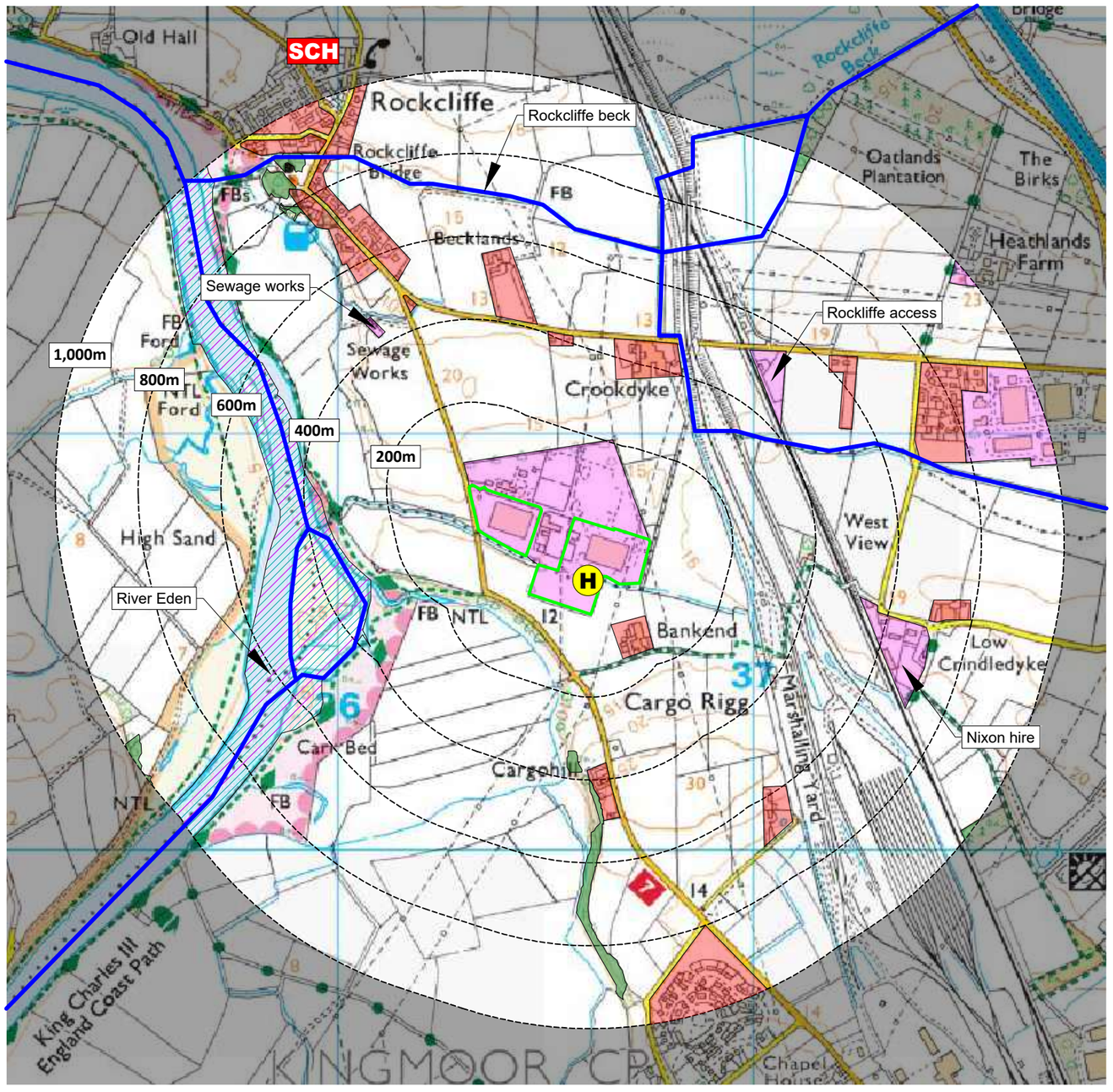
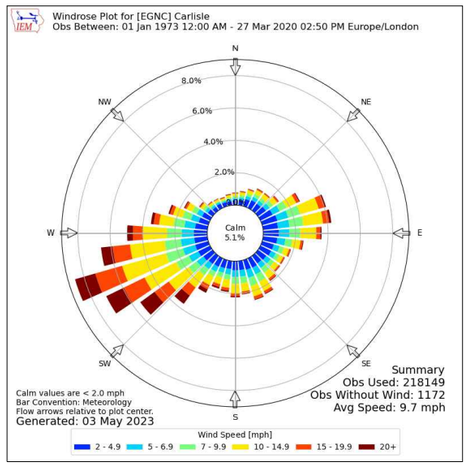
t: 01606 558833 | e: sales@oaktree-environmental.co.uk

KEY:

- Permit boundary
- Main River
- Surface water body (river / stream / pond / pool / lake)
- Workplaces (includes agriculture industry, commerce and retail)
- Areas with mix of residential, retail and commercial properties
- Residential blocks
- Class A, B, C roads
- Nearest fire hydrant
- Railway line
- School
- Woodland areas
- Sites of special scientific interest
- Special areas of conservation
- Priority habitat inventory (deciduous woodland)





Compass Wind Rose for (EGNC) Carlisle Period 1973-2020
- source: Iowa State University

NOTES

1. Boundaries are shown indicatively.
2. Wind rose data shows the prevailing wind direction to be Southerly.

REVISION HISTORY

Rev:	Date:	Init:	Description:
-	12.09.24	JH	Initial drawing

N

Scale Bar (1:12,500)
0 100 200 300 400 500m

TITLE:
RECEPTOR PLAN

CLIENT:
North West Recycling Ltd

PROJECT/SITE:
Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

SCALE @ A3:	CLIENT NO:	JOB NO:
1:12,500	0634	004
DRAWING NO:	REV:	STATUS:
0634-004-04	-	Issued
DATE:	DRAWN:	CHECKED:
12.09.24	JH	RS

Oaktree Environmental
Waste, Planning & Environmental Consultants

Permit Application Supporting Document Appendix VIII

Environmental Risk Assessment

ENVIRONMENTAL RISK ASSESSMENT

Units A and B, Rockcliffe Est, Carlisle, CA6 4RW

North West Recycling Limited

Version:	1.1	**Date:**	21st March 2025		
Doc. Ref:	634-004-D	**Author(s):**	IA	**Checked:**	DY
Client No:	634	**Job No:**	004		

Oaktree Environmental Ltd

Waste, Planning & Environmental Consultants

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Tel: 01606 558833 | E-Mail: sales@oaktree-environmental.co.uk | Web: www.oaktree-environmental.co.uk
REGISTERED IN THE UK | COMPANY NO. 4850754

Document History:

Version	Issue date	Author	Checked	Description
1.0	10/09/2024	IA	DY	Application copy
1.1	21/03/2025	IA	DY	Revised to include reference to DMP

CONTENTS

List of Appendices:

Appendix I - Receptor Plan

1 Introduction

1.1 This Environmental Risk Assessment (ERA) considers the potential and actual risks associated with the use of the site at Units A and B, Rockcliffe Est, Carlisle, CA6 4RW.

1.2 The site will be operated by North West Recycling Limited in accordance with a fully comprehensive Environmental Management System (EMS) and Bespoke Environmental Permit (EP).

1.3 All site staff should be provided with a copy of this ERA and be aware of where it is located on site.

1.4 All environmental risks identified in this document should be acted upon accordingly by site management to ensure all environmental risks can be appropriately managed/controlled.

1.5 This document primarily considers environmental risks associated with the site. This does not aim to provide detailed Health and Safety risk assessments as required separately through the necessary legislation.

1.6 The EP is required for the storage prior to removal and treatment of waste. Waste treatment processes on site may include the following:

- Compacting (by loading shovel/360° excavator)
- Sorting (with loading shovel/360° excavator or by hand)
- Screening (by using appropriate mechanical screening plant and equipment)
- Separation (by using appropriate mechanical screening plant and equipment)
- Shredding (by using appropriate plant and equipment)
- Crushing (by using appropriate plant and equipment)
- Baling (by using appropriate plant and equipment)
- Magnetic separation of ferrous metals
- Cutting (using hand-held equipment)
- Blending (by loading shovel / 360° tracked excavator and trommel)

2 Site Receptors

2.1 Receptor Plan

2.1.1 A Receptor Plan (Drawing No. 634-004-04) has been provided to highlight all key receptors within 1 km of the site as is shown in Appendix I. The receptors highlighted are those which are considered to be at risk from the site.

2.2 List of Receptors

2.2.1 The key receptors shown by the receptor plan are detailed within the table below.

Table 2.1 – Distances to Selected, Representative Sensitive Locations

Receptor Identifier	Receptor	Receptor Type	Direction from Site	Approximate distance from site boundary (m)
1	Residential Properties (Bank End and Holme View)	Residential	South/South-East	120 - 400
2	Residential Properties (West View and Middle Farm)	Residential	East	400-750
3	Residential Properties (Meldrun House and Crookdyke)	Residential	North	370
4	Residential Property (Shapwath)	Residential	North-North-West	560
5	River Eden	Ecological	West	450
6	River Eden and Tributaries Site of Special Scientific Interest (SSSI) and River Eden Special Area of Conservation (SAC)	Ecological	West	450
7	Commercial and industrial units	industrial	Various	10-1000
8	Priority habitat (woodland)	Ecological	South, South-West, North-North-West	380-950

3 Environmental Risk Assessment Model

3.1 Fundamental considerations

3.1.1 **Source/Hazard:** A property or situation that in particular circumstances could lead to harm.

3.1.2 **Consequences:** The adverse effects or harm as the result of realising a hazard which causes the quality of human health or the environment to be impaired in the short or long term.

3.1.3 **Risk:** A combination of the probability of occurrence of a defined hazard and the magnitude of the consequences of the occurrence.

3.2 Pathway

3.2.1 Important in the assessment of a particular risk(s) and to inform the subsequent management of the risk(s) is the identification of the pathway(s) through which the risk may affect the identified receptor(s). The following are examples of pathways:

- Air
- Ground
- Water
- Direct contact / exposure

3.3 Consequences

3.3.1 The following table highlights the consequences of the hazard(s) identified and the abbreviations for each as used in the Risk Assessment Table in Section 3:

Abbreviation	Consequences
A	Minor Injury
B	Major Injury
C	Death
D	Air Pollution
E	Water Pollution
F	Pollution of Land

3.4 Effects of consequences

3.4.1 In order to quantify the level of risk and identify the appropriate management procedures, the potential effects must be considered, as outlined in the table below:

Abbreviation	Consequences	Management Requirements
S	SEVERE	In all cases
Mo	MODERATE	In most cases
Mi	MILD	Occasionally
N	NEGLIGIBLE	No

3.4.2 Note: “Management” is the action required to reduce the risk of a hazard causing a problem on site. Contingency measures are procedures which are in place to reduce the consequences of a hazard.

3.5 Risk estimation and evaluation (probability/frequency of occurring hazard)

3.5.1 The following table allows the likelihood of an occurrence of an identified risk to be assessed:

Abbreviation	Probability	Evaluation
1	Very likely	Could occur during any working day
2	Likely	Could occur regularly
3	Possible	Event possible
4	Unlikely	Event very unlikely

3.6 Risk assessment outcome (combination of probability & consequence)

3.6.1 The following table shows the resultant risk of an identified hazard or potential situation. This uses the hierarchy of both probability and consequence to assess the level of risk. The level of risk determines what level of management would be required in order to reduce the risk of occurrence and/or scale.

		Consequence			
		S	**Mo**	**Mi**	**N**
Probability	**1**	High	High	Medium	Low
	2	High	Medium	Low	Near-Zero
	3	Medium	Low	Near-Zero	N/A
	4	Low	Near-Zero	N/A	N/A

3.6.2 Where the risk assessment outcome is high, first-level management of the risk is essential, i.e. removal of hazard, implementation of major infrastructure/structural design measures to contain the risk/hazard and company policy changes to incorporate the management of the risk. All risk management measures must be supplemented with detailed induction training, spot training and tool-box talks to ensure all site staff and users are made fully aware of the risk/hazard, all potential consequences and necessary management and contingency procedures.

3.6.3 Where the risk assessment outcome is medium, the management of the risk should be tackled by management or delegates. If removal of the hazard is not possible, management will normally be met through implementing minor structural design measures or by imposing procedures for the prevention of occurrences which will be conveyed to all site staff through the appropriate training, including any contingency measures/procedures.

3.6.4 Where the risk assessment outcome is low, the management of the risk can be done wholly through appropriate training to site staff including any contingency measures/procedures.

3.6.5 Where the risk assessment outcome is near-zero, site staff should be made aware of the possibility of an occurrence and contingency measures should be readily available to all staff should they be required.

4 Risk assessment table

4.1 The following pages contain the site-specific risk assessment for the site with appropriate remedial actions, recommendations and comments included for each identified hazard, potential contaminant or situation.

4.2 As discussed in Section 3.6 above, all situations which identify a risk from Low –High should be incorporated into the staff/visitor training schedule, where appropriate and acted on as required.

SEE TABLES BELOW

Table 4.1 – Risk Assessment Table

Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments
Dust / particulates	Site surfaces (dry and windy weather) Reception of mixed HCI and C & D waste Loading of mixed and Construction & Demolition waste into mechanical treatment plant Operating mechanical treatment plant External stockpiles Mechanically treating mixed waste using shredders, separators and blowers Settlement of dust of processing plant Droughts or water bans leading to a water shortage Malfunction of automated suppression systems	Air	Receptors shown in Table 2.1 and on Drawing No. 634-004-04 Site personnel/visitors	A, B, D, E	Mo	2	Med	Reference should be made to the operator's Dust Management Plan (document ref: 634-004-H) for details of dust control procedures/measures to be used on-site.
Odour	Stored waste Poor housekeeping leading to waste becoming trapped in site surfaces, storage bays or buildings Dry/hot weather conditions exceeding three dry days following a period of wet weather including a combination of both Prevailing wind to towards residential receptor locations Staff negligence leading to odour releases from unauthorised waste acceptance and treatment	Air	Receptors shown in Table 2.1 and on Drawing No. 634-004-04	A, D	Mi to Mo	3	Low – near zero	Reference should be made to the operator's Odour Management Plan (doc ref: 634-004-I) for details of odour control measures to be implemented on-site.

Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments
Litter	Vehicles delivering / removing and waste during dry and windy weather conditions including unsheeted / poorly sheeted skips on delivery / removal vehicles Poor or faulty storage containment i.e. bays, damaged skips/containers Poor housekeeping Staff negligence leading to litter escaping off site Winds exceeding 4 or above on the Beaufort Scale meaning litter could be blown around on site or exceed fences.	Air	Receptors shown in Table 2.1 and on Drawing No. 634-004-04	A to C E,F	Mo	3	Low	All drivers will ensure their skips / containers are securely sheeted / contained prior to carriage of waste loads. Daily inspections for litter will be carried out for the presence of windblown litter and operatives will be instructed to collect the litter and place it in a skip for disposal/recovery before the end of the working day. In any event, all light waste will be placed in skips before the end of the working day. Regular checks of the areas immediately beyond the site boundary will be carried out by site operatives. The site benefits from buildings to house incoming wastes which will prevent wind blowing material around and potentially off site. All tipping of waste on reception will take place inside the transfer buildings. Concrete panel walls/bays adjacent to/around external stockpiles which have litter potential. No light waste likely to cause litter will be stored externally. All vehicles entering and leaving the site will be sheeted to comply with the requirements of the Duty of Care legislation. Customers will be told not to overload skips.
Noise/vibration	Plant and machinery Operating plant Tipping / loading waste into vehicles	Air	Receptors shown in Table 2.1 and on Drawing No. 634-004-04 Site personnel/visitors	A, D	Mo	3	Low	Reference should be made to the operator's Noise and Vibration Management Plan (doc re: 634-004-N) for details of noise control measures to be implemented on-site.
Vermin causing leptospirosis and other respiratory diseases	Poor housekeeping Staff negligence leading to acceptance of unauthorised waste giving rise to pests Storing trade waste bins for excessive time periods	Water, direct contact with waste	Receptors shown in Table 2.1 and on Drawing No. 634-004-04 Site personnel/visitors	A to C	Mo	3	Low	Wear PPE - gloves and masks as appropriate. Site inspections daily. Any wastes considered unsuitable after deposit will be assigned to the quarantine skip/area. Pest controller called in the event of pests being present at the site or complaints received from receptors. Refence should be made to operator's EMS for pest control procedures.

Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments
Fire/ smoke / particulates	Storage of wastes Combustion of wastes Arson or vandalism Faulty plant or equipment Electrical appliances and cabling Discarded smoking materials Open burning on site or on adjacent sites Overheating of stored waste Sparks from loading buckets/shovels Hot works Loose material build up around Plant/machinery and exhausts Hot loads Other combustible non-waste materials on or near the site not mentioned above Batteries within Waste deposits Visitors or contractors Reaction between wastes “tramp” metal Leaks and spillages	Air, direct contact	Receptors shown in Table 2.1 and on Drawing No. 634-004-04 Site personnel/visitors	A TO F	Mo to S	3	Medium	Reference should be made to the operator’s Fire Prevention Plan. No fires are permitted on site. No waste will be burnt on site. Good site security.

Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments
Vehicle collision/ accident	Poor visibility Spillages of oils/fluids causing vehicles to skid Lack of PPE worn by staff Staff negligence i.e. mobile plant operators Excessive waste storage causing collapse of stored materials / falling materials and reducing accessibility around the site	Direct contact	Receptors shown in Table 2.1 and on Drawing No. 634-004-04 Site personnel/visitors Vehicle users Pedestrians	A TO F	Mi to S	3	Medium to near zero	Good housekeeping/ vehicle management. Stockpile management. An accident logbook should be kept for all incidents. Encouragement for staff for greater number of “accident-free days” to encourage a safer working environment. HSE compliant risk assessments for all site activities to identify situations which may lead to harm for site users (employees, visitors and management). Ensure all free-standing waste storage areas are in the correct locations and access areas are kept clear. Appropriate signage throughout the site. Vehicle speed restricted on-site. Staff training procedures in place, as detailed in the site EMS.

Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments
Leachate	Stored wastes	Ground	Receptors shown in Table 2.1 and on Drawing No. 634-004-04 Site personnel/visitors	E, F	Mi to S	3	Medium to near zero	All mixed waste with leachate potential is stored on an impermeable concrete surface with a sealed drainage system. All wastes which are liable to give rise to contamination will be removed from site if the site is not secure or operations at the site are suspended. Regular (minimum daily) checks of site surface infrastructure. Any spillages identified will be dealt with in accordance with spillage procedures and sill kits are available at the site. All maintenance/housekeeping are listed on daily record/inspection forms. The inspection form will be completed by a person who is familiar with the requirements of the EMS and EP for the site. All details of defects, problems and repairs carried out will be recorded on the form on the day that each event occurs. Detailed comments may also be recorded in a site diary. All repairs will be carried out as soon as practically possible. All employees are given induction training and subsequent regular training to identify those waste types which are permitted for acceptance at the site under the site's EP and those wastes which are not. This will include specific training to identify those common wastes which may be found following deposit and are not permitted at the site and will also include more obscure wastes and how to handle these wastes safely. All employees are advised that they should refer any unrecognisable or unknown wastes to senior management, who should, in turn, follow procedures outlined in the EMS and/or contact the EA to agree a suitable method for removal.
Impact/injury	Collapse of stored materials/ falling materials	Direct contact	Site personnel/ visitors	A TO C	Mi to S	3	Medium to near zero	Storage heights will be kept to a minimum and stored wastes/products will be within bays/containers. Drop heights will always be kept to a minimum. Appropriate PPE issued to all site staff and available in the main site office. Staff training and handling procedures in place. Appropriate signage throughout the site. Dedicated parking areas for HGV's and smaller vehicles.

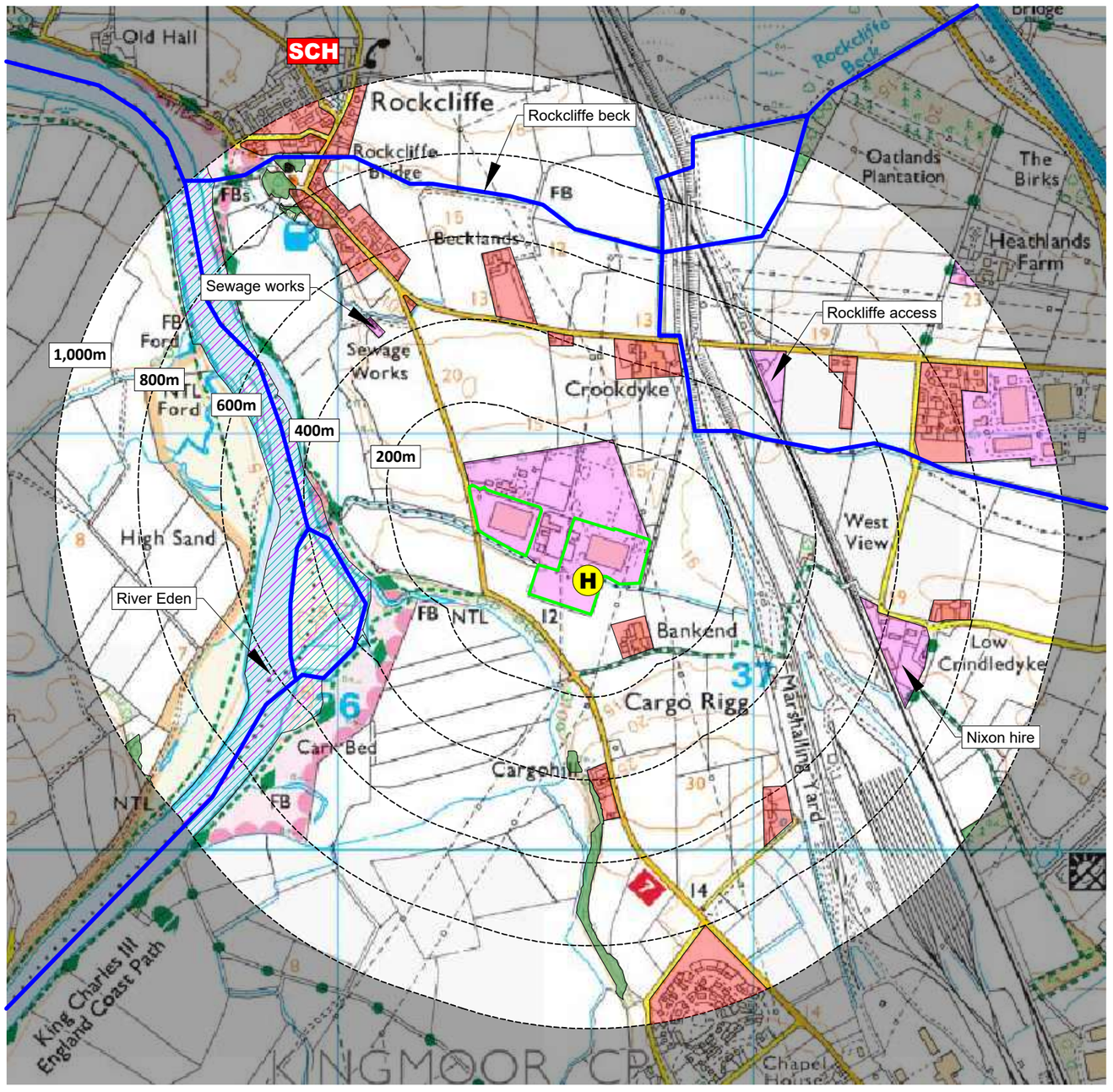
Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments
Hydrocarbons including release of gases/fumes/ vapours/ volatiles	Spills from fuel tanks Drips when refuelling During delivery Leakage from stored drums Fixed and mobile plant malfunction Mixing of waste/ chemicals Spillage of chemicals Overturned vehicle plant/plant failure Reaction between stored wastes Poor housekeeping Staff negligence leading to acceptance of unauthorised waste Defects to the concrete surfaces storing waste Defects to the underground storage tanks	Ground - direct contact, ingestion Inhalation (of volatiles)	Receptors shown in Table 2.1 and on Drawing No. 634-004-04 Site personnel/visitors	A, B, D, E, F	Mi to S	3	Medium to near zero	Fuel storage procedures shown in the site EMS. All plant manoeuvring takes place on an impermeable concrete surface with sealed drainage. The site is surfaced with concrete and has a sealed drainage system. Where plant is operated; drip trays will be available to ensure that fuels are contained. Reference should be made to the FPP in relation to preventative maintenance checks to reduce the likelihood of fixed or mobile plant failure which is source of most fires from waste sites. Any spillages identified will be dealt with in accordance with the spillage procedures outlined in the EMS. Dedicated mobile quarantine skip for intercepted l wastes found during initial inspections ensuring isolation and quick removal off site. The skip may be positioned in various positions on the site. Very little potential for hydrocarbons to be released from site given the wastes accepted and stored i.e. no ELVs containing hazardous fuels, liquids or hazardous engine components. Ensure all waste storage areas are stored as per the waste storage table and locations shown on Drawing No. 634-003-03 and 634-004-03A to reduce the risk reactions of stored waste, fire and collisions between plant causing release of fumes. Waste storage/treatment is undertaken on an impermeable concrete surface with sealed system. Sealed tanks where potentially contaminated water drains to are checked weekly or daily in heavy rainfall events.
Point source emissions to air	Extraction systems serving units A and B	Air	Receptors shown in Table 2.1 and on Drawing No. 634-004-04 Site personnel/visitors	A, B, D, E	Mo	2	Med	Baghouse filtration system and activated carbon to be used to abate emissions. Compliance with BAT based emission limits for particulate matter and Volatile Organic Compounds. Periodic monitoring required to demonstrate compliance with limits. Residual emissions released via elevated flues for dilution and dispersion of residual emissions. refence should be made to the Emissions Modelling Assessment submitted as part of permit application which has demonstrated no significant impacts at relevant receptor locations as a result of residual emissions.

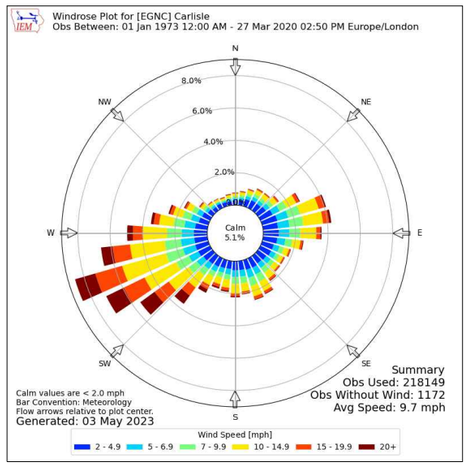
Appendix I

Receptor Plan

KEY:

- Permit boundary
- Main River
- Surface water body (river / stream / pond / pool / lake)
- Workplaces (includes agriculture industry, commerce and retail)
- Areas with mix of residential, retail and commercial properties
- Residential blocks
- Class A, B, C roads
- Nearest fire hydrant
- Railway line
- School
- Woodland areas
- Sites of special scientific interest
- Special areas of conservation
- Priority habitat inventory (deciduous woodland)





Compass Wind Rose for (EGNC) Carlisle Period 1973-2020
- source: Iowa State University

NOTES

1. Boundaries are shown indicatively.
2. Wind rose data shows the prevailing wind direction to be Southerly.

REVISION HISTORY

Rev:	Date:	Init:	Description:
-	12.09.24	JH	Initial drawing

N

Scale Bar (1:12,500)
0 100 200 300 400 500m

TITLE:
RECEPTOR PLAN

CLIENT:
North West Recycling Ltd

PROJECT/SITE:
Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

SCALE @ A3:	CLIENT NO:	JOB NO:
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12.09.24	JH	RS

Oaktree Environmental
Waste, Planning & Environmental Consultants

Permit Application Supporting Document Appendix IX

Emissions Modelling Assessment

EMISSIONS MODELLING ASSESSMENT

North West Recycling Ltd

Version:	1.2	**Date:**	21/03/2025		
Doc. Ref:	634-004-O	**Author(s):**	DY	**Checked:**	DY
Client No:	634	**Job No:**	004		

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Version	Issue date	Author	Checked	Description
1.0	24/09/2024	DY	DY	Draft for client comment
1.1	29/10/2024	DY	DY	Application copy
1.2	21/03/2025	DY	DY	Drawings amended

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1 Introduction

1.1 Background and Context of Assessment

1.1.1 An emissions modelling assessment has been undertaken in support of an Environmental Permit (EP) Variation Application being submitted for a waste recycling facility located at North West Recycling Limited, Units A and B, Rockcliffe Industrial Estate. The assessment has been undertaken to predict the potential air quality impacts at sensitive receptor locations as a result of residual emissions from plant to be used on site.

1.2 Site Location

1.2.1 Reference should be made to Appendix I for a site location plan. The site is an existing waste recycling site. The approximate National Grid Reference for the site is 336545, 560752.

1.3 Proposed Activities and Environmental Context

1.3.1 An EP is already held for the operation of a waste recycling facility at the site. An application is being submitted to vary the existing EP to include an installation activity listed under Schedule 1 Part 2 of The Environmental Permitting (England and Wales) Regulations 2016, specifically Section 5.4 Part A(1)(b)(ii) – Pre-treatment of waste for incineration or co-incineration.

1.3.2 In order to meet required Best Available Techniques (BAT), the operator will be installing an extraction system to Unit A and B, incorporating a bag house filter and activated carbon filter for abatement of dust and Volatile Organic Compounds (VOCs) from the proposed processes. An external flue will be installed to extract residual emissions from the system on both units.

1.3.3 Potential long and short-term air quality impacts associated with residual emissions from the extraction systems have been quantified within this report through prediction of resulting ground level pollutant concentrations which have been compared to the relevant Air Quality Limit Values (AQLVs) and Environmental Assessment Levels (EALs).

2 Air Quality Standards

2.1 Air Quality Limit Values

2.1.1 Table 2.1 contains the AQLVs which are relevant to this assessment. These have been obtained from the Air Quality Standards Regulations 2010 (as amended) and government permitting risk assessment guidance website.

Table 2.1 - Air Quality Limit Values

Pollutant	Measured As	Purpose	Air Quality Limit Values
Particulate matter less than 10µm in aerodynamic diameter (PM_{10})	Annual mean	Protection of human health	40µg.m^{-3}
	24-hour mean	Protection of human health	50µg.m^{-3} (not to be exceeded more than 35 times per calendar year)
Particulate matter less than 2.5µm in aerodynamic diameter ($PM_{2.5}$)	Annual mean	Protection of human health	20µg.m^{-3}
Benzene	Annual mean	Protection of human health	5µg.m^{-3}

2.2 Environmental Assessment Levels

2.2.1 A list of short-term EALs relevant to this assessment are presented in the table below. These have been obtained from the government website permitting risk assessment guidance website[1].

Table 2.2 - Environmental Assessment Levels

Substance	Environmental Assessment Levels (µg.m^{-3})
	24-Hour Mean
Benzene	30

1 https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit

3 Baseline Position

3.1 Air Quality Across Carlisle City Council Area

3.1.1 Carlisle City Council (CCC) are required to undertake a review and assessment of air quality within their area of jurisdiction under Section 82 part IV of the Environment Act (1995). Local Authorities (LAs) are obligated to prepare an Annual Status Report (ASR) each year. For areas where AQLVs are not expected to be achieved, the LA will undertake further assessment. Subsequently, if AQLVs are not predicted to be met following detailed assessment, the LA must declare an Air Quality Management Area (AQMA).

3.1.2 The most recent available ASR for CCC is the 2023 Air Quality ASR[2]. Monitoring of PM_{10} and $PM_{2.5}$ is undertaken at one location within the borough via a continuous monitoring site. This is located at Morton Manor, a roadside monitoring location situated approximately 5.8km to the South-South-East of the site. Given, the location of this monitoring location, a roadside location within an urban environment, it was not considered that it would provide a suitably representative source of background data for use in the assessment and was therefore not considered further for this purpose.

3.1.3 No monitoring of benzene is undertaken by CCC at present.

3.1.4 There are currently four AQMAs declared in the CCC area of jurisdiction. However, none of these are declared for any of the pollutants relevant to this assessment and have therefore not been considered further in this assessment.

3.2 Automatic Urban and Rural Network

3.2.1 The Automatic Urban and Rural Network (AURN) is a network of air pollution monitoring stations across the UK, managed by Bureau Veritas on behalf of DEFRA. The main purpose

[2] 2023 Air Quality ASR, CCC, 2020.

of the network is to enable the government to assess air quality at different locations to aid with the implementation of suitable policy measures for protection of human health.

3.2.2 The closest AURN monitoring station to the proposed site is Morton Manor, a roadside monitoring location situated approximately 5.8km to the South-South-East of the site. Given, the location of this monitoring location, a roadside location within an urban environment, it was not considered that it would provide a suitably representative source of background data for use in the assessment and was therefore not considered further for this purpose. The next closest AURN monitoring stations are Dumfries, an urban traffic monitoring location approximately 43 km to the West-North-West of the site and Eskdalemuir, a rural background monitoring location approximately 45km to the North-North-West of the site. Given the proximity of these two monitoring locations from the site, it was not considered that they would provide a suitably representative source of background data for use in the assessment and were therefore not considered further for this purpose.

3.2.1 Non-Automatic Hydrocarbon Network

3.2.1.1 The Non-Automatic Hydrocarbon Network measures ambient benzene concentrations at various sites around the United Kingdom. However, this only includes monitoring at urban locations. As such, it was not considered that data from this network would be suitably representative of ambient air quality at the proposed site and surrounding receptor locations.

3.2.2 Automatic Hydrocarbon Network

3.2.2.1 The automatic hydrocarbon network measures ambient benzene concentration at various sites around the United Kingdom. This includes monitoring at 5 locations, 3 of which are located in rural background environments. None of these monitoring locations are in close proximity to the site, the closest being Auchencorth, located approximately 100km to the North of the site. As such, it was not considered that these sites would provide a suitable source of background data for use in this assessment.

3.3 Background Pollutant Mapping

3.3.1 The DEFRA website contains background pollutant mapping data for $PM_{2.5}$, PM_{10}, and benzene on a 1km by 1km grid square basis across the UK. This data is routinely used for assessing background pollutant concentrations where no suitably representative air pollution monitoring data exists. The archive is maintained by AEA on behalf of DEFRA. PM_{10} and $PM_{2.5}$ data is available for each grid square for the years 2018 to 2030. Background mapping of benzene is only available for 2001. Future year predictions of benzene have been calculated using the appropriate year adjustment factors contained on the DEFRA website. The table below contains background pollutant concentrations for the grid square containing the site.

Table 3.1 - Background Pollutant Mapping Data for Site Within Grid Square 336500, 550500

Pollutant	2024 Annual Mean Concentration within Grid Square Containing Site (µg.m^{-3})
PM_{10}	7.69
$PM_{2.5}$	4.84
Benzene	0.091

3.4 Summary of Background Data Used in Assessment

3.4.1 The table below summarises the background data used within this assessment. In lieu of suitably representative available monitoring data, mapped background concentrations have been used as a source of background data within the assessment.

Table 3.2 - Summary of Background Data Used in Assessment

Pollutant	Annual Mean (µg.m^{-3})	24-Hour Mean (µg.m^{-3})[(a)]	Source of Background Data
PM_{10}	7.69	9.07	DEFRA mapped background data
$PM_{2.5}$	4.84	N/A	DEFRA mapped background data
Benzene	0.091	0.11	DEFRA mapped background data

N.B (a) 24-hour mean concentration provided by multiplying 1-hour mean concentration by factor of 0.59 in accordance with relevant guidance

3.5 Sensitive Receptors

3.5.1 LAQM.TG(22) states than annual mean pollutant objectives are relevant at residential properties, schools, hospitals and care homes etc and that the 24-hour mean pollutant objectives are relevant at all locations where the annual mean objectives apply together with hotels and gardens of residential properties, but excludes locations where the exposure is expected to be shorter than 24-hours during each day.

3.5.2 The table below outlines discrete receptors included in the model. These are the closest receptors relevant in terms of the long and short term objectives considered within this assessment.

Table 3.3 - Sensitive Receptors

Receptor Identifier	Receptor Description	Receptor Type	National Grid Reference (m)	
			X	Y
R1	Meldrun House	Residential	336523.7	561219.3
R2	Meldrun House	Residential	336565.6	561218.3
R3	Crookdyke	Residential	336709.2	561191.3
R4	Station House	Residential	337015.8	561145.2
R5	Thorncroft	Residential	337191.8	561169.1
R6	Heathlands	Residential	337540.1	561369.1
R7	Residential property Near Harker Road Ends	Residential	337391	561002.5
R8	West View	Residential	337133.5	560698.1
R9	Middle Farm	Residential	337503.9	560583
R10	Bankend	Residential	336743.8	560494.5
R11	Holme View	Residential	336670.5	560252.1
R12	King Garth	Residential	335528	559853.7
R13	The kiln	Residential	335018.7	560367.6
R14	Casson Dyke Farm	Residential	334804.6	561473.5
R15	Shapwath	Residential	336188.2	561305.8
R16	Beckside Cottages	Residential	336389.4	561393.8

4 Modelling Methodology

4.1 Model Description

4.1.1 The potential air quality impacts associated with residual emissions arising from the process have been quantified using AERMOD, which is a steady state, next generation, dispersion model. AERMOD was developed jointly by the American Meteorological Society (AMS) and the United States (US) Environmental Protection Agency (EPA) Regulatory Model Improvement Committee. AERMOD is a development from the Industrial Source Complex (ISC) 3 dispersion model and incorporates improved dispersion algorithms and pre-processors to integrate the impact of meteorology and topography within the modelling output, and is approved for use in the UK by the EA. The model interface that has been used for this current assessment is Lakes Environmental ISC-AERMOD View Version 12.0.0. The model has been run using the most recent version of the AERMOD executable file, 23132. In order to improve model run times, Lakes Environmental have produced an equivalent source code to 23132, known as AERMOD parallel which enables the model to be run over multiple processors. The model was run using Lakes Environmental AERMOD MPI 23132.

4.2 Model Inputs

4.2.1 Emission Source Process Parameters

4.2.1.1 Reference should be made to Appendix I for a graphical representation of the site layout showing the point source emission locations. This includes the exhaust flues serving the proposed extraction systems serving Unit A and Unit B and the exhaust flue serving the proposed Small Waste Incineration Plant (SWIP). The proposed SWIP is located adjacent to the site and will regulated separately by the Local Authority.

4.2.1.2 The development will proceed in two phases as follows:

- **Phase 1:** The first phase will allow the operator to operate one SRF production line within Unit B which will accept 174,175 tonnes of waste/annum. The proposed waste throughput for non-installation waste activities within Unit A and external

soils and aggregates processing will be 225,825 tonnes/year, resulting in an overall throughput of 400,000 tonnes/annum across all activities on-site during Phase 1; and,

- **Phase 2:** The second phase will be to extend Unit B and install two feed lines into the single SRF production line within Unit B. This will increase the throughout in Unit B to 374,175 tonnes/annum. The throughput of the waste operations within Unit A and external soils and aggregates processing will remain at 225,825 tonnes per year. The overall site throughput will be 600,000 tonnes/annum across all activities undertaken at the site during Phase 2.

4.2.1.3 The tables below contain expected process parameters for the emission points, which is based on information provided by the operator.

Table 4.1 - Expected Emission Source Process Parameters – Emission Point A1

Process Parameter	Value
Exhaust flue NGR (X,Y)	336687.08, 560679.21
Exhaust internal diameter (m)	0.9
Exhaust flue height (m)	11.35
Expected Exhaust efflux velocity ($m.s^{-1}$)	21.38
Expected Exhaust volumetric flowrate ($m^3.s^{-1}$)	10.75
Expected Exhaust volumetric flowrate, normalised to reference conditions, dry gas, 273.15K, 101.3Kpa ($Nm^3.s^{-1}$)	10.02
Expected stack efflux temperature (K)	293
Expected moisture content of exhaust gas (v/v, %)	Unknown – assumed to be dry exhaust to provide worst case emission rates
Expected absolute stack pressure (KPa)	101.3kPa

Table 4.2 - Expected Emission Source Process Parameters – Emission Point A2

Process Parameter	Value
Exhaust flue NGR	336371.46, 560799.81
Exhaust internal diameter (m)	0.9
Exhaust flue height (m)	10.8 (Phase 1) 15.1 (Phase 2)
Expected Exhaust efflux velocity ($m.s^{-1}$)	18.89
Expected Exhaust volumetric flowrate ($m^3.s^{-1}$)	12.02

Process Parameter	Value
Expected Exhaust volumetric flowrate, normalised to reference conditions, dry gas, 273.15K, 101.3Kpa ($Nm^3.s^{-1}$)	11.2
Expected stack efflux temperature (K)	293
Expected moisture content of exhaust gas (v/v, %)	Unknown – assumed to be dry exhaust to provide worst case emission rates
Expected absolute stack pressure (KPa)	101.3kPa

Table 4.3 - Expected Emission Source Process Parameters – Small Waste Incineration Plant

Process Parameter	Value
Exhaust flue NGR	336684.61, 560784.17
Exhaust internal diameter (m)	1.04
Exhaust flue height (m)	23
Expected Exhaust efflux velocity ($m.s^{-1}$)	23
Expected Exhaust volumetric flowrate ($m^3.s^{-1}$)	19.53
Expected Exhaust volumetric flowrate, normalised to reference conditions, 11% O_2 dry gas, 273.15K, 101.3Kpa ($Nm^3.s^{-1}$)	9.84
Expected stack efflux temperature (K)	740
Expected moisture content of exhaust gas (v/v,%)	11.1
Expected oxygen content of exhaust gas, dry basis (v/v,%)	5.7
Expected absolute stack pressure (KPa)	101.3kPa

4.2.2 Pollutant Emissions

4.2.2.1 The site will be subject to emission limits contained within Commission Implementing Decision (EU) 2018/1147[3], which contains BAT conclusions for waste treatment installations. For processes including the mechanical treatment of waste with calorific value,

[3] COMMISSION IMPLEMENTING DECISION (EU) 2018/1147 Of 10 August 2018 Establishing Best Available Techniques (BAT) Conclusions For Waste Treatment, Under Directive 2010/75/EU Of The European Parliament And Of The Council.

this document contains BAT based emission limits for dust and organic compounds, where these are identified as relevant within the waste gas stream based on specific inventory.

4.2.2.2 In order to provide a precautionary assessment of potential impacts, emission rates have been based on the upper end of BAT based limits. These are summarised in the table below, with equivalent emission rates presented based on the process parameters identified above. The limits are based on reference conditions of 273.15K, 101.3kPa and after correction for moisture.

Table 4.4 – Pollutant Emission Rates Assigned in Model (Emission Points A1 and A2)

Pollutant	BAT Based Emission Limits (Normalised to 273.15K, 101.3KPa, dry gas, ($mg.Nm^{-3}$)	Pollutant Emission Rates ($g.s^{-1}$)	
		Emission Point A1	Emission Point A2
Dust	2-5	0.0501	0.0560
Total Volatile Organic Carbon (TVOC)	10-30	0.301	0.336

4.2.2.3 Emission rates for the adjacent proposed Small Waste Incineration Plant are outlined in the table below and are based on limits within Annex IV of Directive 2010/75/EU (Industrial Emissions Directive).

Table 4.5 – Pollutant Emission Rates Assigned in Model (Small Waste Incineration Plant)

Pollutant	Emission Limits (Normalised to 273.15K, 101.3KPa, dry gas, 11% Oxygen ($mg.Nm^{-3}$)	Averaging Time for Limit	Pollutant Emission Rates ($g.s^{-1}$)
Dust	10	Daily Average	0.0984
Gaseous and vaporous organic substances, expressed as total organic carbon (TOC)	10	Daily Average	0.0984

4.2.2.4 There are no ambient air quality guideline values for organic compounds. In accordance with the relevant guidance, it was assumed that TVOC/TOC emissions consist entirely of benzene. This presents a worst case assessment since it is highly unlikely that TVOC or TOC emissions would consist entirely of benzene.

4.2.2.5 A conservative assumption was been made that all dust/particulate matter emissions will comprise of PM_{10} and $PM_{2.5.}$ This provides a highly conservative assessment since it is highly unlikely that all particulate matter emitted would consist of these particle size fractions.

4.2.3 Building Downwash

4.2.3.1 Significant on-site buildings and structures and relevant adjacent structures were digitised within the model based on site layout and elevation information provided by the site operator. In accordance with government guidance, significant structures within a distance of 5L of the emission sources have been included, where L is defined as the lesser of the maximum projected building width and height. As the closest buildings to the emission points, these would be expected to have an influence on pollutant dispersion. Table 4.6 contains information on buildings/structures included within the model. Reference should be made to Appendix I for a plan showing building/structure locations and orientation. The integrated Building Profile Input Programme (BPIP) module within AERMOD was used to assess the potential impact of building downwash upon predicted dispersion characteristics. Building downwash occurs when turbulence, induced by nearby structures, causes pollutants emitted from an elevated source to be displaced and dispersed rapidly towards the ground, resulting in elevated ground level concentrations. All buildings and structures were input into the BPIP processor.

Table 4.6 - Building Inputs

Structure	Length and Width (m)	Max Height (m)
Unit A	92.50 x 63.75	8.80
Unit B (current)	93.00 x 64.00	9.35
Unit B (extension)	93.00 x 24.00	13.10
Unit B (extension)	76.00 x 45.95	13.10
Gasifier 1 (SWIP Plant)	13.60 x 10.10	11.95
Gasifier 2 (SWIP Plant)	13.60 x 10.10	11.95

4.2.4 Meteorological Data

4.2.4.1 Meteorological data used in this assessment was from Carlisle. Carlisle meteorological station is located approximately 1.5km to the East-South-East of the proposed site and it is considered that it provides suitable data for use in this assessment. Previous DEFRA guidance stated met stations within 30km of a study site to be suitable for use in dispersion modelling assessments.

4.2.4.2 Reference should be made to Appendix III for wind roses showing wind speed and direction frequency at Carlisle between 2015 and 2019.

4.2.4.3 Five years of sequential meteorological data observed between 2015 and 2019 was used within the assessment. The data provided was in ADMS format. This was converted to the required format required by AERMET using the ADMS UK to SAMSON converter, which is a tool within the AERMET processor. The AERMET processor within AERMOD was used to process the data to be site specific. US EPA guidance on processing met data for use within AERMOD states that land use up to 1km upwind from a site should be considered when determining surface roughness characteristics, whilst for Bowen ratio and albedo, land use types within a 10km by 10km area centred over the site should be considered[4]. AERMOD guidance states that albedo and Bowen ratio should be calculated as the arithmetic and geometric mean respectively of land use types over the 10km by 10km grid, not weighted by direction or distance. The Land Use Creator and AERSURFACE tool within AERMET was used to calculate the appropriate land-use characteristics, which are contained in the following table.

Table 4.7 - Parameters for Surface Roughness, Albedo and Bowen Ratio

Parameter	Directional Sector	Value
Surface Roughness	0-30°	0.165
	30-60°	0.177

[4] AERMOD Implementation Guide, USEPA, October 2023.

Parameter	Directional Sector	Value
	60-90°	0.188
	90-120°	0.222
	120-150°	0.302
	150-180°	0.122
	180-210°	0.101
	210-240°	0.127
	240-270°	0.028
	270-300°	0.174
	300-330°	0.264
	330-360°	0.145
Albedo	All	0.17
Bowen Ratio	All	0.51

4.2.5 Assessment Area

4.2.5.1 One uniform cartesian receptor grid was used to define the modelling domain. This included a high resolution grid, extended over a 4,005m by 4,005m area with a spacing of 15m in X and Y direction, centred over the emission source locations. In addition, the discrete receptors identified previously were included within the model as cartesian receptors. All receptor heights were set to 1.5m, representative of average breathing height.

4.2.6 Terrain Data

4.2.6.1 Topographical features can have a significant impact on pollutant dispersion. The site and surrounding area is relatively flat and the gradient does not generally exceed 10% between site and receptors considered within this assessment. Therefore, terrain data was not included in the model, in accordance with the relevant guidance.

4.2.7 Model Scenarios

4.2.7.1 The scenarios modelled are contained within the table below. It was assumed that the plant will be operational continuously for 24-hours per day, 365 days per year with no shut down periods which ensured a worst-case scenario. Short term AQLVs for PM_{10} are based on a number of allowable exceedences of the AQLV each calendar year. As such, it is appropriate

to model equivalent percentiles for each pollutant/scenario when assessing potential short term impacts, as outlined in the table below. The model was used to calculate relevant percentiles.

Table 4.8 – Model Scenarios

Pollutant	Modelled Scenarios
PM_{10}	Annual mean, 90.4th percentile 24-hour mean concentrations, each individual met data year
$PM_{2.5}$	Annual mean, each individual year of met data
TVOC/TOC (as benzene)	Annual mean, maximum 24-hour mean across five years of met data

4.3 Assessment of Potential Impacts

4.3.1 Methodology for Assessment of Potential Impacts at Human Receptors

4.3.1.1 In order to assess potential impacts at human receptor locations, reference has been made to the permitting air emissions risk assessment guidance on the government website.[5]

4.3.1.2 The government guidance indicates that potential impacts from a process can be considered insignificant if the following screening criteria are met for human and statutory ecological receptors:

- The long term process contribution (PC) is <1% of the long term environmental standard; and/or,
- The short term PC is <10% of the short term environmental standard.

[5] https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit.

4.3.1.3 The guidance also indicates that more detailed assessment of emissions (modelling) for a process may be required if the following criteria are met:

- The long term PC + background concentration is >70% of the long term environmental standard; and/or
- The short term process contribution is >20% (Short term environmental standard minus twice annual mean background concentration).

4.3.1.4 If any of the criteria above are met for both short and long term modelled concentrations, it can be concluded that potential impacts will be acceptable and there is no requirement for further assessment, in accordance with the relevant guidance. If the above criteria are exceeded, the Predicted Environmental Concentration (PEC) is then compared to the relevant environmental standard. If the modelling shows that the relevant standard will be met at relevant receptor locations confidence will be high that a breach of the standard will be unlikely, especially given the conservative assumptions which have been used throughout the assessment.

4.4 Model Verification and Uncertainty

4.4.1 It was not possible to verify model results as the additional extraction systems have not yet been installed.

4.4.2 There can be a significant degree in uncertainty in predications made by any atmospheric dispersion model, which needs to be considered when assessing results. Such uncertainty can arise as a result of model limitations, uncertainty in input data, including emissions estimates, meteorological data used and background pollutant concentrations used in the assessment.

4.4.3 AERMOD is a commonly used model produced by the US EPA and is approved for use in the UK by the EA. The model is well validated and the US EPA present the results of the model validation exercises undertaken on their website. These verify the output of the model in comparison to observed data for a number of scenarios, to ensure predictions are as accurate as possible. The model input code is periodically updated by the US EPA to resolve

bugs and errors and to improve the output to take account of latest knowledge. The latest AERMOD model executable file has been used to run the model for the purpose of this assessment.

4.4.4 In addition to the choice of model, the following methods used in the assessment ensures that confidence can be high that potential impacts have not been underestimated:

- Worst case modelled concentrations across 5 years of meteorological data used in assessment;
- Assumption that extraction systems will emit continuously at maximum permitted levels and be operational for 100% of each year;
- Where possible, estimation of existing background pollutant concentrations have been precautionary;
- Worst assumption that particulate matter/dust emissions will be comprised entirely of PM_{10} or $PM_{2.5}$;
- Worst case assumption that TVOC/TOC emissions consist entirely of benzene; and,
- Worst case assumptions made for receptor locations.

5 Model Results

5.1 Maximum Modelled Pollutant Concentrations

5.1.1 The tables below contain modelled pollutant concentrations at relevant sensitive receptor concentrations, with comparison to the relevant AQLVs and EALs. Maximum modelled concentrations from the five years of sequential data have been used to undertake assessment of potential impacts. Results are presented for both phases of the development. Reference should be made to Appendix IV for pollutant contour profiles.

Table 5.1 – Modelled Annual Mean Ground Level PM_{10} Concentrations at Receptor Locations – Phase 1

Receptor	Modelled PC to Annual Mean Ground Level NO_2 Concentrations (µg.m^{-3})					Maximum PC to AQLV (%)	Maximum PEC (µg.m^{-3})	Contribution of PEC to AQLV (%)
	2015	2016	2017	2018	2019			
R1	0.12364	0.11869	0.11349	0.1226	0.10959	0.31	7.81	19.53
R2	0.1353	0.12616	0.12337	0.12451	0.11956	0.34	7.83	19.56
R3	0.18278	0.17078	0.18311	0.16513	0.16888	0.46	7.87	19.68
R4	0.26633	0.2167	0.24847	0.21265	0.2137	0.67	7.96	19.89
R5	0.24699	0.20623	0.23741	0.20571	0.19506	0.62	7.94	19.84
R6	0.14212	0.12045	0.13643	0.11806	0.11123	0.36	7.83	19.58
R7	0.28021	0.25497	0.30321	0.25757	0.24436	0.76	7.99	19.98
R8	0.27775	0.25459	0.35229	0.27779	0.29631	0.88	8.04	20.11
R9	0.0937	0.07978	0.11108	0.09407	0.10083	0.28	7.80	19.50
R10	0.1193	0.11003	0.09755	0.09291	0.10252	0.30	7.81	19.52
R11	0.06676	0.07443	0.05399	0.05274	0.06633	0.19	7.76	19.41
R12	0.03955	0.06184	0.03763	0.0524	0.05256	0.15	7.75	19.38
R13	0.02981	0.04656	0.03173	0.04282	0.04484	0.12	7.74	19.34
R14	0.01036	0.0105	0.00932	0.01191	0.01361	0.03	7.70	19.26
R15	0.04924	0.05444	0.05153	0.06401	0.04833	0.16	7.75	19.39
R16	0.06271	0.06958	0.06452	0.06767	0.05964	0.17	7.76	19.40

Table 5.2 – Modelled Annual Mean Ground Level PM_{10} Concentrations at Receptor Locations – Phase 2

Receptor	Modelled PC to Annual Mean Ground Level NO_2 Concentrations (µg.m^{-3})					Maximum PC to AQLV (%)	Maximum PEC (µg.m^{-3})	Contribution of PEC to AQLV (%)
	2015	2016	2017	2018	2019			
R1	0.1181	0.11147	0.1082	0.11633	0.1044	0.30	7.81	19.52
R2	0.12948	0.11805	0.11747	0.11819	0.11404	0.32	7.82	19.55
R3	0.17596	0.16269	0.17519	0.15684	0.1601	0.44	7.87	19.66
R4	0.26356	0.21247	0.24266	0.20788	0.20871	0.66	7.95	19.88
R5	0.24287	0.20086	0.23129	0.20035	0.1905	0.61	7.93	19.83
R6	0.13905	0.11724	0.13253	0.11454	0.10844	0.35	7.83	19.57
R7	0.26588	0.24163	0.28758	0.24418	0.23264	0.72	7.98	19.94
R8	0.24232	0.22174	0.30948	0.24245	0.25882	0.77	8.00	20.00
R9	0.08234	0.07085	0.0996	0.08346	0.08906	0.25	7.79	19.47
R10	0.10468	0.09935	0.08567	0.08154	0.09211	0.26	7.79	19.49
R11	0.06599	0.07378	0.05278	0.05164	0.06491	0.18	7.76	19.41
R12	0.04004	0.06214	0.03809	0.05298	0.05318	0.16	7.75	19.38
R13	0.02966	0.04636	0.03158	0.04223	0.04467	0.12	7.74	19.34
R14	0.0108	0.011	0.00973	0.01238	0.01411	0.04	7.70	19.26
R15	0.04651	0.05186	0.04877	0.06065	0.04511	0.15	7.75	19.38
R16	0.05959	0.06612	0.06133	0.06409	0.05693	0.17	7.76	19.39

Table 5.3 – Modelled 90.4th Percentile Ground Level 24-Hour Mean PM_{10} Concentrations at Receptor Locations – Phase 1

Receptor	Modelled PC to 90.4th Percentile Ground Level 24-Hour Mean PM_{10} Concentrations (µg.m^{-3})					Maximum PC to AQLV (%)	Maximum PEC (µg.m^{-3})	Contribution of PEC to AQLV (%)
	2015	2016	2017	2018	2019			
R1	0.35726	0.35332	0.34727	0.37328	0.32296	0.75	9.44	18.89
R2	0.37627	0.3675	0.373	0.37668	0.3655	0.75	9.45	18.89
R3	0.4735	0.50619	0.50461	0.4573	0.47916	1.01	9.58	19.15
R4	0.54161	0.51547	0.51264	0.47644	0.52008	1.08	9.61	19.22
R5	0.45965	0.46896	0.48129	0.45616	0.45043	0.96	9.55	19.10
R6	0.28309	0.28418	0.28684	0.27662	0.25061	0.57	9.36	18.71
R7	0.5328	0.58654	0.60593	0.56998	0.53396	1.21	9.68	19.35
R8	0.65528	0.6676	0.79516	0.78282	0.68943	1.59	9.87	19.73
R9	0.25626	0.23913	0.31553	0.30082	0.28985	0.63	9.39	18.77
R10	0.39997	0.32412	0.27773	0.27293	0.3506	0.80	9.47	18.94
R11	0.20131	0.22766	0.16901	0.13617	0.25653	0.51	9.33	18.65
R12	0.13148	0.1941	0.14044	0.17533	0.17021	0.39	9.26	18.53
R13	0.099907	0.14509	0.113	0.13364	0.1516	0.30	9.22	18.44
R14	0.031501	0.029454	0.032435	0.035244	0.049337	0.10	9.12	18.24
R15	0.14003	0.1495	0.16061	0.23074	0.12996	0.46	9.30	18.60
R16	0.19666	0.20592	0.23027	0.22517	0.19696	0.46	9.30	18.60

Table 5.4 – Modelled 90.4th Percentile Ground Level 24-Hour Mean PM_{10} Concentrations at Receptor Locations – Phase 2

Receptor	Modelled PC to 90.4th Percentile Ground Level 24-Hour Mean PM_{10} Concentrations (µg.m^{-3})					Maximum PC to AQLV (%)	Maximum PEC (µg.m^{-3})	Contribution of PEC to AQLV (%)
	2015	2016	2017	2018	2019			
R1	0.33407	0.3262	0.33474	0.3522	0.31307	0.70	9.42	18.84
R2	0.34823	0.34481	0.35827	0.35587	0.35694	0.72	9.43	18.86
R3	0.43925	0.47064	0.46661	0.44963	0.4614	0.94	9.54	19.08
R4	0.53476	0.51897	0.50393	0.46345	0.51851	1.07	9.60	19.21
R5	0.45198	0.46283	0.47878	0.44616	0.45081	0.96	9.55	19.10
R6	0.27623	0.27929	0.27908	0.27621	0.24267	0.56	9.35	18.70
R7	0.52477	0.55744	0.58389	0.55199	0.5108	1.17	9.65	19.31
R8	0.57741	0.56799	0.71339	0.68673	0.5833	1.43	9.78	19.57
R9	0.23789	0.20795	0.27304	0.25762	0.25824	0.55	9.34	18.69
R10	0.31909	0.32483	0.2423	0.22764	0.31481	0.65	9.39	18.79
R11	0.21231	0.21677	0.17206	0.13479	0.2384	0.48	9.31	18.62
R12	0.13408	0.19404	0.14529	0.17151	0.16949	0.39	9.26	18.53
R13	0.10181	0.14486	0.1113	0.13336	0.15324	0.31	9.22	18.45
R14	0.036321	0.033373	0.035327	0.034719	0.054022	0.11	9.12	18.25
R15	0.13234	0.1443	0.15292	0.22353	0.12575	0.45	9.29	18.59
R16	0.17975	0.19557	0.21978	0.2164	0.19511	0.44	9.29	18.58

Table 5.5 – Modelled Annual Mean Ground Level $PM_{2.5}$ Concentrations at Receptor Locations – Phase 1

Receptor	Modelled PC to Annual Mean Ground Level $PM_{2.5}$ Concentrations ($\mu g.m^{-3}$)					Maximum PC to AQLV (%)	Maximum PEC ($\mu g.m^{-3}$)	Contribution of PEC to AQLV (%)
	2015	2016	2017	2018	2019			
R1	0.12364	0.11869	0.11349	0.1226	0.10959	0.62	4.96	24.82
R2	0.1353	0.12616	0.12337	0.12451	0.11956	0.68	4.98	24.88
R3	0.18278	0.17078	0.18311	0.16513	0.16888	0.92	5.02	25.12
R4	0.26633	0.2167	0.24847	0.21265	0.2137	1.33	5.11	25.53
R5	0.24699	0.20623	0.23741	0.20571	0.19506	1.23	5.09	25.43
R6	0.14212	0.12045	0.13643	0.11806	0.11123	0.71	4.98	24.91
R7	0.28021	0.25497	0.30321	0.25757	0.24436	1.52	5.14	25.72
R8	0.27775	0.25459	0.35229	0.27779	0.29631	1.76	5.19	25.96
R9	0.0937	0.07978	0.11108	0.09407	0.10083	0.56	4.95	24.76
R10	0.1193	0.11003	0.09755	0.09291	0.10252	0.60	4.96	24.80
R11	0.06676	0.07443	0.05399	0.05274	0.06633	0.37	4.91	24.57
R12	0.03955	0.06184	0.03763	0.0524	0.05256	0.31	4.90	24.51
R13	0.02981	0.04656	0.03173	0.04282	0.04484	0.23	4.89	24.43
R14	0.01036	0.0105	0.00932	0.01191	0.01361	0.07	4.85	24.27
R15	0.04924	0.05444	0.05153	0.06401	0.04833	0.32	4.90	24.52
R16	0.06271	0.06958	0.06452	0.06767	0.05964	0.35	4.91	24.55

Table 5.6 – Modelled Annual Mean Ground Level $PM_{2.5}$ Concentrations at Receptor Locations – Phase 2

Receptor	Modelled PC to Annual Mean Ground Level $PM_{2.5}$ Concentrations ($\mu g.m^{-3}$)					Maximum PC to AQLV (%)	Maximum PEC ($\mu g.m^{-3}$)	Contribution of PEC to AQLV (%)
	2015	2016	2017	2018	2019			
R1	0.1181	0.11147	0.1082	0.11633	0.1044	0.59	4.96	24.79
R2	0.12948	0.11805	0.11747	0.11819	0.11404	0.65	4.97	24.85
R3	0.17596	0.16269	0.17519	0.15684	0.1601	0.88	5.02	25.08
R4	0.26356	0.21247	0.24266	0.20788	0.20871	1.32	5.10	25.52
R5	0.24287	0.20086	0.23129	0.20035	0.1905	1.21	5.08	25.41
R6	0.13905	0.11724	0.13253	0.11454	0.10844	0.70	4.98	24.90
R7	0.26588	0.24163	0.28758	0.24418	0.23264	1.44	5.13	25.64
R8	0.24232	0.22174	0.30948	0.24245	0.25882	1.55	5.15	25.75
R9	0.08234	0.07085	0.0996	0.08346	0.08906	0.50	4.94	24.70
R10	0.10468	0.09935	0.08567	0.08154	0.09211	0.52	4.94	24.72
R11	0.06599	0.07378	0.05278	0.05164	0.06491	0.37	4.91	24.57
R12	0.04004	0.06214	0.03809	0.05298	0.05318	0.31	4.90	24.51
R13	0.02966	0.04636	0.03158	0.04223	0.04467	0.23	4.89	24.43
R14	0.0108	0.011	0.00973	0.01238	0.01411	0.07	4.85	24.27
R15	0.04651	0.05186	0.04877	0.06065	0.04511	0.30	4.90	24.50
R16	0.05959	0.06612	0.06133	0.06409	0.05693	0.33	4.91	24.53

Table 5.7 – Modelled Annual Mean VOC Concentrations (as Benzene) at Receptor Locations – Phase 1

Receptor	Modelled PC to Annual Mean Benzene Concentrations (µg.m^{-3})					Maximum PC to AQLV (%)	Maximum PEC (µg.m^{-3})	Contribution of PEC to AQLV (%)
	2015	2016	2017	2018	2019			
R1	0.71297	0.683	0.64797	0.70076	0.63607	14.26	0.80	16.08
R2	0.77673	0.72191	0.70295	0.7093	0.69332	15.53	0.87	17.35
R3	1.02721	0.95948	1.04286	0.93031	0.97005	20.86	1.13	22.68
R4	1.41404	1.19163	1.38248	1.18169	1.18337	28.28	1.51	30.10
R5	1.27131	1.10157	1.27964	1.11005	1.04453	25.59	1.37	27.41
R6	0.70421	0.62252	0.71152	0.61195	0.57305	14.23	0.80	16.05
R7	1.468	1.33786	1.61172	1.35493	1.28562	32.23	1.70	34.05
R8	1.58414	1.45746	2.01155	1.59404	1.68936	40.23	2.10	42.05
R9	0.51741	0.44	0.60877	0.52367	0.55622	12.18	0.70	14.00
R10	0.69578	0.63144	0.56479	0.544	0.59751	13.92	0.79	15.74
R11	0.38427	0.4161	0.29859	0.30258	0.37984	8.32	0.51	10.14
R12	0.22122	0.34273	0.20819	0.29067	0.29526	6.85	0.43	8.67
R13	0.15765	0.24225	0.16757	0.22109	0.23564	4.85	0.33	6.67
R14	0.05244	0.05347	0.04737	0.05772	0.06659	1.33	0.16	3.15
R15	0.27861	0.31226	0.29108	0.34936	0.27173	6.99	0.44	8.81
R16	0.35725	0.39914	0.36456	0.37939	0.34262	7.98	0.49	9.80

Table 5.8 – Modelled Annual Mean VOC Concentrations (as Benzene) at Receptor Locations – Phase 2

Receptor	Modelled PC to Annual Mean Benzene Concentrations (µg.m^{-3})					Maximum PC to AQLV (%)	Maximum PEC (µg.m^{-3})	Contribution of PEC to AQLV (%)
	2015	2016	2017	2018	2019			
R1	0.67967	0.63961	0.61614	0.6631	0.60488	13.59	0.77	15.41
R2	0.74176	0.67315	0.6675	0.67132	0.66015	14.84	0.83	16.66
R3	0.9862	0.91088	0.99524	0.88047	0.91725	19.90	1.09	21.72
R4	1.39737	1.16622	1.34754	1.15305	1.15337	27.95	1.49	29.77
R5	1.24655	1.06926	1.24285	1.07788	1.01712	24.93	1.34	26.75
R6	0.68577	0.60325	0.68808	0.5908	0.55629	13.76	0.78	15.58
R7	1.38187	1.2577	1.51778	1.27451	1.21519	30.36	1.61	32.18
R8	1.37127	1.2601	1.75439	1.38172	1.46414	35.09	1.85	36.91
R9	0.44915	0.38641	0.53983	0.45989	0.48557	10.80	0.63	12.62
R10	0.60794	0.56728	0.4934	0.47568	0.53501	12.16	0.70	13.98
R11	0.37961	0.41215	0.29133	0.29596	0.37133	8.24	0.50	10.06
R12	0.22415	0.34453	0.21095	0.29416	0.29904	6.89	0.44	8.71
R13	0.15673	0.24099	0.16669	0.21753	0.23464	4.82	0.33	6.64
R14	0.05509	0.05648	0.04983	0.06051	0.0696	1.39	0.16	3.21
R15	0.26221	0.29675	0.27451	0.32921	0.25239	6.58	0.42	8.40
R16	0.33849	0.37834	0.34541	0.35791	0.3263	7.57	0.47	9.39

Table 5.9 – Maximum Modelled 24-Hour Mean VOC Concentrations (As Benzene) at Receptor Locations – Phase 1

Receptor	Maximum Modelled PC to 24-Hour Mean Benzene Concentrations (µg.m^{-3})	Maximum PC to EAL (%)	Maximum PEC (µg.m^{-3})	Contribution of PEC to EAL (%)
R1	7.5307	25.10	7.64	25.47
R2	7.42026	24.73	7.53	25.10
R3	7.27958	24.27	7.39	24.63
R4	6.04823	20.16	6.16	20.53
R5	5.99453	19.98	6.10	20.35
R6	3.32203	11.07	3.43	11.44
R7	6.57457	21.92	6.68	22.28
R8	11.64027	38.80	11.75	39.17
R9	4.8657	16.22	4.98	16.59
R10	9.5581	31.86	9.67	32.23
R11	6.659	22.20	6.77	22.56
R12	3.03577	10.12	3.15	10.49
R13	2.63364	8.78	2.74	9.15
R14	0.87298	2.91	0.98	3.28
R15	5.71486	19.05	5.82	19.42
R16	5.42262	18.08	5.53	18.44

Table 5.10 – Maximum Modelled 24-Hour Mean VOC Concentrations (As Benzene) at Receptor Locations – Phase 2

Receptor	Maximum Modelled PC to 24-Hour Mean Benzene Concentrations (µg.m^{-3})	Maximum PC to EAL (%)	Maximum PEC (µg.m^{-3})	Contribution of PEC to EAL (%)
R1	6.60936	22.03	6.72	22.40
R2	6.64579	22.15	6.76	22.52
R3	7.00448	23.35	7.11	23.71
R4	5.53898	18.46	5.65	18.83
R5	5.99221	19.97	6.10	20.34
R6	3.15743	10.52	3.27	10.89
R7	5.78642	19.29	5.90	19.65
R8	9.69268	32.31	9.80	32.68
R9	4.14252	13.81	4.25	14.18
R10	8.46883	28.23	8.58	28.60
R11	6.43806	21.46	6.55	21.83
R12	3.29226	10.97	3.40	11.34
R13	2.59343	8.64	2.70	9.01
R14	1.26215	4.21	1.37	4.57
R15	4.95715	16.52	5.07	16.89
R16	4.89667	16.32	5.01	16.69

5.2 Assessment of Potential Impacts at Human Receptors

5.2.1 Long Term AQLVs

5.2.1.1 The modelled PC to the annual mean AQLV for PM_{10} is <1% of the AQLV at relevant receptor locations (R1 to R16) during both phases of the development. As such, impacts are concluded to be insignificant, in accordance with the relevant guidance. The PEC is <70% of the annual mean AQLVs for benzene and PM_{10} at relevant receptor locations (R1 to R16) during both phases of the development. As such, impacts are concluded to be insignificant, in accordance with the relevant guidance.

5.2.2 Short Term AQLVs/EALs

5.2.2.1 The modelled PC to the 24-hour mean AQLV for PM_{10} is <10% at relevant receptor locations (R1 to R16) during both phases of the development. As such, impacts are concluded to be insignificant, in accordance with the relevant guidance.

5.2.2 Although the modelled PC exceeds 10% of the 24-hour mean EAL for benzene at relevant receptor locations (R1 to R16), no exceedence of the EAL is predicted at these locations during either phase of the development, the highest PEC being 39.17% of the EAL at receptor R8 during Phase 1 and 32.68% of the EAL at receptor R8 during Phase 2. As such, confidence is high that a breach of the EAL is highly unlikely at relevant receptor locations, especially considering the conservative assumptions used in this assessment.

5.2.3 Reference should be made to the contour profile included within Appendix IV for modelled PC to 24-hour mean benzene concentrations. This demonstrates that concentrations peak in close proximity to the emission sources and decrease rapidly with increasing distance from the site.

6 Conclusions

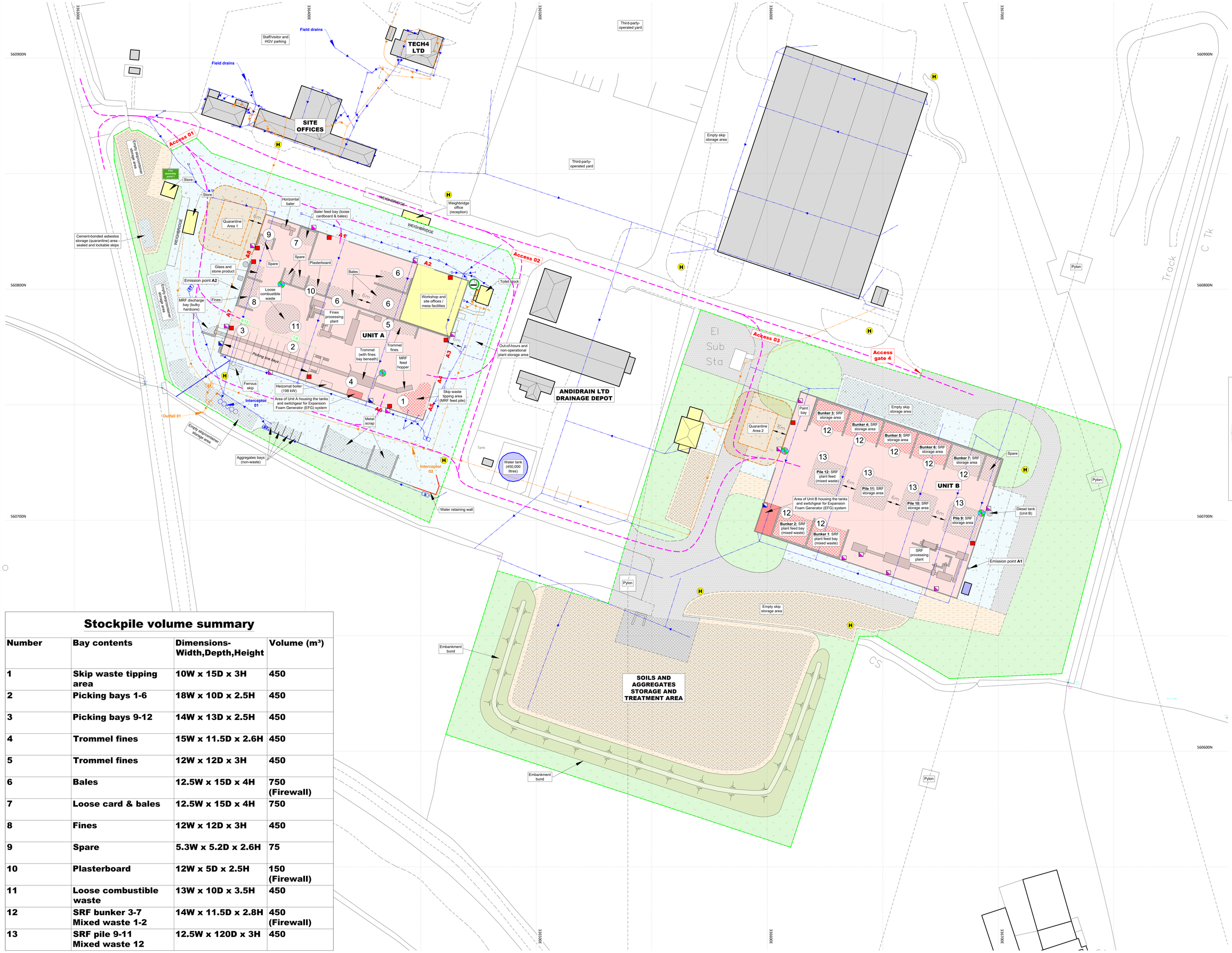
6.1 An assessment of potential air quality impacts has been undertaken in support of an application to vary the permit to an installation permit at North West Recycling Limited. Modelling has been undertaken using AERMOD to quantify potential resulting long and short-term pollutant concentrations at surrounding receptor locations as a result of operation of the proposed plant. A series of highly conservative assumptions have been made within the report, resulting in a highly precautionary assessment.

6.2 The PC to the annual mean AQLVs for PM_{10} and $PM_{2.5}$ has been predicted to be <1% at all relevant human receptor locations. The PEC has predicted to be <70% of the AQLV for annual mean benzene concentrations at all relevant receptor locations. No exceedences of short term AQLVs/EALs are predicted for PM_{10} and benzene at any relevant receptor location, the PEC being substantially below the relevant standards.

6.3 Given the above, the model results have confirmed that the proposals will not generate any significant adverse impacts on local air quality. Confidence in this prediction is high, given the conservative assumptions made within the assessment.

Appendix I

Site Plans



Stockpile volume summary

Number	Bay contents	Dimensions- Width,Depth,Height	Volume (m³)
1	Skip waste tipping area	10W x 15D x 3H	450
2	Picking bays 1-6	18W x 10D x 2.5H	450
3	Picking bays 9-12	14W x 13D x 2.5H	450
4	Trommel fines	15W x 11.5D x 2.6H	450
5	Trommel fines	12W x 12D x 3H	450
6	Bales	12.5W x 15D x 4H	750 (Firewall)
7	Loose card & bales	12.5W x 15D x 4H	750
8	Fines	12W x 12D x 3H	450
9	Spare	5.3W x 5.2D x 2.6H	75
10	Plasterboard	12W x 5D x 2.5H	150 (Firewall)
11	Loose combustible waste	13W x 10D x 3.5H	450
12	SRF bunker 3-7 Mixed waste 1-2	14W x 11.5D x 2.8H	450 (Firewall)
13	SRF pile 9-11 Mixed waste 12	12.5W x 120D x 3H	450

NOTES

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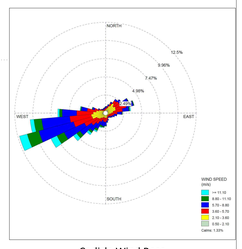
REVISION HISTORY

Rev:	Date:	Init:	Description:
-	18.02.22	RS	Initial drawing
A	18.02.22	RS	Client comments
B	14.02.22	RS/CP	EA comments
C	04.01.24	JH	Amendment
D	09.02.24	JH	Flue added
E	18.04.24	JH	Amendment
F	20.09.24	JH	Layout amendment
G	23.09.24	JH	Drainage added
H	26.09.24	JH	Table amendment

KEY:

- Permit boundary
- Storage areas (general)
- Storage areas benefiting from Expansion Foam Generator (EFG) coverage
- Sealed buildings
- Concreted area
- Stone surface (free-draining)
- Other on-site buildings (offices, workshop, etc.)
- Tarmac surfacing
- Unsurfaced areas (grass / vegetation)
- Quarantine areas (with 6m buffer zones)
- Fire fighting equipment (extinguishers, etc.)
- Mains water
- Access routes for emergency vehicles
- Fire alarm call points
- Designated smoking area
- Penstock / shut-off valve for use in event of a fire or spillage for surface water drainage containment
- On-site fire hydrants (on 100mm and 200mm mains)
- Radiometric Thermal Camera & Monitor (RTCM)
- Indicative surface & roof drainage
- Indicative combined drainage
- Drainage fall direction
- T / T Tanks
- S / S Sump
- ST / ST Silt trap
- Manhole
- Gully



Carlisle Wind Rose

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
LAYOUT & FIRE PLAN (PHASE 1)

CLIENT
North West Recycling Ltd

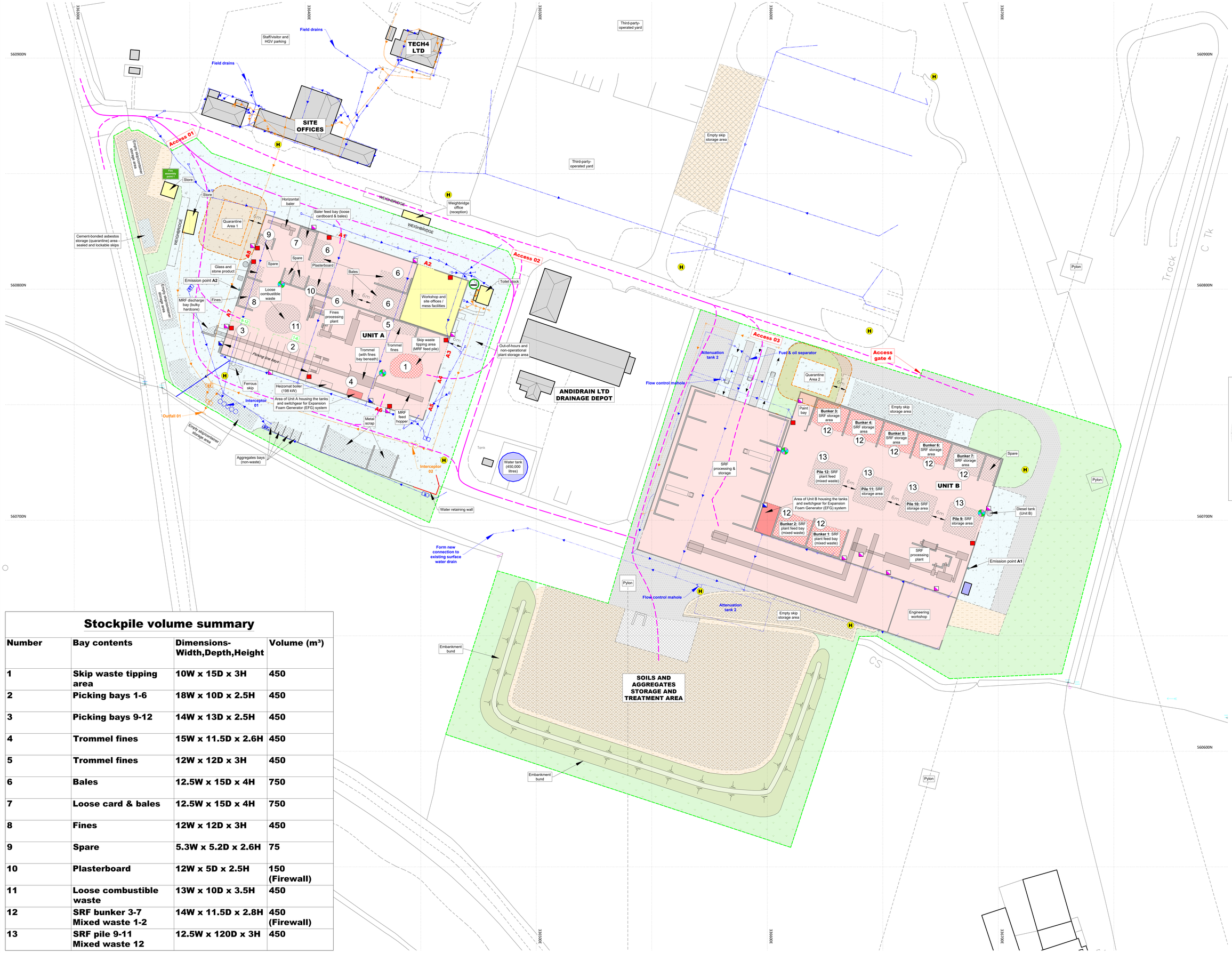
PROJECT/SITE
Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

SCALE @ A0	CLIENT NO	JOB NO
1:500	634	003

DRAWING NUMBER	SHEET NUMBER	REV	STATUS
634-003-03	1 of 1	H	Issued

DRAWN BY	CHECKED	DATE
RS/CP/JH	RS	26.09.24

Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
t: 01606 558833 | e: sales@oaktree-environmental.co.uk



Stockpile volume summary

Number	Bay contents	Dimensions-Width,Depth,Height	Volume (m³)
1	Skip waste tipping area	10W x 15D x 3H	450
2	Picking bays 1-6	18W x 10D x 2.5H	450
3	Picking bays 9-12	14W x 13D x 2.5H	450
4	Trommel fines	15W x 11.5D x 2.6H	450
5	Trommel fines	12W x 12D x 3H	450
6	Bales	12.5W x 15D x 4H	750
7	Loose card & bales	12.5W x 15D x 4H	750
8	Fines	12W x 12D x 3H	450
9	Spare	5.3W x 5.2D x 2.6H	75
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12	SRF bunker 3-7 Mixed waste 1-2	14W x 11.5D x 2.8H	450 (Firewall)
13	SRF pile 9-11 Mixed waste 12	12.5W x 120D x 3H	450

NOTES

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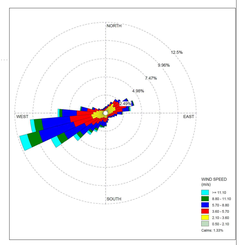
REVISION HISTORY

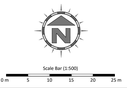
Rev:	Date:	Init:	Description:
-	31.07.24	RS/JH	Initial drawing
A	01.08.24	JH	Amendment
B	20.08.24	JH	Emission point added
C	28.08.24	JH	Table added
D	30.08.24	JH	Amendment
E	23.09.24	JH	Drainage added
F	26.09.24	JH	Table amendment
G	19.12.24	JH	Client comments

KEY:

- Permit boundary
- Storage areas (general)
- Storage areas benefiting from Expansion Foam Generator (EFG) coverage
- Sealed buildings
- Concreted area
- Stone surface (free-draining)
- Other on-site buildings (offices, workshop, etc.)
- Tarmac surfacing
- Unsurfaced areas (grass / vegetation)
- Quarantine areas (with 6m buffer zones)
- Fire fighting equipment (extinguishers, etc.)
- Mains water
- Access routes for emergency vehicles
- Fire alarm call points
- Designated smoking area
- Penstock / shut-off valve for use in event of a fire or spillage for surface water drainage containment
- On-site fire hydrants (on 100mm and 200mm mains)
- Radiometric Thermal Camera & Monitor (RTCM)
- Indicative surface & roof drainage
- Indicative combined drainage
- Drainage fall direction
- T / T Tanks
- S / S Sump
- ST / ST Silt trap
- Manhole
- Gully



Carlisle Wind Rose



Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
LAYOUT & FIRE PLAN (PHASE 2)

CLIENT
North West Recycling Ltd

PROJECT/SITE
Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

SCALE @ A0	CLIENT NO	JOB NO
1:500	634	004

DRAWING NUMBER	SHEET NUMBER	REV	STATUS
634-004-03A	1 of 1	G	Issued

DRAWN BY	CHECKED	DATE
RS/CP/JH	RS	19.12.24

Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
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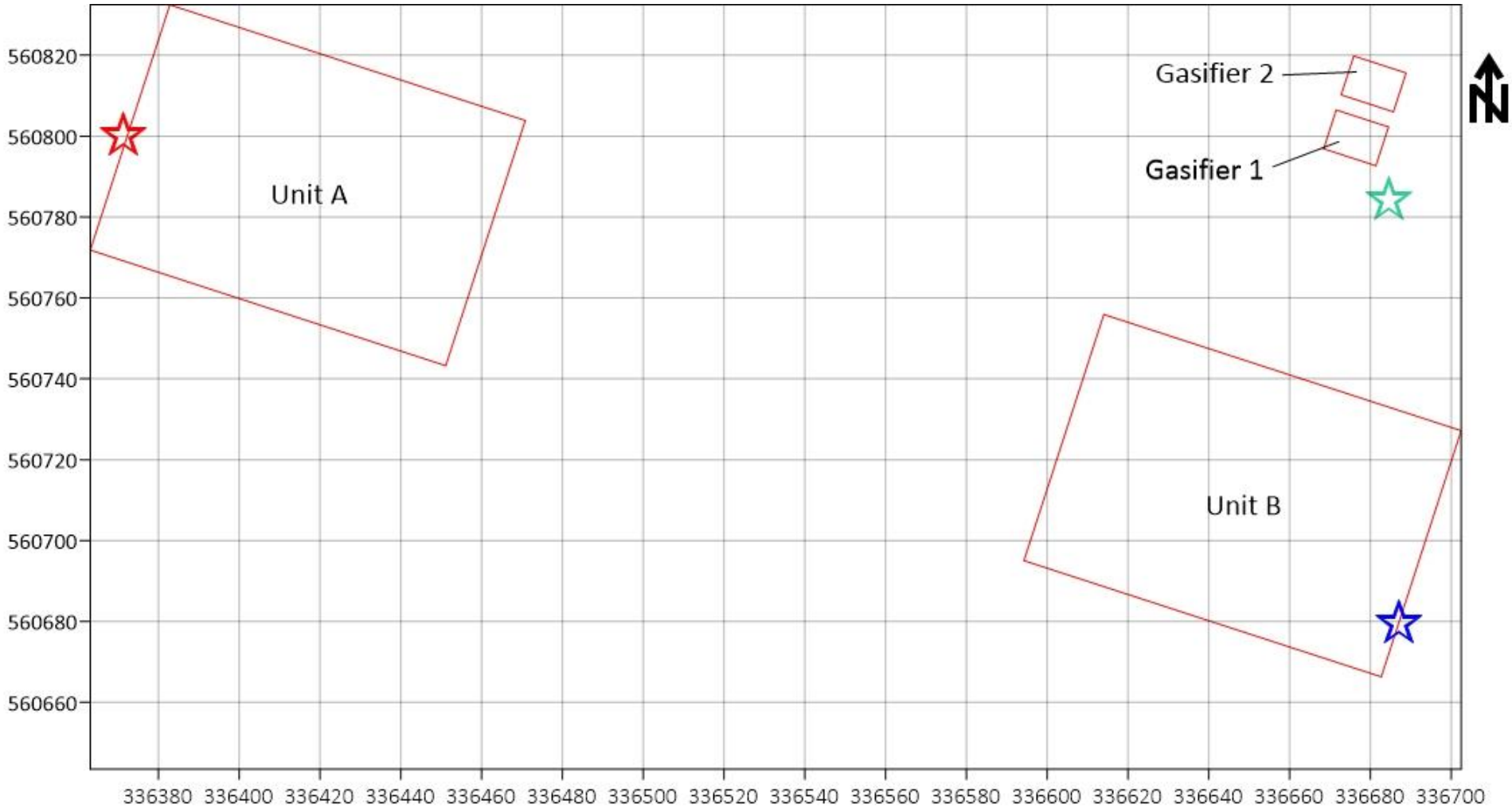
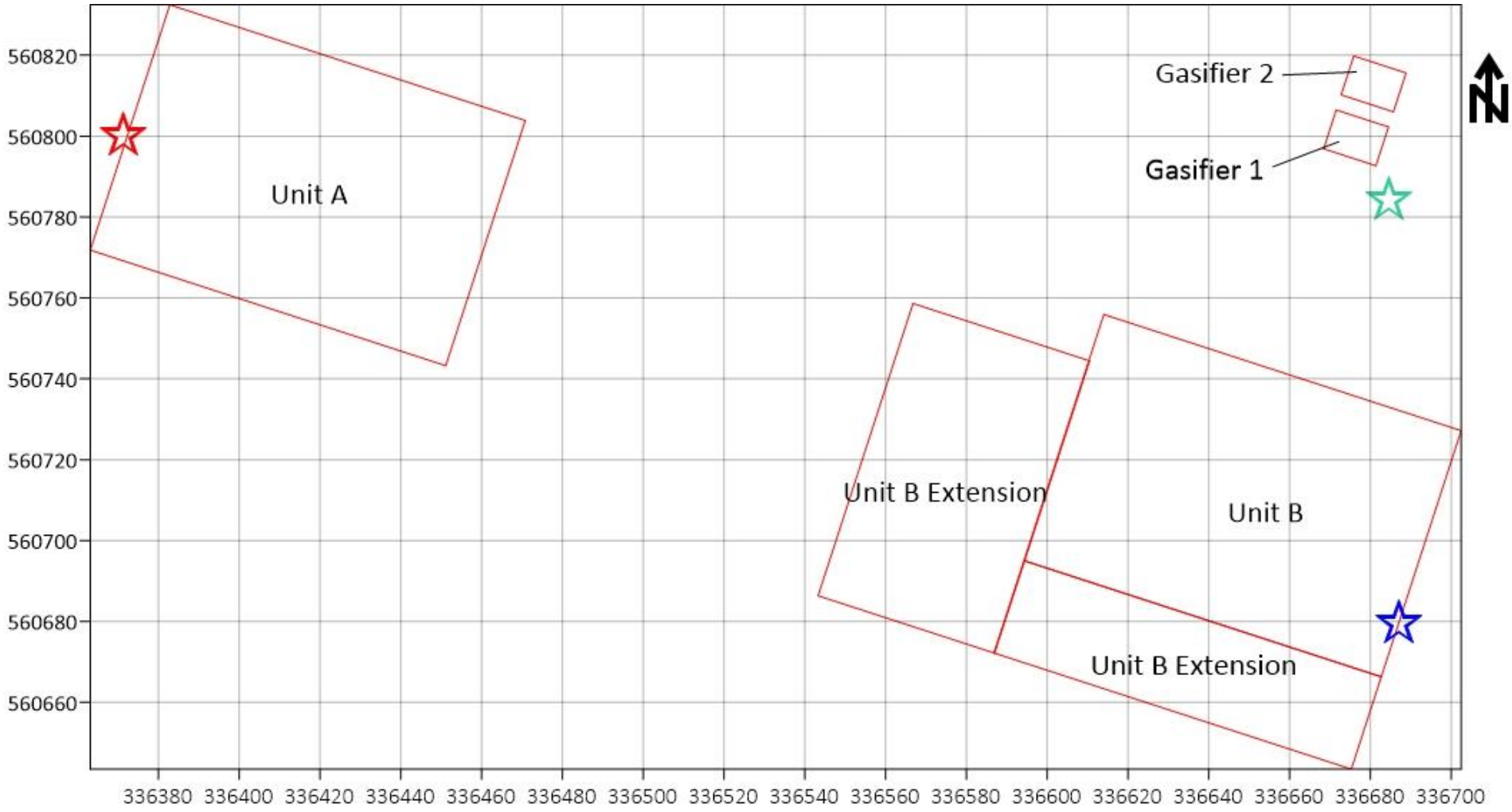


Appendix I - Structures and Stacks Digitised Within Model - Phase 1

Emission Point A1

Emission Point A2

SWIP Exhaust



Appendix I - Structures and Stacks Digitised Within Model - Phase 2

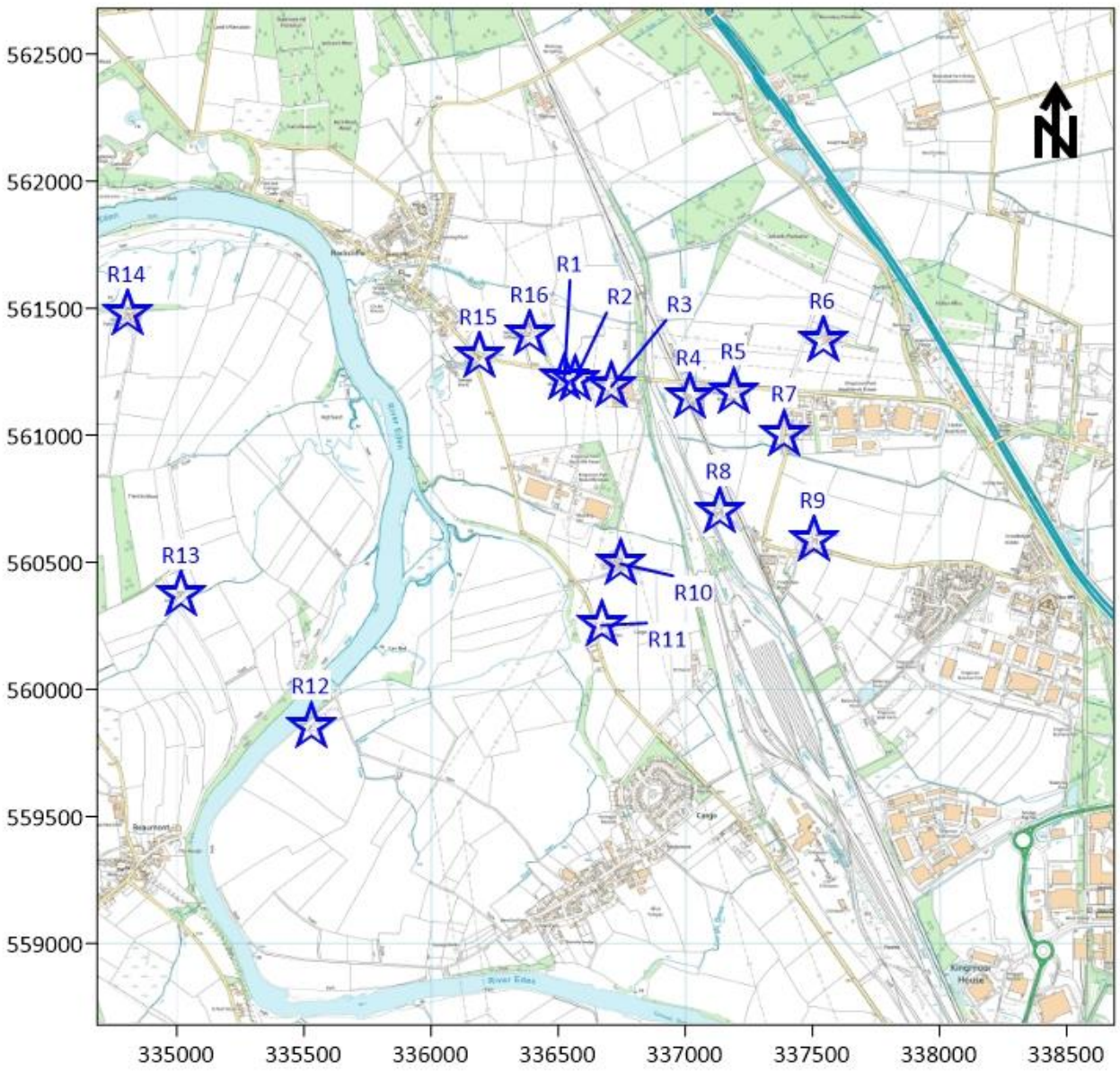
Emission Point A1

Emission Point A2

SWIP Exhaust

Appendix II

Sensitive Receptor Locations



Appendix II Figure 1 - Sensitive Receptors

☆ Receptor Location

R1 Receptor Identifier

Oaktree Environmental Ltd
Lime House
2 Road Two
Winsford
Cheshire
CW7 3QZ

Appendix III

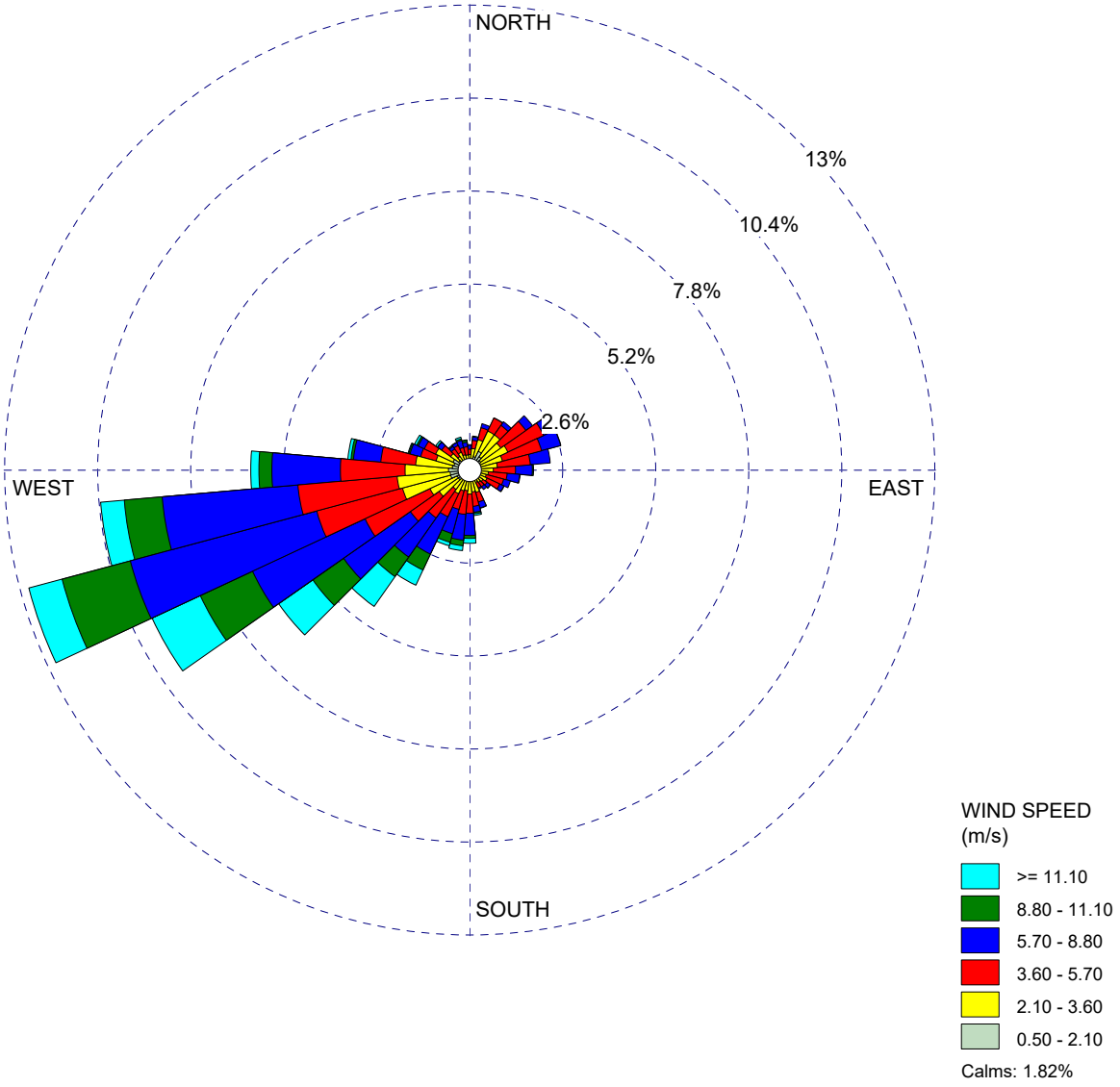
Carlisle Wind Roses

WIND ROSE PLOT:

Carlisle Wind Speed and Direction Frequency - 2015

DISPLAY:

Wind Speed
Direction (blowing from)



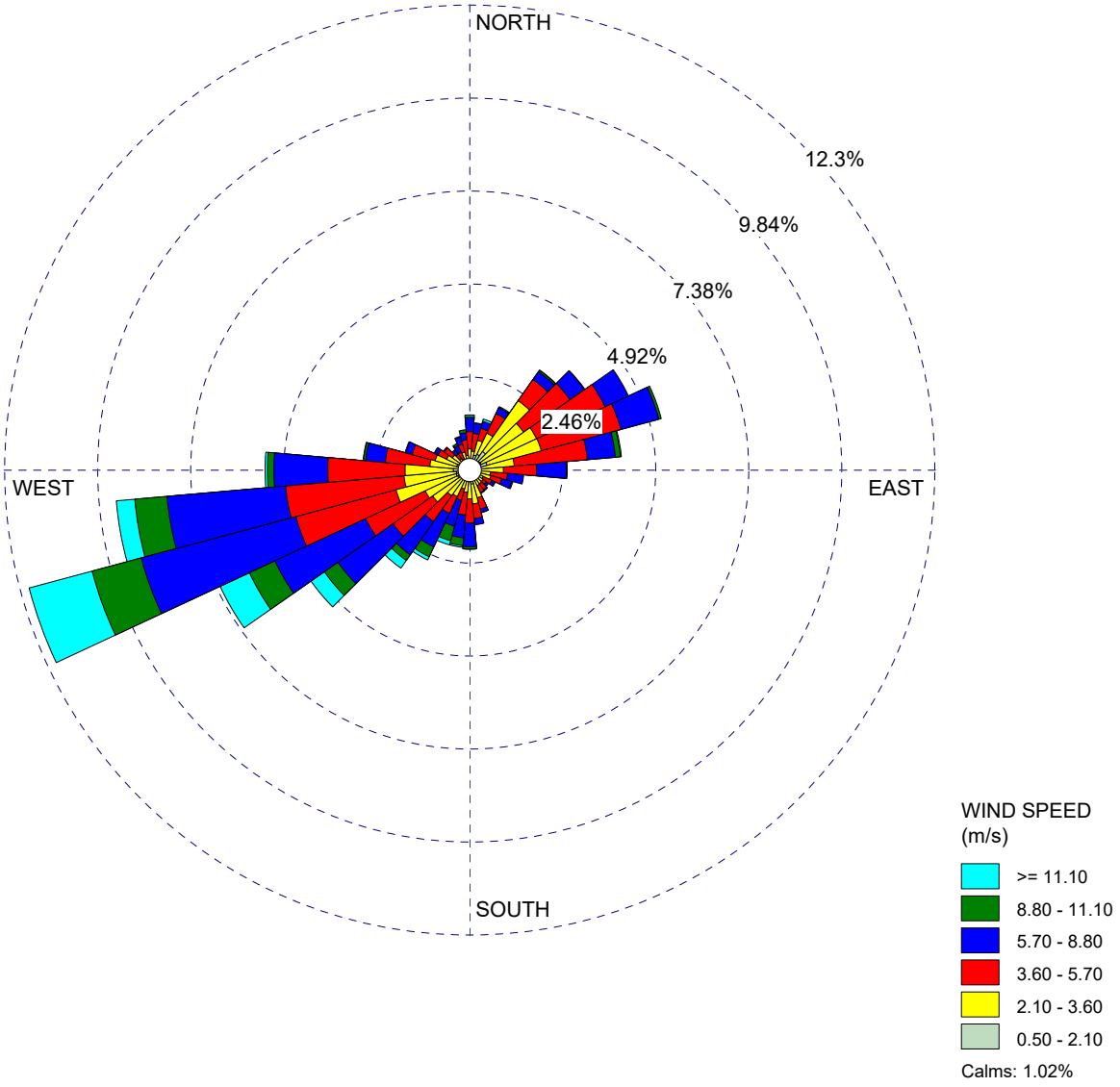
COMMENTS:	DATA PERIOD: **Start Date: 01/01/2015 - 00:00** **End Date: 31/12/2015 - 23:59**	COMPANY NAME:	
		MODELER:	
	CALM WINDS: **1.82%**	TOTAL COUNT: **8690 hrs.**	
	AVG. WIND SPEED: **5.33 m/s**	DATE: **09/09/2024**	PROJECT NO.: **634-004**

WIND ROSE PLOT:

Carlisle Wind Speed and Direction Frequency - 2016

DISPLAY:

Wind Speed
Direction (blowing from)



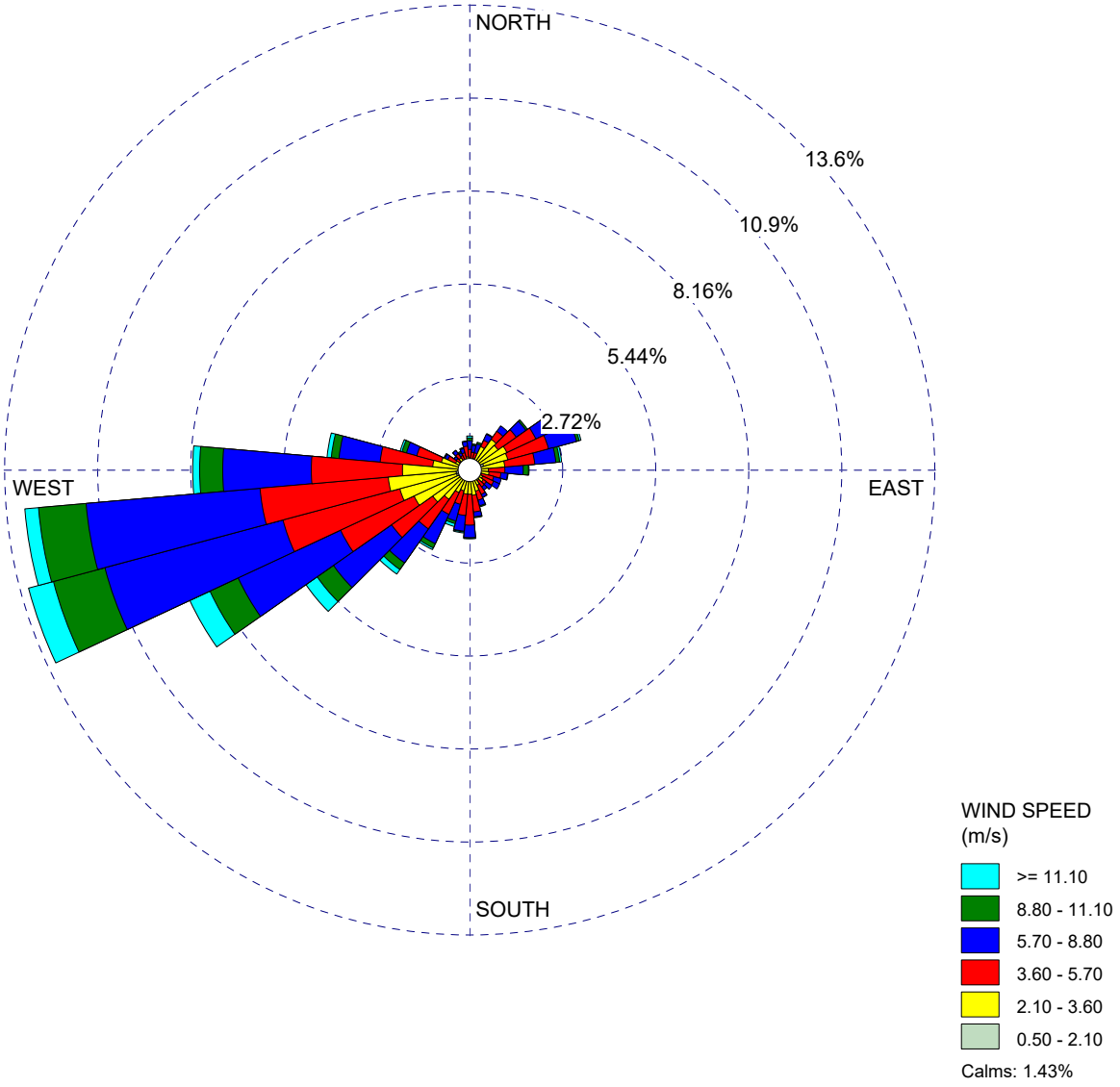
COMMENTS:	DATA PERIOD: **Start Date: 01/01/2016 - 00:00** **End Date: 31/12/2016 - 23:59**	COMPANY NAME:	
		MODELER:	
	CALM WINDS: **1.02%**	TOTAL COUNT: **8728 hrs.**	
	AVG. WIND SPEED: **4.86 m/s**	DATE: **09/09/2024**	PROJECT NO.: **634-004**

WIND ROSE PLOT:

Carlisle Wind Speed and Direction Frequency - 2017

DISPLAY:

Wind Speed
Direction (blowing from)



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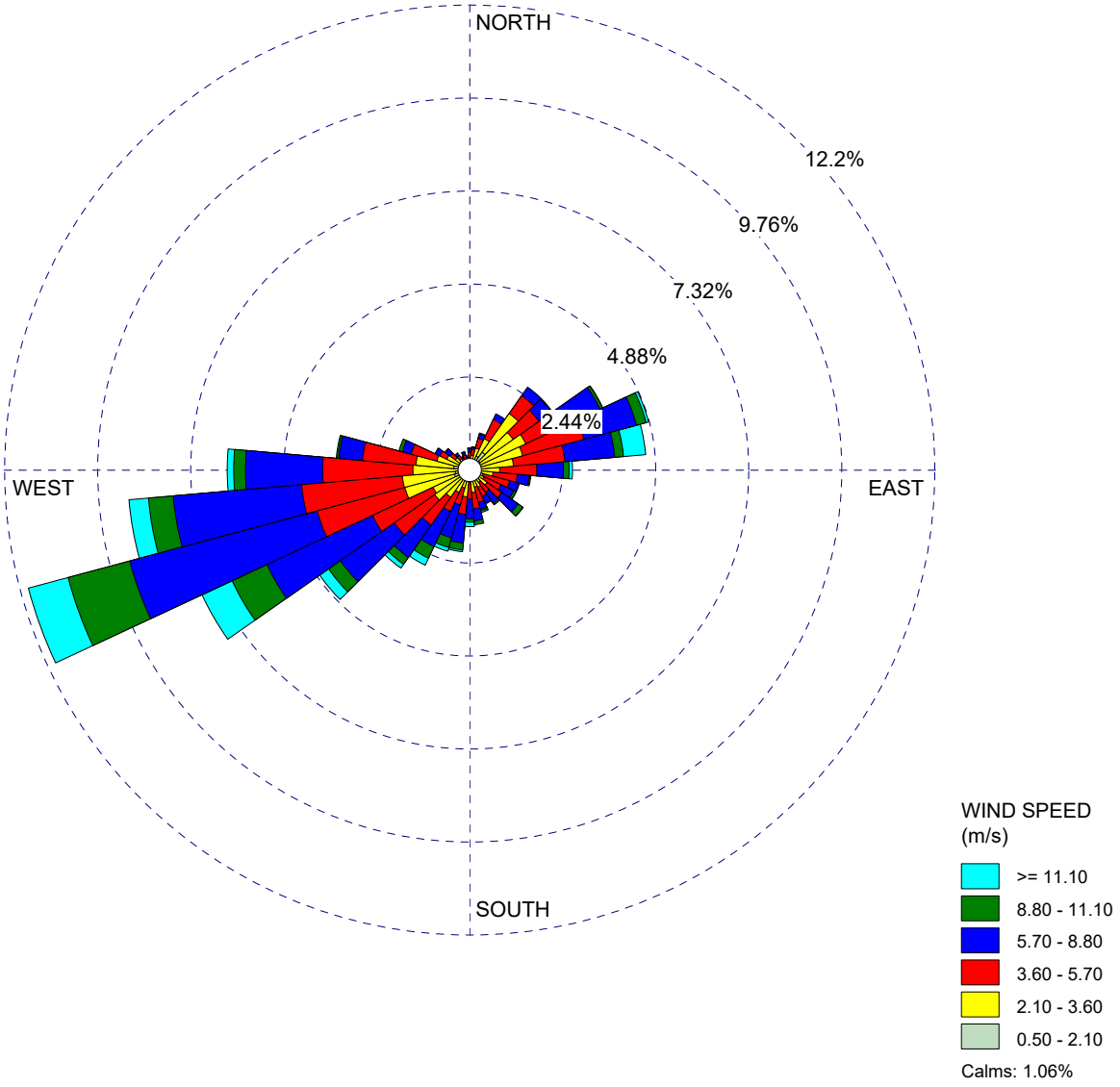
		MODELER:	
	CALM WINDS: **1.43%**	TOTAL COUNT: **8695 hrs.**	
	AVG. WIND SPEED: **5.05 m/s**	DATE: **09/09/2024**	PROJECT NO.: **634-004**

WIND ROSE PLOT:

Carlisle Wind Speed and Direction Frequency - 2018

DISPLAY:

Wind Speed
Direction (blowing from)



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		MODELER:	
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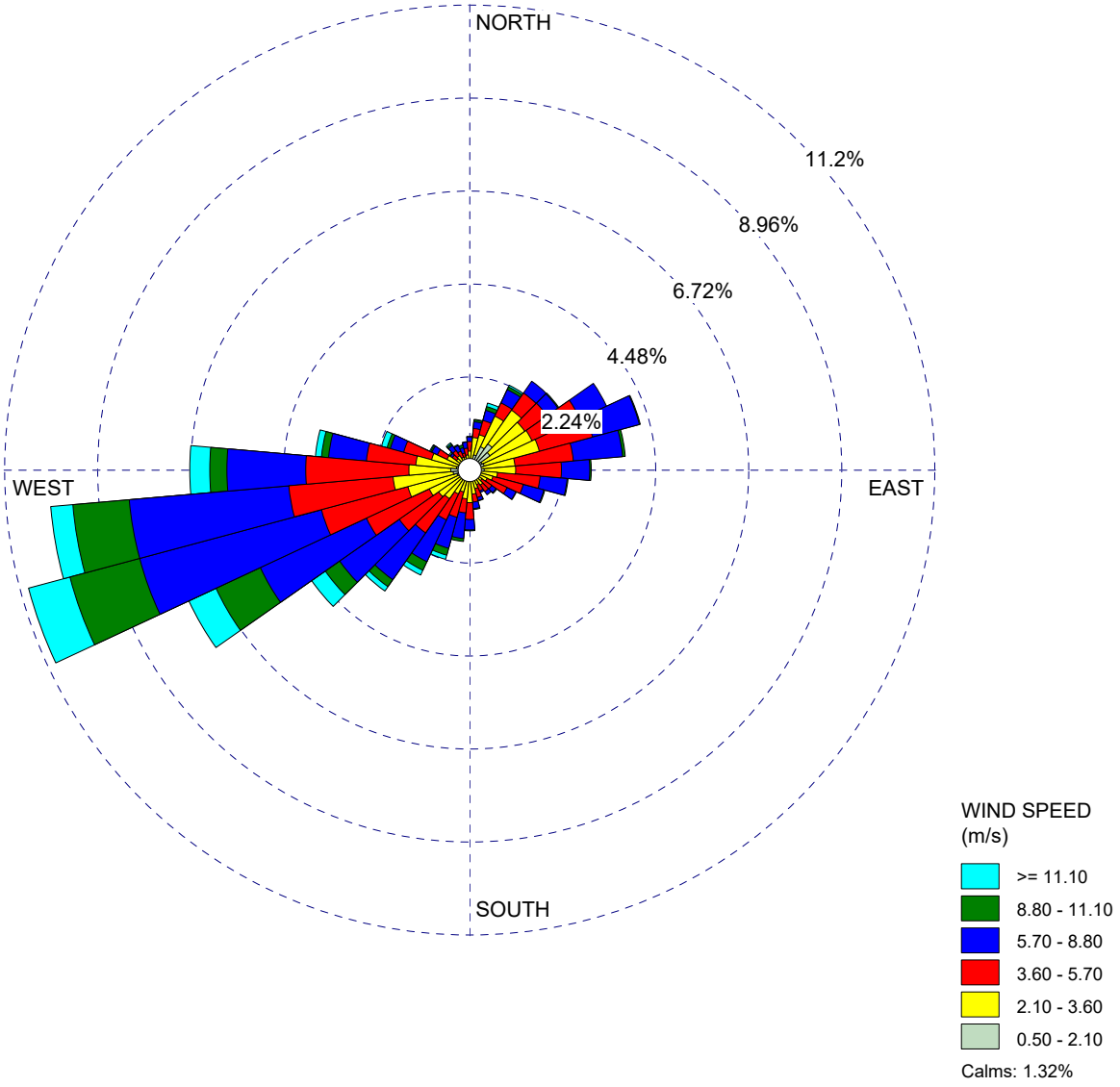
	AVG. WIND SPEED: **5.18 m/s**	DATE: **09/09/2024**	PROJECT NO.: **634-004**

WIND ROSE PLOT:

Carlisle Wind Speed and Direction Frequency - 2019

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD: **Start Date: 01/01/2019 - 00:00** **End Date: 31/12/2019 - 23:59**	COMPANY NAME:	
		MODELER:	
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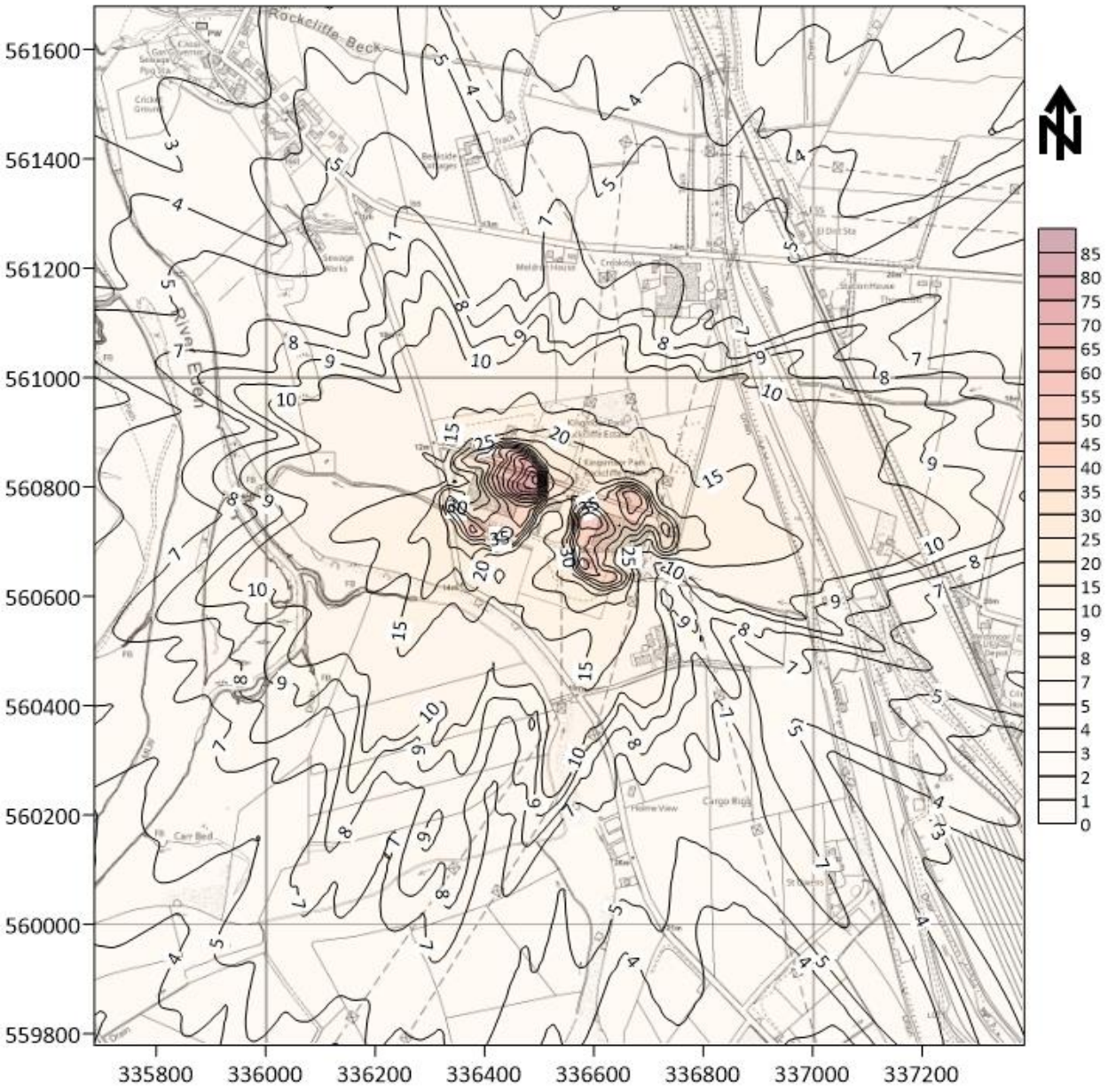
	AVG. WIND SPEED: **5.04 m/s**	DATE: **09/09/2024**	PROJECT NO.: **634-004**

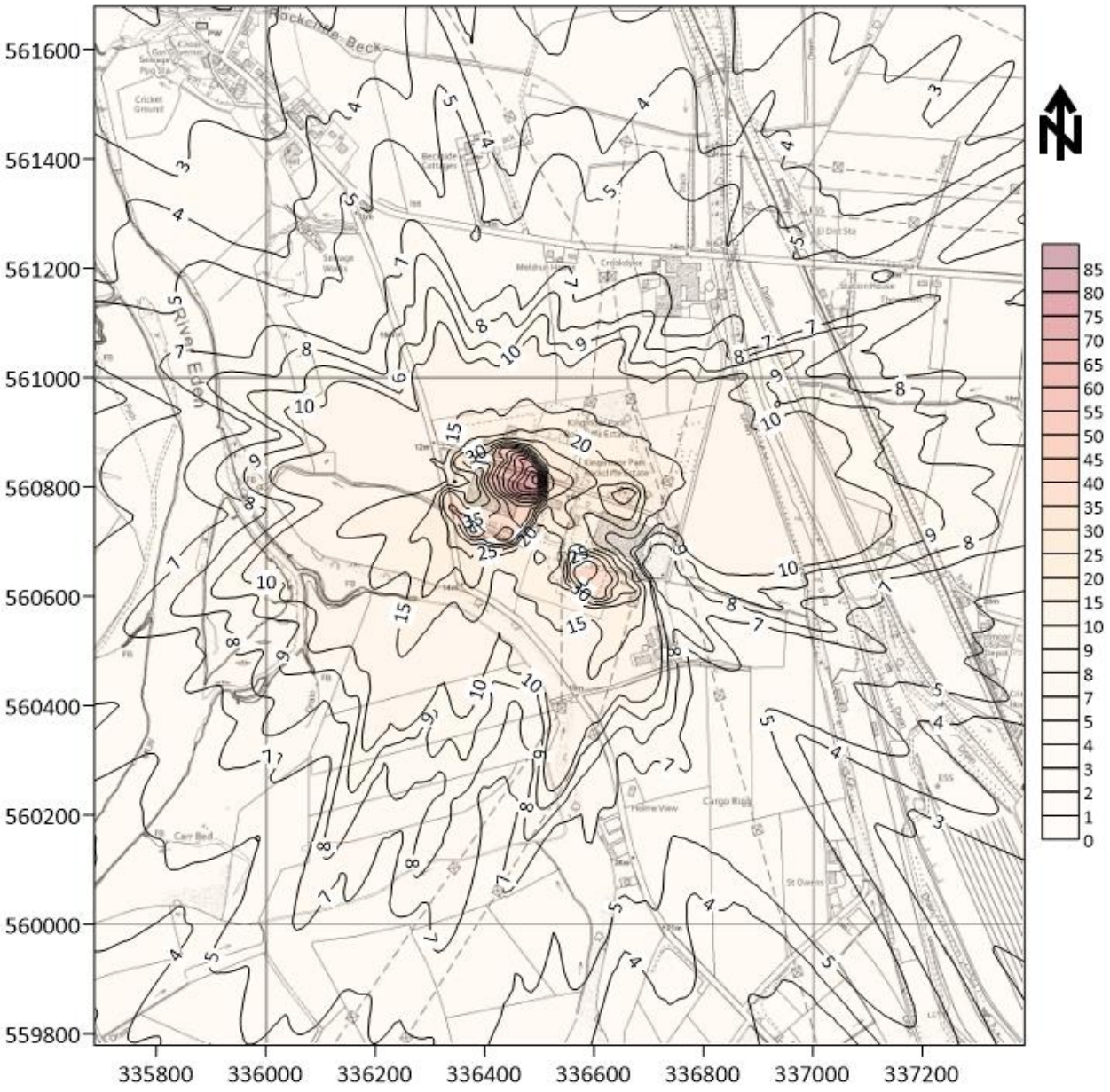
Appendix IV

Pollutant Contour Profiles



Appendix IV Figure 1 - maximum modelled 24-hour mean benzene concentrations, Phase 1, process contribution only (µg.m^{-3})

Oaktree Environmental Ltd
Lime House
2 Road Two
Winsford
Cheshire
CW7 3QZ



Appendix IV Figure 2 - maximum modelled 24-hour mean benzene concentrations, Phase 2, process contribution only (µg.m^{-3})

Oaktree Environmental Ltd
Lime House
2 Road Two
Winsford
Cheshire
CW7 3QZ

Appendix V

EA Dispersion Model Report Checklist

Appendix V Table 1 – Dispersion Model Report Checklist

Model Report Requirement	Relevant Sections of Report/Comments
Explain purpose of study	Section 1.1
Site Location Map	Appendix I
Include outline of potential pollutant emissions	Section 4.2.2
Outline relevant Environmental Standards	Section 2
Include ambient and background pollutant levels	Section 3
Explain choice of model	Section 4.1
Outline emission parameters and operational scenarios	Section 4.2.2 and Section 4.2.7
Explain modelled domain and receptors, including resolution of receptor grids	Sections 3.5 and 4.2.5
Explain meteorological data and surface characteristics	Section 4.2.4
Explain terrain	Section 4.2.6
Explain building treatments	Section 4.2.3
Explain any special model treatments	Section 4.2
Explain model uncertainty	Section 4.4
Sensitivity analysis	Reference should be made to Section 4.4 for discussion of model error and uncertainty. Conservative assumptions used throughout assessment to provide high level of confidence that predicted pollutant concentrations and impacts have not been underestimated.
Impact assessment	Section 5
Pollutant contour profiles	Appendix IV – contour profiles provided for pollutants and scenarios where PCs exceed significance criteria at relevant receptor locations, in accordance with government guidance
Model input files	Model input files will be provided to Environment Agency with permit application

Permit Application Supporting Document Appendix X

BAT Assessment

NORTH WEST RECYCLING LIMITED, ROCKCLIFFE INDUSTRIAL ESTATE, CARLISLE - BAT ASSESSMENT

North West Recycling Limited

Version:	1.1	**Date:**	29/10/2024		
Doc. Ref:	634-004-K	**Author(s):**	DY	**Checked:**	NWR
Client No:	634	**Job No:**	004		

Oaktree Environmental Ltd

Waste, Planning & Environmental Consultants

Oaktree Environmental Ltd, Lime House, 2 Road Two, Winsford, CW7 3QZ
Tel: 01606 558833 | E-Mail: sales@oaktree-environmental.co.uk | Web: www.oaktree-environmental.co.uk
REGISTERED IN THE UK | COMPANY NO. 4850754

Document History:

Version	Issue date	Author	Checked	Description
1.0	11/09/2024	DY	NWR	Internal draft
1.1	29/10/2024	DY	NWR	Application copy

CONTENTS

1 Introduction

1.1 This document includes an assessment of Best Available Techniques (BAT), which has been undertaken against the relevant BAT measures contained within the following document:

- Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 Establishing Best Available Techniques (BAT) Conclusions for Waste Treatment, Under Directive 2010/75/EU of the European Parliament and of the Council.[1]

1.2 This document has been prepared as part of the permit variation application for the inclusion of an installation activity at North West Recycling Limited. Rockcliffe Industrial Estate, Carlisle. Throughout this document, reference has been made to other application documents, where relevant, which should be read in conjunction with this document.

1.3 The application includes the addition of the an installation activity listed under Schedule 1 Part 2 Section 5.4 Part A(1)(b)(ii) of The Environmental Permitting (England and Wales) Regulations 2016, for the pre-treatment of waste for incineration and co-incineration, with a capacity exceeding 75 tonnes per day. As such, the operations are required to comply with the BAT conclusions outlined within Commission Implementing Decision 2018/1147. It should be noted that the BAT conclusions only apply to the installation activities and Directly Associated Activities (DAAs) and not the wider permitted activities which are the subject of the same permit application.

[1] Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 Establishing Best Available Techniques (BAT) Conclusions for Waste Treatment, Under Directive 2010/75/EU of the European Parliament and of the Council.

2 BAT Assessment

2.1 Assessment of BAT Against Commission Implementing Decision (EU) 2018/1147

2.1.1 The following sections provide assessment of BAT compliance for the proposed plant against the EU BAT Conclusions Document.

BAT 1 – Environmental Management System

2.1.2 An EMS has been prepared for the operation, which has been submitted with this permit application, demonstrating compliance with BAT 1.

BAT 2 – Improvement of Overall Performance of Plant

2.1.3 The EMS for the operation contains procedures and measures which demonstrate compliance with BAT 2. All available information in respect of each waste stream including any chemical analysis (if applicable) will be reviewed in order to verify that waste is coded correctly as part of pre-acceptance procedures.

2.1.4 All incoming vehicles upon arrival are required to report to the person in charge of waste acceptance at the site. The details of the load will be recorded and the duty of care note/company documentation will be further checked by the operator to ensure that the load is acceptable at the site, including a visual check prior to the vehicle proceeding to the tipping area. Any deviation from the procedures or problems with any loads will result in tipping facilities being suspended for the offending company. Loads which are not acceptable within the above terms will be rejected.

BAT 3 – Reduction of Emissions to Water and Air

2.1.5 The EMS and supporting management systems for the operation cover the requirements of BAT 3. An inventory of emissions will be included in the EMS.

BAT 4 – Reducing Environmental Risk Associated with Storage of Waste

2.1.6 The site design has been optimised to prevent any unnecessary handling and transport of wastes on site. Storage areas and processing areas are clearly defined on the Site Layout Plan and maximum permitted storage quantities and duration of storage are defined within the site management systems. Records of storage quantities will be assessed continuously against storage limits. Waste storage durations are clearly defined within the site management systems and continuously monitored. Storage arrangements have also been assessed as acceptable in terms of mitigating fire risk as part of the site EMS submitted as part of this permit application. A plant and machinery inventory is maintained within the site EMS and procedures are documented in the EMS for safe storage of drums and vessels. A quarantine area will be maintained for the temporary storage of hazardous wastes.

BAT 5 – Reducing Environmental Risk Associated with Handling and Transfer of Waste

2.1.7 Waste storage and handling procedures are covered within the site EMS. Wastes will only be handled and transferred by members of staff who are suitably trained/qualified. Appropriate training will be provided to all members of staff responsible for handling and transfer of wastes. Training procedures are documented within the site EMS. Spillage control procedures are included within the site EMS. Any spillages of fuel/oil will be cleared immediately by depositing sand or absorbents on the affected area. The sand or absorbents will be placed in a skip to be taken to a suitably permitted site for disposal. All spillages of waste and windblown litter will be cleared by the end of the working day in which they occur. All site surfaces will be inspected daily when the site is in operation. Debris will be swept as required and placed in a skip for disposal to a suitably permitted site.

BAT 6 and 7– Monitoring of Emissions to Water

2.1.8 There will be no emissions to water from the process.

BAT 8 – Monitoring Emissions to Air

2.1.9 Reference should be made to the responses to BAT 25 and BAT 31. Within Units and A and B, an extraction system will be installed with exhaust air directed to a dedicated abatement system and release of abated exhaust air via external flues.

2.1.10 The table below outlines proposed emissions monitoring, in accordance with BAT. Reference should be made to the site layout plan for details of emission point locations.

Table 2.1 – Emission Limits and Monitoring Requirements – Emission Point A1 and A2

Pollutant	Emission Limits ($mg.Nm^{-3}$) Expressed at Reference Conditions of 273.15K, 101.3kPa, dry gas	Monitoring Frequency	Monitoring Method
Dust	5	Every six months	Manual extractive test - EN 13284-1
Total Volatile Organic Compounds (TVOC)	30	Every six months	Manual extractive test - EN 12619 or EN ISO 13199

BAT 10 – Monitoring Odour Emissions

2.1.11 An Odour Management Plan (OMP) has been prepared by the operator for the operation which contains odour control and monitoring procedures, demonstrating compliance with BAT 10.

BAT 11 – Monitoring Annual Consumption of Water, Energy, Raw Materials and Annual Generation of Residues and Waste Water

2.1.12 The site operator will maintain records of water, energy and raw material consumption, in addition to generation of residues and water on at least an annual basis.

BAT 12 and 13 – Reducing Odour Emissions

2.1.13 An OMP has been prepared for the operation which contains odour control and monitoring procedures, demonstrating compliance with BAT 12 and 13.

BAT 14 – Reducing Diffuse Emissions, Particularly Including Dust, Organic Compounds and Odour

2.1.14 Diffuse emissions will be controlled as far as is practically possible on-site. The site has been designed to minimise unnecessary transfer material transfer distances. Wastes which are to be processed, including mixed non-hazardous wastes, will be stored in bays adjacent to the shredding operations to minimise the level of transfer required on site. All storage and processing areas for wastes which are pre-treated for incineration are within enclosed buildings, served by extraction system with appropriate abatement.

2.1.15 Given the nature of the feedstocks to be used, storage and processing procedures i.e. contained within a building, dust is not expected to be a significant issue. However, wet cleaning methods will be used and site damping down undertaken if required to prevent potential fugitive emissions of dust.

2.1.16 Drop heights will be minimised at all times. Speed limits will be enforced on site to minimise the raising of dust.

2.1.17 The shredding and trommel operation will be enclosed within a building with dedicated extraction and abatement system.

2.1.18 Regular maintenance will be undertaken on-site to ensure all plant and machinery is in good working order.

2.1.19 The OMP and EMS submitted as part of this application outline the environmental controls which will be in place in detail. A policy of cleanliness will be maintained on site at all times.

BAT 17 and 18 – Preventing and Reducing Noise Emissions

2.1.20 An Environmental Noise Assessment and Noise Management Plan (NMP) has been submitted as part of this application, demonstrating compliance with BAT 17 and 18.

BAT 19 – Optimising Water Consumption

2.1.21 Water use will be monitored and opportunities to reduce water use will be taken, if available and if practicably possible.

BAT 20 – Reducing Emissions to Water

2.1.22 There will be no emissions to water. Therefore, BAT 20 will not be relevant to the proposals.

BAT 21 – Preventing or Limiting Environmental Consequences of Accidents and Incidents

2.1.23 An Accident Management Plan (AMP) has been submitted as part of this application which covers procedures which will be implemented to prevent/limit environmental consequences of accidents and incidents, demonstrating compliance with BAT 21.

BAT 22 – Using Materials Efficiently

2.1.24 The operation will include the production of SRF/RDF from wastes, which is a high calorific fuel, which will be exported from site for energy recovery, thus ensuring wastes are recovered sustainably and efficiently.

BAT 23 – Using Energy Efficiently

2.1.25 Energy use will be monitored regularly and the operator will review and record measures for improving energy efficiency on an annual basis and take any action deemed necessary by the review. A breakdown of energy consumption by type of source will be included as part of the review. Reference should be made to information submitted as part of this permit application for details of basic measures to be used to improve energy efficiency.

BAT 24 – Reducing Quantity of Waste Sent for Disposal

2.1.26 There will be no packaging associated with the wastes to be used at the site. Wastes will be minimised as far as is practicably possible and disposed/recovered in accordance with the

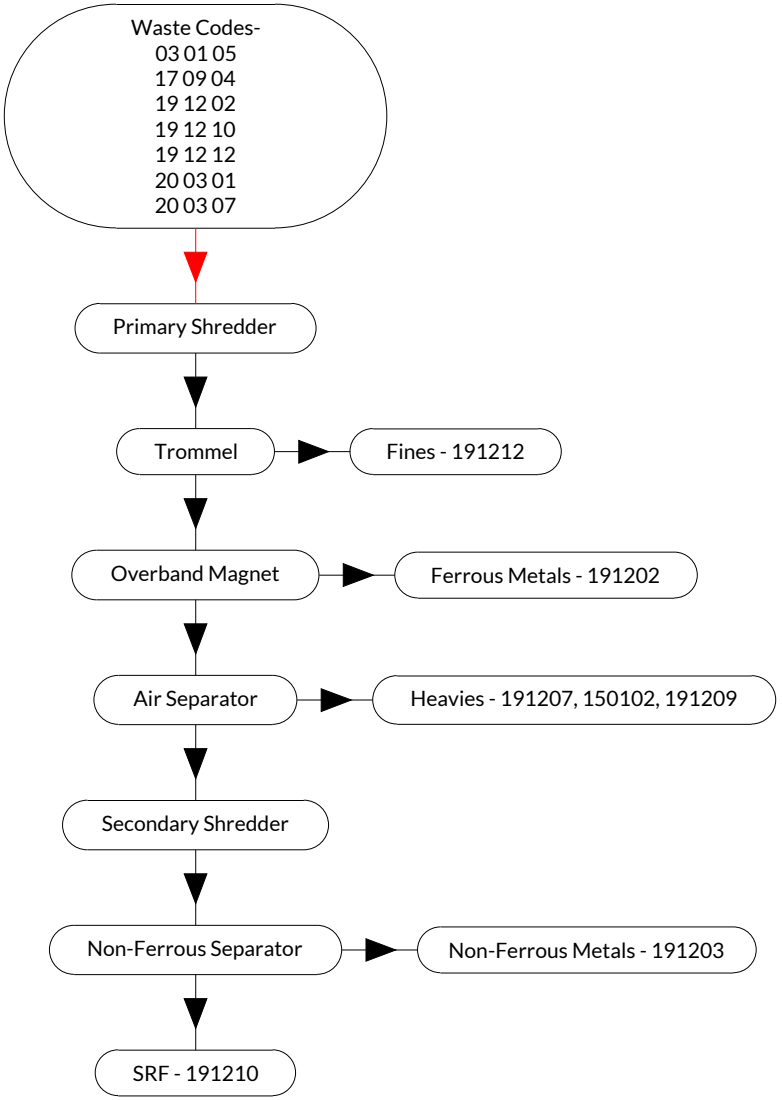
Waste Hierarchy. A full list of wastes and disposal/recovery route is included as part of this permit application.

BAT 25 and 31 – Mechanical Treatment of Waste, Including Waste with Calorific Value

2.1.27 Mechanical processing plant, such as shredders and trommel(s) will be enclosed within buildings, contained within Units A and B, as shown on the layout plan. The buildings will be operated under negative pressure, with diffuse emissions from mechanical processing captured and directed to abatement systems, prior to discharge via external flues. The abatement systems will comprise a reverse pulse jet baghouse filter and activated carbon, therefore complying with the requirements of BAT 25 and 31. Emission limits and proposed monitoring arrangements are summarised in response to BAT 8 above.

Permit Application Supporting Document Appendix XI

Process Flow Diagrams



NOTES

REVISION HISTORY

Rev:	Date:	Init:	Description:
-	19.03.25	JH	Initial drawing
A	19.03.25	JH	Amendment

KEY:

Conveyor

Loading via mobile plant

TITLE:

SRF PROCESS FLOW DIAGRAM (PHASE 1)

CLIENT:

North West Recycling Ltd

PROJECT/SITE:

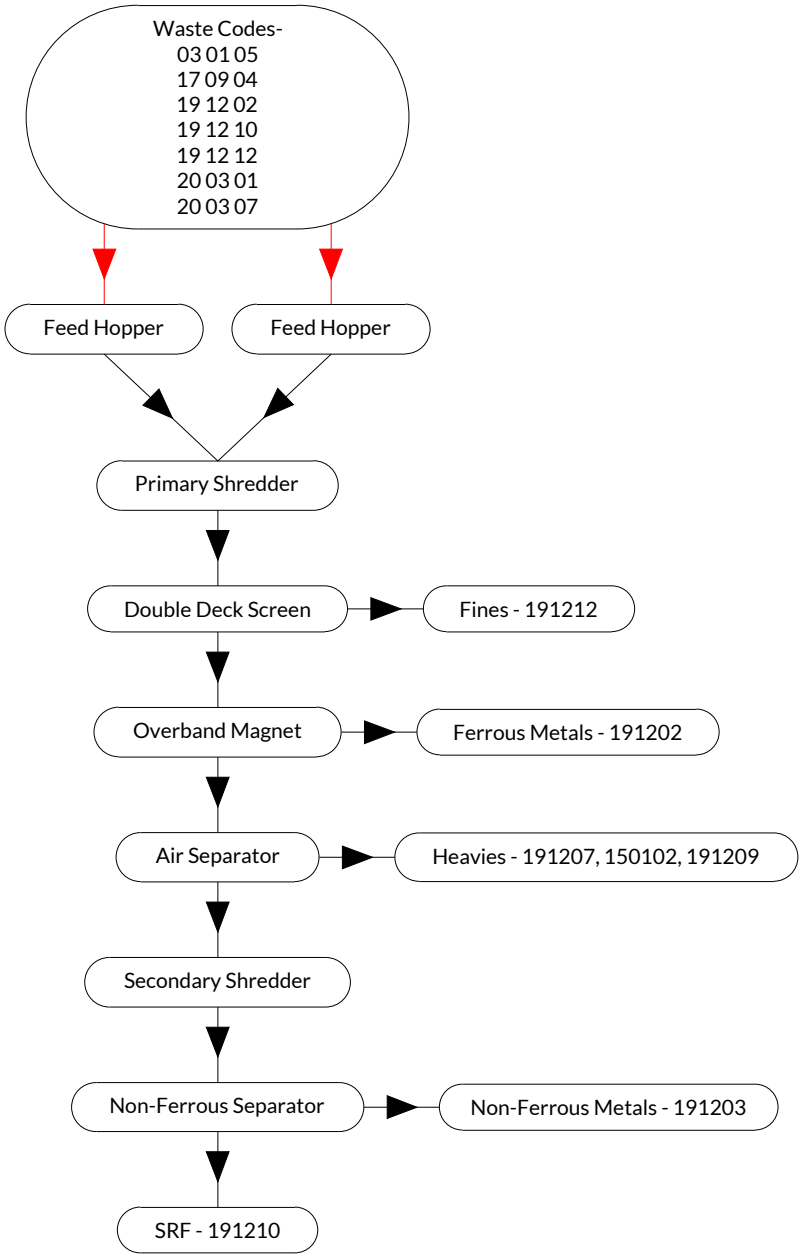
Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

	CLIENT NO:	JOB NO:
	634	004

DRAWING NO:	REV:	STATUS:
634-004-05	A	Issued

DATE:	DRAWN:	CHECKED:
19.03.25	JH	RS

Oaktree Environmental
Waste, Planning & Environmental Consultants



NOTES

REVISION HISTORY

Rev:	Date:	Init:	Description:
-	19.03.25	JH	Initial drawing
A	19.03.25	JH	Amendment

KEY:

Conveyor

Loading via mobile plant

TITLE:

SRF PROCESS FLOW DIAGRAM (PHASE 2)

CLIENT:

North West Recycling Ltd

PROJECT/SITE:

Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

CLIENT NO:	JOB NO:
634	004

DRAWING NO:	REV:	STATUS:
634-004-05A	A	Issued

DATE:	DRAWN:	CHECKED:
19.03.25	JH	RS

Oaktree Environmental
Waste, Planning & Environmental Consultants

North West Recycling

Waste Collection | Recycling | Renewable Energy

Waste Process Flow 2024

Glass & Stone PROCESSING LINE

EWC 19 12 12 – MBT Glass, Plastic, Metal and fibre waste from MBT of municipal refuse collections

EWC 19 12 12 – Fines from the treatment of site sweepings from wood processing plant

Skip waste trommel fines

Waste Acceptance Inspection

Daily Storage Quality Inspection

Daily inspection by Shift Supervisors to monitor stock condition

TROMMEL – HAND SORT STATION –LPS – AIR SEPERATION - MAGNET

Bricks/Tiles/Stones /Ceramics

191209

Aggregate WRAP Quality Protocol

Ferrous Metal

19 12 02

Batteries

20 01 33*

RECYCLING 40%

LPS & ZAC residual

191212

SRF / RDF 25%

Fines >10% LOI

191212

Landfill cover 40%

North West Recycling

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Waste Process Flow 2024

Household, Construction, Demolition and Industrial PROCESSING LINE

Skip Hire and Yard Trade EWC 17 09 04 Mixed Construction and Demolition Waste,

Skip Hire and Yard Trade EWC 20 03 01 Mixed Municipal Waste

Yard Trade EWC 19 12 12 Residual Waste from mechanical treatment of 17 09 04 and 20 03 01 (excluding domestic refuse collections)

Waste Acceptance Inspection

Pre – Sort
extract gypsum wastes and large domestic appliances

- Ferrous Metal — 191202
- Plasterboard — 170802

TROMMEL – HAND SORT STATION – MAGNET – AIR SEPERATION

Bricks/Tiles/Stones /Ceramics/Glass	Grade A&B Wood	Grade C Wood	Cable & WEEE	Cardboard	Mixed Paper	Ferrous Metal	Non Ferrous	Plastic Packaging	PVC & UPVC - Plastics	Green Waste		Residual Waste	Trommel Fines	Untreatable Waste
191209	191207	191207	200135* & 200136	150101	191201	191202	191203	150102	191204	200201		191212	191212	191212
Aggregate WRAP Quality Protocol														
					55% RECYCLING							17% RDF	25% To glass and stone production line	3% LANDFILL

North West Recycling

Waste Collection | Recycling | Renewable Energy

Waste Process Flow 2024

Household, Construction, Demolition and Industrial SRF PROCESSING LINE,

Yard Trade EWC 20 03 01 Mixed Municipal Waste

Yard Trade EWC 19 12 12 Residual Waste from mechanical treatment of 17 09 04 and 20 03 01 (excluding domestic refuse collections)

Waste Acceptance Inspection

SHREDDER - TROMMEL – FERROUS MAGNET – AIR SEPERATION – SHREDDER – STAR SCREEN – NON FERRROUS SEPERATOR

- Ferrous Metal — 191202
- Non-Ferrous Metal — 191203
- Wood (heavies) — 191207
- Plastic (heavies) — 150102
- Stone (heavies) — 191209

15% RECYCLING

- Trommel Fines — 191212
- Star Screen fines — 191212

20% IN-VESSEL COMPOSTING

- Solid Recovered Fuel (SRF) — 191210

64% WASTE TO ENERGY

- Untreatable Waste — 191212

1% LANDFILL

Permit Application Supporting Document Appendix XII

Site Condition Report

SITE CONDITION REPORT (FROM H5 TEMPLATE)

Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

North West Recycling Ltd

Version:	1.1	**Date:**	25th March 2025		
Doc. Ref:	634-004-Q	**Author:**	IA	Checked:	NWR
Client No:	634	**Job No:**	004		

Oaktree Environmental Ltd

Waste, Planning & Environmental Consultants

Oaktree Environmental Ltd, Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
Tel: 01606 558833 | E-Mail: sales@oaktree-environmental.co.uk | Web: www.oaktree-environmental.co.uk
REGISTERED IN THE UK | COMPANY NO. 4850754

Document History:

Version	Issue date	Author	Checked	Description
1.0	24/09/2024	IA	--	Internal draft
1.1	25/03/2025	IA	DY	Drawing references amended

SITE CONDITION REPORT TEMPLATE

For full details, see H5 *SCR guide for applicants* v3.0 May 2013

COMPLETE SECTIONS 1-3 AND SUBMIT WITH APPLICATION

DURING THE LIFE OF THE PERMIT: MAINTAIN SECTIONS 4-7

AT SURRENDER: ADD NEW DOC REFERENCE IN 1.0; COMPLETE SECTIONS 8-10; & SUBMIT WITH YOUR SURRENDER APPLICATION.

1.0 SITE DETAILS	
Name of the applicant	North West Recycling Ltd
Activity address	Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW
National grid reference	Please refer to Permit

Document reference and dates for Site Condition Report at permit application and surrender	634-004-Q Dated 25th March 2025

Document references for site plans (including location and boundaries)	Site Layout Plans – Drawing nos. 634-004-03 and 634-004-03A

Note:
In Part A of the application form you must give us details of the site's location and provide us with a site plan. We need a detailed site plan (or plans) showing:

- Site location, the area covered by the site condition report, and the location and nature of the activities and/or waste facilities on the site.
- Locations of receptors, sources of emissions/releases, and monitoring points.
- Site drainage.
- Site surfacing.

If this information is not shown on the site plan required by Part A of the application form then you should submit the additional plan or plans with this site condition report.

2.0 Condition of the land at permit issue	
Environmental setting including: • geology	No artificial ground is recorded as present at the site based on information from the British Geological Survey (BGS). The superficial deposits comprise Gretna Till Formation - Diamicton. Sedimentary superficial deposit formed between 116 and 11.8 thousand years ago during the Quaternary period. The bedrock geology comprises Mercia Mudstone Group - Mudstone. Sedimentary bedrock formed between 252.2 and 201.3 million years ago during the Triassic period. There are no geological faults shown in the vicinity of the site.

• hydrogeology • surface waters	Based on the nearest available borehole log in the general vicinity of the site (NY36SE399), the ground comprises demolition rubble (made ground) to 1.0mbgl, underlain by firm reddish brown sandy clay to 4.0mbgl, this is underlain by weathered red sandstone to 47.0mbgl at which the borehole was completed. The bedrock is designated as a Secondary B aquifer whilst the superficial drift is designated as an Unproductive aquifer. The site is not situated within a groundwater source protection zone or drinking water safeguard zone with respect to groundwater or surface water. The nearest surface water is an unnamed stream running along the southern boundary of the site which flows towards the River Eden. The nearest main surface water body is the River Eden which is approximately 300m from the site. The information provided by the EA and Gov.UK Flood Mapping indicated that the site lies within a flood zone 1 which has a low probability of flooding from rivers and the sea.
Pollution history including: • historical land-uses and associated contaminants	The review of publicly available mapping Is summarised below: • The earliest available mapping (1885 - 93) indicates that the site itself was undeveloped and comprised agricultural fields with a farm to the south/south-east. • By 1901 the lines of trees along the field boundaries, stream and road were no longer present on mapping. • On the 1972 – 76 mapping a large area of railway sidings (approx. 200m east of the site) had been developed to the west of the Caledonian Railway Line. • Over the years the site and surrounding land was developed and by 1974 the industrial units one of which was labelled as the 'Carlisle RAF Maintenance Unit' were developed. This layout on the mapping is essentially the current layout as it stands in the present day, although the unit to the North of Units A and B as since been removed. A stream at the southern boundary of the site has been partly culverted beneath the development. • In the present day the site and surrounding land comprises the Kingmoor Park, Rockcliffe

• pollution incidents that may have affected land • any visual/olfactory evidence of existing contamination • evidence of damage to pollution prevention measures	Estate and continues to be used for industrial & commercial purposes. Reference should be made to the Phase 1 and 2 Site Investigation reports submitted to the EA as part of the previous variation application submitted in 2021 for details of previous pollution incidents. There is no readily available data with regards to recorded pollution incidents within 250m of the site. A site walkover survey was undertaken, and the ground and areas of impermeable concrete surfacing appeared to be intact with no damage present. The access arrangements for the site and overall site layout detailing site infrastructure have been detailed on Drawing Nos 634-004-03 and 634-004-03A. During previous site visits there was no evidence of disturbed land, discoloured water/soil or subsidence. During previous visits to the site, an olfactory assessment was carried out. At the time of the assessment there was no visual or olfactory evidence of contamination recorded. All drainage and discharges on site will be consistent with the current situation for the facility. During the time of the survey there was no evidence of ponding at the site. The land uses surrounding the site comprised industrial and commercial land uses. During previous site walkover surveys, the site surface was observed to be intact, and no damage was observed. On this basis there is no evidence of damage to the existing pollution prevention measures.
Evidence of historic contamination, for example, historical site investigation, assessment, remediation and verification reports (where available)	Reference should be made to the Phase 1 and 2 Site Investigation reports submitted to the EA as part of the previous variation application submitted in 2021.
Baseline soil and groundwater reference data	N/A
Supporting information	N/A

3.0 Permitted activities	
Permitted activities	Refer to existing EP
Non-permitted activities undertaken	N/A
Substances to be used/stored on-site and Pollution Prevention Measures	Maintenance oil – stored in sealed containers, in accordance with relevant Health and Safety requirements Diesel – bunded storage on-site Ad-blue – stored within sealed tanks Activated carbon – stored on-site in accordance with relevant Health and Safety requirements There are sufficient pollution prevention measures in place, such that the risk to soil and ground water is considered negligible as there is not considered to be any significant pathway between source and receptor and therefore there is no requirement to provide baseline soil and groundwater data.

Document references for: • plan showing activity layout; and • environmental risk assessment.	Plans located in Appendix I of EMS (Doc. Ref. 634-004-B) Environmental Risk Assessment (634-004-D)

Note:

In Part B of the application form you must tell us about the activities that you will undertake at the site. You must also give us an environmental risk assessment. This risk assessment must be based on our guidance (*Environmental Risk Assessment - EPR H1*) or use an equivalent approach.

It is essential that you identify in your environmental risk assessment all the substances used and produced that could pollute the soil or groundwater if there were an accident, or if measures to protect land fail.

These include substances that would be classified as 'dangerous' under the Control of Major Accident Hazards (COMAH) regulations and also raw materials, fuels, intermediates, products, wastes and effluents.

If your submitted environmental risk assessment does not adequately address the risks to soil and groundwater we may need to request further information from you or even refuse your permit application.

4.0 Changes to the activity	
Have there been any changes to the activity boundary?	It should be noted that the permit boundary has been regularised as part of this application to reflect existing operations which are authorised under the permit, and which have been implemented under the permit for a number of years. The permit boundary and layout plan in the existing permit is not appropriately scaled or detailed. A fully detailed scaled layout and permit boundary plan has been produced and submitted as part of this application, informed by detailed drone survey of the site. Please refer to Drawing Nos 634-004-03 and 634-004-03A.
Have there been any changes to the permitted activities?	The operator proposes to increase the permitted volume of material that is pre-treated for incineration above 75 tonnes/day. As such, this will be classed as an installation activity under the Environmental Permitting (England and Wales) Regulations 2016 (as amended) ("the regulations"). A variation to the existing EP is therefore required to include an installation activity within the permit. The installation activity will be undertaken within Unit B. The second phase will require an extension to Unit B. Both phases of the development are illustrated on the layout plans i.e. Drawing Nos 634-004-03 and 634-004-03A. The material to be processed in Unit B will either be delivered direct to Unit B from off-site sources or obtained from some of the waste materials recycled in Unit A. The non-installation activities within Unit A will remain as authorised within the existing permit.
Have any 'dangerous substances' not identified in the Application Site Condition Report been used or produced as a result of the permitted activities?	N/A
Checklist of supporting information	• Plan showing any changes to the boundary- See Drawing Nos 634-004-03 and 634-004-03A • Description of the changes to the permitted activities – See 'PERMIT APPLICATION SUPPORTING DOCUMENT' (Doc Ref: 634-004-M) • List of 'dangerous substances' used/produced by the permitted activities that were not identified in the Application Site Condition Report – N/A

5.0 Measures taken to protect land

Use records that you collected during the life of the permit to summarise whether pollution prevention measures worked. If you can't, you need to collect land and/or groundwater data to assess whether the land has deteriorated.	
Checklist of supporting information	• Inspection records and summary of findings of inspections for all pollution prevention measures • Records of maintenance, repair and replacement of pollution prevention measures

6.0 Pollution incidents that may have had an impact on land, and their remediation	
Summarise any pollution incidents that may have damaged the land. Describe how you investigated and remedied each one. If you can't, you need to collect land and /or groundwater reference data to assess whether the land has deteriorated while you've been there.	
Checklist of supporting information	• Records of pollution incidents that may have impacted on land • Records of their investigation and remediation

7.0 Soil gas and water quality monitoring (where undertaken)	
Provide details of any soil gas and/or water monitoring you did. Include a summary of the findings. Say whether it shows that the land deteriorated as a result of the permitted activities. If it did, outline how you investigated and remedied this.	
Checklist of supporting information	• Description of soil gas and/or water monitoring undertaken • Monitoring results (including graphs)

8.0 Decommissioning and removal of pollution risk	
Describe how the site was decommissioned. Demonstrate that all sources of pollution risk have been removed. Describe whether the decommissioning had any impact on the land. Outline how you investigated and remedied this.	
Checklist of supporting information	• Site closure plan • List of potential sources of pollution risk • Investigation and remediation reports (where relevant)

9.0 Reference data and remediation (where relevant)

Say whether you had to collect land and/or groundwater data. Or say that you didn't need to because the information from sections 3, 4, 5 and 6 of the Surrender Site Condition Report shows that the land has not deteriorated. If you did collect land and/or groundwater reference data, summarise what this entailed, and what your data found. Say whether the data shows that the condition of the land has deteriorated, or whether the land at the site is in a "satisfactory state". If it isn't, summarise what you did to remedy this. Confirm that the land is now in a "satisfactory state" at surrender.

Checklist of supporting information	• Land and/or groundwater data collected at application (if collected) • Land and/or groundwater data collected at surrender (where needed) • Assessment of satisfactory state • Remediation and verification reports (where undertaken)

10.0 Statement of site condition
Using the information from sections 3 to 7, give a statement about the condition of the land at the site. This should confirm that: • the permitted activities have stopped • decommissioning is complete, and the pollution risk has been removed • the land is in a satisfactory condition.

Permit Application Supporting Document Appendix XIII

Dust Management Plan

DUST MANAGEMENT PLAN

Rockcliffe Industrial Estate, Rockcliffe, Carlisle, CA6 4RW

North West Recycling Ltd

Version:	1.0	**Date:**	21st March 2025		
Doc. Ref:	634-004-H	**Author(s):**	DY	**Checked:**	
Client No:	634	**Job No:**	004		

Oaktree Environmental Ltd

Waste, Planning & Environmental Consultants

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REGISTERED IN THE UK | COMPANY NO. 4850754

Document History:

Version	Issue date	Author	Checked	Description
1.0	18/03/2025	DY	--	Draft for client comment
1.1	21/03/2025	DY	NWR	Submitted to EA

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List of Appendices:

Appendix I - Drawings

Drawing No. 634-003-03 and 634-004-03A – Site Layout Plans

Drawing No. 634-004-04 – Sensitive Receptors Plan

Appendix II - Complaints Recording Form

1 Introduction

1.1 Site History/Background

1.1.1 Oaktree Environmental Ltd have been instructed by North West Recycling Ltd to prepare a Dust Management Plan (DMP) for their site situated at Rockcliffe Industrial Estate, Rockcliffe, Carlisle, CA6 4RW.

1.1.2 All references to the site in this Dust Management Plan (DMP) shall mean the permitted boundary extracted from the EP.

1.1.3 This DMP will allow North West Recycling Ltd to implement an action plan should the site operatives detect the presence of excessive airborne dust escaping beyond the site boundary, receive complaints from local business or residents and should the EA suspect dust emissions from the site during an inspection.

1.1.4 The EA have required the DMP since the permit holder is proposing to add installation activities to the permit. It is not anticipated that dust risk will increase as a result of the proposed changes compared to the existing permitted operation. Indeed, it is anticipated that the inclusion of abatement systems with dust collection units on Units A and B will decrease the risk of dust from the operations.

1.2 Site Location

1.2.1 The site is located at Rockcliffe Industrial Estate, Rockcliffe, Carlisle, CA6 4RW as shown on Drawing Nos. 634-003-03 and 634-004-03A.

1.2.2 **Air Quality Management Area (AQMA)** – The site is not located within an AQMA.

1.3 Facility Overview

1.3.1 The site will be operated as a bespoke installation permit and will accept Household, Commercial and Industrial (HCI) and Construction, Demolition and Excavation (CDE) wastes. The waste accepted will undergo further treatment to define the waste.

1.3.2 The main issue of dust could arise from, but not limited to the following:

i) Waste reception and tipping areas;
ii) Manoeuvring of vehicles tracking dust;
iii) Operation of mechanical treatment plant; and,
iv) Storage and loading areas comprising potentially 'dusty' wastes.

1.3.3 In addition to this document, the site will also operate in accordance with a number of site-specific documents; namely an Environmental Management System (EMS) which will make reference to this DMP.

1.3.4 All relevant operational staff will be suitably trained to ensure they understand the purpose of this DMP and understand what actions need to be taken in event of a complaint. Training will be taken by the site manager, technically competent manager/s (TCM/s) or third-party Dust / Air Monitoring Consultant.

2 Sensitive Receptors

2.1 Receptor Plan

2.1.1 A sensitive receptors plan (SRP) has been produced to accompany this DMP and is shown in Appendix I, referenced as Drawing No. 634-004-04. The receptors highlighted are those which are considered to be at risk from dust and dust particles generated by the site. The SRP also details the prevailing wind direction, shown to be from the West-South-West.

2.2 List of Receptors

2.2.1 The table below outlines selected, representative receptors sensitive to dust. All receptors within 1,000 metres, including those shown in Table 2.1 below, are illustrated on Drawing No. 634-004-04.

Table 2.1 – Distances to Selected, Representative Sensitive Locations

Receptor Identifier	Receptor	Receptor Type	Direction from Site	Approximate Distance from Site Boundary (m)
1	Residential Properties (Bank End and Holme View)	Residential	South/South-East	120 - 400
2	Residential Properties (West View and Middle Farm)	Residential	East	400-750
3	Residential Properties (Meldrun House and Crookdyke)	Residential	North	370
4	Residential Property (Shapwath)	Residential	North-North-West	560
5	River Eden	Ecological	West	450
6	River Eden and Tributaries Site of Special Scientific Interest (SSSI) and River Eden Special Area of Conservation (SAC)	Ecological	West	450
7	Commercial and industrial units	Industrial	Various	10-1000
8	Priority habitat (woodland)	Ecological	South, South-West, North-North-West	380-950

2.3 Other Dust and Emission Sources

2.3.1 Other dust/particulate emitting operators are tabulated below in Table 2.2 below.

Table 2.2 – Other Dust/Particulate Emitting Operators

Company	Address	Type of Business	Direction from Site	Approximate Distance from Site Boundary (m)
Nixon Hire	Westmoor, Rockcliffe, Carlisle CA6 4BH	Industrial/Commercial	East	860
Network Rail (Kingmoor)	Carlisle CA6 4BE	Industrial/Commercial	East/South-East	600
Commercial/ Industrial users on Rockcliffe industrial estate	Rockcliffe Industrial Estate	Waste/ Industrial / Commercial	Adjacent /surrounding	Adjacent / surrounding

3 Site Operations

3.1 Waste Deliveries/Removals

3.1.1 Waste will be delivered to the site via an access track. Upon arrival, an operative will direct the driver to the relevant area on site for storage or processing.

3.1.2 Waste will arrive and depart at/from the site primarily consisting of North West Recycling Ltd's own vehicles/contracts.

3.1.3 Any third-party deliveries to the site will be advised that any potentially dusty loads be suitably sheeted. If the customer has the capability to wet down potentially dusty loads, they will be asked to do this. If a customer is unable to place a dust sheet on a vehicle or wet a load they will be prohibited from loading/unloading until suitable containment has been provided. In more extreme cases, customers may be asked to leave the site immediately.

3.1.4 Following initial inspection of the load, if any loads are found to be containing high levels of powders, it will be rejected in accordance with the site's rejected waste procedure.

3.2 Site Infrastructure

3.2.1 An EP application is being submitted to vary the EP in two phases, the site infrastructure during each proposed phase is clearly detailed on Drawing Nos. 634-003-03 and 634-004-03A, included within Appendix I of this DMP.

3.2.2 The drawings illustrate the following areas on site:

- Location of buildings;
- Site surfacing;
- Reception and storage areas of waste;
- Waste processing areas;
- Locations of mains water points and vehicle wash-down areas (if applicable); and,
- Location of fuel storage area (if applicable).

3.3 Wastes with Dust Potential

3.3.1 Reference should be made to the EP for a full list of waste codes for wastes that may be accepted at the site. Many of the wastes accepted at the site have dust potential. All wastes are handled, treated and stored in line with the control measures (Section 4) and procedures detailed throughout this DMP.

3.4 Overview of Site Operations

3.4.1 All incoming vehicles upon arrival are required to report to the person in charge of waste acceptance at the site. The details of the load will be recorded, and the duty of care note/company documentation will be further checked by the operator to ensure that the load is acceptable at the site, including a visual check prior to the vehicle proceeding to the tipping area. Any deviation from the procedures or problems with any loads will result in tipping facilities being suspended for the offending company. Loads which are not acceptable within the above terms will be rejected.

3.4.2 The operator currently implements detailed procedures for waste acceptance for each general waste stream type. Reference should be made to the EMS for detailed procedures in this regard.

3.4.3 Once a load has been accepted by the operator the contents of the delivery vehicles are discharged into the reception area or appropriate bay in accordance with the following procedures:

a) Waste subject to processing in Unit B will be tipped into the reception area and loaded into one of the two hoppers which conveys the materials into the Solid Recovered Fuel (SRF) treatment line which will be utilised to produce Refuse Derived Fuel (RDF)/SRF for temporary storage prior to incineration.
b) Waste subject to the ‘Red line’ will be tipped into the feed pile within Unit A and loaded into the feed hopper. The material will pass through a trommel which results in fines being discharged into the bay beneath. The remaining material will be conveyed into the picking line and discharge the separated material into the relevant bay below, the

picking line comprises 12 bays. The remaining bulky hardcore will be discharged into an external bay outside of the building, this material may be transferred to the soils and aggregate treatment area for further processing.

c) Waste subject to the 'Glass and Stone line' will be fed into the hopper of the processing plant. Resultant material will be discharged and transferred to the relevant storage area.

d) Waste subject to soils and aggregate treatment will typically be subject to crushing and/or screening which will process material for recovery and resale purposes.

3.4.4 The waste processing buildings (Units A & B) will each include a Local Exhaust Ventilation (LEV) system, which will extract air via carbon filter and baghouse filter systems for emissions control, with air exhausted via external elevated flues for dilution and dispersion of residual emissions.

3.4.5 Soils and aggregates will be processed externally within a bunded area, consistent with existing operations at the site.

3.4.6 Once materials have been put through the treatment process, they are either directly loaded into a vehicle for export off site or securely stored in the appropriate storage area.

3.5 Mobile Plant and Equipment

3.5.1 Mobile plant and equipment, along with their preventative maintenance schedule, are clearly detailed in the site EMS and not considered necessary to duplicate as part of this DMP.

3.5.2 A 'no-idling' policy is in place which ensures that engines are switched off when vehicles or plant are not in use. This policy will ensure that tail pipe emissions are significantly reduced.

4 Dust Management & Control Measures

4.1 Responsibility for Implementation of the DMP

4.1.1 The site manager and TCM (site management) will be responsible for the implementation of the DMP. Deputy site managers and senior plant operatives will also be identified in order to support the site manager. Full job roles at the site are clearly demonstrated in the site EMS.

4.1.2 Site management will ensure the DMP is reviewed annually or sooner in the event of complaints/dust issues; whichever is the soonest, with any amendments or alterations put in place as soon as reasonably possible.

4.1.3 The above staff with the aid of Oaktree Environmental Ltd (if required) will be responsible in providing training to relevant operational staff to ensure they are deemed competent and understand the contents of this DMP. Staff will undergo refresher training every 12 months, or in the event of a dust complaint/issue, or prior to the implementation of operational changes. If deemed necessary, a suitable Dust/Air Monitoring Consultant may be contacted to train staff regarding third-party monitoring i.e. Ambient Air Monitoring.

4.2 Sources of Fugitive Dust/Emissions

4.2.1 The main dust/emission sources which arise from site are detailed in the table below:

Table 4.1 – Dust Emission Source Table

Source/Plan Ref	Description
Reception Areas	The main tipping areas or waste reception areas
SRF Storage bays	The main storage areas for SRF pending removal
Loading of waste into mechanical plant	Loading waste into the relevant treatment plant i.e. SRF plant/MRF plant/crusher /screener/shredder etc..
Various sources	Output and storage of waste arising from treatment
Various sources	Vehicles accessing/aggressing the site tracking dust onto or off the site
Various sources	Dust being blown around from site surfaces or dusty wastes not contained
Various sources (sorted wastes)	Loading waste materials back on to vehicles for export from site
Various sources	Particulate emissions from the exhaust of vehicles/plant/machinery on site

4.3 Control Measures (Staff Training/Daily Inspections)

4.3.1 Good housekeeping and site practices are vital to ensure that the impacts from fugitive dust and debris impacts are controlled. The site undertakes regular inspections throughout the day for the presence of dust/debris with corrective actions taking place upon discovery. Operational staff are suitably trained in procedures to keep the levels of dust/debris to a minimum, including prevention and mitigation. The inspections will be once-a-day minimum and more frequent during dry/windy weather conditions. The inspection points may vary on site so are not included in this DMP.

4.3.2 The areas listed in table 4.1 above (i.e. where dusts may arise or build up) will be continuously monitored throughout the working day and cleaned on a daily basis; paying special attention to the machines where dust is more likely to build up.

4.3.3 Dust from processing/treatment operations on site can settle at the end of the shift/ working day, so an end of day inspection of plant/equipment/machinery will be implemented after cessation of works and any build-up of dust/fluff will be removed using on-site hoses and rags and deposited into a wheelie bin and comments noted in the daily inspection sheet shown in the appendix of the EMS.

4.3.4 The plant/machinery used at the site are mobile, and at the end of each working day they are manoeuvred to an alternative area of the site; this allows any areas that dust has accumulated beneath to undergo a rigorous clean using the same methods as above.

4.3.5 The operator will avoid fugitive dust emissions by committing to the following housekeeping:

- Maintain a clean, well-organised site;
- Use suppression systems to dampen down potentially dusty wastes;
- Clean equipment that has been in contact with dusty materials; and,
- Floors sealed to prevent absorption and adsorption of dust producing residues.

4.4 Control Measures (Boundary/Containment)

4.4.1 The waste reception/tipping area and storage locations are situated within dedicated stockpiles.

4.4.2 The majority of wastes will be accepted and stored within Units A and B, which are enclosed buildings which provide containment of fugitive emissions.

4.4.3 The area of the site where Inert & CDE waste (i.e. soils and aggregate) is stored/processed, is surrounded by an embankment bund to the West, South and East and will also be screened by the adjacent units to the North. Both of these will act as a wind barrier and provide screening for this area of the site.

4.4.4 Externally to Unit A, smaller amounts of wastes are stored in bays, including metals scrap and bulky hardcore waste, which will be stored within skips/bays, but are of low dust potential.

4.4.5 Four aggregates product bays will be included to the South of Unit A, but the bays will act as a wind barrier.

4.4.6 It is worth noting that not all concrete bays on site are constructed to act as an abatement measure; some are used as a stockpile separation measure to avoid cross-contamination of waste streams.

4.5 Control Measures – Control of Dust Emissions From Unit A and B

4.5.1 In order to comply with installation Best Available Technique (BAT) requirements, the operator proposes to install extraction systems on Units A and B, to collect and treat diffuse emissions from mechanical treatment of wastes which are pre-treated for incineration. This will include the installation of activated carbon and baghouse filters on each unit to control emissions of dust and VOCs. Exhaust air will be released via external elevated flues on each unit, which will dilute and disperse residual emissions. The height of each flue will be 2m above the maximum height of each unit. Reference should be made to Appendix I for site

layout plan illustrating proposed exhaust flue locations (emission points A1 and A2). This will provide a betterment in terms of potential dust emissions from Unit A and B.

4.6 Control Measures – Site Surfacing/Drainage

4.6.1 Site drainage arrangements are shown on Drawing Nos. 634-003-03 and 634-004-03A. Clean surface water drainage from roof and yard areas will drain to the beck running along the Southern part of the site, consistent with the existing, authorised arrangements. There will be no change to arrangements for management of foul water arising from welfare facilities and offices on site. This will be discharged in accordance with an existing EP in place for the discharge.

4.7 Control Measures – Site Surfaces and Vehicle Movements

4.7.1 The control measures implemented by site management to minimise the risk of dust and debris emissions from dusty site surfaces and vehicle movements include:

- Sheeting of vehicles delivering waste to the site (if necessary);
- Sheeting of vehicles transporting potentially dusty loads off site;
- Cleaning of any spillages using wet cleaning methods;
- Use of crusting agents on stockpiles of finer materials, if required;
- Stockpiles will be kept to a minimum as operating conditions allow;
- Drop heights **ALWAYS** minimised to prevent dust emissions;
- The site utilises a water bowser whenever necessary to aid in dust suppression;
- A permanent water supply will be made available on site during dry weather conditions to ensure that the dust suppression systems can function effectively;
- All site surfaces used for the tracking and running of vehicles and/or plant and all stockpiles of wastes which have the potential to be dust-forming are inspected morning and pre-end of shift to remove any build-up of debris;
- A road sweeper/shovel will be used to clean the site surface if necessary;
- Vehicle speed on site is restricted. Signs are erected at relevant areas of the site, including the main access gates, to advise drivers of the speed limit. This will reduce the re-suspension of dust and particulate matter;

- Exiting vehicles will leave the site and will avoid all areas where wastes are stored or stockpiled. All vehicles will be checked before they leave the site to ensure no mud/dust can stretch beyond the site access;
- Any mud/dust deposited onto the public highways will be treated as an emergency and cleaned by operatives or by way of a road sweeper as necessary; and,
- Any dust/fluff cleared from mobile plant or other areas where dust/fluff could idle, the material will be deposited into one of various mobile wheelie bins which are located in several areas which do not restrict vehicle movements.

4.8 Control Measures – Site Suppression

4.8.1 Before exiting the site, all vehicles will be stopped and visually inspected by trained staff to reduce the risk of dust/mud/debris being tracked off-site. If the member of staff inspecting the vehicle is satisfied, the vehicle is suitable to egress and will be directed to the exit. If the vehicle is not suitable to egress, the staff member will instruct site operatives to use the onsite hosepipes and brushes to wash down/clean the wheels and bodies of vehicles. Following this, a final inspection will be carried out by the trained staff member before any vehicle can leave the site. If the vehicle still contains traces of mud and debris the process will be repeated until the vehicle is clear and the potential of mud being tracked onto roads is eliminated.

4.8.2 **Suppression System –** The site benefits from the use of a mobile bowser and water sprinkling system. The bowser is used several times throughout the day to dampen down the potentially dusty stockpiles and site surfaces. This mitigation measure ensures that stockpiles and surfaces are controlled with moisture to prevent the materials becoming friable and therefore reduces potential dust levels at the site.

4.8.3 **Treatment Plant Suppression –** The external mechanical treatment plant for processing of soils and aggregates benefit from spray bars which will pre-wet / spray wastes before they are treated.

4.9 Control Measures – Water Supply

4.9.1 A permanent water supply will be made available on site during all weather conditions to ensure that the dust suppression can function effectively, and the mobile bowsers can be kept 'charged'. All external water pipes will be lagged to prevent frost damage during winter months and the operator will set up a notification alert system with the Met Office in the event of a drought being imminent. This will enable the operator to source water in the short and long term and store in tanks prior to a potential water ban.

4.9.2 The supply and drainage of the water is provided from the sewerage undertaker who can be contacted in the event of low water pressure to ensure the issue is rectified so suppression techniques are not compromised.

4.10 Control Measures – Storage/Handling/Processing of Waste

4.10.1 The control measures implemented by site management to minimise the risk of dust and debris emissions from the continuing storage of wastes and the loading/unloading of these include:

- If required, external stockpiles will be sprayed with water during periods of dry/windy weather to prevent excessive drying and dust formation;
- Drop heights will be kept to a minimum (i.e. 1 – 2m) to prevent dust emissions where adjustment permits;
- As standard, the removal of material from external stockpiles will be carried out from the most sheltered location. If necessary, stockpiles can be pre-wetted and sprayed during loading operations; and,
- Enclosure of waste storage within Units A and B with additional extraction and abatement system including baghouse filter, to be installed subject to the permit variation being granted.

4.11 Control Measures – Vehicle Movements and Mobile Plant

4.11.1 A no idling policy is in place which ensures that engines are switched off when vehicles or plant are not in use. This policy will ensure that tail pipe emissions are significantly reduced.

4.11.2 The site will follow the first in first our principle to reduce additional movements. In summary, waste will typically be tipped from the HGV into waste reception areas, the oldest material will be extracted and loaded into the relevant processing plant. A HGV will collect the processed material and remove it off site.

4.12 Control Measures - Loading and Unloading Vehicles

4.12.1 The operator of the loading plant will direct vehicles to a position and location which reduces wind whipping of loaded material i.e. the lee side of the loading plant. Should the loading and unloading of external storage areas be carried out during periods of dry or windy weather or if the material is considered finer/dusty material, stockpiles will be dampened prior to and during loading operations.

5 DUST MANAGEMENT RISK ASSESSMENT MODEL

5.1 Fundamental Considerations

5.1.1 **Source/Hazard:** A property or situation that in particular circumstances could lead to harm.

5.1.2 **Consequences:** The adverse effects or harm as the result of realising a hazard which causes the quality of human health or the environment to be impaired in the short or long term.

5.1.3 **Risk:** A combination of the probability of occurrence of a defined hazard and the magnitude of the consequences of the occurrence.

5.2 Pathway

5.2.1 Important in the assessment of a particular risk(s) and to inform the subsequent management of the risk(s) is the identification of the pathway(s) through which the risk may affect the identified receptor(s). The following are examples of pathways:

- Air
- Ground
- Water
- Direct contact / exposure

5.3 Consequences

5.3.1 The following table highlights the consequences of the hazard(s) identified and the abbreviations for each as used in the Risk Assessment Table 5.5 in Section 5.7.

Table 5.1 – Consequences

Abbreviation	Consequences
A	MINOR INJURY
B	MAJOR INJURY
C	DEATH
D	AIR POLLUTION
E	WATER POLLUTION
F	POLLUTION OF LAND

5.4 Effects of Consequences

5.4.1 In order to quantify the level of risk and identify the appropriate management procedures, the potential effects must be considered, as outlined in the table below:

Table 5.2 – Potential effects

Abbreviation	Effect of Consequences	Management Required?
S	SEVERE	In all cases
Mo	MODERATE	In most cases
Mi	MILD	Occasionally
N	NEGLIGIBLE	No

5.4.2 Note: "Management" is the action required to reduce the risk of a hazard causing a problem on site. Contingency measures are procedures which are in place to reduce the consequences of a hazard.

5.5 Risk Estimation and Evaluation (Probability/Frequency of Occurrence of Hazard)

5.5.1 The following table allows the likelihood of an occurrence of an identified risk to be assessed:

Table 5.3 – Likelihood

Scale	Probability	Evaluation
1	Very likely	Could occur during any working day
2	Likely	Could occur regularly
3	Possible	Event possible
4	Unlikely	Event very unlikely

5.6 Risk Assessment Outcome (Combination of Probability & Consequence)

5.6.1 The following table shows the resultant risk of an identified hazard or potential situation. This uses the hierarchy of both probability and consequence to assess the level of risk. The level of risk determines what level of management would be required in order to reduce the risk of occurrence and/or scale.

Table 5.4 – Risk Assessment Outcome

		Consequence			
		S	**Mo**	**Mi**	**N**
Probability	**1**	High	High	Medium	Low
	2	High	Medium	Low	Near-Zero
	3	Medium	Low	Near-Zero	N/A
	4	Low	Near-Zero	N/A	N/A

5.6.2 Where the risk assessment outcome is high, first-level management of the risk is essential, i.e. removal of hazard, implementation of major infrastructure/structural design measures to contain the risk/hazard and company policy changes to incorporate the management of the risk. All risk management measures must be supplemented with detailed induction training, spot training and tool-box talks to ensure all site staff and users are made fully aware of the risk/hazard, all potential consequences and necessary management and contingency procedures.

5.6.3 Where the risk assessment outcome is medium, the management of the risk should be tackled by management or delegates. If removal of the hazard is not possible, management will normally be met through implementing minor structural design measures or by imposing procedures for the prevention of occurrences which will be conveyed to all site staff through the appropriate training, including any contingency measures/procedures.

5.6.4 Where the risk assessment outcome is low, the management of the risk can be done wholly through appropriate training to site staff including any contingency measures/procedures.

5.6.5 Where the risk assessment outcome is near-zero, site staff should be made aware of the possibility of an occurrence and contingency measures should be readily available to all staff should they be required.

5.7 Risk Assessment Table

5.7.1 The following pages contain the site-specific dust risk assessment for the site with appropriate remedial actions, recommendations and comments included for each identified hazard, potential contaminant or situation.

5.7.2 As discussed in the section above, all situations which identify a risk from Low –High should be incorporated into the staff/visitor training schedule, where appropriate and acted on as required.

5.7.3 Table 5.5 details the relevant pathways and receptors for each individual dust/emission source and relevant measures required to break these linkages. The control measures outlined in Section 4 will be included within these tables as well as additional specific measures.

SEE TABLES OVERLEAF

Table 5.5 – Source, Pathway, Receptor, Abatement Tables

Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments	Assessment Outcome following action /recommendation
Dust / Particulates	Unsheeted vehicles accessing/ egressing to/from the site	Air	Site personnel / visitors Surrounding site users / occupiers Surface waters Flora & fauna Residential receptors Surrounding businesses	Air Pollution Water Pollution	Moderate	3	Low	Management will ensure that all site vehicles containing inerts i.e. soils and aggregates and other potentially dust generating wastes are adequately sheeted before accessing and leaving the site. A maximum speed limit will be maintained on-site. Any mud/dust deposited onto the public highway will be treated as an emergency and cleaned by operatives or by way of a road sweeper which should management observe significant dust build up or generation along the access road.	Low
Dust / Particulates	Vehicles tipping into waste reception/ storage areas	Air	Site personnel / visitors Surrounding site users / occupiers Surface waters Flora & fauna Residential receptors Surrounding businesses	Air Pollution Water Pollution	Moderate	2	Medium	Drop heights will be kept to a minimum to prevent dust emissions i.e. 1m – 2m above ground. The onsite water bowser will offer additional suppression throughout the operational day. The operator will avoid doubling handling of waste and may directly load from vehicle directly into the treatment plant if feasible.	Low
Dust / Particulates	Loading of waste into treatment plants	Air	Site personnel / visitors Surrounding site users / occupiers Surface waters Flora & fauna Residential receptors Surrounding businesses	Air Pollution Water Pollution	Moderate	2	Medium	Drop heights will be kept to a minimum to prevent dust emissions i.e. 1m – 2m maximum above the hopper. The onsite water bowser will offer additional suppression throughout the operational day. General skip wastes and SRF will be loaded into treatment plant within enclosed buildings, served by dust abatement system.	Low

Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments	Assessment Outcome following action /recommendation
Dust / Particulates	Waste storage areas	Air	Site personnel / visitors Surrounding site users / occupiers Surface waters Flora & fauna Residential receptors Surrounding businesses	Air Pollution Water Pollution	Moderate	3	Low	Drop heights will be kept to a minimum to prevent dust emissions i.e. 1m – 2m above ground. Stockpiles will be sprayed with water to prevent excessive drying and dust formation. All external dust generating materials are sheltered/screened by embankment bunds, bays or industrial units which will help reduce wind whipping and dust generation. Staff will ensure there is suitable space in the bay/stockpile to ensure the waste can be deposited and safely contained. The onsite water bowser will offer additional suppression throughout the operational day. General skip wastes and SRF will be stored within enclosed buildings, served by dust abatement system.	Low
Dust / particulates	Prolonged periods of dry/warm or windy weather conditions	Air	Site personnel / visitors Surrounding site users / occupiers Surface waters Flora & fauna Residential receptors Surrounding businesses	Air Pollution Water Pollution	Mo	2	Medium	Additional visual assessment / monitoring will be onsite and undertaken around the site perimeter in order to ensure dust is not escaping beyond the site. The onsite water bowser will offer additional suppression throughout the operational day.	Low

6 Monitoring and Contingency Measures

6.1 Monitoring and Recording

6.1.1 **Visual Assessment** – Site management and site operatives will make visual inspections of dust emissions around the entire site and perimeter throughout the day as part of the daily inspections. Results of visual inspections will be recorded on the daily inspection forms shown in appendix II of the EMS. Additional monitoring may be carried out during times of dry/windy weather conditions or should trained operatives observe significant levels of dust. The monitoring will be carried out at intervals while the site is operational, should it be observed that dust is being emitted from the site, notes will made as to the amount, direction and source of the dust. Site Management will review all feedback from the visual monitoring and take the necessary action to mitigate the issue and ensure it doesn't happen again. If dust is detected, site management and operatives will act immediately by either dousing the problematic area, covering it with tarpaulin or using a mechanical sweeper.

6.1.2 The site EMS contains the operator's established remedial action requirements for dust, which are reproduced below.

Table 6.1 – Remedial Action Requirements – Dust

Findings	Rating	Remedial Action necessary	Timeframe for remedial action	Internal reporting to Environmental Manager & MD	Reporting requirements to EA
Acceptable	A	No	N/A	N/A	N/A
Failure on site / bad practice but likelihood of causing an accident or emission is negligible	B	Yes	Within 2 working days	3 occurrences within 5 working days	None
Minor Emissions/failure but not perceived to interfere with sensitive Receptors, and/or likely to cause an accident or emission	C1	Yes	Within 12 hours	2 occurrences within 5 working days	3 occurrences within 5 working days
Emissions / failure occurred	C2	Yes	Immediately	Immediately	Immediately

6.1.3 Remedial action may include the following:

- Identification of dusty waste and removal off site;
- Identification and ceasing of dust generating activities undertaken externally (i.e. crushing);
- Further dampening down of dust wastes;
- Use of sheet/tarpaulin to cover dusty wastes; and,
- Increased dust suppression and road sweeper on site.

6.1.4 The Site Manager is responsible for monitoring the frequency of any C ratings and shall notify the Environmental Manager. Where the occurrence requires notification to the EA this shall be the responsibility of the Environmental Manager and shall be made as soon as possible. All findings are recorded on weekly logs and the site diary.

6.1.5 The operator will obtain prior notifications from the Met Office in advance of problematic weather conditions including high wind speeds and direction, droughts, etc. to see whether the dust suppression techniques need to be increased ahead of these events to reduce the likelihood of complaints.

6.1.6 Out-of-hours monitoring will not be regularly required as it is deemed that the processing and loading of the material is likely to give rise to the highest levels of dust emissions i.e. from use of the treatment plant. However, should it become apparent out-of-hours that stockpiles are giving rise to dust, site management will then make a decision on whether additional out-of-hours monitoring is required (based on predicted wind speeds, observed success of crusting agents etc.).

6.1.7 The results of monitoring exercises and any remedial action taken will be entered into the site diary, inspection forms or logbook which is available for the EA to inspect upon request. The name of the employee undertaking the inspection will be recorded in the site diary / inspection form for each day of operation.

6.1.8 Should the monitoring conclude that a certain activity is giving rise to dust which is migrating offsite, steps will be made to reduce the impact of this activity. These may include (but are

not limited to): reduction of stockpile size, increased abatement measures, suspension of the work until high wind speeds have abated.

6.1.9 The site supervisor will be suitably trained to carry out these duties. Further information regarding training and technical competence is provided within the site EMS.

6.1.10 Site management will also be required to make a note of any unavoidable events such as bad weather in the site diary, rather than just actual complaints received. This will ensure that if complaints are received retrospectively from either the Local Authority or directly, any circumstances which led to that complaint as a result of elements outside of the operator's control would be able to be attributed (or, at least, in part) to the cause of the complaint.

6.2 Staff Shortages

6.2.1 In the event of unforeseen staff shortages arising from illness, suspension or no-shows, the operator will make a judgement whether to reduce the number of incoming loads, thus reducing processing frequency and divert material to an alternative site. The operator will then seek further employment within a timely manner to ensure the site can continue to operate at its required capacity.

6.3 Weather Conditions

6.3.1 The site will subscribe to the Met Office to receive updated weather alerts for the following weather conditions which could cause a potential on or off site dust complaint:

- High winds >30mph
- Dust escaping beyond the site boundary
- Droughts or periods of hot weather exceeding 3 major dry days which could lead to water shortages, hosepipe bans and excessive dust.

6.3.2 The site will install the following preventative measures to avoid serious dust pollution:

HIGH WINDS

- Vehicles leaving the site will be sheeted to comply with the requirements of the Duty of Care legislation.
- Stockpiles will be reduced to a suitable height to prevent the material escaping beyond the site boundary i.e. below the heights of the boundary.
- Stockpiles may be covered with tarpaulin in the event the above procedures are not considered effective.
- In the event of extreme winds, the site will deploy the above measures and may be forced to close operations until conditions have improved.

DROUGHTS/WARM, DRY WEATHER

- In extreme cases such as a hosepipe ban or water shortage, the site will ensure there is additional water available i.e. tanks which can be used for filling the dust cannons to ensure suppression techniques can still function.
- The site will contact the water company in the event of an emergency to see if the water pressure can be increased.
- Where dust is becoming a major concern then the operator will stop processing the material and cover the piles using tarpaulin until conditions or dust suppression techniques are considered effective.

6.4 Operational Failure

6.4.1 The manager will be contacted by staff in the event of any operational failure such as the breakdown of plant, suppression systems or equipment and will decide whether operations are to continue or be suspended prior to corrective action being taken. Serious operational failures, which result in the closure of the site, will be recorded in the site diary. It is likely that in the event of any recorded failure in mobile/loading plant, the manufacturers' engineers work in relevant locations in the UK and will be contacted to ensure alternative parts can be sourced and item the item fixed in a timely manner.

6.4.2 If there was a significant power failure or power cut, the site would not operate, doors would be manually shut and no dust would be created. The site's local EA officer or department will be notified in the event of any serious operational failures to agree a suitable course of action.

6.4.3 If the site is closed and dust is still evident and leaving the site, the operator would source a back-up generator.

6.5 Liaison with Neighbours

6.5.1 In the extreme event of significant but temporary dust issues during normal operations, neighbours will be contacted to advise them of the situation and the action being taken. The EA will also be notified.

6.5.2 An open-door policy will be encouraged by the operator to enable any complaints from neighbouring premises (if received) to be dealt with immediately. The complainant will then be supplied with remedial actions taken and any procedures or measures put in place by the operator to reduce or ideally eradicate the likelihood of a subsequent complaint.

6.5.3 If any dust complaints are received, the complaint will be assigned to an operative familiar with the site's operation who will complete a 'complaints and events log', detailed individually on the complaints form (in Appendix II), both of which will be kept for inspection on request by the EA. Details of information to be completed are: dates, nature of complaint, weather conditions at the time of the complaint, investigation details, action taken and a signature (as a minimum). Dust complaints will be investigated and responded to within 24 hours or sooner and suitably reviewed by the site manager who is ultimately responsible.

6.5.4 The operator would also be required to make a note of any unavoidable events plant/equipment malfunctions in the site diary, rather than just actual complaints received. This will ensure that if complaints are received retrospectively from either the Council/EA or directly, any circumstances which led to that complaint as a result of elements outside of the operator's control would be able to be attributed to the cause of the complaint. If there

are significant dust releases outside normal operations, the operator will cease operation, investigate and resolve the issue before continuing.

6.5.5 The company undertakes an active role engaging with the local community of Rockcliffe. A representative director of the operating company attends the Rockcliffe Parish Council meetings to provide members of the local community a regular opportunity to ask questions and raise any concerns or complaints about the facility.

7 Actions When Complaints are Received

7.1 Complaints Procedure

7.1.1 If any dust complaints are received, the relevant operator will complete a 'complaints and events log', detailed individually on the complaints form (in Appendix II), both of which will be kept for inspection on request by the EA. Details of information to be completed are dates, nature of complaint, weather conditions at the time of the complaint, investigation details, action taken and a signature (as a minimum).

7.1.2 The operator would also be required to make a note of any unavoidable events plant/equipment malfunctions in the site diary, rather than just actual complaints received. This will ensure that if complaints are received retrospectively from either the Council/EA or directly, any circumstances which led to that complaint as a result of elements outside of the operator's control would be able to be attributed to the cause of the complaint.

7.1.3 If the source cannot be ascertained with 100% confidence, the site manager, compliance manager or TCM will either suspend or reduce the likely dust/particulate-generating activities, i.e. the loading of waste into the mechanical treatment plants.

7.1.4 If the source is within the site's control, the site manager, compliance manager or TCM will take appropriate action in terms of dust/particulate abatement, to ensure that the alarm is not re-activated. This may take the form of the following:

a) Investigating the source of the dust/particulates to prevent a re-occurrence.
b) Suspending operations which are not being conducted using best-practice controls.
c) Additional use of the dust abatement measures.
d) Logging findings of a – c in the site diary / complaints form and also in the reporting template within the EP.
e) Report actions to the complainants and/or EA

7.1.5 If following the above complaints are still being received, the site will cease operations until the issues have been rectified.

7.2 Complaints Recording

7.2.1 Any complaints received in relation to dust will be recorded on the form shown in Appendix II by the person in receipt of the complaint:

7.2.2 The following details as a minimum will be completed on the form.

a) The name, address and telephone number of the caller will be requested.
b) Each complaint will be given a reference number.
c) The caller will be asked to give details of:

- the nature of the complaint;
- the time;
- how long it lasted;
- how often it occurs;
- is this the first time the problem has been noticed; and,
- what prompted them to complain.

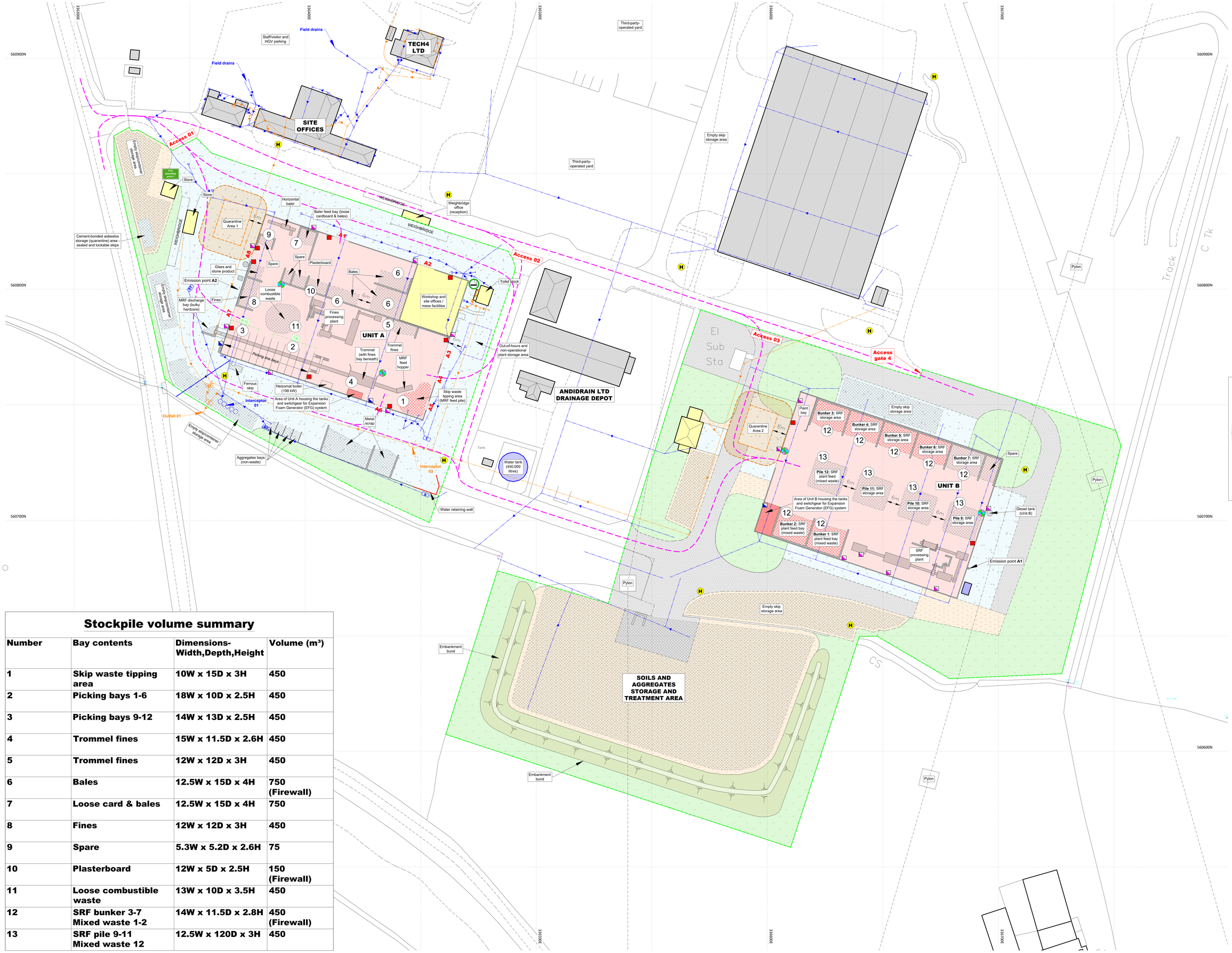
d) The person completing the form will then, if possible, make a note of:

- the weather conditions at the time of the problem (rain snow fog etc.)
- strength and direction of the wind; and,
- the activity on the installation at the time the noise, dust or odour was detected, particularly anything unusual.

e) The reason for the complaint will be investigated and a note of the findings added to the report.
f) The caller will then be contacted with an explanation of the source of the complaint if identified and the action taken to prevent a recurrence of the problem in future.
g) If the caller is unhappy about the outcome or unwilling to identify themselves the caller will be referred to the appropriate department of the EA or Local Council.
h) Following any complaint, the complaints procedure will be reviewed to see if any changes are required or if new procedures need to be put in place.

Appendix I

Drawings



Stockpile volume summary

Number	Bay contents	Dimensions- Width,Depth,Height	Volume (m³)
1	Skip waste tipping area	10W x 15D x 3H	450
2	Picking bays 1-6	18W x 10D x 2.5H	450
3	Picking bays 9-12	14W x 13D x 2.5H	450
4	Trommel fines	15W x 11.5D x 2.6H	450
5	Trommel fines	12W x 12D x 3H	450
6	Bales	12.5W x 15D x 4H	750 (Firewall)
7	Loose card & bales	12.5W x 15D x 4H	750
8	Fines	12W x 12D x 3H	450
9	Spare	5.3W x 5.2D x 2.6H	75
10	Plasterboard	12W x 5D x 2.5H	150 (Firewall)
11	Loose combustible waste	13W x 10D x 3.5H	450
12	SRF bunker 3-7 Mixed waste 1-2	14W x 11.5D x 2.8H	450 (Firewall)
13	SRF pile 9-11 Mixed waste 12	12.5W x 120D x 3H	450

NOTES

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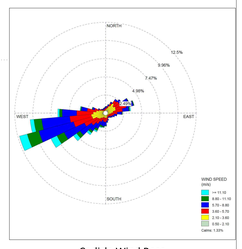
REVISION HISTORY

Rev:	Date:	Init:	Description:
-	18.02.22	RS	Initial drawing
A	18.02.22	RS	Client comments
B	14.02.22	RS/CP	EA comments
C	04.01.24	JH	Amendment
D	09.02.24	JH	Flue added
E	18.04.24	JH	Amendment
F	20.09.24	JH	Layout amendment
G	23.09.24	JH	Drainage added
H	26.09.24	JH	Table amendment

KEY:

- Permit boundary
- Storage areas (general)
- Storage areas benefiting from Expansion Foam Generator (EFG) coverage
- Sealed buildings
- Concreted area
- Stone surface (free-draining)
- Other on-site buildings (offices, workshop, etc.)
- Tarmac surfacing
- Unsurfaced areas (grass / vegetation)
- Quarantine areas (with 6m buffer zones)
- Fire fighting equipment (extinguishers, etc.)
- Mains water
- Access routes for emergency vehicles
- Fire alarm call points
- Designated smoking area
- Penstock / shut-off valve for use in event of a fire or spillage for surface water drainage containment
- On-site fire hydrants (on 100mm and 200mm mains)
- Radiometric Thermal Camera & Monitor (RTCM)
- Indicative surface & roof drainage
- Indicative combined drainage
- Drainage fall direction
- T / T Tanks
- S / S Sump
- ST / ST Silt trap
- Manhole
- Gully



Carlisle Wind Rose

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
LAYOUT & FIRE PLAN (PHASE 1)

CLIENT
North West Recycling Ltd

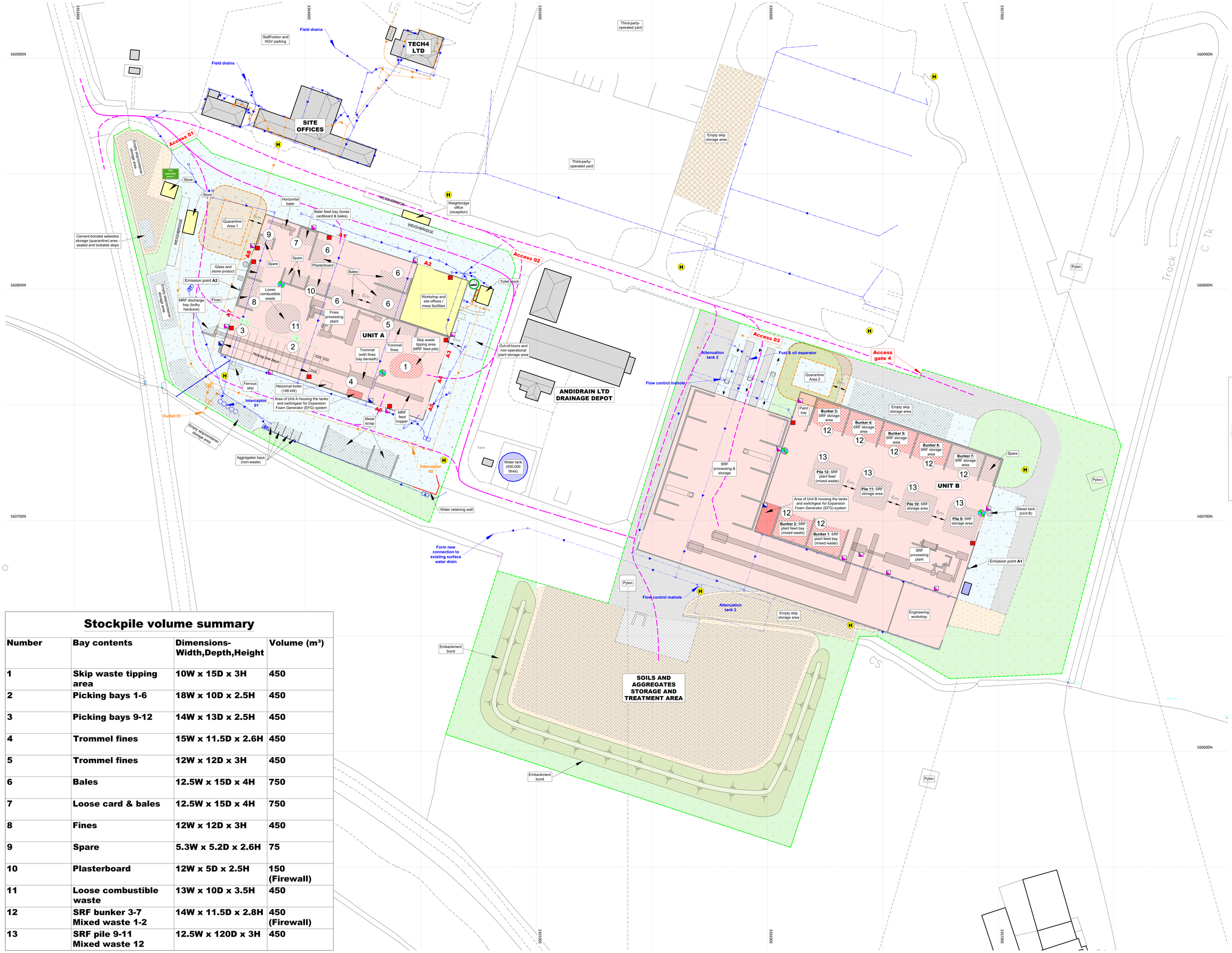
PROJECT/SITE
Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

SCALE @ A0	CLIENT NO	JOB NO
1:500	634	003

DRAWING NUMBER	SHEET NUMBER	REV	STATUS
634-003-03	1 of 1	H	Issued

DRAWN BY	CHECKED	DATE
RS/CP/JH	RS	26.09.24

Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
t: 01606 558833 | e: sales@oaktree-environmental.co.uk



Stockpile volume summary

Number	Bay contents	Dimensions-Width,Depth,Height	Volume (m³)
1	Skip waste tipping area	10W x 15D x 3H	450
2	Picking bays 1-6	18W x 10D x 2.5H	450
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4	Trommel fines	15W x 11.5D x 2.6H	450
5	Trommel fines	12W x 12D x 3H	450
6	Bales	12.5W x 15D x 4H	750
7	Loose card & bales	12.5W x 15D x 4H	750
8	Fines	12W x 12D x 3H	450
9	Spare	5.3W x 5.2D x 2.6H	75
10	Plasterboard	12W x 5D x 2.5H	150 (Firewall)
11	Loose combustible waste	13W x 10D x 3.5H	450
12	SRF bunker 3-7 Mixed waste 1-2	14W x 11.5D x 2.8H	450 (Firewall)
13	SRF pile 9-11 Mixed waste 12	12.5W x 120D x 3H	450

NOTES

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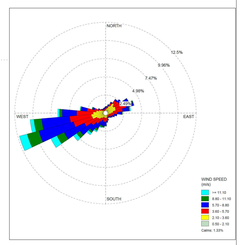
REVISION HISTORY

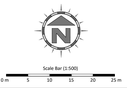
Rev:	Date:	Init:	Description:
-	31.07.24	RS/JH	Initial drawing
A	01.08.24	JH	Amendment
B	20.08.24	JH	Emission point added
C	28.08.24	JH	Table added
D	30.08.24	JH	Amendment
E	23.09.24	JH	Drainage added
F	26.09.24	JH	Table amendment
G	19.12.24	JH	Client comments

KEY:

- Permit boundary
- Storage areas (general)
- Storage areas benefiting from Expansion Foam Generator (EFG) coverage
- Sealed buildings
- Concreted area
- Stone surface (free-draining)
- Other on-site buildings (offices, workshop, etc.)
- Tarmac surfacing
- Unsurfaced areas (grass / vegetation)
- Quarantine areas (with 6m buffer zones)
- Fire fighting equipment (extinguishers, etc.)
- Mains water
- Access routes for emergency vehicles
- Fire alarm call points
- Designated smoking area
- Penstock / shut-off valve for use in event of a fire or spillage for surface water drainage containment
- On-site fire hydrants (on 100mm and 200mm mains)
- Radiometric Thermal Camera & Monitor (RTCM)
- Indicative surface & roof drainage
- Indicative combined drainage
- Drainage fall direction
- T / T Tanks
- S / S Sump
- ST / ST Silt trap
- Manhole
- Gully



Carlisle Wind Rose



Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
LAYOUT & FIRE PLAN (PHASE 2)

CLIENT
North West Recycling Ltd

PROJECT/SITE
Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

SCALE @ A0	CLIENT NO	JOB NO
1:500	634	004

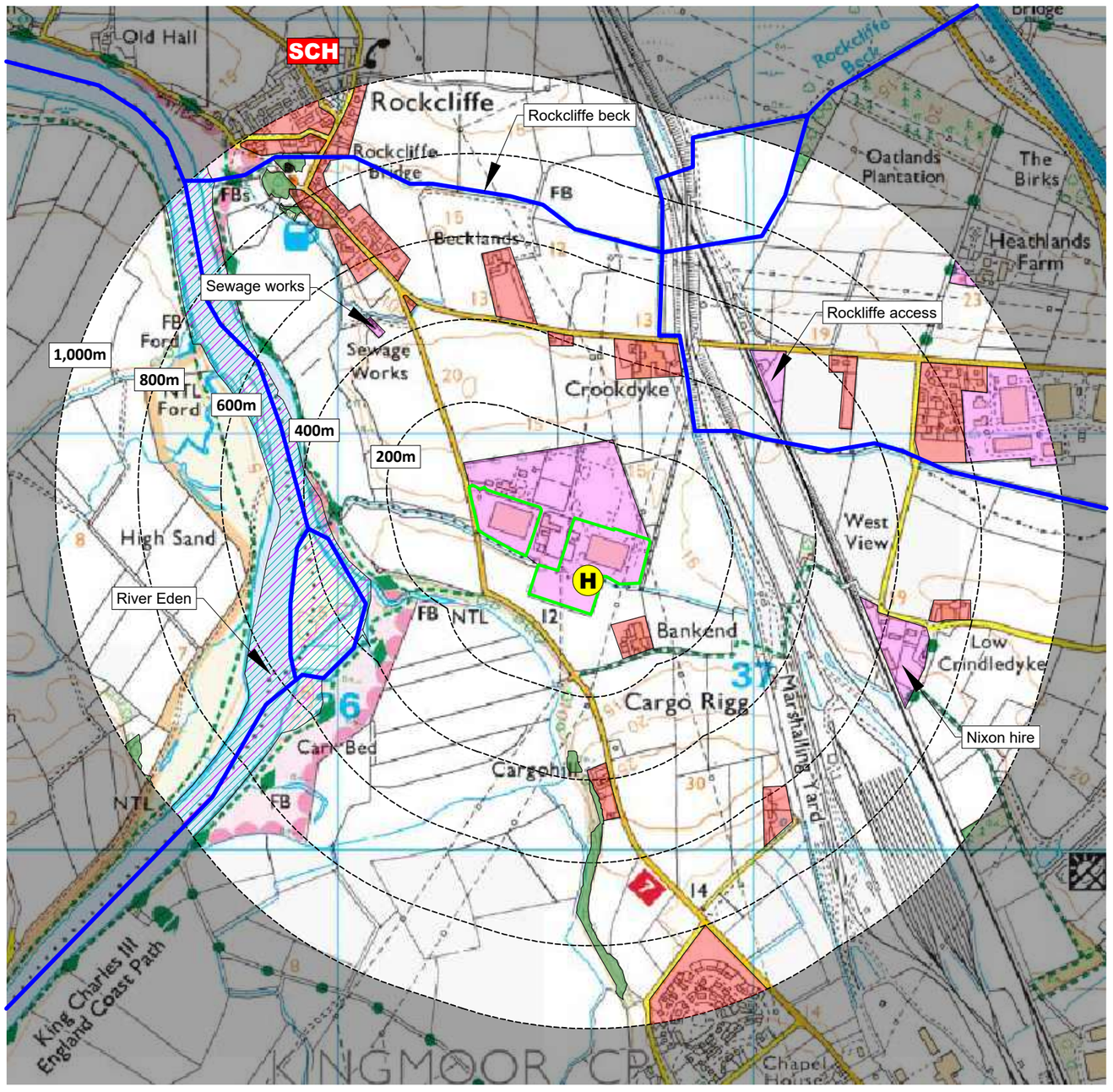
DRAWING NUMBER	SHEET NUMBER	REV	STATUS
634-004-03A	1 of 1	G	Issued

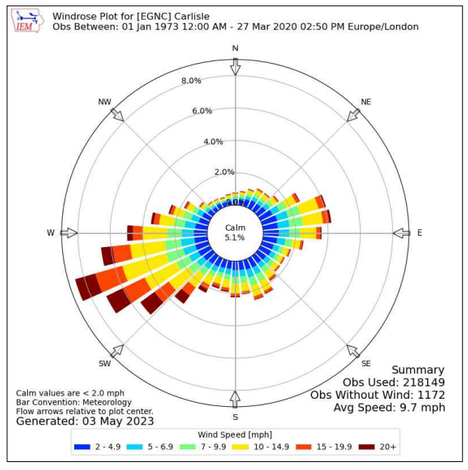
DRAWN BY	CHECKED	DATE
RS/CP/JH	RS	19.12.24

Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
t: 01606 558833 | e: sales@oaktree-environmental.co.uk

KEY:

- Permit boundary
- Main River
- Surface water body (river / stream / pond / pool / lake)
- Workplaces (includes agriculture industry, commerce and retail)
- Areas with mix of residential, retail and commercial properties
- Residential blocks
- Class A, B, C roads
- Nearest fire hydrant
- Railway line
- School
- Woodland areas
- Sites of special scientific interest
- Special areas of conservation
- Priority habitat inventory (deciduous woodland)





Compass Wind Rose for (EGNC) Carlisle Period 1973-2020
- source: Iowa State University

NOTES

1. Boundaries are shown indicatively.
2. Wind rose data shows the prevailing wind direction to be Southerly.

REVISION HISTORY

Rev:	Date:	Init:	Description:
-	12.09.24	JH	Initial drawing

N

Scale Bar (1:12,500)
0 100 200 300 400 500m

TITLE:
RECEPTOR PLAN

CLIENT:
North West Recycling Ltd

PROJECT/SITE:
Rockcliffe Industrial Estate, Rockcliffe, Carlisle CA6 4RW

SCALE @ A3:	CLIENT NO:	JOB NO:
1:12,500	0634	004
DRAWING NO:	REV:	STATUS:
0634-004-04	-	Issued
DATE:	DRAWN:	CHECKED:
12.09.24	JH	RS

Oaktree Environmental
Waste, Planning & Environmental Consultants

Appendix II

Complaints recording form

Complaints Report Form	
Date Recorded	Reference Number
Name and address of caller	
Telephone number of caller	
Time and Date of call	
Nature of complaint (noise, odour, dust, other) (date, time, duration)	
Weather at the time of complaint (rain, snow, fog, etc.)	
Wind (strength, direction)	
Any other complaints relating to this report	
Any other relevant information	
Potential reasons for complaint	
The operations being carried out on site at the time of the complaint	
Follow Up	
Actions taken	
Date of call back to complainant	
Summary of call back conversation	
Recommendations	
Change in procedures	
Changes to Written Management System	
Date changes implemented	
Form completed by	
Signed	
Date completed	

Permit Application Supporting Document Appendix XIV

Waste Codes

DOCUMENT REF: 634-004-S - WASTE CODES

Table 1 – Proposed Waste Codes for Section 5.4 Installation Activities (Operations in Unit B)

EWC Waste Code	Description
03 01 05	sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
17 09 04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03
19 02 10	combustible wastes other than those mentioned in 19 02 08 and 19 02 09
19 12 10	combustible waste (refuse derived fuel)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
20 03 01	mixed municipal waste
20 03 07	bulky waste

Table 2 – Proposed Waste Codes for Waste Activities (Operations in Unit A and Soils and Aggregates Processing)

EWC Waste Code	Description
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays
01 04 11	wastes from potash and rock salt processing other than those mentioned in 01 04 07
01 04 12	tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01 04 07 and 01 04 11
01 04 13	wastes from stone cutting and sawing other than those mentioned in 01 04 07
02 01 03	plant-tissue waste
02 01 04	waste plastics (except packaging)
02 01 06	animal faeces, urine and manure (including spoiled straw), effluent, collected separately and treated off-site
02 01 07	wastes from forestry
02 01 10	waste metal
02 03 04	materials unsuitable for consumption or processing
02 05 01	materials unsuitable for consumption or processing

EWC Waste Code	Description
02 06 01	materials unsuitable for consumption or processing
02 07 02	wastes from spirits distillation
02 07 04	materials unsuitable for consumption or processing
03 01 01	waste bark and cork
03 01 99	wastes not otherwise specified (mixed wastes consisting of 03 01 01 and 03 01 05 containing plastic, grit, stone, metal, paper and cardboard contamination, not containing dangerous substances)
03 03 01	waste bark and wood
03 03 07	mechanically separated rejects from pulping of waste paper and cardboard
03 03 09	Waste from sorting of paper and cardboard destined for recycling
04 01 09	wastes from dressing and finishing
07 02 13	waste plastic
08 04 10	waste adhesives and sealants other than those mentioned in 08 04 09
09 01 07	photographic film and paper containing silver or silver compounds
09 01 08	photographic film and paper free of silver or silver compounds
09 01 10	single-use cameras without batteries
09 01 11*	single-use cameras containing batteries included in 16 06 01, 16 06 02 or 16 06 03
09 01 12	single-use cameras containing batteries other than those mentioned in 09 01 11
10 01 01	bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)
10 01 03	fly ash from peat and untreated wood
10 01 15	bottom ash, slag and boiler dust from co-incineration other than those mentioned in 10 01 14
10 01 17	fly ash from co-incineration other than those mentioned in 10 01 16
10 01 24	sands from fluidised beds
10 09 08	casting cores and moulds that have undergone pouring other than those mentioned in 10 09 07
10 11 03	waste glass-based fibrous materials
10 11 12	waste glass other than those mentioned in 10 11 11
10 12 01	waste preparation mixture before thermal processing
10 12 08	waste ceramics, bricks, tiles and construction products (after thermal processing)
10 12 12	wastes from glazing other than those mentioned in 10 12 11
10 13 01	waste preparation mixture before thermal processing
10 13 04	wastes from calcination and hydration of lime

EWC Waste Code	Description
10 13 11	wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10
10 13 14	waste concrete and concrete sludge
11 01 10	sludges and filter cakes other than those mentioned in 11 01 09
15 01 01	paper and cardboard packaging
15 01 02	plastic packaging
15 01 03	wooden packaging
15 01 04	metallic packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 07	glass packaging
15 01 09	textile packaging
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
16 01 03	end-of-life tyres
16 01 17	ferrous metal
16 01 18	non-ferrous metal
16 01 19	plastic
16 01 20	glass
16 02 11*	discarded equipment containing chlorofluorocarbons, HCFC, HFC
16 02 13*	discarded equipment containing hazardous components other than those mentioned in 16 02 09 to 16 02 12
16 02 14	discarded equipment other than those mentioned in 16 02 09 to 16 02 13
16 02 16	components removed from discarded equipment other than those mentioned in 16 02 15
16 03 04	inorganic wastes other than those mentioned in 16 03 03
16 03 06	organic wastes other than those mentioned in 16 03 05
16 06 01*	lead batteries
16 06 02*	Ni-Cd batteries
16 06 03*	mercury-containing batteries
16 06 04	alkaline batteries (except 16 06 03)
16 06 05	other batteries and accumulators
17 01 01	concrete
17 01 02	bricks
17 01 03	tiles and ceramics

EWC Waste Code	Description
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 02 01	wood
17 02 02	glass
17 02 03	plastic
17 03 02	bituminous mixtures other than those mentioned in 17 03 01
17 04 01	copper, bronze, brass
17 04 02	aluminium
17 04 03	lead
17 04 04	zinc
17 04 05	iron and steel
17 04 06	tin
17 04 07	mixed metals
17 04 11	cables other than those mentioned in 17 04 10
17 05 04	soil and stones other than those mentioned in 17 05 03
17 05 06	dredging spoil other than those mentioned in 17 05 05
17 05 08	track ballast other than those mentioned in 17 05 07
17 06 01*	insulation materials containing asbestos
17 06 04	insulation materials other than those mentioned in 17 06 01 and 17 06 03
17 06 05*	construction materials containing asbestos
17 08 02	gypsum-based construction materials other than those mentioned in 17 08 01
18 01 04	wastes whose collection and disposal is not subject to special requirements in order to prevent infection (for example dressings, plaster casts, linen, disposable clothing, diapers)
19 01 02	ferrous materials removed from bottom ash
19 01 12	bottom ash and slag other than those mentioned in 19 01 11
19 01 14	fly ash other than those mentioned in 19 01 13
19 01 16	boiler dust other than those mentioned in 19 01 15
19 05 01	non-composted fraction of municipal and similar wastes
19 05 02	non-composted fraction of animal and vegetable waste
19 05 03	off-specification compost
19 08 01	screenings
19 08 02	waste from desanding
19 10 01	iron and steel waste

EWC Waste Code	Description
19 10 02	non-ferrous waste
19 10 04	fluff-light fraction and dust other than those mentioned in 19 10 03
19 12 01	paper and cardboard
19 12 02	ferrous metal
19 12 03	non-ferrous metal
19 12 04	plastic and rubber
19 12 05	glass
19 12 07	wood other than that mentioned in 19 12 06
19 12 08	textiles
19 12 09	minerals (for example sand, stones)
19 12 10	combustible waste (refuse derived fuel)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01
20 01 01	paper and cardboard
20 01 02	glass
20 01 08	biodegradable kitchen and canteen waste
20 01 10	clothes
20 01 11	textiles
20 01 21*	fluorescent tubes and other mercury-containing waste
20 01 23*	discarded equipment containing chlorofluorocarbons
20 01 25	edible oil and fat
20 01 33*	batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries
20 01 34	batteries and accumulators other than those mentioned in 20 01 33
20 01 35*	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components
20 01 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35
20 01 38	wood other than that mentioned in 20 01 37
20 01 39	plastics
20 01 40	metals
20 01 41	wastes from chimney sweeping
20 01 99	Waste whose collection and disposal is not subject to special requirements in order to prevent infection.

EWC Waste Code	Description
	Specifically this only refers to non-infectious animal bedding from animal rescue centres
20 02 01	biodegradable waste
20 02 02	soil and stones
20 03 01	mixed municipal waste
20 03 02	waste from markets
20 03 03	street-cleaning residues
20 03 06	waste from sewage cleaning