Dust Emissions Management Plan

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For: ENVA Battery Recycling Ltd

Site: Immingham Materials Recycling Facility, Immingham

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Quality Assurance

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Contents

Tables

Drawings

Site Layout Plan	317213 DW02
Sensitive Receptors Plan	317213 DW03

Appendices

1. Introduction

1.1 Background

This Dust Emissions Management Plan (DEMP) sets out measures to prevent or minimise dust/particulate pollution arising from the treatment of lead-acid batteries and storage of hazardous and non-hazardous waste at ENVA Battery Recycling Facility Ltd (ENVA, the Operator), Immingham Materials Recycling Facility, Unit 1-5 Pelham Industrial Estate, Manby Road, Immingham, Lincolnshire, DN40 2LF (the Site).

This DEMP has been prepared in accordance with the Environment Agency's Control and monitor emissions for your environmental permit - GOV.UK (www.gov.uk) to support a permit variation application to extend the permit boundary.

The DEMP identifies potential sources of dust emissions and the associated potential impacts along with measures to be implemented at the Site to mitigate dust and particulate matter.

1.2 Site Activities and Proposed Variation

Enva operate a waste facility recycling lead-acid batteries. It is proposed that these operations will be extended further west into another building, including the installation of an updated battery treatment plant. A new activity to allow the transfer of select battery waste will be included as a permitted activity. All waste storage and treatment will remain indoors.

The new battery treatment plant will have an emission point to air. The emission point will be fitted with a wet scrubber.

1.3 Site Setting

The Site is located within North East Lincolnshire Council.

The site is not located within an Air Quality Management Area (AQMA). The nearest areas are the:

- Scunthorpe AQMA: designated for Particulate Matter (PM_{10}) (first declared on 01/11/2005 and amended on 19/03/2018) – located c.1.5km west of the Site.
- Low Sandon AQMA: designated for Particulate Matter (PM_{10}) (first declared on 01/12/2008 and revoked on 19/03/2018) – located c.1.5km west of the Site.

Observations taken from a nearby weather station at Humberside airport (c.9.5km south-west of Immingham) indicates that the prevailing wind originate predominantly from the southwest, as shown in 5-year wind rose for Humberside airport, shown in Figure 1.

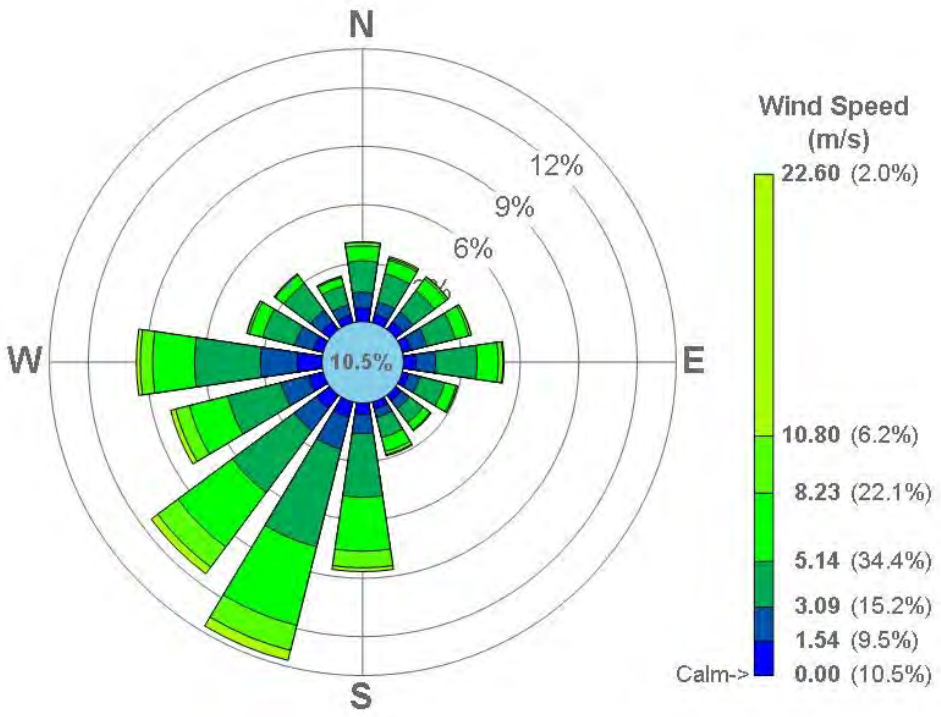


Figure 1 Prevailing wind direction

1.4 Local Dust Sources

Off-site dust sources within 1km have been considered alongside particular noteworthy dust sources, see Table 1-1.

Table 1-1 Nearby sources of dust and/or other emissions (1km)

Name	Type	Direction	Distance from Site boundary (m)
Industrial			
Grimsby Resin Floors	Industrial - flooring contractor	W	0m (adjacent)
Ivo Transport	Industrial – trucking company	W	0m
Tarmac Immingham Concrete Plant	Industrial - ready-mix concrete supplier	W	90m
Ainscough Crane Hire	Industrial – crane rental agency	E	>10m
Isotank Services Immingham	Water tank cleaning service	NE	>10m
Lodge Tyre Company Limited – Immingham	Industrial - tyre shop / garage	SE	50m
Scaffolding Suppliers – Limited	Industrial - scaffolding service	NE	270m
Immingham Docks			
Immingham Dock PB Kent Quality Fertiliser Products	Industrial – fertiliser supplier	NE	>250m
Immingham Dock CPL Carbon Products Limited	Industrial – heating oil supplier	NW	>250m
Immingham Dock DFDS Immingham Dockside Terminal & Office	Industrial – shipping service	N	>250m
Infrastructure/utilities			

Name	Type	Direction	Distance from Site boundary (m)
Hall Park Road	Transport - road	N	0m (adjacent)
Hall Park Road	Transport - road	E	0m (adjacent)
A1173 Manby Road	Transport - road	S	0m (adjacent)
Railway passing west to east	Transport - rail	N	250m
Railway passing northwest to southeast	Transport - rail	E	500m

1.5 Sensitive Receptors

Receptors which may be sensitive to the emission of dust from the Site, have been identified within 1km, see Table 1-2 and Sensitive Receptors Plan.

A 1km radius has been applied as a worst-case scenario and it reflects the maximum potential distance that fugitive dust and particulate matter could reasonably be dispersed in extreme meteorological conditions without any mitigation measures in place.

Table 1-2 Location of potential sensitive receptors

Receptor	Distance from site (m)	Direction
Residential		
Residential area north of Immingham	80m	South
Sensitive Land uses		
Supermarket	500m	South
Primary School	600m	South
School and Leisure Centre	800m	South
Industrial/Commercial		
Business units on Pelham Ind. Estate	20m	West
Industrial units N. of Hall Park Road	20m	North
Industrial units E. of Hall Park Rd	20m	East
Manby Hall Business Park	20m	Southeast
Business units SW. of Manby Rd	100m	West
Petrol Station	100m	South
Immingham Dock	250m	North
Infrastructure/utilities		
Hall Park Road	0m (adjacent)	North
Hall Park Road	0m (adjacent)	East
A1173 Manby Road	0m (adjacent)	South
Railway passing west to east	250m	North
Railway passing northwest to southeast	500m	East

1.6 Sites of Environmental Importance

As part of the pre-application advice, a Nature and Heritage Conservation Screening report was carried out and identified nature and heritage conservation sites, protected species and habitats and other features of significance. Table 1-3 identifies sites of environmental significance which were identified in the Nature and Heritage Conservation Screening report within 1km of the Site boundary and will be considered within the risk assessment.

Located 1.5km from the Site, but of notable mention, is the Humbar Estuary RAMSAR site. The Humbar Estuary is also designated as a Site of Special Scientific Importance (SSSI), Special Protection Area (SPA) and Special Area of Conservation (SAC).

Table 1-3 Sites of environmental importance

Sites / Feature	Name	Distance from Site	Direction
Protected Habitat	Chalk rivers	180m	North
Local Wildlife Sites (LWS)	Homestead Park Pond	550m	East
RAMSAR / SSSI, SPA, SAC	Humber Estuary	1500	North east

2. Site Activities

All battery recycling and storage will take place within an enclosed building.

All emissions from the hammer mill and vibrating screen areas of the new plant will be extracted and directed to a wet scrubber abatement system prior to discharge to atmosphere, all other processes undertaken within the plant will be wet, utilising either spray nozzles or water baths. It will be ensured that the plant and wet scrubber system are fitted with high integrity components.

The Site also stores hazardous and non-hazardous waste. ENVA occasionally receives Waste Electrical and Electronic Equipment (WEEE) which contains batteries of mixed chemistries. It is proposed to include a transfer activity to allow the transfer only, of small quantities of other batteries (i.e., not lead-acid batteries).

The battery treatment plant process, shown in New plant process diagram Figure 2:

- **Grabber**: pre-crush batteries, release electrolyte, transfer batteries to feed conveyor.
- **Acid filtration**: collects and clean the drained electrolyte. Returned lead particles to the breaker.
- **Hammer mill**: break and shred batteries (surrounded by soundproof cabin).
- **Vibrating and washing screen**: spread and wash the lead paste of the materials.
- **Paste settling tank**: separate lead paste from water.
- **Paste filtration unit**: lead paste de-watering (moisture connect is reduce, paste humidity of 8%).
- **Light plastic separation tank**: separate the PP/ABS plastic from lead/separators.
- **ABS/PP separator tanks**: separate the PP plastic form the ABS plastic. Provides clean (non-hazardous) plastic shred for re-use. Transferred to ENVA plastics.
- **Hydrodynamic separator**: separate the separators from the lead grid/poles.
- **Water neutralisation**: to neutralise the acid water in the separate tanks.
- **Aerosol scrubber**: collects fumes form the plant and removed pollutants (ensures compliance with EA limits for emissions to air).

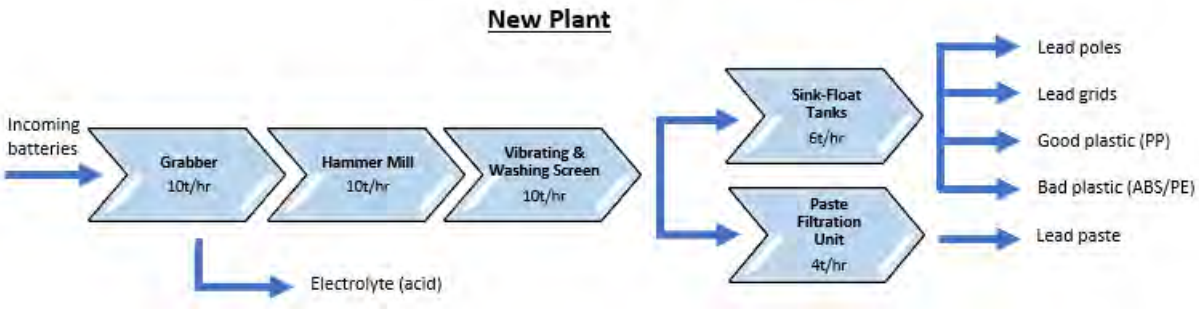


Figure 2 New plant process diagram

The proposed permit boundary and Site layout are shown on the Drawings - Site Layout Plan.

2.1 Waste delivery

The Site only accepts specified waste materials according to the environmental permit and will not accept other wastes.

All delivery and export drivers will report to the office as part of the consignment management.

Batteries received in boxes are weighed on on-site scales and sorted, any WEEE (contaminating batteries) are removed. WEEE is dismantled and batteries are removed for processing. Batteries received in bulk tipper are weighed at the weighbridge before being tipped into the bulk area. The batteries are then loaded into battery boxes using plant or manually before being moved to the processing area.

Small mixed batteries and unacceptable chemistry batteries are removed to the quarantine area.

2.2 Waste types

A list of waste codes is provided in Table 2-1 to Table 2-5. Codes highlighted in green are already accepted at the installation for treatment.

Acceptable waste codes pose a low risk of generating dust.

Table 2-1 Waste codes for Activity AR1 – Battery shredding

Maximum quantity	**The annual throughput of all combined activities shall not exceed 60,000 tonnes. Hazardous properties HP8.**
Waste Code	**Description**
16	Wastes not otherwise specified in the list
16 06	Batteries and accumulators
16 06 01*	Lead batteries
19	Waste from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 12	Waste from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 11*	Other waste (including mixtures of materials) from mechanical treatment of waste containing hazardous substances (consisting only of lead and plastic from lead acid battery processing)
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
20 01	Separately collected fractions (except 15 01)
20 01 33*	Batteries and accumulators included in 16 06 01, 16 06 02, or 16 06 03, as well as unsorted batteries and accumulators containing these batteries. (lead-acid only)
20 01 34*	Batteries and accumulators other than those mentioned in 20 01 33 (lead-acid only)
20 01 35*	Discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components

Table 2-2 Waste Types and Quantities for Activity AR2 - Battery Cutting

Maximum quantity	The annual throughput shall not exceed 40,000 tonnes. Hazardous properties HP8.
Waste Code	**Description**
16	Wastes not otherwise specified in the list
16 06	Batteries and accumulators
16 06 01*	Lead batteries
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
20 01	Separately collected fractions (except 15 01)
20 01 35*	Discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components

Table 2-3 Waste types and quantities for activity AR3 and AR5 – waste repackaging/ sorting, storage and transfer

Maximum quantity	The annual throughput of all combined activities shall not exceed 60,000 tonnes Hazardous properties HP8.
Waste Code	**Description**
16	Wastes not otherwise specified in the list
16 06	Batteries and accumulators
16 06 01*	Lead batteries
16 06 02*	Nickel-Cadmium batteries
16 06 03*	Mercury-containing batteries
16 06 04*	Alkaline batteries (except 16 06 03)
16 06 05*	Other batteries and accumulators
16 06 06*	Separately collected electrolyte from batteries and accumulators
19	Waste from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 12	Waste from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 11*	Other waste (including mixtures of materials) from mechanical treatment of waste containing hazardous substances (consisting only of lead and plastic from lead acid battery processing)
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
20 01	Separately collected fractions (except 15 01)
20 01 33*	Batteries and accumulators included in 16 06 01, 16 06 02, or 16 06 03, as well as 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

Table 2-4 Waste types and quantities for activity AR4 and AR5 – lead and plastic from lead acid battery processing only

Maximum quantity	**The annual throughput of all combined activities shall not exceed 60,000 tonnes. Hazardous properties HP8.**
Waste Code	**Description**
19	Waste from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 12	Waste from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 11*	Other waste (including mixtures of materials) from mechanical treatment of waste containing hazardous substances (consisting only of lead and plastic from lead acid battery processing)

Table 2-5 Waste types and quantities for activity AR6 – bulking, storage and transfer of non-hazardous waste

Maximum quantity	**The annual throughput of all combined activities shall not exceed 60,000 tonnes. Hazardous properties HP8.**
Waste Code	**Description**
16	Wastes not otherwise specified in the list
16 06	Batteries and accumulators
16 06 04	Alkaline batteries (except 16 06 03) – for sorting and transfer
16 06 05	Other batteries and accumulators – for sorting and transfer
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
20 01	Separately collected fractions (except 15 01)
20 01 34	Batteries and accumulators other than those mentioned in 20 01 33
20 01 36	Discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35

2.3 Dust, powders and loose fibre wastes

Wastes comprising solely or mainly of dust, powders, or loose fibres, shall not be accepted.

2.4 Overview of waste processing, dust and other emission controls

Waste activities allowed under the proposed permit variation and their potential to generate dust, are summarised in Table 2-6, alongside an assessment of the potential for dust generation and risk of dust.

Table 2-6 Site activities - dust generating potential and risk

Activity Reference	Description of the Activity	Description of Existing Activity	Description of Proposed Change	Dust potential / mitigation	Risk of dust emission
AR1 – Battery shredding	Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving one or more of the following activities: (ii) physico-chemical treatment	From receipt of hazardous waste lead acid batteries to mechanical treatment consisting of shredding and the collection of processed waste components for further processing	Increase in treatment capacity.	Dust generation possible. Activity undertaken in enclosed building. The whole process within the battery breaker plant is carried out in a wet environment, therefore supresses any dust generation.	Low
AR2 – Battery cutting	Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving one or more of the following activities: (ii) physico-chemical treatment	From receipt of hazardous waste lead acid batteries to cutting and collection of processed waste components for further processing.	Increase in treatment capacity.	Dust generation possible. Activity undertaken in enclosed building. The whole process within the battery breaker plant is carried out in a wet environment, therefore supresses any dust generation.	Low
AR3 – Battery repackaging	Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving one or more of the following activities: (iv) repackaging prior to submission to any of the other activities listed in this Section or in Section 5.1	From receipt of hazardous waste lead acid batteries to repackaging and export offsite.	Addition of similar waste codes. Increase in treatment capacity.	Dust generation possible. Activity undertaken in enclosed building. The whole process within the battery breaker plant is carried out in a wet environment, therefore	Low

Activity Reference	Description of the Activity	Description of Existing Activity	Description of Proposed Change	Dust potential / mitigation	Risk of dust emission
				supresses any dust generation.	
AR4 – Plastic shredding	Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving one or more of the following activities: (ii) physico-chemical treatment	Treatment by shredding of hazardous waste lead containment plastic battery cases from activities AR1, AR2 and off-site operations to washing, drying and granulation of plastic.	Minimal change	Dust generation possible. Activity undertaken in enclosed building. The whole process within the battery breaker plant is carried out in a wet environment, therefore supresses any dust generation.	Low
AR5 – Hazardous waste storage	Temporary storage of hazardous waste with a total capacity exceeding 50 tonnes pending any of the activities listed in Sections 5.1, 5.2, 5.3 and paragraph (b) of this Section, except – (i) temporary storage, pending collection, on the site where the waste is generated, or (ii) activities falling within Section 5.2	Storage of hazardous batteries, lead and plastic from lead acid battery processing only.	Minimal change	Dust generation unlikely. The accepted wastes, if consisting solely or mainly of dust, powders, or loose fibres, shall not be accepted.	Low
AR7 –Battery sorting	Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving one or more of the following activities: (ii) physico-chemical treatment	N/A	From receipt of hazardous waste batteries to bulking, up, sorting and transfer of waste batteries. **Addition of AR7 to installation permit.**	Dust generation low likelihood. The accepted wastes, if consisting solely or mainly of dust, powders, or loose fibres, shall not be accepted.	Low

3. Dust and Particulate (PM_{10}) Management

3.1 Responsibility for implementation of the DEMP

The Site Manager and Technically Competent Manger (TCM) will oversee the implementation of the DEMP and ensure that the methods detailed within this DEMP provide effective dust mitigation.

The TCM who will administer the implementation of the DEMP has been assessed in the implementation of site control measures as part of the Certificate of Technical Competence and therefore is deemed proficient to execute and review this DEMP.

Where the responsible individual is unavailable to supervise in the implementation of dust suppression measures, a suitable experienced site operative will be allocated responsibility.

During the induction process, all staff members will be trained in the dust suppression measures outlined in the DEMP. Refresher training will be provided in the scenario where additional dust suppression measures have been introduced to ensure staff remain competent.

If dust and particulate emissions continue to be observed following the use of dust suppression measures, the DEMP will be reviewed and additional measures considered.

Amendments of the DEMP to reflect any potential improvements will be made during the review process.

The DEMP will be reviewed at least annually or following any adjustments in operations which have the potential to increase the level of exposure to surrounding sensitive receptors. If following annual review, no amendments are deemed necessary, no changes will be made.

3.2 Sources and control of fugitive dust/particulate emissions

Detailed below are the potential sources of fugitive dust and particulate emissions associated with all the operations and activities at the ENVA Site:

- Battery treatment activities (within building) including an emission point to air.
- Dust / particulate from improperly delivered waste i.e. waste delivered in uncovered vehicle or not within containers.
- Tracking or resuspension of dusts / particulates generated within building and not cleared up
- Particulate emissions from exhaust of vehicles / plant on site

Table 3-1 details the measures to be applied to the Site for each of the sources outlined above to break the source-pathway-receptor routes.

Preventive and remedial measures to integrate the Site to alleviate potential fugitive dust and particulate emissions are shown in Table 3-2.

Table 3-1 Source-Pathway-Receptor Route

Source	Pathway	Receptor	Type of Impact	Where relationship can be interrupted
Mechanical treatment of waste batteries (incl. emission point to air)	Generation of dusts/fibres, powders from treatment of waste	Sensitive receptors identified in Table 1-2 and Table 1-3.	Visual soiling of surfaces and vegetation and nuisance.	• Treatment plant is fully enclosed. • Treatment process is carried out in a wet environment, suppressing any dust generation. • Appropriate abatement (wet scrubber) of emissions to air
Dust / debris falling from incoming / outgoing waste	Falling off delivery lorries	Sensitive receptors identified in Table 1-2 and Table 1-3.	As above.	• Waste will be delivered in enclosed vehicles, or the waste will be in sealed containers. • Waste received in bulk tippers will be unloaded in the dedicated bunded bulk area. • All areas are subject to regular housekeeping. • Surface soiling will be cleared in accordance with housekeeping procedures.
Vehicles and plant moving	Atmospheric dispersion	Sensitive receptors identified in Table 1-2 and Table 1-3.	As above.	• Site surface is entirely concreted therefore dust generation which may impact surrounding sensitive receptors should be minimal. Surfaces to be kept clear. • All areas, vehicles and plant machinery are subjected to regular housekeeping and removal of loose particles.
Tipping, storage and sorting of wastes in the open	Atmospheric dispersion	Sensitive receptors identified in Table 1-2 and Table 1-3.	As above.	• Waste received in bulk tippers will be unloaded in the dedicated bunded bulk area. • Waste deposit heights from vehicles will be minimised.
Tipping, storage and sorting of wastes inside buildings	Escape from buildings and subsequent atmospheric dispersion	Sensitive receptors identified in Table 1-2 and Table 1-3.	As above.	• Waste unloaded within the internal unloading areas. • Minimise particular source strength by use of low drop heights. • Plant is regularly cleaned down to prevent the accumulation of dust and loose material • All plant used on Site is maintained and serviced in accordance with manufacturers guidelines and service agreements. • Waste, if consisting solely or mainly of dust, powders, or loose fibres, shall not be accepted.

Source	Pathway	Receptor	Type of Impact	Where relationship can be interrupted
Exhaust emissions	Atmospheric dispersion	Sensitive receptors identified in Table 1-2 and Table 1-3.	As above.	• Regulatory controls and best-practice measures to minimise source strength. • Plant will be switched off when not in use. • Delivery and collection vehicles will be required to switch engines off while unloading and loading where possible.

Table 3-2 Measures that will be used on site to control dust/particulate (PM_{10}) and other emissions

Abatement Measure	Description / Effect	Overall consideration and implementation
Preventive measures		
Fully enclosed within a building with emissions directed to an appropriate treatment (wet scrubber)	Creates a solid barrier. Prevents the escape of debris, dust and particulates.	Whenever feasible, waste will be delivered and removed from Site in enclosed vehicles and sealed containers. All battery treatment activities take place within an enclosed building. All emissions from the hammer mill and vibrating screen areas of the new Gravity Battery Breaker will be extracted and directed to a wet scrubber abatement system prior to discharge to atmosphere, all other processes undertaken within the Gravity Battery Breaker will be wet, utilising either spray nozzles or water baths.
Site layout in relation to receptors	Locating particulate emitting activities in location least likely to result in dust emission.	All treatment activities are conducted indoors. Process with potential to generate dust, such as battery treatment process, are carried out within enclosed building.
Minimising drop heights for waste.	Minimising the height at which waste is handled should reduce the distance over which debris, dust and particulates could be blown and dispersed by wind.	Waste deposit heights from vehicles will be minimised. Some of the waste is delivered in containers.
'No idling' policy and minimisation of vehicle movements on site	Reducing vehicle movements and idling should reduce emissions from vehicles.	Vehicle engines will be switched off when not in use, to minimise any idling.
Good housekeeping	Sweeping is an effective method in preventing dust and particulates from becoming entrained by the wind	Sweeping will form part of the Site housekeeping to minimise the build-up of loose material and thus the generation of potential dust.
Ceasing operation during high winds and/or prevailing wind direction	Mobilisation of dust and particulates is likely to be greater during periods of strong winds and hence ceasing operation at these times may reduce peak pollution events.	All waste treatment and storage are undertaken within the building(s). Consequently, it is highly unlikely that extreme weather events would lead to increased dust emission from the Site such that activities would need to reduce. Operations on Site will cease or reduce according to the condition and their potential to lead to dust emissions. In the highly unlikely event that extreme weather could create dust emissions from the Site, operations will be reduced or ceased.

Abatement Measure	Description / Effect	Overall consideration and implementation
Unfavourable conditions	Mobilisation of dust in event of unfavourable operating conditions e.g. failure of building doors where they are required to prevent dust emission	The Site will close all doors to minimise through-draft and wind entrainment of dust. Operations will reduce or stop entirely until the risk of dust emission is removed (cleaned up) or doors are fixed. In the unlikely event that fugitive dust is emitted from the external area of the Site, consideration will be given to dampening this down using manual how or bucket/bowser. This area is predominantly surfaced, and this is considered to be unlikely.
Out of hours	Fugitive release of dust out of operational hours. Vandalism, weather, other.	Out of operational hours, all building doors are securely locked. Gates located on the waste dispatch areas are locked to prevent unauthorised entry. The site operates monitored alarm system for unauthorised access.

3.3 Visual dust monitoring

Due to the levels of abatement measures to be integrated on the Site as detailed in Table 3-2, the likelihood of emissions impacting on the identified sensitive receptors is considered low. Therefore, formal dust monitoring is not proposed for the Site.

Informal dust monitoring comprising of operational staff remaining vigilant for observable dust and particulate will be carried out during the operation process. If dust emissions are identified to be leaving the permit boundary because of the waste treatment operation, operations will cease. The source of any fugitive emissions will be resolved before operational processes resume.

If dust emissions are identified as an issue, the Operator will review the mitigation measures and monitoring techniques detailed in the DEMP to reduce expos re levels and prevent emissions from the Site. In this scenario, the following monitoring will be considered:

- Visual dust monitoring (building doors and openings
- Quantitative dust monitoring.

Results for dust monitoring will be recorded and retained in the Site office with details regarding dates, times, weather conditions, wind direction, and the name of the staff member undertaking the monitoring process.

4. Reporting and Complaints

The Operator maintains a Management System (MS). Any complaints received concerning dust and/or particulate emissions at the Site will be dealt with in accordance with the company's MS complaints procedure.

Any complaints received at the Site about dust, will be reported to the Site Manager or the TCM.

The following actions will be taken on receipt of an external complaint:

- The Site Manager/responsible person will immediately record the key details, initiating the investigation process. Details will be entered on the Complaint Report Form (see Appendix A). The form sets out the key information that should be recorded at this time to facilitate further suitable investigation.
- The Site Manager or TCM will be informed of the complaint as soon as possible, including the location, time and date of the complaint being lodged.

In recognising that some causes of complaints, such as dust and noise, can be transient and short-lived, timely notification of complaints directly from the complainant or the Environment Agency is imperative to allow for appropriate investigation. If the complaint occurs more than 12 hours before notification is provided to the Operator, it may not be possible to substantiate the complaint or pinpoint the cause. The Operator will, however, contact the complainant where possible, review any operations at the time which had the potential to cause the complaint and complete and record a comprehensive complaint investigation. For complaints received within 12 hours of the incident the following actions will be undertaken:

- The Site Manger or TCM will visit the complaint location as soon as possible, with the aim of undertaking monitoring within 2 hours if this is possible within the working day. The Site Manager or TCM will subjectively determine the presence or absence of the cause of the complaint, e.g. visible dust presence. Opportunities to meet the complainant to discuss the matter directly will be pursued, wherever possible.
- If the cause of complaint, e.g. visible dust, is present, the key 'FIDOR' criteria will be assessed at the complaint location, as follows:
    - Frequency: is this the cause of the complaint, e.g. dust, intermittent or persistent; is there a history of complaints at this location?
    - Intensity: is the cause of complaint faint, moderate, strong, or very strong?
    - Duration: how long is the cause of complaint present at this location?
    - Offensiveness: provide a description of the cause of complaint; is it high, moderate or low offensiveness?
    - Receptor sensitivity: is the cause of complaint present at a remote or highly sensitive location; is it localised or widespread?

The Site Manger or TCM will subsequently undertake the following further assessment process:

- Review of the operations at the Site prior to and at the time of the complaint.
- Review of the environmental control systems prior to and at the time of the complaint.
- Review of the meteorological conditions (wind speed, wind direction, rainfall, atmospheric pressure) prior to and at the end of the complaint – to establish whether a pathway can be established between the Site and the complainant.
- Review of the previous complaint history at the location identified.

Where a significant complaint is substantiated by the Site Manager or TCM, the Operator will contact the Environment Agency to discuss the incident as soon as possible following receipt of the complaint details, allowing sufficient time for the above investigation to be completed, and within a maximum target response period of 24 hours from complaint receipt. If the necessary contact details are available and direct feedback has been requested the Operator will also contact the complainant directly to discuss the issue, the findings of the subsequent investigation, and any actions arising.

Once actions have been completed the Site Manager or TCM, will visit the complaint location to ensure that the cause of complaint has subsided.

4.1 Reduce or cease operations

In the event of repeat substantiated complaints of dust with an on-site source, operations will cease until the source is mitigated and dust emissions can be eliminated.

In the unlikely event of repat complaints and no obvious sign of an on-site dust source, consideration will be given with engaging with the complainant from a resolution and/or a visit to the site.

Substantiated off-site sources of dust will be recorded in the Site Diary for future reference.

4.2 Community engagement

The Site will display their site notice with information on who may be contacted in the event of an event or incident. It also has the contact details for the Environment Agency in the event of an emergency or if a complaint is to be lodged.

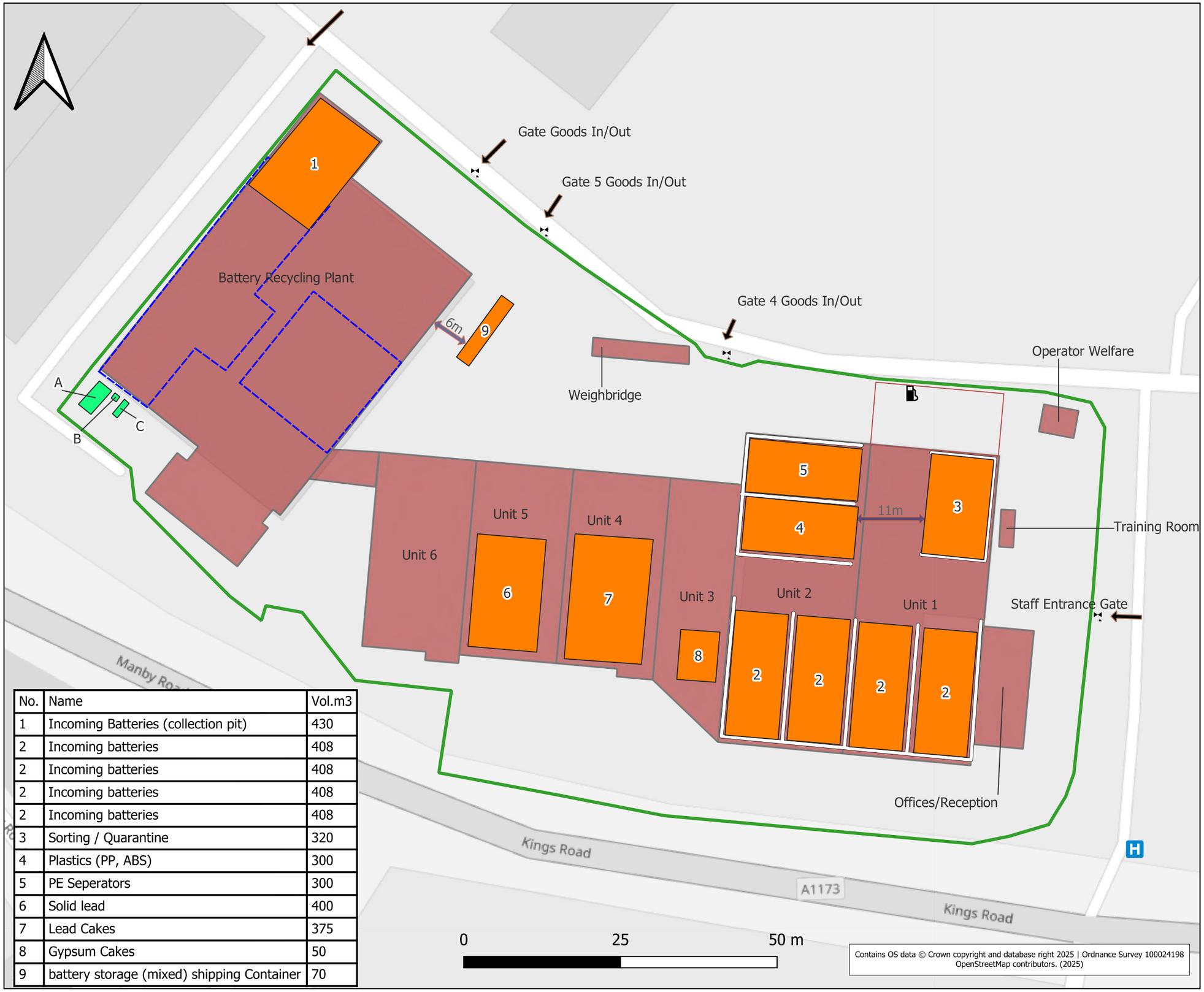
The Operator wishes to maintain an unobtrusive presence in the business community and amongst neighbouring residents. In the regretful event of a complaint, the Operator will maintain an open line of communication with the complainant, so they are aware of the steps being taken and eventual outcome.

The Operator will engage with a complaint via the preferred method/method used to make the complaint, where this is possible.

Drawings

Site Layout Plan

Sensitive Receptors Plan



No.	Name	Vol.m3
1	Incoming Batteries (collection pit)	430
2	Incoming batteries	408
2	Incoming batteries	408
2	Incoming batteries	408
2	Incoming batteries	408
3	Sorting / Quarantine	320
4	Plastics (PP, ABS)	300
5	PE Seperators	300
6	Solid lead	400
7	Lead Cakes	375
8	Gypsum Cakes	50
9	battery storage (mixed) shipping Container	70

Legend:

- Permit Boundary
- Waste storage
- Raw materials
- Concrete bay
- Separation distances
- Access gates
- Fire engine access
- Bunding
- Hydrant
- Diesel
- Battery Recycling Plant

Consultant:

Arthain Ltd

Client:

Enva Battery Recycling Ltd

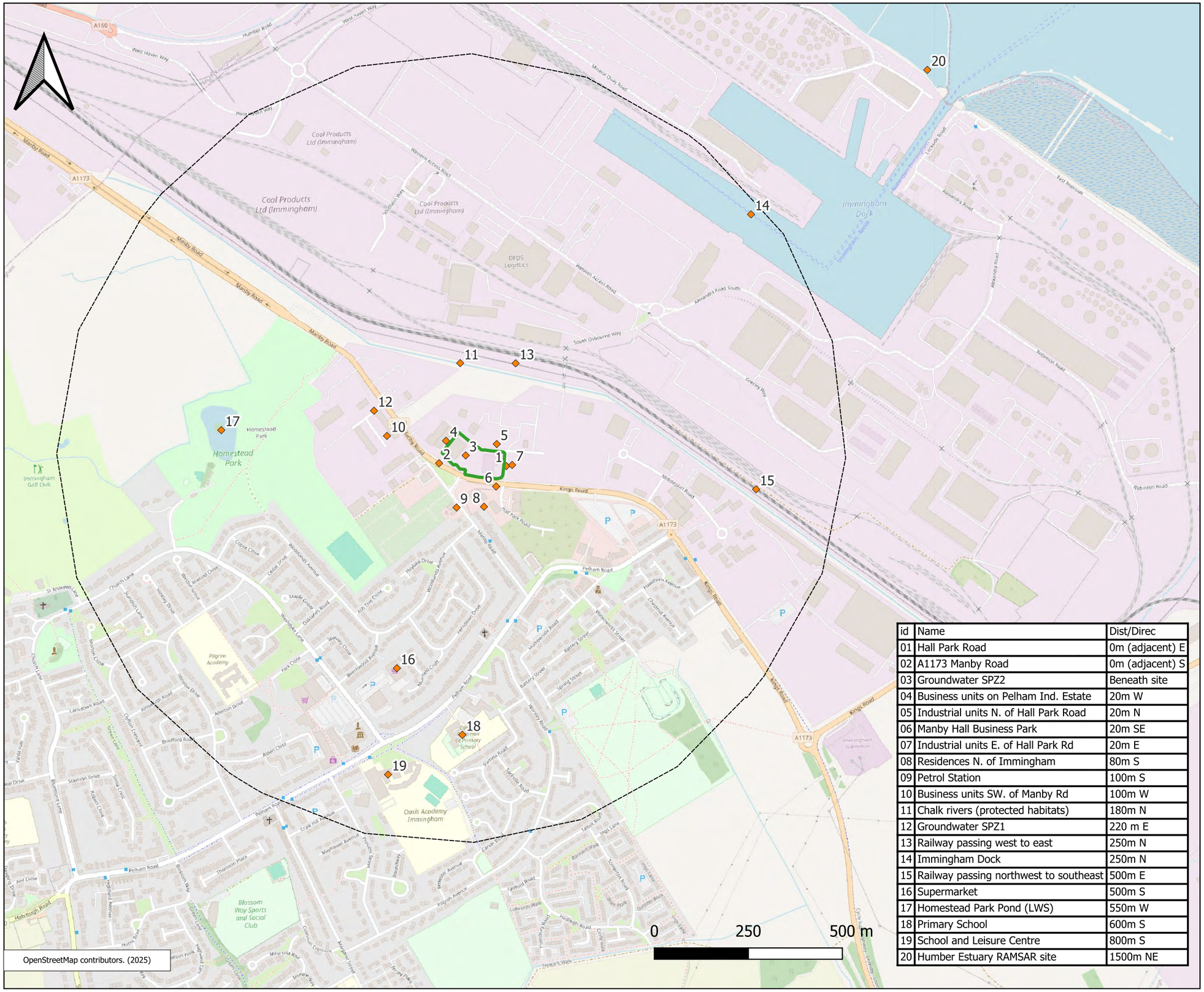
Site: Pelham Industrial Estate, Manby Road, Immingham, Lincolnshire, DN40 2LF

Drawing title: Site Layout Plan

Date:	Scale:	Paper size:
15/10/25	1:600	A3 (420×297mm)

Drawn by:	Checked by:	Status:	FInal revision
RM	KB	Final	-

Drawing Ref:	Drawing No:
317213 DW02	DW02



id	Name	Dist/Direc
01	Hall Park Road	0m (adjacent) E
02	A1173 Manby Road	0m (adjacent) S
03	Groundwater SPZ2	Beneath site
04	Business units on Pelham Ind. Estate	20m W
05	Industrial units N. of Hall Park Road	20m N
06	Manby Hall Business Park	20m SE
07	Industrial units E. of Hall Park Rd	20m E
08	Residences N. of Immingham	80m S
09	Petrol Station	100m S
10	Business units SW. of Manby Rd	100m W
11	Chalk rivers (protected habitats)	180m N
12	Groundwater SPZ1	220 m E
13	Railway passing west to east	250m N
14	Immingham Dock	250m N
15	Railway passing northwest to southeast	500m E
16	Supermarket	500m S
17	Homestead Park Pond (LWS)	550m W
18	Primary School	600m S
19	School and Leisure Centre	800m S
20	Humber Estuary RAMSAR site	1500m NE

Legend:

Sensitive Receptors

1km Buffer

Consultant:

Arthain Ltd

Client:

Enva Battery Recycling Ltd

Site: Pelham Industrial Estate, Manby Road, Immingham, Lincolnshire, DN40 2LF

Drawing title: Sensitive Recpetors Plan

Date:	Scale:	Paper size:
16/09/25	1:10,000	A3 (420×297mm)

Drawn by:	Checked by:	Status:	FInal revision
RM	KB	Final	-

Drawing Ref:	Drawing No:
317213 DW03	DW03

Appendices

Appendix A Dust Complaints Form

Customer Details	
Customer Name	
Address Postcode	
Customer Contact Details	
Telephone	
Email	
Date	
Complain Ref Number	
Complaint Details	
Investigation Details	
Investigation carried out by	
Position	
Date & time investigation carriour out	
Weather conditions	
Wind direction and speed	
Investigation findings	
Feedback give to Environment Agency and/or local authority	
Date feedback given	
Feedback give to public	
Review and Improve	
Improvements need to prevent a reoccurrence	