

## **Odour Emissions Management Plan**

Prepared on Behalf of:

Prepared on Behalf of:

**One Waste Clearance Ltd**

Site Name:

**Unit 2, 1-11**

**Abbey Industrial Estate**

**Willow Lane**

**Mitcham**

**CR4 4NA**

**Environmental Permit Reference:**

**WE1046AA/A001**

## DOCUMENT CONTROL SHEET

<b>Site:</b>	Willow Lane
<b>Project:</b>	Standard Rules Permit Variation Application
<b>Title</b>	Odour Emissions Management Plan
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**Distribution List:**

Environment Agency

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# 1. Introduction

## 1.1 Reasons for an Odour Emissions Management Plan

1.1.1 The site currently operates under an Environmental Permit WML 403044, which is a Standard Rules Permit SR2015 No6, imposing the following condition:

*“Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.”*

1.1.2 The site has been operational since 2016 with no complaints received or adverse events reported in relation to Odour emissions from the site. Hence the Environment Agency has not found it necessary to require production of an Emissions Management Plan. Nevertheless, the permitted activities are subject to an Odour emissions management regime contained within the Environmental Management System reviewed by the Environment Agency during the course of regulatory inspections. The Environmental Management System was based on the generic Risk Assessment associated with SR2015 No6.

1.1.3 This Odour Emissions Management Plan has been produced in response to a request from the Environment Agency during the pre-application screening process in relation to the application as the application seeks to extend the permitted area and to utilise the areas outside of the existing Waste Transfer Station Building to manage wastes.

1.1.4 Reference has been made to the following documents:

- *Control and monitor emission of your environment Permit (February 2016) Environment Agency.*
- *Environment Agency Technical Guidance Note H4-Odour Management.*

## 1.2 Objectives of this Odour Emissions Management Plan

1.2.1 This Odour Emissions Management Plan demonstrates appropriate measures to prevent or minimise the release of Odour emissions from the additional waste related operations for which the Bespoke Permit is being sought such that they do not cause pollution.

1.2.2 To achieve these objects, this Odour Emissions Management Plan includes a risk assessment and then identifies the following:

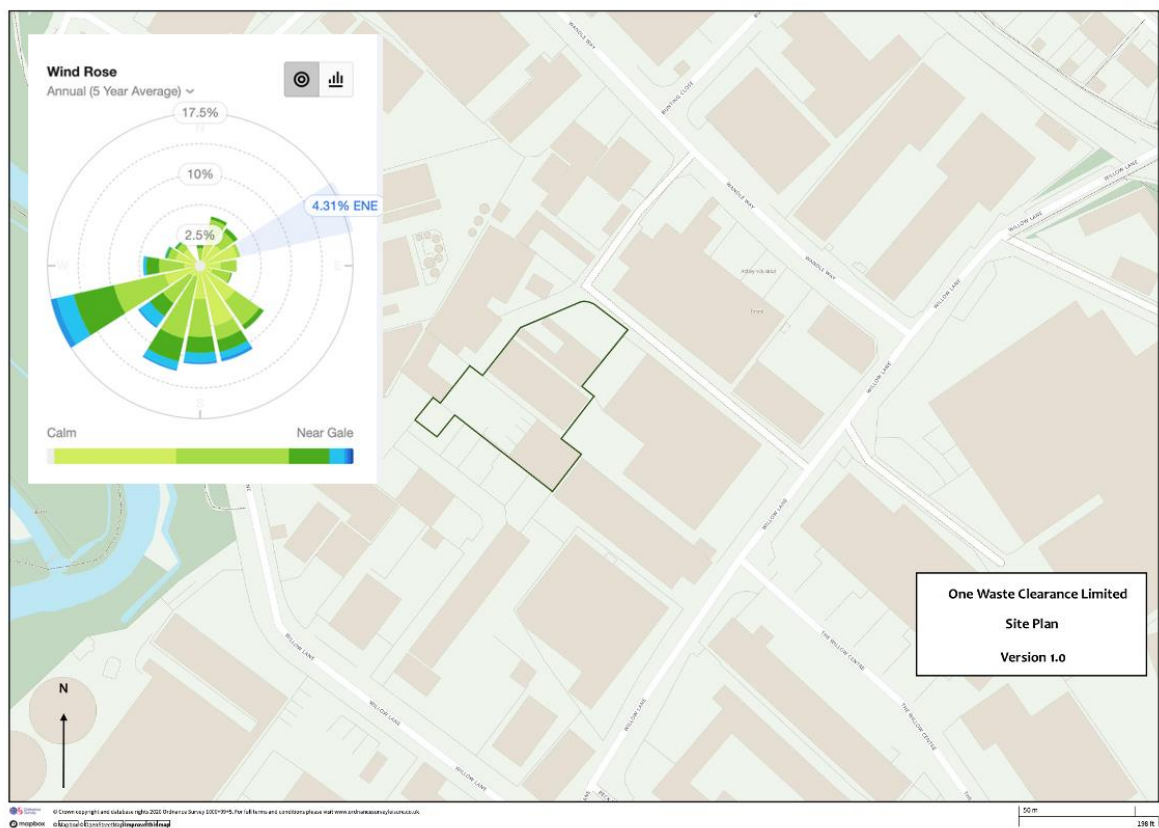
- Controls in place to prevent the generation of Odour;
- Measures in place to control Odour emissions should they arise;
- Ongoing monitoring to assess effectiveness of these controls; and
- Measures to monitor conditions onsite and the locality on a preventative basis.

- 1.2.3 All applicable staff members will be trained on the requirements of this Odour Emissions Management Plan by a Responsible Person (i.e., Management) with refresher training completed as required to ensure sufficient understanding of the requirements and everyone will have ready access to this Management Plan.
- 1.2.4 The site is operational Monday to Friday (7:00am-17:30pm) and Saturday (7:00am-13:00pm), with wastes received on a daily basis.
- 1.2.5 This Odour Emissions Management Plan will be stored within the Site Office adjacent to the permitted area.

## 2. Site Setting

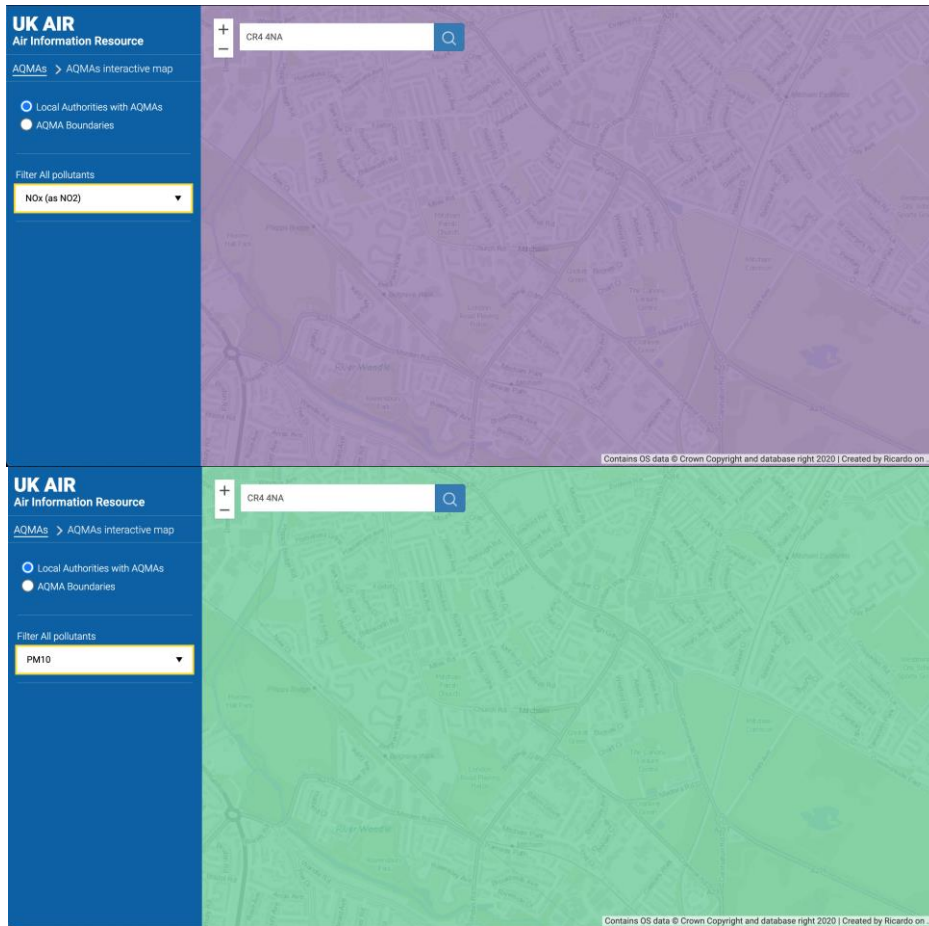
### 2.1 Application Site Context

2.1.1 The site is located within the Abbey Industrial Estate and area comprising of numerous industrial and commercial operates as well as a number of waste management facilities. North is the wider industrial estate & Northeast is the Cranmer Green (LNR) and Deciduous Woodland Designations (Priority Habitats) Broadleaved Trees, which is located over 516 metres away from the site. East are areas with a Deciduous Woodland Designation (Priority Habitats Broadleaved Trees), which is located over 312 metres away from the site. West is the wider industrial estate and beyond that is Bennett's Hole (LNR) Deciduous Woodland Designation (Priority Habitats Broadleaved Trees), which is located over 85 metres away from the site. South/Southeast is the wider industrial estate and beyond that is Spencer Road Wetland (LNR) & Wandle Valley Wetland (LNR) Deciduous Woodland Designation (Priority Habitats Broadleaved Trees), which are located over 779 metres & 828 metres away from the site. Northwest is the wider industrial estate and beyond that is Ravensbury Park (LNR) Deciduous Woodland Designation (Priority Habitats Broadleaved Trees), which is located over 753 metres away from the site. The nearest Residential Dwellings are located over 230 metres away from the site (Northeast).



**Figure 1: Map Showing Proposed Application Site with Wind Vectors Superimposed.**

2.1.2 The site is located within an Air Quality Management Area for PM10 & NOx designated pollutants as evidence in [Figure 2](#) below.



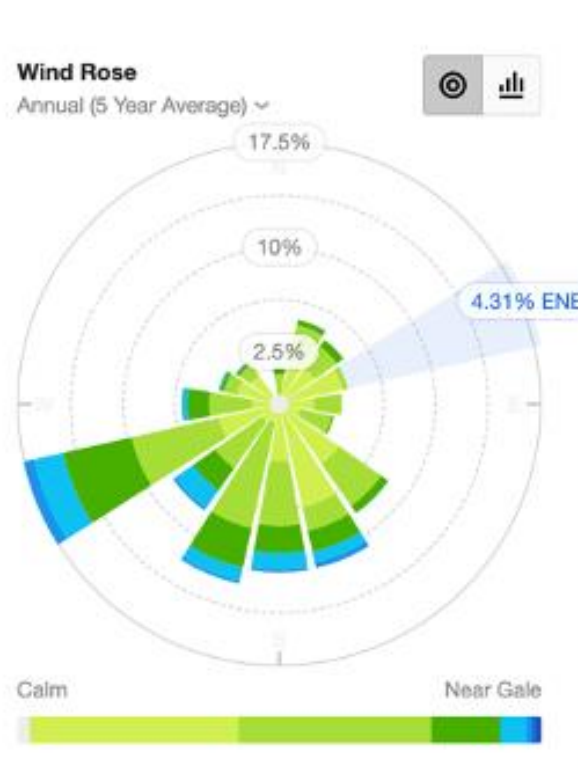
**Figure 2: Application Site in Relation to Air Quality Management Designations.**

## 2.2 Wind Vector

2.2.1 The most important climatic parameters governing the generation and dispersal of Odour are:

- Wind speed which can potentially affect Odour entrainment and the distance it may travel; and
- Wind direction which determines the broad transport of emissions and the sector of the compass into which the emissions are dispersed.

2.2.2 Figure 3 below shows the overall wind patterns with the prevailing wind direction to the east northeast as illustrated below. Willy Weather sources its wind information from various weather models produced by the Met Office. The wind rose provides a long-term graphical view of how wind speed and directions are distributed at Mitcham. In determining the potential primary receptors (as detailed in Section 2.3.3 those within the East-North-East and adjacent have been included to fact in any fluctuations of the data that has been reviewed.



**Figure 3: Mitcham (Overall Data Set 5 Year Average) Wind Vectors.**



## 2.3 Potential Local Receptors

2.3.1 A screening exercise has been undertaken to identify possible receptors in the vicinity of the site. A 1000-metre buffer zone has been applied, as this is stated criterion under the Environment Agency Bespoke Application Guidance.

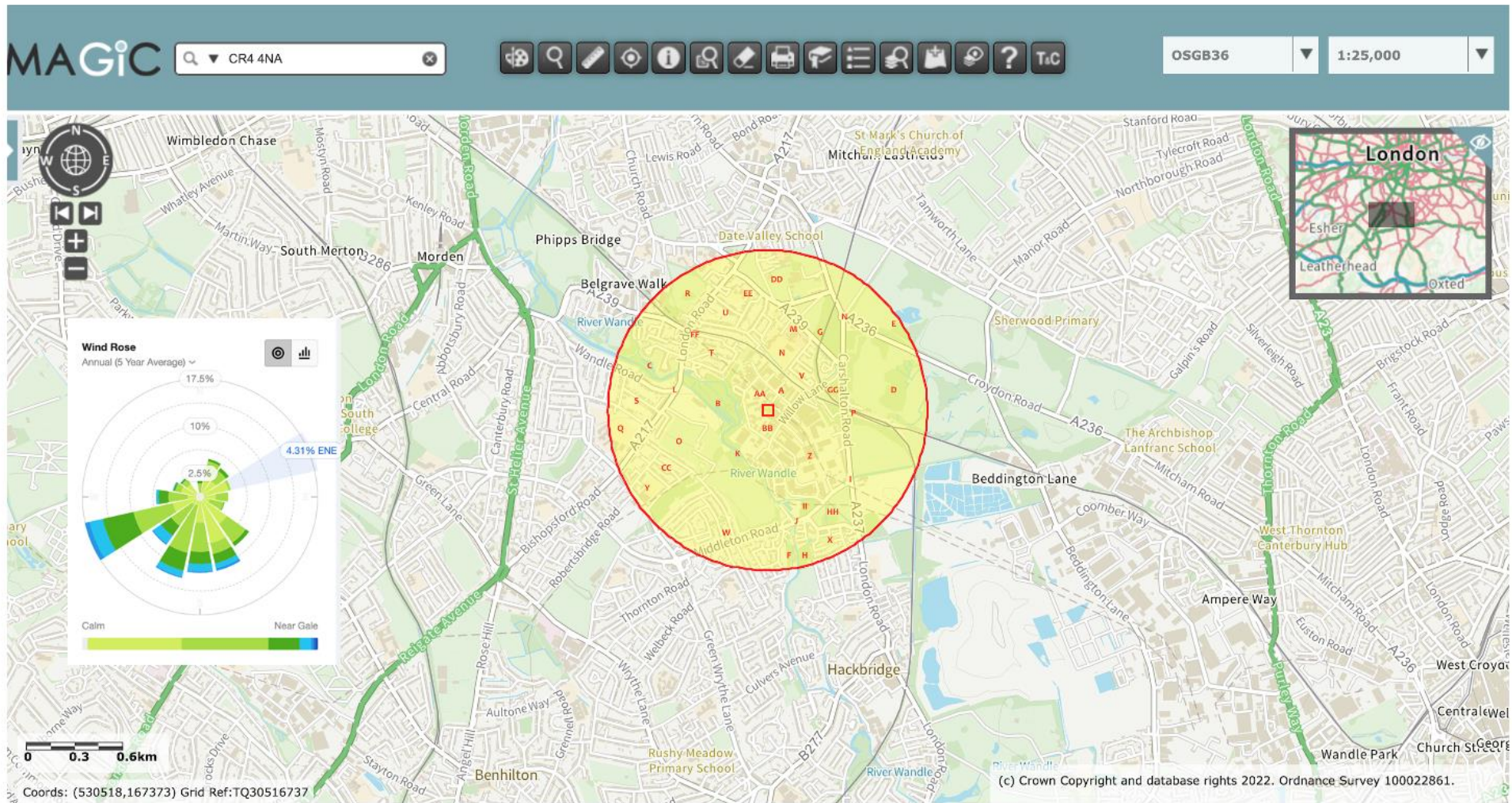
2.3.2 Possible receptors are indicated in [Figure 4](#) (overleaf) and listed in [Table 1](#) below:

**Table 1: Possible Receptors, Distance & Direction from Proposed Operation**

Receptor Reference	Receptor Description	Direction From Site	Wind Directional Travel Percentage % (Overall Meteorological Office Figures)	Approximate Distance From Site Boundary (Metres)
A	Commercial & industrial Activities	Northeast	7.97	Adjacent
B	Bennett's Hole (LNR/ Deciduous Woodland)	West	3.83	85
C	Ravensbury (LNR/ Deciduous Woodland)	Northwest	7.97	753
D	Mitcham Golf Club/ Deciduous Woodland	East	5.98	923
E	Mitcham Common/ Deciduous Woodland	Northeast	7.97	794
F	Spencer Road (LNR/ Deciduous Woodland)	South	2.24	779
G	Cranmer Green (LNR/ Deciduous Woodland)	Northeast	7.97	516
H	Wandle Wetland (LNR/ Deciduous Woodland)	South	2.24	828
I	Infrastructure (Road)	Southeast	3.26	650
J	Infrastructure (Road)	South	2.24	657
K	River Wandle	Southwest	4.82	275
L	Infrastructure (Road)	West	3.83	537
M	Wilson Hospital	Northeast	7.97	533
N	Cranmer Primary School	North	10.32	320
O	Poulters Park	Southwest	4.82	438
P	Mitcham Junction Rail Infrastructure	East	5.98	526
Q	Harris Academy Morden	West	3.83	827
R	London Road Playing Fields	Northwest	8.18	815
S	Residential	West	3.83	735
T	Residential	Northwest	8.18	550
U	Residential	Northwest	8.18	673
V	Residential	Northeast	7.97	230
X	Residential	Southeast	3.26	875
Y	Green Wrythe Primary School	Southwest	4.82	838
Z	Industrial/Commercial	Southeast	3.26	Adjacent
AA	Commercial & industrial Activities	North	10.32	Adjacent
BB	Commercial & industrial Activities	South	2.24	Adjacent
CC	Residential	Southwest	4.82	729
DD	The Canons Leisure Centre	North	10.32	737
EE	SS Peter & Paul Catholic Primary School	North	10.32	719
FF	Mitcham Fire Station	Northwest	8.18	684
GG	Deciduous Woodland	East	5.98	408
HH	Deciduous Woodland	Southeast	3.26	714
II	Deciduous Woodland	South	2.24	578

2.3.3 It is considered that the primary receptors listed below are most likely to be affected by potential Odour emissions generated at the Site. The list reflects those receptors within the predominant wind direction (i.e., east-northeast) and within proximity:

- Commercial/Industrial (Adjacent)
- Commercial/Industrial (Adjacent)
- Commercial/Industrial (Adjacent)
- Commercial/Industrial (Adjacent)
- Mitcham Gold Course (East 923 metres)
- Mitcham Common/Deciduous Woodland (Northeast 794 metres)
- Cranmer Green (Northeast 516 metres)
- Wilson Hospital (Northeast 533 metres)
- Mitcham, Junction Railway (East 526 metres)
- Residential (Northeast 230 metres)
- Deciduous Woodland (East 408 metres)



**Figure 4: Possible Receptors Identified within 1000m of the Application Site (Magic)**

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### **3. Odour Risk Assessment**

- 3.1.1 Generic Risk Assessment for the SR2012 No6 Permit assesses the magnitude of risk associated with release of particulate matter as medium prior to onsite mitigation measures being deployed. Once onsite particulate matter mitigation measures have been enacted the magnitude of risk is reduced to low.
- 3.1.2 The Environmental Management System & governing Environmental Permit Conditions will be monitored to ensure ongoing compliance with the Environment Permit. The Environmental Management System (including supporting Documentation) is underpinned by a Risk Assessment, which has identified the following operations as having the potential to give rise to Odour emissions:
1. Delivery of Waste Material
  2. Deposit of Waste Material;
  3. Processing of Waste Material (Including the Production of Non-Waste Products);
  4. Storage of Materials
  5. Loading of Materials

### 3.2 Sources, Pathways, Receptors & Risk Management Measures

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
Release of Particulate Matter (Odours)	Odour from Delivery of Wastes	Air Transportation then inhalation	Local Human Population & Adjacent Industrial/ Commercial Activities Workforce.  Receptors listed in <a href="#">Table 1</a> .	Low	Low	Medium	<p>Vehicles are sheeted during the transportation of all waste materials to the proposed site.</p> <p>Drivers follow strict pre-acceptance inspections to ensure no malodorous wastes are delivered to site. If the load is judged to be too malodorous the driver will contact the weighbridge office for further instruction on transporting the waste to another waste management facility (if deemed necessary).</p> <p>In the event of Odour generation, follow procedures detailed within <a href="#">Table 3</a>. Odour Management Action Levels escalating as necessary (OEMP Document).</p> <p>Odour Suppression Equipment Hoses/Misting System (Internal/External) utilised to limit Odour emissions (as deemed necessary).</p> <p>Wind conditions will be monitored &amp; Operations may cease until conditions improve.</p>	Low
	Odour from Deposit of	Air Transportation	Local Human Population &	Low	Low	Medium	Wastes are deposited in the Waste Acceptance area (depending on	Low

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	Wastes	then inhalation	Adjacent Industrial/ Commercial Activities Workforce.  Receptors listed in <u>Table 1</u> .				<p>material composition &amp; type), is constantly monitored during the unloading process.</p> <p>Waste Management areas benefit from solid concrete retaining walls and suppression equipment acting as a physical barrier to the transmission of odour.</p> <p>In the event that malodorous wastes are inadvertently accepted, they will be isolated within an enclosed skip and removed from the site within 48 hours of arrival.</p> <p>In the event of Odour generation, follow procedures detailed within <u>Table 3</u>. Odour Management Action Levels escalating as necessary (OEMP Document).</p> <p>Odour Suppression Equipment Hoses/Misting System (Internal/External) utilised to limit Odour emissions (as deemed necessary).</p> <p>Management complete daily spot checks of the Depot, which includes the identification of malodorous wastes.</p> <p>Wind conditions will be monitored &amp; Operations may cease until conditions improve.</p>	
	Odour from Processing	Air Transportation	Local Human Population &	Low	Low	Medium	Management complete daily spot checks of the Depot, which includes	Low



	of Wastes	then inhalation	Adjacent Industrial/ Commercial Activities Workforce.  Receptors listed in <u>Table 1</u> .				<p>the identification of malodorous wastes.</p> <p>Waste Management areas benefit from solid concrete retaining walls and suppression equipment acting as a physical barrier to the transmission of odour.</p> <p>In the event that malodorous wastes are identified during the processing operations, they will be isolated within an enclosed skip and removed from the site within 48 hours of arrival.</p> <p>In the event of Odour generation, follow procedures detailed within <u>Table 3</u>. Odour Management Action Levels escalating as necessary (OEMP Document).</p> <p>Odour Suppression Equipment Hoses/Misting System (Internal/External) utilised to limit Odour emissions (as deemed necessary).</p> <p>Wind conditions will be monitored &amp; Operations may cease until conditions improve.</p>	
	Odour from Storage of Waste	Air Transportation then inhalation	Local Human Population & Adjacent Industrial/ Commercial Activities	Low	Low	Medium	<p>Management complete daily spot checks of the Depot, which includes the identification of malodorous wastes.</p> <p>Waste Management areas benefit from solid concrete retaining walls</p>	Low

			Workforce.  Receptors listed in <u>Table 1</u> .				<p>and suppression equipment acting as a physical barrier to the transmission of odour.</p> <p>Storage time limits as specified in the submitted Fire Prevention Plan Document.</p> <p>Ongoing monitoring and inspection of wastes stored within the Depot.</p> <p>In the event that malodorous wastes are identified whilst being stored onsite, they will be isolated within an enclosed skip and removed from the site within 48 hours of arrival.</p> <p>In the event of Odour generation, follow procedures detailed within <u>Table 3</u>. Odour Management Action Levels escalating as necessary (OEMP Document).</p> <p>Odour Suppression Equipment Hoses/Misting System (Internal/External) utilised to limit Odour emissions (as deemed necessary).</p> <p>Wind conditions will be monitored &amp; Operations may cease until conditions improve.</p>	
	Odour from Loading of Wastes	Air Transportation then inhalation	Local Human Population & Adjacent Industrial/ Commercial Activities	Low	Low	Medium	<p>Only competently trained operatives complete loading operations to ensure they are carried out efficiently and effectively.</p> <p>Waste Management areas benefit from solid concrete retaining walls</p>	Low



			<p>Workforce.</p> <p>Receptors listed in <u>Table 1</u>.</p>				<p>and suppression equipment acting as a physical barrier to the transmission of odour.</p> <p>Management complete daily spot checks of the Depot, which includes the identification of malodorous wastes.</p> <p>Vehicles are sheeted during the transportation of all waste materials to the proposed site.</p> <p>Loading of materials conducted within the confines of the site perimeter.</p> <p>In the event of Odour generation, follow procedures detailed within <u>Table 3</u>. Odour Management Action Levels escalating as necessary (OEMP Document).</p> <p>Odour Suppression Equipment Hoses/Misting System (Internal/External) utilised to limit Odour emissions (as deemed necessary).</p> <p>Wind conditions will be monitored &amp; Operations may cease until conditions improve.</p>	
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### **3.3 Risk Assessment Concluding Remarks**

- 3.3.1 With the prevailing wind direction being from a west south-westerly direction any emissions generated can be expected to be dispersed in an east north-easterly direction. Given the embedded mitigation measures as detailed above the transmission of Odours can be expected to be contained within the confines of the site boundary.
- 3.3.2 Regardless of the above, subsequent sections describe the measures in place to ensure that potential Odour emissions are controlled.

## 4. Odour Management & Control

4.1.1 The site operates on the basis that prevention of Odour emissions in the first instance are more effective than implementing Odour emission response actions/procedures such as operation of the suppression equipment (powered misting hoses/misting system). It is primarily controlled by good waste acceptance procedures (i.e., to avoid odorous waste being deposited within the facility) and good operational practice through effective implementation and monitoring of this Odour Emissions Management Plan.

### 4.2 Potentially Odorous Wastes

4.2.1 Based on the strict waste acceptance procedures implemented and the types of wastes accepted, processed, and stored at the site, the potential for odour emissions to be generated is considered very low. Potentially odour emissions could be generated via waste acceptance and through the degradation of wastes during storage, however it is not anticipated that wastes will be stored for sufficient periods with the correct conditions for degradation to commence.

**Table 2: Potentially Odorous Wastes**

Waste Description (Potentially Odorous Materials)	Applicable EWC Codes	Odour Risk Potential	Handling/Processing Arrangements	Maximum Quantity at Any Time (Tonnes)	Maximum Storage Time	Maximum Storage Time (In the Event of Odour Identification)
Mixed C&D & C&I/ Mixed Municipal Wastes (Waste Acceptance Area)	17 09 04 20 03 01	Medium/High	Deposited within the waste acceptance area, sorted (manual/mechanical) and processed through the processing equipment.	500	1 Month	24-48 Hours
Biodegradable Wastes (Food Wastes Potential to Generate Odours)	02 01 03 02 01 07 20 01 08 20 02 01 20 03 02	Medium/High	Accepted, sorted (manual/mechanical), and stored within the building & external storage bays.	300	1 Month	24-48 Hours
Bulky Wastes	20 03 07	Low	Deposited, sorted, and shredded externally.	300	1 Month	24-48 Hours
Wood	02 01 03 02 01 07 03 01 05 03 03 01 15 01 03 17 02 01 19 12 07 20 01 38 20 02 01	Medium	Stored in the building or within external bays pending removal.	350	1 Month	24-48 Hours
Paper/Cardboard (If Soaked in Water)	03 03 07 03 03 08 15 01 01 19 12 01 20 01 01	Medium/High	Accepted, sorted (manual/mechanical), and stored within the building & external storage bays.	250	1 Month	24-48 Hours
Plastic	02 01 04 07 02 13 12 01 05 15 01 02 16 01 19 17 02 03 19 12 04 20 01 39	Low	Deposited, sorted and shredded externally.	250	1 Month	24-48 Hours

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Plasterboard (If Soaked in Water)	17 08 02	Medium/High	Accepted, sorted (manual/mechanical), and stored within the building & external storage bays.	250	1 Month	24-48 Hours
Glass (If Contaminated with Food Wastes)	10 11 03 10 11 11 10 11 12 15 01 07 16 01 20 17 02 02 17 02 04 19 12 05 20 01 02	Medium/High	Accepted, sorted (manual/mechanical), and stored within the building & external storage bays.	100	1 Month	24-48 Hours
Soil & Hardcore	01 01 01 01 01 02 01 03 06 01 03 09 01 04 08 01 04 09 01 04 11 01 04 12 01 04 13 02 04 01 10 01 24 10 11 12 10 12 08 10 13 14 15 01 07 17 01 01 17 01 02 17 01 03 17 01 07 17 02 02 17 03 02 17 05 04 17 05 08 19 01 19 12 12 05 19 12 09 20 01 02 20 02 02	Medium/Low	Accepted, sorted (manual/mechanical), and stored within the building & external storage bays.	500	3 Months	24-48 Hours
Metals	01 02 10 02 01 10 12 01 01 12 01 02 12 01 03 12 01 04 15 01 04 16 01 17 16 01 18 17 04 05 17 04 07 19 01 02 19 10 01 19 12 02 19 12 03 20 01 40	Low	Accepted, sorted (manual/mechanical), and stored within the building & external storage bays.	300	1 Month	24-48 Hours
Street Cleaning Residues	20 03 03	Medium/High	Accepted, sorted (manual/mechanical), and stored within the building & external storage bays. Screened and storage of soils and crushing of hardcore into WRAP Compliant Aggregate Products.	100	1 Month	24-48 Hours

#### 4.2.2 Odour Intensity Scale

**Table 3: Odour Intensity Scale**

Score	Intensity
0	No Detectable Odour
1	Very Faint Odour
2	Faint Odour
3	Distinct Odour
4	Strong Odour
5	Very Strong Odour
6	Extremely Strong Odour

#### 4.2.3 Hedonic Tone Scale

**Table 4: Hedonic Tone Scale**

Score	Intensity
4	Very Pleasant
3	Pleasant
2	Moderately Pleasant
1	Mildly Pleasant
0	No Odour/Neutral
-1	Mildly Unpleasant
-2	Moderately Unpleasant
-3	Unpleasant
-4	Very Unpleasant

### 4.3 Waste Acceptance Arrangements

- 4.3.1 The site will implement strict waste acceptance procedures, which will ensure that no odorous wastes are delivered to the facility. Driver's will inspect every load prior to collection and will notify the Site Office in the event of potentially odorous load being identified. The Site Office will then confirm what the Driver should do and if the load is going to be completely rejected or if the wastes will be deposited at another waste management facility. The Site Office will liaise with the Driver and Customer regarding the agreed arrangements.
- 4.3.2 Business terms and conditions will be clearly stated before any skip/container is delivered to a customer's site and will be clearly stated to any third-party companies that deposit wastes within the proposed site.
- 4.3.3 All non-hazardous wastes (i.e., potentially odorous wastes) are deposited within the Waste Acceptance Area. If odorous wastes are identified within incoming wastes, it will be identified, isolated, and removed within 24-48 hours of isolation.
- 4.3.4 In the event of a third-party customer delivering wastes to the facility it will be on the discretion of Senior Management if the wastes will be rejected immediately (i.e., reloading will take place) or if the wastes will be isolated and removed within 24-48-hours.
- 4.3.5 In the event of odorous emissions being identified the suppression equipment (locations as shown in [Appendix DEMPE](#)) will be activated to control emissions levels whilst the isolation of the wastes takes place and if required to control emissions pending the removal of the material.

## **4.4 Processing**

- 4.4.1 It is not anticipated that the mechanical processing of wastes will result in odour emissions being generated from the operation.
- 4.4.2 In the event of odorous emissions being identified the suppression equipment (locations as shown in Appendix DEMPE) will be activated to control emissions levels whilst the isolation of the wastes takes place and if required to control emissions pending the removal of the material.
- 4.4.3 If necessary, operations giving rise to odour will cease until the material has been isolated and conditions improve (i.e., the intensity has reduced).

## **4.5 Material Storage**

- 4.5.1 Materials are removed daily in sheeted vehicles, ensuring a steady turnover, and avoiding the build-up of material.
- 4.5.2 First In First Out Procedure:
  - Operatives will deposit all 'new' incoming wastes at the front of any accumulation.
  - Operatives must load all collection vehicles with the oldest materials first (accumulations at rear of bay), therefore materials at the back of the bay will be loaded in the first instance (i.e., a first in first out policy);
  - Skips/Containers once full are removed from site, with no residual materials remaining once they have been removed, which will ensure no older materials are left onsite for a prolonged period.
  - Operatives will inspect designated bays/receptacles that have been emptied prior to commencing refilling (i.e., visual inspections).

## **4.6 Housekeeping Arrangements**

- 4.6.1 Operatives adopt good housekeeping practices and will clean the operations areas daily via the handheld brooms and sweeping completed by mechanical equipment, which will ensure the surfaces are clean/tidy, with all waste materials located within their piles/locations.
- 4.6.2 Operatives conduct daily visual inspections of the public highway, the site access road and the sites internal surfaces and surfaces are cleaned as required (Public Highway immediately and internally as soon as possible, but by the end of the working day).
- 4.6.3 The concreted area is a completely sealed surface and has been laid to fall so all surface water run-off will be directed to the sealed catchment tank.

**Table 5: Cleaning Arrangements**

<b>Cleaning Arrangements</b>	<b>Frequency</b>	<b>Responsibility</b>	<b>Supervision</b>
Housekeeping (Road Sweeper)	Daily	Operatives	Yard Manager
Concrete Surfacing	Daily	Operatives	Yard Manager
Storage Bays/Receptacles	Monthly	Operatives	Yard Manager

## 5. Odour Suppression Equipment

5.1.1 The procedure for deploying the Odour suppression system is as follows:

### Proactive

1. **Check site conditions for Odour potential risk (hourly inspections by onsite operatives as a minimum);**
2. When preparing to accept deliveries, moving, or loading materials ensure the suppression equipment is ready for deploy if required (i.e., identification of an offensive smell); and
3. Be prepared to suspend operations giving rise to excessive Odour, isolate and contain wastes within an enclosed skip & remove within 24-48 hours.

### Reactive

1. **In the event of Odour emissions being amber or red (as detailed within Table 2) enact the following procedures;**
2. Deploy Odour suppression equipment, isolate and contain wastes within a enclosed skip;
3. Notify the Site Office that odorous material must be removed from the site within 24-48 hours;
4. Record the incident on a Odour Assessment Form in (Appendix OEMPB), the file for which is located within the site office; and
5. Report incident to the Management or Supervisor for further investigation.

**Table 6: Odour Management Action Levels**

Action Level	Operation Conditions	Onsite Procedures
	Normal Operating Conditions	Ongoing monitoring by all site personnel for potential odorous smells/emissions (Intensity >2). Hourly inspections undertaken by Operatives and on-going monitoring by Senior Management. Suppression Equipment ready for deployment.
	Odour emissions arising from within the operation	Odour (i.e., subjective smell detective by onsite personnel) Intensity >2 identified; suppression equipment deployed, contain odorous wastes within enclosed skip pending removal. Incident recorded within Odour Assessment Form <u>Appendix OEMPB</u> .
	Odour emissions escaping the site boundary.	Odour (i.e., Intensity >2 identified) suppression equipment deployed, contain odorous wastes within enclosed skip pending removal. Incident recorded within Odour Assessment Form <u>Appendix OEMPB</u> .



## 6. Monitoring

### 6.1 General

6.1.1 A thorough monitoring schedule will be implemented to assess the effectiveness of the controls put in place to prevent the escape of Odour emissions causing an adverse impact.

6.1.2 In addition, the following are also included in the monitoring schedule:

- Process controls;
- Odour releases;
- Transport through the atmosphere; and
- Impacts

6.1.3 Furthermore, the following are also included in the monitoring schedule:

- Compliant response;
- Site, pathway, and community monitoring undertaken by official bodies; and
- Detailed record keeping and reporting.

6.1.4 Monitoring Point Descriptions are detailed below:

**Table 7: Odour Monitoring Points**

Ref	Receptor Type	Address	Approximate Distance From Site Boundary
R1	Operation	Processing/Storage Area	N/A
R2	Operation	Processing/Storage Area	N/A
R3	Adjacent Commercial/Industrial Activities	Wandle Way	85
R4	Adjacent Commercial/Industrial Activities	Willow Lane	98
R5	Adjacent Commercial/Industrial Activities	Wandle Way	125
R6	Adjacent Commercial/Industrial Activities	Willow Lane	180
R7	Adjacent Commercial/Industrial Activities	Bunting Close	146
R8	Adjacent Commercial/Industrial Activities	Willow Lane	112
R9	Adjacent Commercial/Industrial Activities	Willow Lane	Adjacent

6.1.5 Routine daily subjective Odour (factory) assessments are conducted at locations within the site boundary as shown in ([Appendix OEMPD](#)). The assessor will walk slowly along the site boundary and breathe normally. The assessor will stand still at the identified monitoring locations and inhale deeply facing upwind where possible.

6.1.6 Specific attention to the following points of detail shall be noted:

- The assessor should not smoke or consume strongly flavoured food or drink for at least an hour before the assessment is carried out;
- The consumption of confectionary or soft drinks should be avoided immediately before the during the assessment
- Perfumes/deodorants or any other strong scented toiletries should not be applied immediately before or during and assessment
- If the monitoring personnel has a cold or sore throat that inhibits the ability to detect odours then alternative personnel will be utilised. If this is not possible then the assessor's condition should be noted in the assessment report and site diary.

6.1.7 The procedure for undertaking an Odour assessment is detailed in Appendix OEMPA.

6.1.8 If odour is detected in this manner, then sensitivity should be recorded as 2 (faint). If odour is detected while walking, the intensity should be recorded as at least 3. Criteria for assessing odours detected are detailed below.

### **Intensity**

- No detectable odour
- Very faint odour
- Faint odour
- Distinct odour
- Strong odour
- Very strong odour
- Extremely strong odour

### **Extent (assuming odour detectable, if not then 0)**

- Local and impersitent (only detected during brief periods when wind drops or blows)
- Impersitent as above but detected away from site boundary
- Persistent but fairly localised
- Persistent and pervasive up to 50m from site boundary
- Persistent and widespread (odour detected >50m from site boundary)

### **Sensitivity (assuming odour detectable, if not then 0)**

- Remote (no housing, commercial/industrial premises, or public area within 500m)
- Low sensitivity (no housing etc. within 100m of area affected by odour)
- Moderate sensitivity (housing etc. within 100m of area affected by odour)
- High sensitivity (housing etc. within area affected by odour)
- Extra sensitive (complaints arising from residents within area affected by odour)

6.1.9 In the event of Odour emissions being identified beyond the permitted boundary during the operational day, a Responsible Person will go to each of the identified monitoring locations identified within Appendix OEMPD.

- 6.1.10 On reporting results, additional observations as detailed in the odour assessment form ([Appendix OEMPB](#)) are recorded. Abnormal site operating conditions at the time of the survey e.g., maintenance to process equipment will also be recorded. The classification system for odour parameters is detailed below and attached to the Odour Assessment Report (see ([Appendix OEMPA](#))).
- 6.1.11 If an Odour assessment indicates that Odour present has arisen from the site recently, an assessment of the site processes will be carried out to trace the source of the identified Odour so that appropriate corrective action can be taken. This will include deployment of the Odour suppression system if odour is still present.
- 6.1.12 This feedback loop will ensure that corrective and preventative measures are in place if such conditions arise in the future.
- 6.1.13 In the event of on-site emissions sources being identified, or as a result of any assessments made by the Environment Agency and/or Local Authority Environmental Health Officers, the site management will be informed, and the appropriate corrective and preventative measures taken.

## 7. Complaints

- 7.1.1 The intention will be to ensure all complaints are responded to with 24-48 hours of being received, depending on when the complaint is received. A Complaint Log Form ([Appendix OEMPC](#)) will be completed as soon as the complaint is received and actioned as required.
- 7.1.2 The Operator will engage with the wider community as often as possible in order to alleviate against negative site perception. The Company Directors will ensure that the publicly accessible website is maintained and contains all the necessary contact information is provided so members of the public can contact the site. Furthermore, a noticeboard will be erected outside of the site that will provide contact information to anyone that requires it, which will include an emergency contact for out of hours concerns/issues.
- 7.1.3 In order that the veracity of any Odour complaints can be substantiated it is imperative that the site is immediately informed either by the complainant themselves or by the Environment Agency or Local Authority. The site telephone number is clearly displayed at the site entrance and residents are encouraged to immediately contact the site and/or Environment Agency in the event of any off-site Odour that might be attributable to site operations being detected.
- On receipt of an Odour complaint, a Responsible Person will visit the location of reported event to determine Odour presence/absence, Odour characteristics and intensity. The time of the complaint will be correlated with on-site activities – the site diary will be checked for ‘abnormal’ site operations/conditions at the time of the complaint.
- 7.1.4 The details will be recorded on the Complaint Log Form ([Appendix OEMPC](#)).
- 7.1.5 The duration of the Odour release to which a substantiated complaint relates will be recorded in the Site Diary and Complaint Log Form ([Appendix OEMPC](#)).
- 7.1.6 Site management will be advised, and details of the Odour complaint recorded on the Log Forms ([Appendix OEMPC](#)) in addition to complaint validation results and any corrective and preventative actions taken in response to the complaint.
- 7.1.7 If the investigations carried out as a result of the complaint suggest that the activities on site need to cease, no more waste will be accepted on site and the recycling process will be suspended.
- 7.1.8 All complaint forms will be kept until the surrender of the permit. All records will be available for inspection by Environment Agency representatives.

## 8. Contingency Plans

**Table 8: Contingency Measures**

Eventuality	Procedures/Measures
Contingency Planning in the event of a fire	<p><u>Measures could include:-</u></p> <ol style="list-style-type: none"> <li>1. The site will cease all operations and will not accept any further waste material (contact appropriate customers/contractors if necessary) until FRS arrives.</li> <li>2. Employees will be advised of the situation.</li> <li>3. Enact fire procedures as detailed within FPP.</li> <li>4. The site will only reopen once FRS has advised it is safe to do so.</li> <li>5. Fire damaged waste will be processed as appropriate. If this is not possible then it will be stored in the isolation facility and then removed from site.</li> </ol>
Flooding	<p><u>Measures could include:-</u></p> <ol style="list-style-type: none"> <li>1. The affected area will be isolated</li> <li>2. The site will cease all operations and will not accept any further waste material (contact appropriate customers/contractors if necessary)</li> <li>3. Employees will be advised of the situation.</li> <li>4. Contact wastewater Management Company to remove water accumulated on the impermeable site surfacing.</li> </ol>
Absences	<p><u>Measures could include:-</u></p> <ol style="list-style-type: none"> <li>1. Hiring in temporary workers to ensure sufficient staff coverage of operations onsite</li> <li>2. Temporality require Drivers to complete onsite tasks/jobs as well as completing day-to-day collections/deliveries</li> <li>3. Suspend or delay collection of containers/skips to enable staff to be distributed to essential area and prevent the build-up of wastes if sufficient staff members aren't present</li> </ol>
Accident	<p><u>Measures may include:-</u></p> <ol style="list-style-type: none"> <li>1. The affected area will be isolated and an appointed 'first aider' will be contacted to attend to any injured party.</li> <li>2. If necessary, the emergency services will be contacted.</li> <li>3. A Responsible Person will decide on a case-by-case basis if cessation of operations around the affected area and reception of waste is necessary until the appropriate emergency services have arrived.</li> <li>4. A Responsible Person will complete an Accident Investigation Report.</li> </ol>
Seasonality (Including Transportation Shortages)	<p><u>Measures could include:-</u></p> <ol style="list-style-type: none"> <li>1. Confirm current storage times for materials accumulated onsite.</li> <li>2. Contact outlets for the specified stream and arrange transportation.</li> <li>3. Transport all waste accumulated within a designated container/skip/area/bay, even if it may be economically undesirable to do so, i.e., the container for transportation is not full.</li> <li>4. In the event of no outlet being viable a last resort would be to transport the specified material to a landfill site via a third-party haulier to ensure that the storage limit maxima are not exceeded.</li> <li>5. Stop accepting waste until the situation improves.</li> </ol>
Supply Chain Failure (Including Transportation Shortages)	<p><u>Measures could include:-</u></p> <ol style="list-style-type: none"> <li>1. Confirm current storage times for materials accumulated onsite.</li> <li>2. Increase monitoring of material stockpiles onsite.</li> <li>3. Contact outlets for the specified stream and arrange transportation.</li> <li>4. If the outlet is not receiving the specified waste stream, contact other outlets.</li> <li>5. Conduct investigations into potential alternative outlets if potential outlets are not accepting specified streams.</li> <li>6. Require cessation of deliveries until further notice and potential transportation to alternative sites.</li> <li>7. Seek advice from EA.</li> </ol>
Breakdowns (Mechanical Equipment)	<p><u>Measures could include:-</u></p> <ol style="list-style-type: none"> <li>1. Immediate isolation of the affected machinery.</li> <li>2. External contractors notified to complete repairs</li> <li>3. Hire in relief equipment in interim if needed.</li> <li>4. Reschedule material despatch to align with scheduled repairs and or relief machinery availability.</li> <li>5. Suspend or delay collection of containers/skips to enable equipment to be up and running</li> </ol>
Queuing Trucks & Lorries	<p><u>Measures could include:-</u></p> <ol style="list-style-type: none"> <li>1. Banksman/Senior Management to take immediate control of the situation to manage traffic arrangements;</li> <li>2. Site Office could delay the arrival of incoming vehicles by requesting Drivers take breaks earlier than scheduled to reduce the amount of incoming traffic to the site.</li> <li>3. Customers (third party) could be asked to return later once the traffic has been reduced.</li> <li>4. Vehicles could be directed to park within the wider site (external yard) and directed as required.</li> </ol>

## **9. Odour Emissions Management Plan Review**

9.1.1 This plan will be reviewed on a regular (annual or as frequently as required) basis as part of the operation of the Site Environmental Management System. This will include:

- Review of any complaints received, and remedial action taken
- Review of reported incidents of Odour release to establish effectiveness of mitigation measures
- Recommendation on additional measures to be implemented as appropriate

9.1.2 In the event of any substantive changes being made, the relevant authorities e.g., Environmental Health Officer or Environment Agency will be advised.

9.1.3 In the event of the site operation being modified in such a way that may impact on Odour generation potential, this plan will also be reviewed, and appropriate measures taken. Additionally, in the event of operational modification the Environment Agency will be provided with a revised copy of this Odour Emissions Management Plan.

## **Appendix OEMPA: Odour Assessment Procedure**

Routine assessments can be used to build up a picture of the impact odour that might emanate from the site could have on the surrounding environment over time. You can develop 'worst case' scenarios by doing assessments during adverse weather conditions or during particularly odorous cycles of an operation. Ideally, you should use the same methodology to follow up complaints.

Please note:

- Staff normally exposed to the odours may not be able to detect or reasonably judge the intensity of odours off-site. You might be better off using office staff or people who have not recently been working on the site to do this.
- Anyone who has a cold, sinusitis, or a sore throat, is likely to underestimate the odours.
- To improve (or to check) data quality, you can get two people to do the test independently at the same time.
- Those doing the assessment should avoid smoking, strong food, or drinks, including coffee, for at least half an hour beforehand. They should also avoid strongly scented toiletries and deodorisers in the vehicle used during the assessment.

Where you test will depend on:

- whether you are responding to a complaint;
- whether you are checking your state of compliance at sensitive receptors;
- whether you are trying to establish the source of an odour;
- wind direction.

The assessment will involve someone walking along a route around the site perimeter checking at the identified monitoring points ([Appendix OMP D](#)).

Also keep a note of any activities beyond the site boundary that could be the source of the odour, contribute to the odour, or be a confounding factor.

## Appendix OEMPB: Odour Assessment Form

Odour Assessment Form										
Start Time Of Check		AM		PM	Finish Time		AM		PM	
Duration (Of Check)										
Location Of Check If Not On Site										
Weather Conditions	Dry		Rain		Fog		Snow		Other	
Temperature	Hot		Very Warm		Warm		Mild		Cold	
Wind Strength	None		Light		Steady		Gusting		Strong	
Wind Direction From	North		NE		E		SE			
	S		SW		W		NW			
Intensity	0 No Odour present	1 Very Faint Odour	2 Faint Odour	3 Distinct Odour	4 Strong Odour	5 Very Strong Odour	6 Extremely Strong odour			
Odour Detection	Point 1	Point 2	Point 3	Point 4	Point 5	Point 6	Point 7			
Intensity (Using Above Scale)										
How Far Was It Travelling										
Is The Source Evident?										
If Yes-Name It										
Any Other Comments Or Observations										

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## Appendix OEMPC: Odour Complaint Form

ODOUR COMPLAINT REPORT FORM		
Time and date of complaint:	Name and address of complainant:	
Telephone number of complainant:		
Date of odour:		
Time of odour:		
Location of odour, if not at above address:		
Weather conditions (i.e., dry, rain, fog, snow):		
Temperature (very warm, warm, mild, cold or degrees if known):		
Wind strength (none, light, steady, strong, gusting):		
Wind direction (eg from NE):		
Complainant's description of odour:		
<input type="radio"/> What does it smell like?		
<input type="radio"/> Intensity (see below):		
<input type="radio"/> Duration (time):		
<input type="radio"/> Constant or intermittent in this period:		
<input type="radio"/> Does the complainant have any other comments about the odour?		
Are there any other complaints relating to the installation, or to that location? (either previously or relating to the same exposure):		
Any other relevant information:		
Do you accept that odour likely to be from your activities?		
What was happening on site at the time the odour occurred?		
Operating conditions at time the odour occurred (eg flow rate, pressure at inlet and pressure at outlet):		
Actions taken:		
Form completed by:	Date	Signed

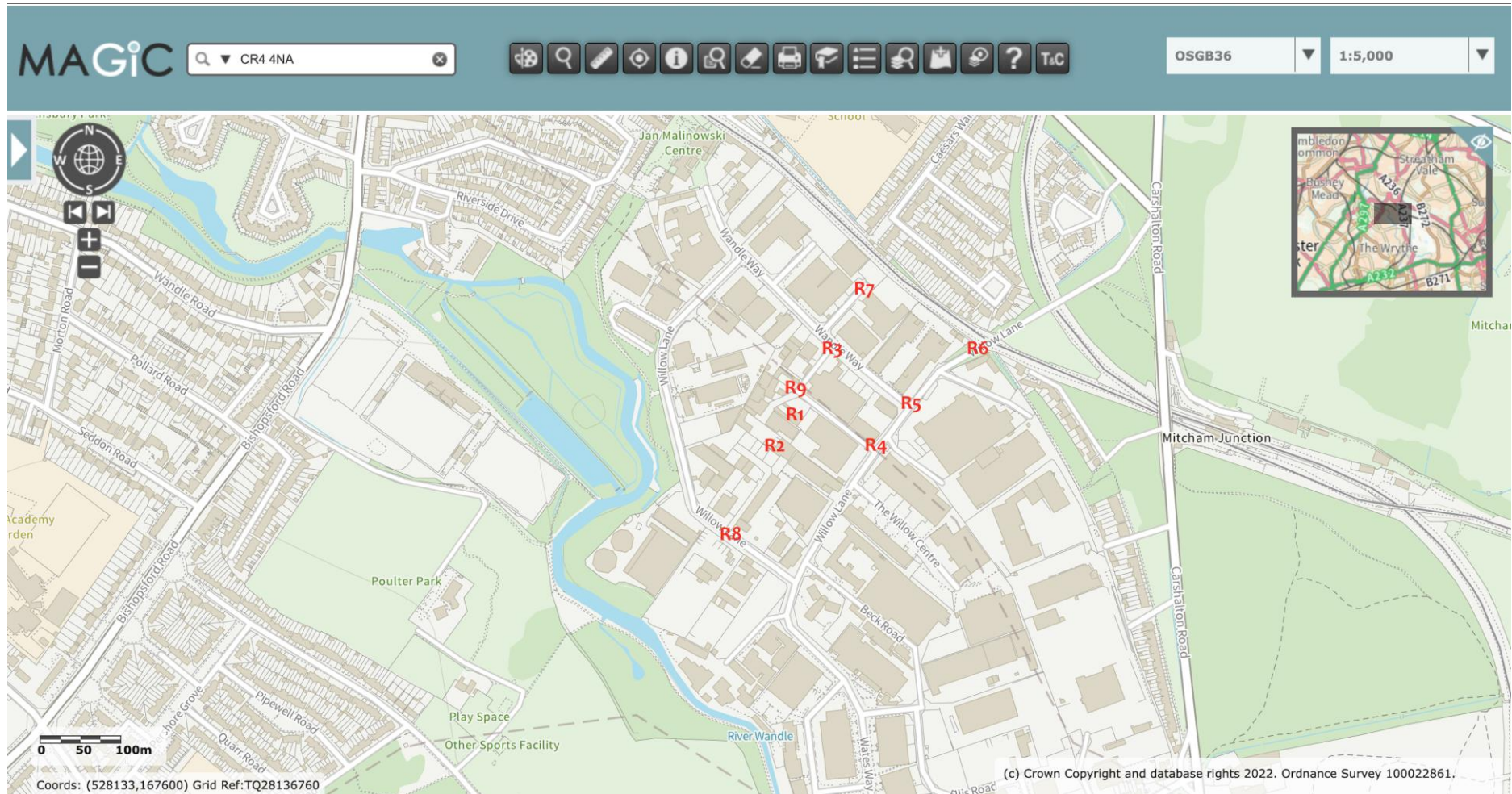
**Intensity**

0 No odour  
1 Very faint odour  
2 Faint odour

3 Distinct odour  
4 Strong odour

5 Very strong odour  
6 Extremely strong odour

# Appendix OEMPD: Monitoring Point Locations

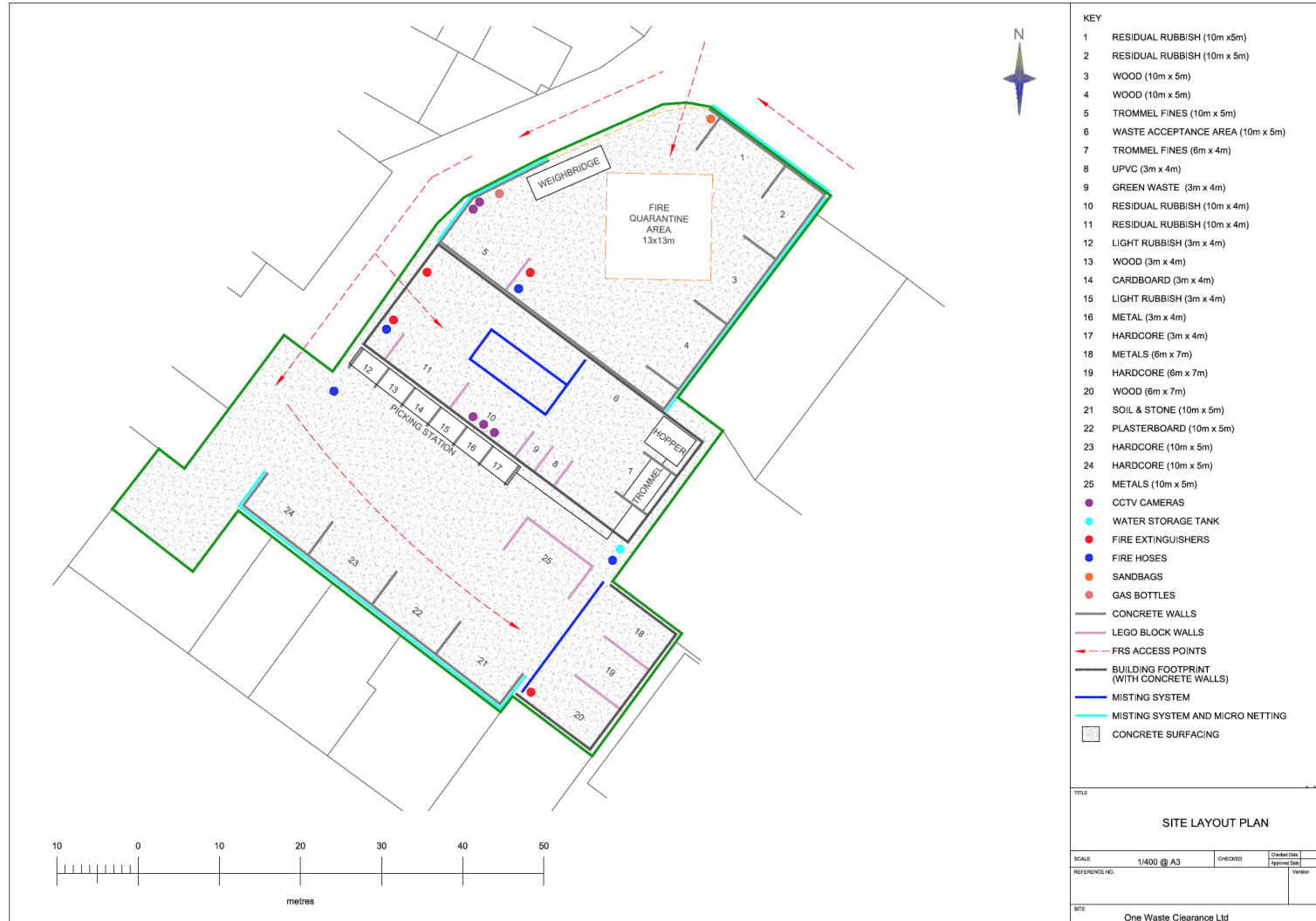


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# Appendix OEMPE: Odour Suppression Equipment Locations



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