



# **ODOUR MANAGEMENT PLAN**

Pilsworth MRF

Environmental Permit Ref: **EPR/BS7951IB**

Bury, Lancashire

16.09.2024



## Contents

1.	Introduction .....	3
1.1	Odour Management Plan – Objectives .....	3
1.2	Key Reference Documents .....	3
2.	Site Environmental Setting .....	3
2.1	Installation Details.....	3
2.2	Pathway Assessment.....	4
2.3	Potential Receptor Locations .....	4
3.	Site/Process Description .....	5
3.1	Introduction .....	5
3.2	Facility Layout Plan.....	5
3.3	Process Description .....	5
4.	MRF Odour Controls .....	6
4.1	Overarching Management Responsibility .....	6
4.2	Identification of Potential Odour Sources .....	6
4.3	Waste Feedstock Inventory.....	6
	The list of potentially odorous waste types is set out in the following table. The majority of the waste types to be accepted will have a low odour potential and pre acceptance checks will prevent any odorous and putrescible wastes from entering the MRF, these will be directed straight to the Landfill. ....	6
4.4	Containment of Activities .....	8
4.5	Waste Reception and Storage .....	8
4.6	Removal of Waste from Site .....	9
4.7	Waste Transport Vehicles .....	9
4.8	Planned Temporary Odorous Activities .....	9
4.9	Plant and Equipment.....	9
4.10	Surface Water/Leachate Management.....	9
4.11	Housekeeping.....	10
4.12	Training.....	10
4.13	Community Liaison .....	10
4.14	Unit Emergency .....	10
	Unit Emergency Plans are made available to all site staff. In the event of a site emergency, the site management will be notified without delay. ....	10
5.	Odour Monitoring.....	10
5.1	Meteorological Conditions .....	10
5.2	Regular Inspection/Olfactory Monitoring.....	11
6.	Odour Action Plan .....	12
6.1	Odour Complaint Investigation .....	12
6.2	Timescales .....	14
6.3	Records .....	14
6.4	Additional Supportive Odour Monitoring.....	14
7.	Document Audit and Review .....	14
7.1	Review Requirement and Timescale.....	14
7.2	Audit .....	15
7.3	Review and Plan Update .....	15
8.	APPENDIX A – Odour Classification and Meteorological Data Referencing .....	16
8.1	Odour .....	16
8.2	Meteorological Data.....	16

## Odour Management Plan Issue Log

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16 <sup>th</sup> Sept 2024	Version 1.0	VAL-LFL-OPS-OMP-PIL-MRF
12 <sup>th</sup> March 2025	Version 1.1	VAL-LFL-OPS-OMP-PIL-MRF



## 1. **Introduction**

### 1.1 Odour Management Plan – Objectives

This document outlines the methods by which Valencia will systematically assess, reduce and prevent potentially odorous emissions from Pilsworth MRF. It provides the explicit list of '*appropriate measures*' required for effective odour management and control and serves to aid the decision-making process on the choice of controls, general site design and operational practice in line with current industry best practice. The odour management plan (OMP) is a working document with the specific aim of ensuring that:

- all potential odour sources are identified;
- odour impact is considered as part of routine inspections;
- odour is primarily controlled at source by good operational practices, the correct use and maintenance of plant, and operator training;
- all appropriate measures are taken to prevent or, where that is not reasonably practicable, to minimise odorous emissions to air from the installation that may be considered offensive at locations outside of the installation boundary;
- people outside of the site are not exposed to levels of odour that would result in annoyance;
- the risk of unplanned odour releasing incidents or accidents that would result in annoyance is minimised; and
- site developments take into account odour potential and potential impacts from work carried out

### 1.2 Key Reference Documents

The methodologies presented take account of Environment Agency (EA) guidance documentation, as detailed below:

- EA Technical Guidance Note H4 Odour Management (March 2011)
- EA Internal Guidance for the Regulation of Odour at Waste Management Facilities (version 3.0)
- The Environmental Permitting (England and Wales) Regulations 2016
- Regulating odour – a quick guide (163\_12)
- Odour Regulation FAQ (Quick Guide 380\_12)
- EA Guidance on How to comply with your environmental permit (v5, Document 433\_11).

In addition, this document should be read in conjunction with the following internal Valencia site management documents:

- Valencia Policies and Procedures
- Valencia Pilsworth Landfill OMP VAL-LFL-OPS-OMP-PILS

This OMP will be kept in the site office with electronic version available on the server.

## 2. **Site Environmental Setting**

### 2.1 Installation Details

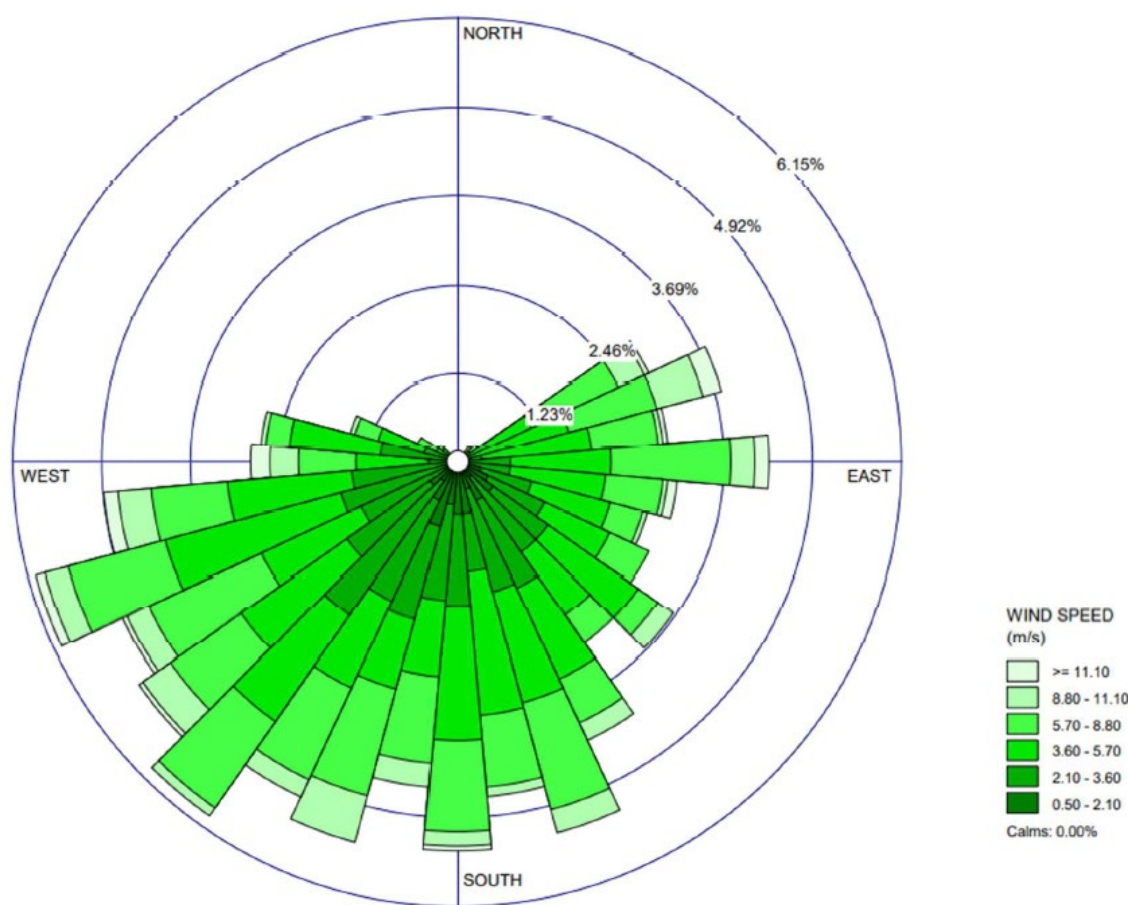
Pilsworth South is situated approximately 2 miles south east of Bury. The address is: Pilsworth Road, Pilsworth, NR Bury, Lancashire, BL9 8QZ. The MRF is operational for the same hours as the landfill, these are 7am to 6pm Monday to Friday and 7am to 1pm on Saturday.

The site is located in a semi-urban setting with a mixture of residential and light industrial premises in the surrounding area. The site is bound to the north by Pilsworth North (Closed) Landfill Site, to the south by agricultural land and to the east and west by warehouses and light industrial units. The M66 is also adjacent to the site on the west boundary.

## 2.2 Pathway Assessment

Migration of odours to receptors occurs predominantly through airborne dispersion and is therefore heavily influenced by the direction and strength of the wind local to the Site. Meteorological data is routinely recorded at the calibrated on-site weather station located at the Pilsworth South Landfill Site Office. The predominant local wind direction is from the southwest. Wind directions from the north, north-north-west and east-south-east directions occur infrequently.

*Figure 1 – Wind Rose for Pilsworth on site Weather Station (Daily average wind speed and Direction)*



## 2.3 Potential Receptor Locations

A subjective review of the site's environmental setting has highlighted potentially sensitive off-site receptors with regard to any odorous emissions from Masons MRF. Potential receptor sensitivity has been assessed based on proximity to site, prevailing local weather conditions and associated complaint history. Receptor sensitivity remains under management review and is evaluated periodically. The identified receptors are as follows:

Receptor	Description	Minimum Distance from Site Boundary	Direction from Site Boundary	Complaint History (H/M/L)	Sensitivity (H/M/L) <sup>a</sup>
Asda Pilsworth	Business/Leisure premises	150m	W	High	High



OL10	Residential properties	700m	NE	High	High
BL9	Residential Properties	650m	SW	Medium	Medium
BL9	Residential Properties	1250m	W	Medium	Medium
A1 Limousine Hire/Jackson Farm	Business Premises	45m	N	Low	Medium
Route 66 Leisure park	Business Premises	250m	W	Low	Low
Manchester Dog Rehabilitation Centre	Commercial property	30m	S	Low	Low
Garlic Ltd. (Plant Hire)	Business Premises	95m	S	Low	Low
Industrial Units	Distribution Park	120m	NE	Low	Low
The Three Arrows	Pub/Restaurant	150m	E	Low	Low
Sewage Works	Sewage Works	130m	E	Low	Low
Higher Farm	Business Premises	550m	SE	Low	Low
Coal Pits Farm	Business Premises	450m	SE	Low	Low
<sup>a</sup> Receptor potential sensitivity has been subjectively assessed based on proximity to site, prevailing local weather conditions, and associated complaint history.					

Table 1: Potential Receptor Locations and Odour Sensitivity

A plan showing the site's environmental setting and potentially sensitive off-site receptor locations is included as Drawing ST20310-002.

### 3. Site/Process Description

#### 3.1 Introduction

This plan sets out the appropriate measures for odour management and control specifically at the MRF.

#### 3.2 Facility Layout Plan

The MRF building will be steel clad with an impermeable base, impervious to leaks and spills. The walls will be constructed of blockwork concrete and offer secondary containment. The building footprint is rectangular measuring approximately 80.7m x 60.6m.

The MRF will have entrances and exits which will be fitted with fast acting roller doors and maintained in accordance with the manufacturer's instructions. Manual operation of the roller doors will be possible in the case of power failure.

#### 3.3 Process Description

The operation of the MRF will serve the receipt and bulking pending off-site transfer of domestic, commercial and industrial waste.

The annual throughput of the MRF building will be no more than 250,000 tonnes.



## 4. **MRF Odour Controls**

In line with current industry best practice, the odour controls set out in the sections below will be used as the 'appropriate measures' to where possible prevent and minimise odour associated with site operations at the Pilsworth MRF.

### 4.1 Overarching Management Responsibility

The site management will have responsibility for ensuring that potentially odorous emissions arising from the installation are minimised. Adequate staffing levels will be maintained at all times to ensure the effective operation of the facilities.

Site Management Review meetings will be held at regular intervals for site management to discuss current and planned site operations. Odour management will be included on the agenda for this meeting. Identified actions arising from the meetings and responsibilities for their completion, will be recorded within the meeting minutes and circulated between relevant Valencia personnel.

### 4.2 Identification of Potential Odour Sources

The waste management activity undertaken involves the short term, temporary storage of waste delivered into the MRF. The potential odour sources associated with this activity are:

- i. emissions from putrescible feedstock material – municipal solid waste
- ii. emissions from waste delivery vehicles

Under 'normal' operational conditions, municipal solid waste is considered to have a moderate odour potential. Putrescible and black bag waste will be directly delivered to the landfill. Waste sent directly to the landfill for disposal will be carried out in accordance with the Valencia's landfill management procedures. No significant change in seasonal odour potential is expected with regard to off-site odour risk.

Onward transfer of wastes will be on a first in, first out basis and within 72 hours of arrival at site. 72 hours allows for the maximum storage of arrival within the MRF. The premise of operation will be that waste in the MRF will be kept to a minimum at any one time. Waste storage bays will be entirely emptied of waste to ensure that old waste is not left within the facility.

Should odorous waste that is causing an issue be identified in the MRF this will be prioritised for removal to the landfill or another permitted site as soon as possible. Waste in the reception area that is causing an issue will be removed from site and will not be treated (which might release further odour).

### 4.3 Waste Feedstock Inventory

Key waste streams received at the site are detailed below. Assessment of the associated odour potential under 'normal' operational conditions is provided.

Waste Description	Odour Potential (H, M, L)
Municipal Solid Waste	M
Commercial & Industrial	L

*Table 2: Key Waste Streams and their Odour Potential*

The list of potentially odorous waste types is set out in the following table. The majority of the waste types to be accepted will have a low odour potential and pre acceptance checks will prevent any odorous and putrescible wastes from entering the MRF, these will be directed



straight to the Landfill.

PERMITTED WASTE TYPES	
Waste Code	Description
02	WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING
10 12	Wastes from manufacture of ceramic goods, bricks, tiles and construction products
10 12 10	Solid wastes from gas treatment other than those mentioned in 10 12 09
10 12 12	Wastes from glazing other than those mentioned in 10 12 11
15	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01	Packaging (including separately collected municipal packaging waste)
15 01 01	Paper and cardboard packaging
15 01 02	Plastic packaging
15 01 06	Mixed packaging
15 01 09	Textile packaging
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE TREATMENT PLANTS AND PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION/INDUSTRIAL USE
19 12	Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 10	Combustible waste (refuse derived fuel)
19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of waste other than those mentioned in 19 12 11.
19 13	Wastes from soil and groundwater remediation
19 13 02	Solid wastes from soil remediation other than those mentioned in 19 13 01
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 01	Paper and cardboard
20 01 39	Plastics
20 03	Other municipal wastes
20 03 01	Mixed municipal waste
20 03 02	Waste from markets

Maximum waste quantities and storage times are set out in the Table below. However there is an expectation that any degradable waste would be removed from site within a maximum of 72 hours. No individual stockpile will be more than 450 cubic metres in size.





Waste Storage Capacities and Times						
Waste stream	Storage	Max. length (m)	Max. width (m)	Max. height (m)	Volume/ m <sup>3</sup>	Max. Storage Time
Mixed waste	Internal Bay x 3	9.1	7.3	4.0	450	72 hours
RDF	Internal Bay	18.2	9.1	4.0	450	72 hours
Hardcore	MRF Bay	7.0	3.5	2.8	450	1 month
Lights +50mm	MRF Bay	6.0	2.5	2.8	300	72 hours
Lights 10-50mm	MRF Bay	4.5	3.2	2.8	300	72 hours
Lights 10-50 mm from water bath	Skip	N/A	N/A	N/A	N/A	72 hours
Wood	MRF Bay	7.0	3.5	2.8	450	72 hours
Residue	MRF Bay	7.0	3.5	2.8	450	72 hours
Plastic	MRF Bay	7.0	3.5	2.8	450	72 hours
Long Parts	MRF Bay	6.0	3.5	2.5	450	72 hours
Heavies and Ferrous metals	Skip x 3	N/A	N/A	N/A	N/A	1 month

In addition to the potential odour sources specified above, the following adjacent potential odour sources have also been identified. These include emissions from adjacent waste management activities which are managed by Valencia under the same permit reference. Odour from these operations are managed in accordance with the Permit and Valencia's management systems.

#### 4.4 Containment of Activities

MRF waste management activities are carried out within the confines of the MRF building.

Most vehicles arriving at the MRF will be enclosed. Waste is discharged from delivery vehicles and loaded into articulated vehicle trailers within the enclosed MRF building. The period of time required for discharge and loading of wastes will be minimised wherever possible.

#### 4.5 Waste Reception and Storage

Pre-acceptance checks will be complete to ensure no particular odours wastes are received at the MRF, instead these will be directed to the landfill.

All waste received at the site is initially assessed by the weighbridge operator to ensure it complies with the waste transfer note description and the permitted waste types for the facility. Any unauthorised waste that has not been unloaded will be refused access to the site. Further details of waste acceptance procedures are contained within the Valencia's waste acceptance procedure.

Most waste is transported to the MRF in enclosed waste delivery vehicles. Waste shall be discharged from the delivery vehicle directly onto the floor within the MRF building and consolidated by mobile plant after visual inspection.

Waste delivered to the site will be predominantly commercial and industrial. Waste types received at the site should not exhibit significant malodorous properties under normal operating conditions.

Where it is necessary to receive potentially odorous materials at the site, the wastes will be loaded onto the next available vehicle, ensuring that odorous waste is sent to the landfill promptly and thus removing the potential for an odorous emission.





Normal storage within the MRF will be around 800 tonnes but this may increase to around 1400 tonnes during a bank holiday weekend. Wastes will not be stored within the MRF for more than 72 hours.

#### 4.6 Removal of Waste from Site

Onward transfer of waste will be on a first in, first out basis controlled by efficient use of the space within the MRF and the sequential acceptance of waste into specific bays. Waste will be rotated – the oldest waste will be removed first and the bays will be emptied entirely in rotation to ensure that no residual waste remains in the bays.

These bays will be visually inspected upon emptying to ensure they are free of waste before new waste is tipped in the bay

Once an economically viable load has built up, waste will be removed from site usually within 72 hours of arrival at site. Waste will be removed throughout each working day. The MRFs will be managed on the premise that as little waste as possible remains in the MRF.

Waste transport vehicles removing the waste from site will be loaded and sheeted within the enclosed MRF to create containment of the waste prior to leaving the transfer building.

#### 4.7 Waste Transport Vehicles

The site staff will inspect third party vehicles delivering waste to the site on an on-going basis and shall report any requirement for supplementary vehicle cleaning and/or maintenance to the vehicle operator, as required. This will reduce the potential for build-up of residual potentially odorous material within the incoming waste vehicles.

#### 4.8 Planned Temporary Odorous Activities

If it is necessary to undertake planned temporary actions that have an associated high risk of significant off-site odour (e.g. removal of odorous unauthorised waste from site), site management will contact the Environment Agency and any high risk potential receptors prior to such actions commence to advise them of:

- the operation being undertaken
- the reason(s) for doing so
- planned additional odour mitigation measures;
- and timescales for completion

Consideration will be given to the prevailing weather conditions when undertaking such activities in order to minimise any potential off-site odour impact.

'Unplanned' temporary odorous activities (e.g. in the event of a site emergency) will be addressed immediately in accordance with the Action Plan set out in Section 6.2 below.

#### 4.9 Plant and Equipment

The site management will ensure that sufficient plant and equipment is maintained at the facility to adequately handle all delivered waste in an efficient and, wherever possible, odour-free manner.

All plant and equipment shall be maintained in good working order and in accordance to the supplier's or manufacturer's recommendations. Plant operators shall be responsible for the daily and weekly vehicle checks of their respective machines. Any defects shall be reported to the site management promptly and rectified as soon as possible. Records will be retained on the operator maintenance check and defect sheets.

#### 4.10 Surface Water/Leachate Management



The MRF building will include impermeable flooring draining to a sealed drainage system. Any potential process water generated within the MRF building is collected by the building's impermeable surface and contained within the MRF drainage system although very limited process water or leachate is expected.

#### 4.11 Housekeeping

Site roads, the yard and the MRF floor will be swept at regular intervals to prevent the accumulation of dusty or muddy material. General housekeeping will be undertaken daily and checks will be carried out to ensure smooth and efficient running of the site. Mobile plant will be subject to regular inspections to ensure waste does not accumulate on the vehicle.

Site infrastructure shall be inspected for damage and wear by the site management or appointed responsible person at pre-defined intervals.

In the event that residue of a particularly odorous waste remains on the floor of the MRF, wash down of the affected area will be carried out. Dirty water from the process will be contained in the MRF's contained drainage system.

#### 4.12 Training

All Valencia personnel working at the facility will be subject to a formal documented training programme in accordance with Company procedures. Matters relating to site environmental management and control form part of this core training programme for all individuals upon appointment at Valencia.

The preferred standard for third party specialist monitoring contractors completing subjective odour surveys will be formal assessment for odour sensitivity and detection threshold at a specialist facility (e.g. Silsoe Institute, or equivalent) in order to demonstrate suitability for this subjective monitoring role.

This training will be given to the necessary employees upon their joining of the company and subsequent refresher training will be provided on an as needed basis.

#### 4.13 Community Liaison

Valencia operates an open-door policy and members of the public are welcome to visit the site to view operations and to discuss any issues with the site management team at prearranged times. Valencia also organises the Community Liaison Group and formal meetings are scheduled annually or at intervals determined by local engagement. Site odour performance and community feedback is included as a routine agenda item.

Site contact details and emergency (out-of-hours) numbers are shown on the site identification board and Company website and are provided to the Community Liaison Group. Direct feedback to the site is encouraged at all times in relation to any perceived issues associated with operational activities.

#### 4.14 Unit Emergency

Unit Emergency Plans are made available to all site staff. In the event of a site emergency, the site management will be notified without delay.

### 5. **Odour Monitoring**

#### 5.1 Meteorological Conditions

A correctly installed, calibrated and maintained meteorological station is located at the Pilsworth landfill and is set up to measure and record weather conditions (including atmospheric pressure, wind speed and wind direction at regular automated intervals).



In promoting proactive management of the risks arising at the site, site management will also maintain an awareness of the local weekly weather forecast.

### 5.2 Regular Inspection/Olfactory Monitoring

All installation personnel are responsible for reporting any odour problems. The site management will be notified immediately of any detected odours that are considered to have the potential to give rise to an off-site odour impact.

The site management will ensure that routine inspections are made of the waste MRF building during operational periods in order to identify any odour sources and to establish whether any odours are discernible at the perimeter of the installation. Inspections will be made at least once a day.

Monitoring will be carried out at all receptor points (PSOD01-PSOD25) around the landfill site permit boundary and identified receptors as per Drawing PWS3200. This will be undertaken at the current frequency as proposed by the Landfill OMP (weekly). If odour is identified at any of these locations that are directly adjacent to the MRF a separate odour inspection around the perimeter of the MRF building will be undertaken to identify if the MRF is the source of odour. Landfill and MRF odour morning are undertaken in tandem along the site boundary. See VAL-LFL-OPS-OMP-PILS for further details of the Landfill odour monitoring schedule.

All staff responsible for assessing odour will receive training from the site management on the odour inspection procedure. The minimum standard for all Valencia staff and, if there is a need, third party specialist monitoring contractors completing subjective odour surveys, will be formal assessment for odour sensitivity and detection threshold at a specialist facility (e.g. Silsoe Institute, or equivalent) in order to demonstrate suitability for this subjective monitoring role. Subjective odour surveys are not undertaken by staff based on the operational area full time as they may have become desensitised to site odour.

In the event that the MRF operation gives rise to persistent and repeated off site odour which causes a nuisance to neighbouring sensitive receptors, an inspection programme will be established and will be undertaken as follows:

- i. The responsible person will visit each of the specified installation boundary monitoring locations.
- ii. The responsible person will stand still and breathe deeply facing upwind for a period up to 1 minute.
- iii. If odour is detected, but can only be detected in this manner, the odour 'intensity' should be recorded as 2 (faint). If odour is detected while walking or breathing normally, the intensity should be recorded as at least 3 (moderate).
- iv. The site management will be notified immediately of any detected odours that are assigned an on-site odour intensity >3. This will trigger a supplementary off-site odour survey at any downwind off-site potential receptors.
- v. Observations including time, date, weather conditions, odour type, location, intensity, extent and sensitivity will be recorded on the Odour Survey Log Sheet (Appendix I). 'Abnormal' site operating conditions at the time of the survey e.g. infrastructure installation/refurbishment, etc. should also be recorded.



## 6. Odour Action Plan

### 6.1 Odour Complaint Investigation

#### 6.1.1. The following actions will be taken on receipt of an external odour complaint:

- 1) The responsible person receiving the complaint at the site will initially record the key details on Valencia's Incident Management System (IMS) in accordance with Valencia's Complaints, Feedback and Requests Procedure. Key information will be recorded at this time in order to facilitate further suitable investigation.
- 2) Site Management will be informed of the odour complaint as soon as possible, including the location, time and date of the complaint being lodged (where available).
- 3) In recognising that odour can be transient and short-lived, timely notification of odour complaints directly from the complainant and / or the Environment Agency is imperative to allow for appropriate investigation. If the odour complaint occurred more than 12 hours before notification is provided to Valencia, it may not be possible to fully investigate or substantiate the complaint. Valencia will, however, complete and record a complaint investigation, as set out below, as appropriate.
- 4) If the complaint is received within 12 hours of the incident, site management (or an appointed representative) will visit the complaint location as soon as practicable in order to subjectively determine odour presence or absence. Opportunities to meet the complainant to discuss the matter directly will be pursued, wherever possible, provided the complainant is happy to do so.
- 5) If an odour is present at the complaint location, the key 'FIDOL' criteria will be assessed as follows:

**Frequency** – is the odour intermittent or persistent; is there a history of complaints at this location?

**Intensity** – is the odour faint, moderate, strong, or very strong?

**Duration** – how long is the odour present at this location?

**Offensiveness** – provide a description of the odour; is it high, moderate, or low offensiveness?

**Location** – is the odour present at a remote or highly sensitive location; is the odour plume localised or widespread?

[See also: 'Classification Systems', Appendix A]

#### 6.1.2. The site management will subsequently undertake the following further assessment process:

- 1) Review of the operations at the site prior to and at the time of the complaint;
- 2) Review of the environmental control systems operative prior to and at the time of the complaint;
- 3) Review of the meteorological conditions (wind speed/wind direction/rainfall/atmospheric pressure) prior to and at the time of the complaint – to establish whether a pathway can be established between the site and the complainant;
- 4) Review of the previous complaint history at the location identified.

#### 6.1.3. The odour complaint will be substantiated (or otherwise) by the site management (or appointed representative) in accordance with the following (in order of priority):

- 1) The Environment Agency has visited the complaint location and has provided confirmation that the odour exists, is significant and is attributable to Pilsworth MRF;
- 2) The site management (or appointed representative) has visited the complaint location

and has provided confirmation that the odour exists, is significant (based on the FIDOL assessment above) and is attributable to Pilsworth MRF.

Valencia will contact the Environment Agency to discuss any substantiated complaint incident as soon as possible following receipt of the details, allowing sufficient time for the above investigation to be completed. The target response period during the normal working week is 48 hours from complaint receipt. If the necessary contact details are available and direct feedback has been requested, Valencia will also contact the complainant directly to discuss the issue, the findings of the subsequent investigation and any actions arising.

#### 6.1.4. Action Plan

Odour 'non-conformances' may be determined at the site as follows:

- Receipt of an odour complaint that is attributable to the Waste MRF;
- Detection of significant off site odour that relates to Pilsworth MRF during routine odour surveys.

The trigger level for determining that an odour non-conformance has occurred will be odour where odour at monitoring points MSOD 1- 5 is detected at an intensity of 3 or above or where an odour intensity of 2 or above is detected at the off-site receptors MSMP1-5.

In the event that either of the above odour 'non-conformances' are determined at the site, the following actions shall be taken:

#### 6.1.5. Responsible Person(s):

Valencia's primary point of contact will be the site management for the facility on all matters associated with site operations and environmental performance. In the event that the site management is unavailable or non-contactable, the contingency management staff to be contacted will be as follows:

First call to: Senior Manager (i.e. Director level)

Thereafter: Landfill Compliance Manager (TCM)

The TCM will co-ordinate with Site Staff (Supervisor/Foreman) Valencia management and externally the EA Officer where necessary and Environmental Health Officer.

#### 6.1.6. Actions:

- The site management will be informed.
- Thereafter the site management will co-ordinate with (where appropriate):

Externally: Environment Agency Officer (central Agency call centre if out of hours)

Internally: Site Manager, TCM, Environment Advisor, Site Staff

- 1) If the incident relates to receipt of an external complaint, an investigation will be completed in accordance with Section 6.1, above.
- 2) If not previously undertaken, the site management (or appropriate responsible person) will undertake an investigation in order to determine the likely cause(s) of the off-site odour. Upon identification of the likely odour source(s), the appropriate corrective and preventative measures will be identified, as detailed above in Section 4.



Key items for consideration will be as follows:

- Material inputs – change in waste type, volume, odour characteristics;
- Waste reception hall – building integrity, housekeeping;
- Failure of external utility supply – electricity;
- Mechanical breakdown – pumps;
- Procedural failure (human error);
- Short-term abnormal weather patterns – wind direction, temperature, inversions;
- Abnormal operating conditions – temporary odorous activities

- 3) Upon identification of the likely odour source(s), the appropriate corrective and preventative measures will be identified and implemented under the direction of the site management. Additional support and technical expertise will be provided by internal / external technical specialists, as required. Actions could include prioritising particular wastes for removal from site.
- 4) In the event that sustained or significant plant or process failure occurs, waste feedstock material will be diverted to alternative off-site facilities. In extreme conditions, operations will temporarily cease through close liaison with the Environment Agency. This might be where an odour intensity of 4 or more has been detected at the off-site receptors over a period of more than 2 days.
- 5)
- 6) The OMP will be reviewed in line with Section 7, below, in order to ensure it continues to represent 'all appropriate measures'.

## 6.2 Timescales

In the event that it proves impracticable to carry out adequate remedial measures within 5 working days, the site management will agree with the Environment Agency the proposed actions and the timescales for their completion.

## 6.3 Records

Details of odour 'non-conformances' including subsequent investigations, timescales and remedial measures taken, and notifications of the relevant internal and external bodies shall be recorded by the site management on the IMS or Daily Site Log as appropriate, and copies shall be maintained within the site office.

## 6.4 Additional Supportive Odour Monitoring

The requirement for (and frequency of) additional supportive odour monitoring will be agreed between the site management and the Environment Team. This may include, but not be limited to:

- on-site subjective odour inspections;
- site perimeter subjective odour inspections; and
- off-site subjective odour inspections.

## 7. **Document Audit and Review**

### 7.1 Review Requirement and Timescale

While operations continue at the site that could give rise to the generation of odour, this odour management plan will be formally reviewed at minimum bi-annual intervals to ensure it continues to reflect the ongoing site status and associated sensitivity/risk. Any required changes to the conditions set out within this document will be formally agreed with the Environment Agency prior to their implementation.



### 7.2 Audit

The processes described in this document will be audited by Valencia in accordance with the Company's auditing procedures.

### 7.3 Review and Plan Update

This management plan sets out the appropriate measures Valencia will undertake in controlling any odorous or potentially odorous activities from the facility. If, on review of the performance of the facility, Valencia and/or the Environment Agency propose to seek revision of this plan, then the following course of action will be undertaken by both parties:

- 7.3.1. In potentially critical circumstances where Valencia recognises the requirement for the immediate implementation of changes to the management plan to prevent or reduce significant odorous emissions, these changes will be discussed with the Environment Agency without delay but may be actioned by Valencia ahead of formal agreement with the Environment Agency.
- 7.3.2. Where Valencia proposes changes to the management plan that involve a more strategic and/or phased approach rather than a need for immediate implementation, a formal proposal will be submitted by Valencia to the Environment Agency setting out the specific issues arising from document review, and the options/issues requiring Valencia's further attention following Agency approval. The Environment Agency will review Valencia's submission/updated management plan and confirm they are satisfied with the proposed changes. Where possible, the response should be within 28 days of receipt of Valencia's submission. The agreed required changes will then form the future 'appropriate measures' for the site with regard to odour management and control.
- 7.3.3. Where changes to the management plan are proposed by the Environment Agency, these will be discussed with Valencia setting out the Environment Agency's clear expectation from the changes in addition to timescales for their implementation. It is recognised that these changes may range from matters that require immediate implementation to those that may be implemented over an extended timeframe. In each case, the required changes will be discussed with Valencia and an appropriate action plan agreed. Valencia will (wherever possible) undertake the identified changes in accordance with the timescales proposed for the work, at which point the updated 'appropriate measures' will take effect.



## 8. APPENDIX A – Odour Classification and Meteorological Data Referencing

### 8.1 Odour

<b>1. Character</b>  <b>Examples:</b> acidic, acrid, agricultural, ammoniacal, cabbage, dustbin, egg/sulphurous, fruity, landfill gas, mains gas, oily, putrid, pungent, rotten, sickly, sour, sweet, compost, fresh waste, rotting waste, IVC compost, leachate, pet food factory, stables, burning plastic.	<b>2. Intensity</b>  0 - No detectable odour 1 - Very faint odour (need to stand still face wind and inhale to detect) 2 - Faint odour 3 - Distinct odour - detectable when walking and breathing normally 4 - Strong odour 5 - Very strong odour 6 - Extremely strong odour	<b>3. Extent</b>  1 - Local and transient - only detected for brief periods at site boundary when the wind drops or blows 2 - Transient as 1 above, but detected away from site boundary 3 - Persistent but fairly localised 4 - Persistent and pervasive up to 50m away from site boundary 5 - Persistent and widespread - detected >50m away from site
<b>4. Sensitivity</b>  Low – footpath/road Medium – industrial/commercial workplaces High - housing, pub/hotel	<b>5. Offensiveness</b>  1 - Less / potentially offensive 2 - Moderately offensive 3 - Most / highly offensive	<b>6. Suspected Sources</b>  <b>Examples:</b> Agricultural, Gas Plant, Leachate Treatment, Active Tipping Face, Green waste compost, In-vessel Compost facility.
<b>7. Source Valencia Controlled?</b>  <b>YES or NO</b>		

### 8.2 Meteorological Data

#### Beaufort Wind Scale

Force	Description	Specification	mph
0	Calm	Smoke rises vertically	0
1	Light air	Smoke drifts in wind direction; wind vanes not moved	1-3
2	Light Breeze	Wind felt on face, leaves rustle; windvanes moved	4-7
3	Gentle breeze	Leaves and small twigs in constant motion	8-12
4	Moderate breeze	Raises dust and paper; smallbranches are moved	13-18
5	Fresh breeze	Small leafy trees swayed; mediumbranches moved	19-24
6	Strong breeze	Large branches moved; umbrellasused with difficulty	25-31
7	Near gale	Whole trees moving; walking againstwind inconvenient	32-38
8	Gale	Twigs break off trees; walking generally impeded	39-46
9	Strong Gale	Slight structural damage occurs	47-54

#### Pasquil Atmospheric Stability Classes

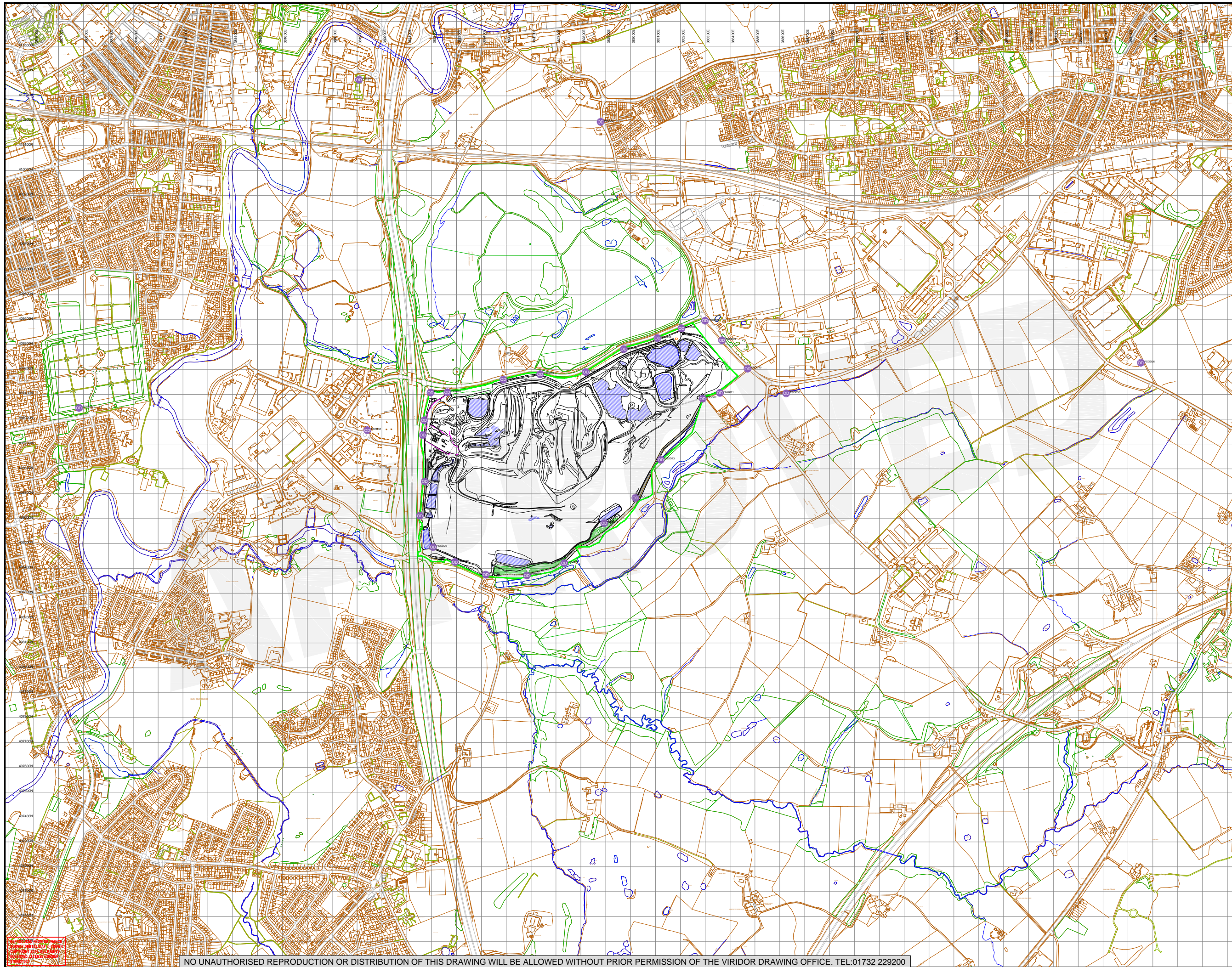
Class	Definition
A	Very Unstable
B	Unstable
C	Slightly Unstable
D	Neutral
E	Slightly Stable
F	Stable
G	Very Stable

#### Meteorological conditions that define the Pasquil stability classes

Surface Wind Speed		Sunshine		Night-time Cloud Cover	
mph	Strong	Moderate	Slight	>50%	<3/8 cover
<4.5	A	A - B	B	-	G
4.5 – 6.7	A - B	B	C	E	F
6.7 – 11.2	B	B – C	C	D	E
11.2 – 13.4	C	C – D	D	D	D
>13.4	C	D	D	D	D

**Note: Class D applies to heavily overcast skies, at any windspeed day or night**





**THIS DRAWING IS  
UNCONTROLLED  
CONTACT D.O.  
FOR LATEST ISSUE**

SITE NAME

**PILSWORTH SOUTH  
LANDFILL**

DRAWING TITLE

**ODOUR  
MONITORING PLAN**

SCALE: NTS

O/DATE FEB 2016

O/DRN RW

O/APP ML

REVISION

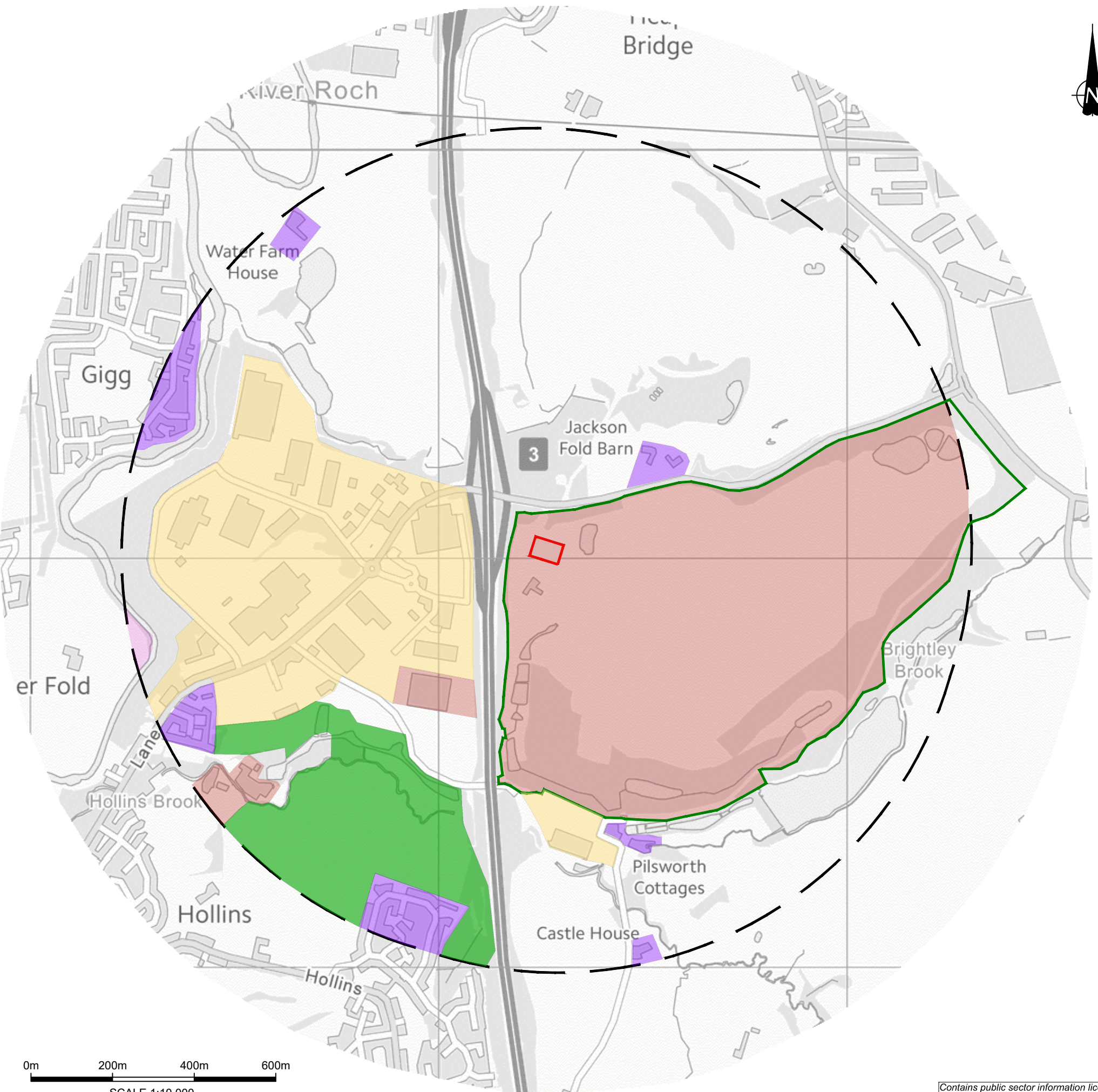
DRN APP DATE

FOR REVISION INFORMATION, SEE D.O. REGISTER

DRAWING BASED UPON

**PWS3200**





DO NOT SCALE FROM THIS DRAWING

KEY

- PROPOSED LOCATION OF BUILDING
- PERMIT BOUNDARY (PROVIDED BY PWS3000)
- 1km OFFSET
- INDUSTRIAL RECEPTOR
- COMMERCIAL RECEPTOR
- RESIDENTIAL RECEPTOR
- HABITAT RECEPTOR
- LEISURE RECEPTOR

A	FIRST ISSUE	22-06-23	DR	KH	AC
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REVISION	DETAILS	DATE	DRN	CHK'D	APP'D
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CLIENT

VALENCIA WASTE MANAGEMENT LTD,

PROJECT

PILSWORTH SOUTH MRF

DRAWING TITLE

RECEPTOR PLAN

DRG No.	ST20310-002	REV	A	SUIT. CODE
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DRG SIZE	A3	SCALE	1:10,000	DATE	08/06/23
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DRAWN BY	SJB	CHECKED BY	KH	APPROVED BY	AC
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