



# BWB

CONSULTANCY | ENVIRONMENT  
INFRASTRUCTURE | BUILDINGS

## ENVIRONMENT

Vastint Cardiff BV,  
Waterside Business Park,  
Lamby Way,  
Cardiff

## ODOUR ASSESSMENT

## ENVIRONMENT

Vastint Cardiff BV,  
Waterside Business Park,  
Lamby Way,  
Cardiff

## ODOUR ASSESSMENT

Birmingham  
Livery Place, 35 Livery Street, Colmore Business  
District, Birmingham, B3 2PB  
T: 0121 233 3322

Leeds  
Whitehall Waterfront, 2 Riverside Way, Leeds LS1  
4EH  
T: 0113 233 8000

London  
11 Borough High Street  
London  
SE1 9SE  
T: 020 74073879

Manchester  
4th Floor Carvers Warehouse, 77 Dale Street  
Manchester, M1 2HG  
T: 0161 233 4260

Nottingham  
Waterfront House, Station Street, Nottingham  
NG2 3DQ  
T: 0115 924 1100

## DOCUMENT ISSUE RECORD

Revision	Date of Issue	Status	Author:	Checked:	Approved:
1	31/05/2017	Issue	P. Hayward- MIAQM	G. Bagley- BSc (Hons)	P. Beckett- MIAQM

---

### Limitations

All comments and proposals contained in this report, including any conclusions, are based on information available to BWB Consulting during investigations. The conclusions drawn by BWB Consulting could therefore differ if the information is found to be inaccurate or misleading. BWB Consulting accepts no liability should this be the case, nor if additional information exists or becomes available with respect to this scheme.

Except as otherwise requested by the client, BWB Consulting is not obliged to and disclaims any obligation to update the report for events taking place after:-

- (i) The date on which this assessment was undertaken, and
- (ii) The date on which the final report is delivered

BWB Consulting makes no representation whatsoever concerning the legal significance of its findings or the legal matters referred to in the following report.

The information presented and conclusions drawn are based on statistical data and are for guidance purposes only. The study provides no guarantee against flooding of the study site or elsewhere, nor of the absolute accuracy of water levels, flow rates and associated probabilities.

This report has been prepared for the sole use of the client. No other third parties may rely upon or reproduce the contents of this report without the written permission of BWB. If any unauthorised third party comes into possession of this report they rely on it at their own risk and the authors do not owe them any Duty of Care or Skill

## EXECUTIVE SUMMARY

An odour assessment to determine the impacts of the relocation of a waste transfer station to Lamby Way, Cardiff has been undertaken.

Odour surveys were undertaken at both the existing and proposed sites in order to assess whether the development would be likely to impact significantly on the occupants of nearby residential dwellings.

The assessment concluded that, as the proposed waste transfer station was unlikely to be a significant source of odour emissions, and in any case the prevailing meteorological conditions would be unlikely to carry any odours emitted towards nearby dwellings, the overall odour impact is expected to be *Negligible*.

# CONTENTS PAGE

<b>DOCUMENT ISSUE RECORD</b>	<b>i</b>
<b>EXECUTIVE SUMMARY</b>	<b>ii</b>
<b>CONTENTS PAGE</b>	<b>iii</b>
<b>1.0 INTRODUCTION</b>	<b>4</b>
<b>2.0 Planning Policy</b>	<b>5</b>
<b>3.0 Guidance and Methodology</b>	<b>6</b>
<b>4.0 Site Odour Surveys</b>	<b>9</b>
<b>5.0 Odour Risk Assessment</b>	<b>15</b>
<b>6.0 Discussion</b>	<b>18</b>
<b>7.0 CONCLUSIONS</b>	<b>19</b>
 <b>TABLES</b>	
Table 5.1 – Wind direction frequency based on Cardiff Airport 2015 data	16
 <b>FIGURES</b>	
Figure 1 – Site Location	
Figure 2 – Odour Survey Locations, Curran Road	
Figure 3 – Odour Survey Locations, Lamby Way	
Plate 4.1 – Businesses south of Biffa site, looking east	10
Plate 4.2 – Road north of Biffa site, looking east	11
Plate 4.3 – Biffa site viewed from entrance gate	11
Plate 4.4 – Road adjacent to site, looking west	12
Plate 4.5 – Application site viewed from across railway, looking south	13
Plate 4.6 – Parade of shops on New Road, with railway behind, looking east	13
Plate 4.7 – North of New Road, looking west	14
Plate 5.1 – Wind Rose for Cardiff Airport, 2015	16
 <b>APPENDICES</b>	
Appendix 1 – Odour Survey Records	

## 1.0 INTRODUCTION

- 1.1 This odour assessment is for the proposed development of a waste transfer station (WTS) at Lamby Way, Cardiff. The National Grid Reference for the centre of the application site is: 320010, 178620. A site location plan is included in Figure 1.
- 1.2 The site is located in the Waterside Business Park off Lamby Way, in the Rumney area to the east of the City. The proposal involves the relocation of a WTS, from its existing location in a large industrial area off Curran Road, to the south of Cardiff City Centre.
- 1.3 The application site is located in the outer suburbs of Cardiff. There are predominantly industrial uses to the south and east. To the north of the site is the main Cardiff to London Paddington railway line, beyond which is the predominantly residential area of Rumney. To the west of the site is a large public park – Parc Tredelerch, which was formerly a landfill site.
- 1.4 An odour assessment is required in order to assess the potential for odours from the proposed new WTS to affect existing sensitive receptors in the area, particularly occupants of dwellings to the north of the site.

## 2.0 Planning Policy

### Planning Policy Wales (PPW)

- 2.1 PPW, which was updated in January 2016, sets out the Government's planning policy for Wales<sup>1</sup>. PPW recognises that to prevent unacceptable risks from air pollution, planning decisions should ensure that new development is appropriate for its proposed location. PPW states that the effects of pollution on health, the sensitivity of the area and the nature of proposed development should be taken into account when determining planning applications.
- 2.2 Although PPW provides a focus on air quality, principally in regard to potential impacts on public health, its guiding principles are relevant to other emissions to air associated with nuisance effects (e.g. odours and dusts). As such, a core principle of PPW is to encourage liaison with pollution control authorities, such as Natural Resources Wales, during the planning process in order to prevent unacceptable emissions to air. Natural Resources Wales has produced odour guidance<sup>2</sup> for the operation of sites that are subject to permit requirements under the Environmental Permitting Regulations. These include measures to prevent odour emissions beyond site boundaries and to monitor effects during operation.

### Local Policy

- 2.3 The Cardiff Local Development Plan<sup>3</sup> directs planning permission in the City. With respect to air quality, Policy EN13, states:

*"Development will not be permitted where it would cause or result in unacceptable harm to health, local amenity, the character and quality of the countryside, or interests of nature conservation, landscape or built heritage importance because of air, noise, light pollution or the presence of unacceptable levels of land contamination."*

- 2.4 Impacts to amenity are particularly relevant, with respect to odour. Furthermore, Policy W1, which relates to waste management facilities states the following regarding odour:

*"Proposals for the development of waste management facilities will be permitted where: [...]"*

*viii. They would not cause unacceptable air, noise or light pollution, dust, vibration or odours, or attract excessive vermin."*

---

<sup>1</sup> Planning Policy Wales (2016), (accessed online, 11/02/2016)  
<http://gov.wales/docs/desh/publications/160104planning-policy-wales-edition-8-en.pdf>

<sup>2</sup> Natural Resources Wales (2014), How to comply with your environmental permit: additional guidance for: H4 odour management.

<sup>3</sup> Cardiff Local Development Plan 2006 - 2026

## 3.0 Guidance and Methodology

### IAQM Odour Guidance

- 3.1 The Institute of Air Quality Management (IAQM) odour guidance<sup>4</sup> provides information on the following aspects of odour assessment for the support of planning applications:
- The general principles of odour assessment;
  - The regulators' likely requirements for an odour assessment and typical content of an assessment report;
  - General approach and specific tools which may be used; and
  - Assessment criteria and significance descriptors.
- 3.2 The IAQM guidance stresses the importance of the source → pathway → receptor approach to odour assessment, as *"before an adverse effect (such as disamenity, annoyance, nuisance or complaints) can occur, there must be odour exposure"*, with each of the links in the chain necessarily present.
- 3.3 Once an odour is experienced, consideration of 'FIDOL' factors is required to determine whether it is likely to have a significant impact. These are:
- Frequency – How often a receptor is exposed to the odour;
  - Intensity – The perceived strength of the odour;
  - Duration – The total period of time to which the individual is exposed to the odour;
  - Odour unpleasantness – Hedonic tone of an odour, which in simple terms may be unpleasant, pleasant or neutral; and
  - Location – The site context within which the odour is experienced. This may include such factors as:
    - The prevailing odour character of the area;
    - The land use of the affected and adjacent areas; and
    - The tolerance and expectation of the receptor.

### Odour Survey

- 3.4 An odour survey has been carried out in order to determine the background odour conditions at the application site. The aim of the odour survey was to ascertain whether any odours could be detected and, if so, to determine their strength and character, and, if possible, to link them to a likely source.
- 3.5 In this instance, it was also possible to carry out an odour survey at Biffa's existing site to the west of Bute Town, south of Cardiff City Centre. It is understood that Biffa's existing operations are essentially the same as the proposed development in terms of size, materials (type and throughput), processes and plant. As such, the survey of the existing plant can help to gain an understanding of the relocation of this facility to Lamby Way.
- 3.6 The approach to the odour surveys broadly followed Environment Agency (EA)<sup>5</sup> and IAQM guidance. 15 odour locations were selected at both the Curran Road and Lamby Way sites; these are indicated on Figures 2 and 3, respectively.

---

<sup>4</sup> IAQM. (2014). Guidance on the assessment of odour for planning.

<sup>5</sup> Environment Agency. (2002). Internal Guidance for the Regulation of Odour at Waste Management Facilities.



- 3.7 At each survey location, notes were taken over approximately five minutes on the intensity of any odours detected, their extent and the sensitivity to the odour of each survey location. This information was recorded on an odour assessment report sheet using the criteria and scoring system described in EA odour guidance for inspectors. The report sheets from these surveys are included in Appendix 1.
- 3.8 The surveyor has had their odour senses calibrated using the St Croix Odour Sensitivity Test Kit methodology.
- 3.9 On the morning before the survey, the surveyor made sure that food or drinks with strong flavours (including coffee) were not consumed. This is consistent with the EA guidance.

### **Existing Site Description – Biffa, Curran Road**

- 3.10 The existing WTS is located in Bute Town, circa. 650m to the south of Cardiff City Centre. It is surrounded by a variety of other industrial units, several of which are disused. There is considerable dilapidation in the vicinity, with significant amounts of fly tipping.
- 3.11 The closest residential areas to the existing site are across the River Taff in Grangetown and in southern parts of Bute Town, 260m to the west and south, respectively.
- 3.12 There are no residential or other highly sensitive human receptors in the area immediately surrounding the existing site. There are also a number of other potential sources of odour, predominantly industrial. As such, even if the site were generating significant odours, it is unlikely that these would cause a significant nuisance.

### **Site Description – Application Site, Lamby Way**

- 3.13 The application site is located in the eastern outer suburbs of Cardiff. There are predominantly industrial uses to the south and east. To the north of the site is the main Cardiff to London Paddington railway line, beyond which is the predominantly residential area of Rumney. The closest residential dwelling is circa. 70m to the north-west of the northern site boundary. To the west of the site is a large public park – Parc Tredelerch, which was formerly a landfill site.
- 3.14 Being less urban and with fewer obvious potential sources of odour, the Lamby Way site is likely to be slightly more susceptible to adverse nuisance odour impacts. However, there are still no highly sensitive human receptors in the immediate vicinity of the application site.

### **Consultation**

- 3.15 The scope of the assessment was discussed with Simon Thale, Environmental Health Officer at Cardiff City Council (CCC), on 14<sup>th</sup> February 2017. The following key points were raised:
- The EHO confirmed that they had not received any complaints about Biffa's operations at the site off Curran Road.
  - The site odour survey was discussed, but the EHO said if there were likely to be any issues, modelling would be required to show contours of odour concentrations around the proposed site.
  - It was discussed whether collection of source terms would be needed – the EHO said that this depended on the proposed plant at the site etc.

- 3.16 It was later confirmed by the applicant that the proposed development would operate in line with current operations on Curran Road, a qualitative level of assessment with a site odour survey should be sufficient to assess its potential odour impact.

## 4.0 Site Odour Surveys

- 4.1 Two odour surveys, one at each of the current and proposed sites, were carried out on Friday 17<sup>th</sup> February 2017. They were carried out in the middle of the working day when the existing Biffa site, and other potential sources around both sites, were likely to be busy.
- 4.2 The approach to the odour surveys broadly followed the process that is detailed in the EA's odour guidance for inspectors. The survey was carried out primarily at ground level – i.e. not at any areas of elevated height. The sites themselves were not accessed, but the up- and downwind perimeters were visited as appropriate.
- 4.3 At each survey location, notes were taken over a few minutes on the intensity of any odours, their extent and the sensitivity to odour of each survey location. This information was recorded on an odour assessment report sheet using the criteria and scoring system described in the EA guidance. Survey location points are indicated in Figures 2 and 3, with a full record of each survey provided in Appendix 1. This shows the following additional information: ambient stressors; locations of other odour sources in the area; and meteorological conditions during the survey.
- 4.4 Meteorological conditions were considered to be close to ideal for the purposes of the surveys. There was no precipitation during the surveys. Rainfall can mask or remove odours from the air, with significant rainfall having the potential to “scrub” the air and therefore reduce the intensity of any odours within it.
- 4.5 The temperature was mild for late winter, at around 10°C. As such, it should not have significantly reduced the intensity of any odours present (if conditions are very cool, this can both deaden the olfactory sense and also reduce rates of odour production due to reduced bioactivity). At the time of the survey, the wind appeared to be fairly steady both in terms of direction and speed, with westerly winds at approximately 10km/hr (2 on the Beaufort Scale), although turbulence from buildings affected this pattern locally.

### Biffa Curran Road

- 4.6 The existing Curran Road site was visited first. The survey took place between approximately 10:45am and 12:15pm. The survey started to the south of the operating Biffa site, upwind of the prevailing wind.
- 4.7 The large warehouse across the unnamed road to the south of the site (Plate 4.1) is occupied by several businesses that manufacture and maintain garage and industrial doors.

*Plate 4.1 – Businesses south of Biffa site, looking east*



- 4.8 Along this section of road (Locations 1 to 5), odours associated with the businesses located there were clearly apparent. These included moderately strong “diesel fumes” and “solvent” odours. These odours were most apparent adjacent to the open doors of the warehouse as seen in Plate 4.1. No odours from the Biffa site were detected.
- 4.9 To the east, a moderately strong and pervasive, but pleasant, odour of frying bacon was apparent around and quite some distance away from a mobile food van.
- 4.10 To the north of the Biffa site (Plates 4.2 and 4.3), broadly upwind, there were no discernible odours of any type at five of the eight survey locations.
- 4.11 At Locations 11 and 14, a faint solvent smell was detected. This could have originated from the businesses to the south visited earlier in the survey, being a comparable odour, though being only just detectable it was difficult to be certain.
- 4.12 At Location 10, a very faint odour of household waste was detected immediately adjacent to the Biffa site boundary. This was very fleeting/impersistent and was assumed to come from the site itself, although it could potentially have originated from nearby wasteland, such as that seen through the fence to the right, on Plate 4.2, where considerable fly-tipping had taken place.



*Plate 4.2 – Road north of Biffa site, looking east*



*Plate 4.3 – Biffa site viewed from entrance gate*



#### *Summary*

- 4.13 Whilst the area surrounding the existing (Curran Road) WTS is not particularly sensitive to odour impacts, it was observed that very little, if any, odours could be detected beyond the boundaries of the site. It is unlikely that anyone passing the site would notice any waste odours unless they were specifically trying to detect them. The area is characterised by a number of much more pungent odours, particularly solvents, associated with various industrial processes nearby.

- 4.14 Whilst these could potentially have the potential to mask any odours from the Biffa site, as no odours were detected at a number of locations on the site boundary, it is not thought that this was the case. Therefore, it is not thought likely that the Biffa plant would cause significant odour impacts at any nearby receptors, wherever these operations were located, under normal operating conditions.

### Application Site, Lamby Way

- 4.15 The odour survey at Lamby Way again started to the south, upwind of the prevailing south-easterly wind on the day of the survey.
- 4.16 No discernible odours were detected on the southern boundary of the application site (Locations 1 to 4), with the exception of Location 2, where there was a pungent but very localised solvent smell. This appeared to emanate from a recent spillage of paint on the pavement outside the site, which was still wet (Plate 4.4).

*Plate 4.4 – Road adjacent to site, looking west*



- 4.17 Away from the spilled paint, there was little in the way of discernible odour, or any obvious sources of odour. It was noted that the businesses to the south of the site were of a type unlikely to generate significant odorous emissions. These included suppliers of IT equipment, ceramic tiles and suspended ceilings.
- 4.18 No discernible odours were detected at four of the six survey locations to the south of the application site.
- 4.19 Subsequently, the largely residential area of Rumney, to the north of the railway line (Plate 4.5), was visited. It was immediately apparent that there is a fairly large separation distance between the application site and any potentially sensitive receptors, with the closest land to the north of the railway consisting of a yard / car park for the parade of shops on New Road.



*Plate 4.5 – Application site viewed from across railway, looking south*



- 4.20 No strong, or even moderate odours were detected to the north of the railway line. In the yard, where Plate 4.5 was taken, there was a slight greasy odour most likely emanating from the railway. There was also a smell of wood smoke probably originating from a bonfire in one of the nearby gardens.
- 4.21 Potential odour sources were identified in the parade of shops (Plate 4.6), most notably an Indian takeaway and a hairdresser, though neither of these were operating at the time of the survey and no associated odours were detected.

*Plate 4.6 – Parade of shops on New Road, with railway gantry behind, looking east*



- 4.22 To the north of the shops, amongst the houses (Plate 4.7), most of the odours detected were associated with the surrounding vegetation, including “sweet grassy smell”, “musty earth” and “floral” scents. Odours associated with traffic emissions were also detected.

*Plate 4.7 – North of New Road, looking west*





## 5.0 Odour Risk Assessment

- 5.1 In this section the source, pathway and receptors are considered in order to determine the overall level of odour risk.

### Source

- 5.2 The odour survey at Curran Road has indicated that the proposed development is unlikely to lead to significant odour release beyond the site boundary.
- 5.3 Based on the Environmental Permit for Curran Road (Permit ref: SP3031SJ), it is understood that operations carried out will involve *"the storage of both hazardous and non-hazardous waste in sealed containers, and the physical treatment of waste, namely crushing empty metal drums and shredding empty plastic containers"*.
- 5.4 Various measures will be in place to ensure that there are no adverse impacts on the surrounding environment. Being a Permitted activity: *"emissions from the activities shall be free from odour at levels likely to cause annoyance outside the site, as perceived by an authorised officer of the [Environment] Agency"*.
- 5.5 As permitted activities are strictly controlled, any reports of significant odours would be investigated by Natural Resources Wales and the site's operators would be required to amend its operations to reduce the odorous emissions, or suspend operations until a solution could be found.

### Pathway

- 5.6 In order to determine the potential pathway for any odours generated by Biffa's operations, meteorological data from nearby Cardiff Airport has been analysed. A wind rose for these data is included in Plate 5.1 with a breakdown of wind directions included in Table 5.1.

Plate 5.1 – Wind Rose for Cardiff Airport, 2015

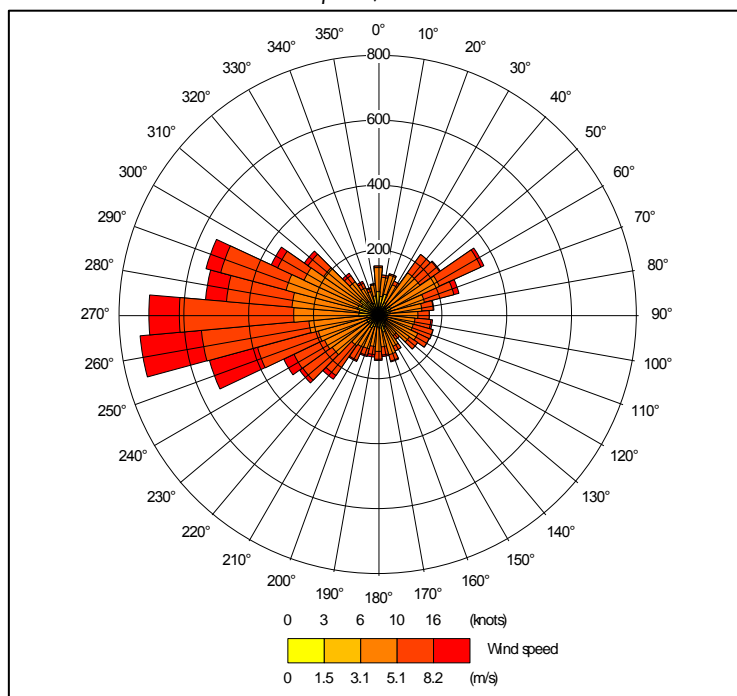


Table 5.1 – Wind direction frequency based on Cardiff Airport 2015 data

Wind Direction (blowing from)	Degrees*	Frequency (%)
N - NNE	0-20°	4.8%
NNE - NE	30-50°	6.6%
NE - ENE	60 - 80°	9.1%
ENE - E	90 - 110°	5.9%
E - ESE	120 - 140°	4.9%
ESE - SE	150 - 170°	4.7%
SE - SSE	180 - 200°	4.7%
SSE - S	210 - 230°	8.0%
S - SSW	240 - 260°	18.3%
SSW - SW	270 - 290°	20.5%
WSW - W	300 - 320°	9.1%
W - WNW	330 - 350°	3.4%

5.7 As seen in Plate 5.1, the prevailing wind in Cardiff is from the west-south-west. With reference to Figure 3, for any odours emitted from the proposed development to be

carried towards the closest residential receptors in Rumney, winds from a broadly southerly to south-easterly direction (circa. 130° to 210°) would be required.

- 5.8 Whilst the wind was blowing from a south-easterly direction on the day of the survey, with reference to Table 5.1, this is not typical. Winds originating from 130° to 210° are seen to occur for approximately 20% of the year. Therefore, for 80% of the time, the wind would be expected to carry any odours away from any nearby residential receptors, predominantly in an easterly direction.

## Receptors

- 5.9 As can be seen in Figure 3, there are more receptors in the vicinity of the application site than there are to the existing Biffa WTS in Bute Town. However, there is still a significant buffer zone of at least 70m and therefore odour emissions would have to be quite significant in order to be detectable at the receptors.
- 5.10 Significantly, there are no receptors nearby, downwind of the proposed application site.

## Summary

- 5.11 Based on the above, there are no clear sources, only a sporadic pathway, and few receptors. As such, the potential for significant odour impacts from the proposed development is considered to be *Negligible*, under normal operational conditions.
- 5.12 As such, no mitigation beyond the standard 'good-housekeeping' measures intrinsic to the WTS is considered necessary. However, it is important that clear procedures are in place such that significant impacts can be avoided under abnormal/emergency conditions that might increase nuisance odour emissions. These should be reviewed regularly to ensure that they are fit for purpose.

## 6.0 Discussion

- 6.1 Whilst recognising that they can only provide a snapshot, the odour surveys were carried out in reasonable conditions to detect odours from the existing operations at Biffa's Curran Road site, and to sample baseline conditions in the vicinity of the application site.
- 6.2 At the Curran Road site, no significant odours were detected that were clearly attributable to the activities of the existing Waste Transfer Station.
- 6.3 The baseline conditions around the application site were characterised by either very mild odours, predominantly from vegetation, or no odours at all. As such any marked increase in odour emissions in the area would likely be observable.
- 6.4 However, it was noted that there are few sensitive receptors in the vicinity of the site, the closest being 70m to the north-west, beyond the railway line. Furthermore, the prevailing wind will tend to blow any odours to the east, away from these receptors.
- 6.5 In any case, as the proposed development's operations are expected to be comparable in scale and nature to those at Curran Road, and will be controlled by Permit, there are unlikely to be any significant odours released under normal operating conditions. It is recommended, however, that the potential for odorous releases be taken into account in any abnormal/emergency procedures.
- 6.6 As neither the source, nor the pathway, are likely to be present under normal circumstances, it is considered that the significance of odour impact from the Lamby Road WTS on residential dwellings in Rumney would be *Negligible*.
- 6.7 The proposed development is considered to be consistent with Cardiff Local Development Plan Policies EN13 and W1, as it is not expected to significantly affect the amenity of any sensitive receptors, in terms of odour.

## 7.0 CONCLUSIONS

- 7.1 This report has assessed the baseline odour conditions at Lamby Way, Cardiff, and the potential impacts of the proposed development on the character of the local area.
- 7.2 An odour survey at the existing Biffa Waste Transfer Station showed that the operations of the plant are unlikely to lead to significant odour emissions beyond the boundaries of the site.
- 7.3 The proposed development is not expected to lead to significant odour impacts at any sensitive receptors, including residential dwellings in the Rumney area, and as such the proposed development has been determined to be acceptable in terms of its likely impact on odour.

## FIGURES

## **FIGURE 1**

Site Location





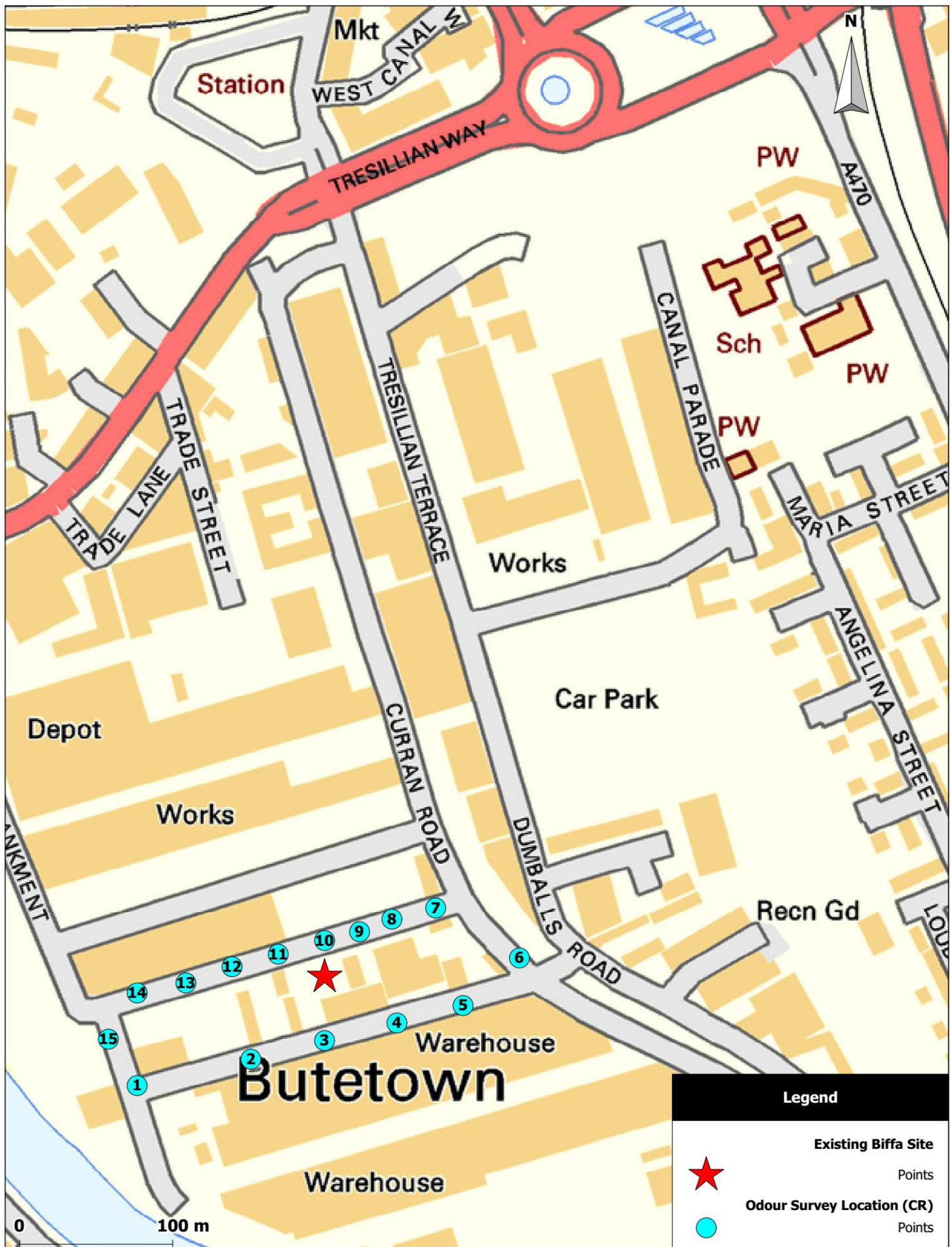
**Figure 1: Site Location Plan**

Contains Ordnance Survey data © Crown copyright and database right 2017



## **FIGURE 2**

Odour Survey Locations, Curran Road



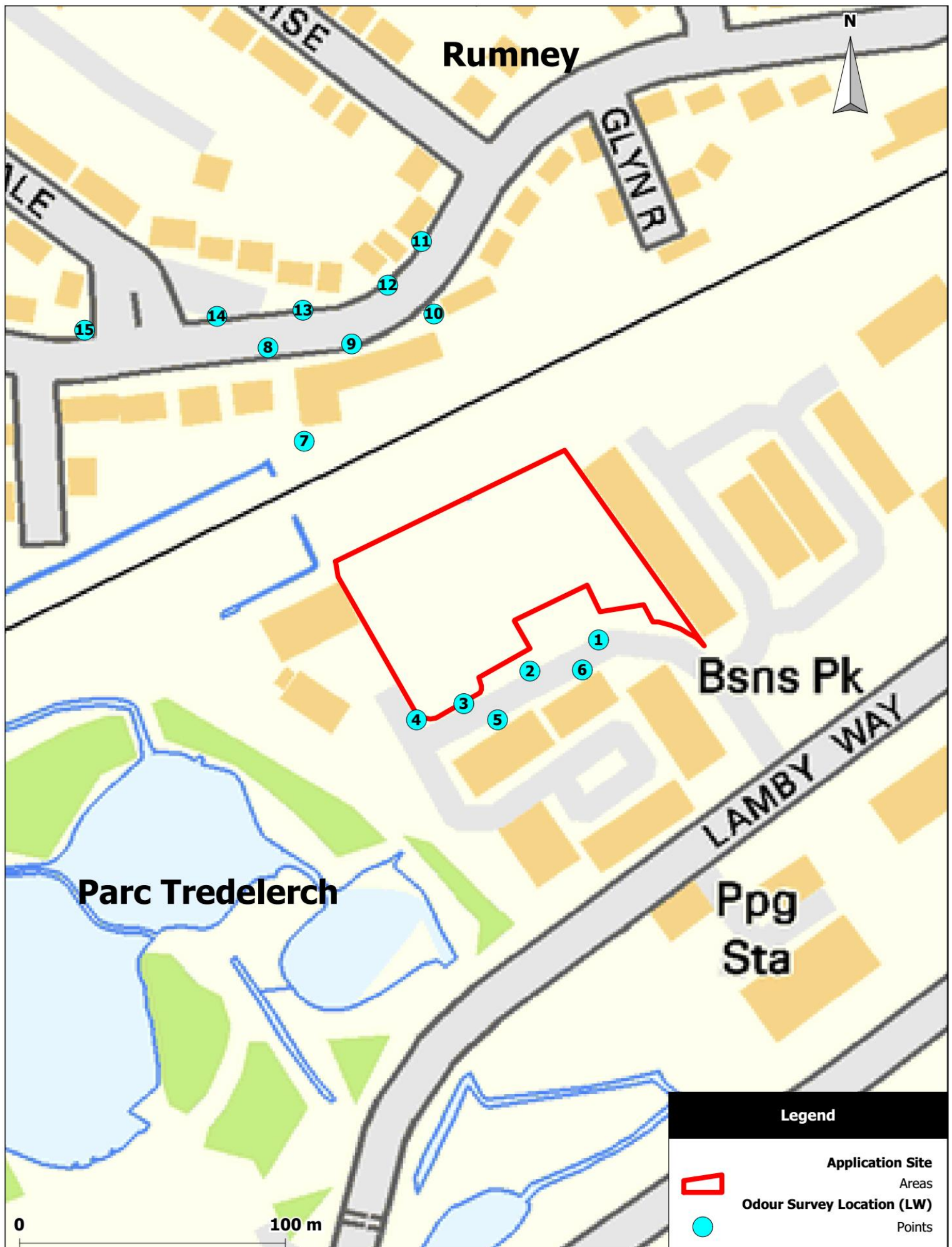
**Figure 2: Odour Survey, Curran Road**

Contains Ordnance Survey data © Crown copyright and database right 2017

### **FIGURE 3**

Odour Survey Locations, Lamby Way





**Figure 3: Odour Survey - Lamby Way**

Contains Ordnance Survey data © Crown copyright and database right 2017

## APPENDICES

## **APPENDIX 1**

Odour Survey Records

**Start time:**

**10:45 End time:**

**12:15** Survey coincided with particulate monitoring

Location	Location description	Odour intensity*	Odour extent†	Location sensitivity‡	Odour description	Observations and likely source of odour
1	South-west of site	3	2	2	Diesel fumes	Fork lift truck
2	South of site	1	-	2	No discernable odour	-
3	South of site	3	2	2	Greasy smell reminiscent of a garage/mechanics. Solvents	Garage door manufacturer
4	South-east of site	3	2	2	"	"
5	South-east of site	2	2	2	Solvent	Industrial door manufacturer
6	East of site	3	3	2	Frying bacon	Food van
7	East of site	2	2	2	Sweet solvent	Industrial unit
8	North-east of site	1	-	2	No discernable odour	-
9	North-east of site	1	-	2	No discernable odour	-
10	North-east of site	1/2	2	2	Very faint household waste smell?	Possibly from Biffa
11	North of site	2	2	2	Faint solvent smell	Door manufacturer?
12	North of site	1	-	2	No discernable odour	-
13	North-west of site	1	-	2	No discernable odour	-
14	North-west of site	2	2	2	Faint solvent smell	Door manufacturer?
15	West of site	1	-	2	No discernable odour	-

- 1 -No detectable odour
- 2 -Faint odour (barely detectable, need to stand still and inhale facing into the wind)
- 3 -Moderate odour (odour easily detected while walking and breathing normally, possibly offensive)
- 4 -Strong odour (bearable, but offensive odour - will my clothes/hair smell?)
- 5 -Very strong odour (this is when you really wish you were somewhere else)

- 1 -Local and impersistent (only detected during brief periods when wind drops or blows)
- 2 -Impersistent as above, but detected away from site boundary of source
- 3 -Persistent, but fairly localised
- 4 -Persistent and pervasive up to 50m from site boundary of source
- 5 -Persistent and widespread (odour detected >50m from site boundary of source)

- 1-Remote (no housing, commercial/industrial premises or public area within 500m)
- 2-Low sensitivity (no housing, etc. within 100 m of area affected by odour)
- 3-Moderate sensitivity (housing, etc. within 100 m of area affected by odour)

5 -Extra sensitive (complaints arising from residents within area affected by odour)

[illegible]

Meteorological Characteristic	Observation
Weather description	Overcast, mild, light winds
General air quality	Good
Ground condition	Dry
Wind direction (from)	South-east
Wind speed (mph)	05-Oct
Beaufort Wind Scale (0-10)	2
Temperature (°C)	10
Visibility	Fair
Pressure (millibars)	1027
Relative humidity	?
Atmospheric stability	?
Assumed dispersion characteristic	?

Date of Survey: 17/02/2017      Start time: 13:00 End time: 14:15 Survey coincided with particulate monitoring

Date of survey: 17/02/2017		Start time:	13:00	End time:	14:15	Survey coincided with particulate monitoring
Location	Location description	Odour intensity*	Odour extent†	Location sensitivity†	Odour description	Observations and likely source of odour
1	Southern boundary of site	1	-	2	No discernable odour	-
2	Southern boundary of site	4	2	2	Pungent paint smell	Fresh pool of paint on pavement
3	Southern boundary of site	1	-	2	No discernable odour	-
4	Southern boundary of site	1	-	2	No discernable odour	-
5	Across road from site	2	1	2	Very faint solvent	Paint from across the road?
6	Across road from site	1	-	2	No discernable odour	-
7	Adjacent to railway	2	2	4	Greasy train smell; wood smoke	Train tracks / bonfire
8	New Road, Rumney	2	3	4	Sweet grassy smell	Vegetation
9	New Road, Rumney	2	2	3	"	Vegetation
10	New Road, Rumney	2	2	3	Musty earthy	Ground/trees
11	New Road, Rumney	1	-	2	No discernable odour	-
12	New Road, Rumney	2	2	4	Grassy smell	Vegetation
13	New Road, Rumney	2	2	4	Diesel fumes	Idling vehicles
14	New Road, Rumney	1	-	2	No discernable odour	-
15	New Road, Rumney	2	2	4	Grassy / floral smell	Vegetation

\*Odour Intensity

- 1 -No detectable odour
- 2 -Faint odour (barely detectable, need to stand still and inhale facing into the wind)
- 3 -Moderate odour (odour easily detected while walking and breathing normally, possibly offensive)
- 4 -Strong odour (bearable, but offensive odour - will my clothes/hair smell?)
- 5 -Very strong odour (this is when you really wish you were somewhere else)

<sup>†</sup>Odour Extent (assuming odour detectable, if not then 0)

- 1-Local and impersistent (only detected during brief periods when wind drops or blows)
- 2- Impersistent as above, but detected away from site boundary of source
- 3- Persistent, but fairly localised
- 4- Persistent and pervasive up to 50m from site boundary of source
- 5- Persistent and widespread (odour detected >50m from site boundary of source)

<sup>‡</sup>Location Sensitivity (assuming detectable, if not then 0)

- 1-Remote (no housing, commercial/industrial premises or public area within 500m)
- 2-Low sensitivity (no housing, etc. within 100 m of area affected by odour)
- 3-Moderate sensitivity (housing, etc. within 100 m of area affected by odour)

- 4 -High sensitivity (housing, etc. within area affected by odour)

- 5 -Extra sensitive (complaints arising from residents within area affected by odour)

[illegible]

Meteorological Characteristic	Observation
Weather description	Overcast, mild, light winds
General air quality	Good
Ground condition	Dry
Wind direction (from)	South-east
Wind speed (mph)	05-Oct
Beaufort Wind Scale (0-10)	2
Temperature (°C)	10
Visibility	Fair
Pressure (millibars)	1027
Relative humidity	?
Atmospheric stability	?
Assumed dispersion characteristic	?



# BWB

