



Odour Assessment

C10638

Burndell Road, Yapton

Prepared for

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Executive Summary

This report has been prepared in support of a planning application for a residential development on land off Burndell Road, Yapton.

The site is located in the vicinity of the TJ Waste & Recycling facility. Arun District Council have subsequently raised concerns that this may form a source of odour emissions and act as a constraint to development due to associated impacts on future amenity. There are also concerns that the development itself could prevent or constrain operations at the premises due to the change in land use. An Odour Assessment was therefore undertaken in order to investigate potential impacts at the development, consider its suitability for the proposed end-use and determine whether the development would prevent ongoing operations at TJ Waste & Recycling.

An Odour Risk Assessment was undertaken using a standard screening methodology to consider the potential risk of reduced amenity. The results of the assessment were considered alongside a number of additional factors to determine the overall significance of effect.

Based on the results of the assessment, overall odour effects at the site are not considered to be significant. As such, odour is not considered to represent a constraint to planning consent for the development.

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1.0 INTRODUCTION

1.1 Background

This report has been prepared in support of a planning application for a residential development on land off Burndell Road, Yapton.

Omnia's partner consultant Redmore Environmental, completed works detailed herein as set out within the Quality Assurance Section of this document. Text has been reproduced with permission of the Author who completed the assessment as a sub consultant to Omnia.

The site is located in the vicinity of TJ Waste & Recycling. Arun District Council (ADC) have subsequently raised concerns that operations at the facility may form a source of odour emissions which may affect amenity levels at the development. There are also concerns that the development itself could prevent or constrain operations at the premises due to the change in land use. An Odour Assessment has therefore been undertaken in order to investigate potential impacts at the development, consider its suitability for the proposed end-use and determine whether the development would prevent ongoing operations at TJ Waste & Recycling.

1.2 Proposed Development and Context

The site is located on land to the rear of Paynters Croft, off Burndell Road, Yapton, BN18 0HR, at approximate National Grid Reference (NGR): 498509, 102685. Reference should be made to Figure 1 for a map of the site and surrounding area.

The proposals comprise construction of 23 residential dwellings and associated infrastructure. Reference should be made to Figure 2 for a site layout plan.

The development is located in the vicinity of the TJ Waste & Recycling facility. As such, ADC has provided the following consultation response:

"The proposed development would be located within the proximity of existing waste infrastructure in Northwood Farm, with the proposed dwellings along the southern site boundary of the application site being some 100m to the north of the area of waste operations. Existing waste sites and infrastructure should be protected from inappropriate neighbouring developments that may prejudice their continuing efficient operation, as per Policy W2 of the Waste Local Plan.

As per W2 of the Waste Local Plan and in accordance with the 'agent of change principle', the applicant should demonstrate that the proposed development would not prevent or prejudice the ongoing operation of the waste management site by way of submission of a waste infrastructure assessment. The guidance provided on this matter by the MWPA suggests an appropriate assessment would include the following matters;

- * Identification of pre-existing conditions such as noise, light, odours, vibration, dust and other emissions;*
- * Confirmation of pre application consultation/engagement with the minerals operator (to demonstrate a full understanding of the existing and potential of noise, light, odours, vibration, dust and other emissions."*

In response to the consultation comments, an Odour Assessment has been undertaken in order to investigate potential impacts at the development, consider its suitability for the proposed end-use and determine whether the development could prevent or constrain ongoing operations at TJ Waste & Recycling. The findings are detailed in the following report.

1.3 Acronyms

All acronyms used within this report are defined in the Abbreviations listings, set out in Section 7.

1.4 Confidentiality

This report has been prepared solely for the use of the Client. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from Omnia; a charge may be levied against such approval.

2.0 ODOUR BACKGROUND

2.1 Odour Definition

The Institute of Air Quality Management (IAQM) guidance¹ defines odour as:

"[...] the human olfactory response (perception followed by psychological appraisal) to one, or more often a complex mixture of, chemical species in the air."

The stated definition is considered to be relevant in the context of this assessment.

2.2 Odour Impacts

The magnitude of odour impact depends on a number of factors and the potential for complaints varies due to the subjective nature of odour perception. The **FIDOL** acronym (also stated as **FIDOR** in Environment Agency (EA) guidance²) is a useful reminder of the factors that will determine the degree of odour pollution. These are described by the IAQM³ as follows:

- Frequency - how often an individual is exposed to odour;
- Intensity - the individual's perception of the strength of the odour;
- Duration - the overall duration that individuals are exposed to an odour over time;
- Odour unpleasantness - describes the character of an odour as it relates to the 'hedonic tone' (which may be pleasant, neutral or unpleasant) at a given odour concentration/intensity. This can be measured in the laboratory as the hedonic tone, and when measured by the standard method and expressed on a standard nine-point scale it is termed the hedonic score; and,
- Location - The type of land use and nature of human activities in the vicinity of an odour source. Tolerance and expectation of the receptor. The 'Location' factor can be considered to encompass the receptor characteristics, receptor sensitivity, and socio-economic factors.

It is important to note that even infrequent emissions may cause loss of amenity if odours are perceived to be particularly intense or offensive.

The FIDOL factors can be further considered to provide the following issues in regard to the potential for an odour emission to cause a nuisance:

- The rate of emission of the compound(s);
- The duration and frequency of emissions;
- The time of the day that this emission occurs;
- The prevailing meteorology;
- The sensitivity of receptors to the emission i.e. whether the odorous compound is more likely to cause a nuisance, such as the sick or elderly, who may be more sensitive;
- The odour detection capacity of individuals to various compound(s); and,
- The individual perception of the odour (i.e. whether the odour is regarded as unpleasant). This is greatly subjective and may vary significantly from individual to individual. For example, some individuals may consider some odours as pleasant, such as petrol, paint and creosote.

¹ Guidance on the Assessment of Odour for Planning v1.1, IAQM, 2018.

² H4: Odour Management, EA, 2011.

³ Guidance on the Assessment of Odour for Planning v1.1, IAQM, 2018.

2.3 Odour Legislative Control

The main requirement with respect to odour control from industrial activities is the Environmental Permitting (England and Wales) Regulations (2016) and subsequent amendments. If a process is deemed potentially odorous then the relevant regulator will usually include an appropriate condition in the site's Environmental Permit to restrict impacts beyond the facility boundary.

Enforcement of the condition is by the relevant regulator, either the EA for Part A(1) and waste processes, or the Local Authority for Part A(2) and B processes. If the regulator is satisfied that odour from a facility is causing pollution beyond the site boundary, then they can serve an improvement notice that requires remedial works to be undertaken to reduce impacts to an acceptable level. The measures that are deemed appropriate will depend on the industry sector and site-specific circumstances and will take costs and benefits into account. Should appropriate actions not be taken by the operator then the regulator has a number of available options, cumulating in the revocation of the Environmental Permit and cessation of all activities on site.

2.4 National Planning Policy

The revised National Planning Policy Framework⁴ (NPPF) was published in July 2021 and sets out the Government's planning policies for England and how these are expected to be applied.

The purpose of the planning system is to contribute to the achievement of sustainable development. In order to ensure this, the NPPF recognises three overarching objectives, including the following of relevance to odour:

"c) An environmental objective - to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy."

Chapter 12 of the NPPF details objectives in relation to achieving well-designed places. It states that:

"Planning policies and decisions should ensure that developments:

[...]

f) create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users; and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesions and resilience."

The implications of the NPPF have been considered throughout this assessment.

⁴ NPPF, Ministry of Housing, Communities and Local Government, 2019.

2.5 Local Planning Policy

The Arun Local Plan 2011-2031⁵ was adopted by ADC on 18th July 2018. Review of the document identified the following policy of relevance to this assessment:

"Policy QE SP1

Quality of the Environment

The Council requires that all development contributes positively to the quality of the environment and will ensure that development does not have a significantly negative impact upon residential amenity, the natural environment or upon leisure and recreational activities enjoyed by residents and visitors to the District.

The location of existing industrial and commercial uses, including waste management uses, must be taken into consideration when assessing proposals for development sensitive to noise, light, odour and outputs to air. This is to ensure that land allocated for these uses are protected and to ensure that the amenity of new development and facilities is safeguarded from the impacts of incompatible land uses."

West Sussex County Council (WSSC) has produced a Waste Local Plan⁶ which covers ADC's administrative extents. This provides the basis for making consistent decisions about planning applications for waste management facilities. Review of the document indicated the following of relevance to this assessment:

"Policy W2: Safeguarding Waste Management Sites and Infrastructure

Development that would prevent or prejudice the use of existing waste management sites or infrastructure that make an important contribution to the transfer of waste will not be permitted unless:

- (a) the current use is temporary and the site or infrastructure is unsuitable for continued waste use;*
- (b) continued use of the site or infrastructure for waste management purposes would be unacceptable in terms of its impact on local communities and/or the environment*
- (c) redevelopment of the site or loss of the infrastructure would form part of a strategy or scheme that has wider social and/or economic benefits that clearly outweigh the retention of the site or the infrastructure for waste use; or*
- (d) a suitable replacement site or infrastructure has been identified and permitted."*

The above policies have been taken into consideration throughout the undertaking of the assessment.

⁵ Arun Local Plan 2011-2031, ADC, 2018.

⁶ Waste Local Plan, WSSC, 2014.

2.6 Institute of Air Quality Management Guidance

The IAQM published the 'Guidance on the Assessment of Odour for Planning'⁷ document on 20th May 2014. This was updated in 2018⁸ and specifically deals with assessing odour impacts for planning purposes, namely potential effects on amenity. The assessment methodology outlined in the guidance has been utilised throughout this report where relevant.

⁷ Guidance on the Assessment of Odour for Planning, IAQM, 2014.

⁸ Guidance on the Assessment of Odour for Planning v1.1, IAQM, 2018.

3.0 METHODOLOGY

3.1 Introduction

The proposed development has the potential to expose future residents to any existing odour issues at the site as well as prevent or constrain operations at the nearby waste management facility. An Odour Assessment has therefore been undertaken in accordance with the IAQM 'Guidance on the Assessment of Odour for Planning'⁹ document, as summarised in the following Sections. This approach was discussed with Joanne Lewis, Senior Environmental Health Officer at ADC, in October 2021.

At the time of scoping, it was proposed to undertake a number of Field Odour Surveys across the proposed development. However, although significant review of meteorological conditions at the site was undertaken, it was not possible to identify suitable parameters to complete the survey work in accordance with the project programme. As such, this report includes a Risk Assessment approach with ongoing review of weather forecasts. Should this indicate suitable wind direction and rainfall for the additional works to be undertaken, a series of Field Odour Surveys will be completed with the results outlined in an updated Odour Assessment.

3.2 Risk Assessment Background

The basic concept of risk assessment is that the overall risk depends on the probability of an event occurring together with the likely consequences if it was to occur. For odour assessments the probability can be considered as the likelihood of exposure (impact), and the consequence can be considered to be the effect on the receptor if that exposure (impact) took place. These two facets can be summarised by the source-pathway-receptor concept.

Behind the source-pathway-receptor concept is the fundamental relationship:

$$\text{Effect} \approx \text{Dose} \times \text{Response}$$

In the specific case of odour assessments, the dose can be considered equivalent to the odour exposure, or impact. This will be determined by FIDO of the FIDOL factors. The effect is the result of the changes on specific receptors (people in the case of odour) taking into account their sensitivities (i.e. responsiveness to odour), the L (location) in FIDOL to categorise the sensitivity.

The IAQM guidance states that a qualitative risk-based approach is appropriate for:

- Screening of odour impacts;
- Development proposals likely to have a low risk of adverse effects;
- Situations where there is insufficient information to carry out detailed predictive dispersion modelling;
- Situations where the information has wide uncertainties and its use as input to a detailed predictive dispersion model would be at best a waste of time, money and effort or, worse, would lead to an illusory and false impression of accuracy and precision in the numbers generated; and,
- When the model is not able to properly represent the reality of the situation being assessed, e.g. if the odour effects are likely to be significantly influenced by accidental, unexpected or unknown releases. In such instances a qualitative estimate may be more appropriate, on the

⁹ Guidance on the Assessment of Odour for Planning v1.1, IAQM, 2018.

basis that it is better to be broadly correct than precisely wrong.

It is considered that all of these criteria are met for this project. As such, a qualitative assessment methodology was deemed appropriate.

3.3 Risk Assessment Procedure

The first step in the assessment is to estimate the odour generating potential of the site activities. This is termed the Source Odour Potential, which takes into account three factors:

- The scale (magnitude) of the release from the odour source, taking into account the effectiveness of any odour control or mitigation measures that are already in place. This involves judging the relative size of the release rate after mitigation and taking account of any pattern of release (e.g. intermittency);
- How inherently odorous the emission is. In some cases it may be known whether the release has a low, medium or high Odour Detection Threshold (ODT). This is the concentration at which an odour becomes detectable to the human nose. In most instances the odours released by a source will be a complex mixture of compounds and the detectability will not be known. However, for some industrial processes the odour will be due to one or a small number of known compounds and the detection thresholds will be a good indication of whether the release is highly odorous or mildly odorous; and,
- The relative pleasantness/unpleasantness of the odour.

Using the example risk ranking in Table 1, the Source Odour Potential can be categorised as **small**, **medium** or **large**.

Table 1 Source Odour Potential

Source Odour Potential	Comments
Large	Magnitude - larger Environmentally Permitted processes of odorous nature or large Sewage Treatment Works; materials usage hundreds of thousands of tonnes/m³ per year; area sources of thousands of m². The compounds involved are very odorous (e.g. mercaptans), having very low ODTs where known Unpleasantness - processes classed as "Most offensive" in EA Guidance H4¹⁰; or (where known) compounds/odours having unpleasant (-2) to very unpleasant (-4) hedonic score Mitigation/control - open air operation with no containment, reliance solely on good management techniques and best practice
Medium	Magnitude - smaller Environmentally Permitted processes or small STWs; materials usage thousands of tonnes/m³ per year; area sources of hundreds of m². The compounds involved are moderately odorous Unpleasantness - processes classed in EA Guidance H4¹¹ as "Moderately offensive"; or (where known) odours having neutral (0) to unpleasant (-2) hedonic score Mitigation/control - some mitigation measures in place, but significant residual odour remains
Small	Magnitude - falls below Environmental Permit Part B threshold; materials usage hundreds of tonnes/m³ per year; area sources of tens m². The compounds involved are only mildly odorous, having relatively high ODTs where known Unpleasantness - processes classed as "Less offensive" in EA Guidance H4; or (where known) compounds/odours having neutral (0) to very pleasant (+4) hedonic score

¹⁰ H4: Odour Management, EA, 2011.

¹¹ H4: Odour Management, EA, 2011.

Source Odour Potential	Comments
	Mitigation/control - effective, tangible mitigation measures in place leading to little or no residual odour

The next step is to estimate the effectiveness of the pollutant pathway as the transport mechanism for odour through the air to the receptor, versus the dilution/dispersion in the atmosphere. Any factor that increases dilution and dispersion of the plume as it travels from source to receptor will reduce the concentration at the end point, and hence reduce exposure. Important factors for consideration are:

- The distance between sensitive receptors and the odour source;
- Whether receptors are downwind with respect to the prevailing wind direction. Odour episodes often tend to occur during stable atmospheric conditions with low wind speed, which gives poor dispersion and dilution. Receptors close to the source in all directions can be affected under these conditions. When circumstances are not calm, it will be the downwind receptors that are affected. As such, receptors that are downwind with respect to the prevailing wind direction tend to be at higher risk of odour impact;
- The effectiveness of the point of release in promoting good dispersion e.g. releasing emissions from a high stack will increase the pathway, dilution and dispersion; and,
- The topography and terrain between the source and receptor. The presence of topographical features such as hills and valleys, or urban terrain features such as buildings, can affect air flow and therefore increase, or inhibit, dispersion and dilution.

Using the example risk ranking in Table 2, the pollutant pathway from source to receptor can be categorised as **ineffective**, **moderately effective** or **highly effective**.

Table 2 Pathway Effectiveness

Pathway Effectiveness	Comments
Highly effective	Distance - receptor is adjacent to the source/site; distance well below any official set-back distances Direction - high frequency of winds from source to receptor, or, qualitatively, receptors downwind of source with respect to prevailing wind Effectiveness of dispersion/dilution - open processes with low-level releases, e.g. lagoons, uncovered effluent treatment plant, landfilling of putrescible wastes
Moderately effective	Distance - receptor is local to the source Where mitigation relies on dispersion/dilution - releases are elevated, but compromised by building effects
Ineffective	Distance - receptor is remote from the source; distance exceeds any official set-back distances Direction - low frequency of winds from source to receptor, or, qualitatively, receptors upwind of source with respect to prevailing wind Where mitigation relies on dispersion/dilution - releases are from high level (e.g. stacks, or roof vents greater than 3m above ridge height) and are not compromised by surrounding buildings

The sensitivity of the receiving receptor is defined based on the criteria shown in Table 3.

Table 3 Odour Receptor Sensitivity

Sensitivity	Description
Highly	Surrounding land where: • Users can reasonably expect enjoyment of a high level of amenity; and, • People would reasonably be expected to be present here continuously, or at least regularly for extended periods, as part of the normal pattern of use of the land Examples may include residential dwellings, hospitals, schools/education and tourist/cultural
Medium	Surrounding land where: • Users would expect to enjoy a reasonable level of amenity, but would not reasonably expect to enjoy the same level of amenity as in their home; or, • People would not reasonably be expected to be present here continuously or regularly for extended periods as part of the normal pattern of use of the land Examples may include places of work, commercial/retail premises and playing/recreation fields
Low	Surrounding land where: • The enjoyment of amenity would not reasonably be expected; or, • There is transient exposure, where the people would reasonably be expected to be present only for limited periods of time as part of the normal pattern of use of the land Examples may include industrial use, farms, footpaths and roads

The estimates of Source Odour Potential and Pathway Effectiveness are considered together to predict the risk of odour exposure (impact) at the receptor location, as shown by the matrix in Table 4.

Table 4 Risk of Odour Exposure

Pathway Effectiveness	Source Odour Potential		
	Small	Medium	Large
Highly effective	Low	Medium	High
Moderately effective	Negligible	Low	Medium
Ineffective	Negligible	Negligible	Low

The final step is to determine the significance of odour effect at the specified receptor location through interaction between sensitivity and risk, as outlined in Table 5.

Table 5 Significance of Odour Effect

Risk of Odour Exposure	Receptor Sensitivity		
	Low	Medium	High
High	Slight	Moderate	Substantial
Medium	Negligible	Slight	Moderate
Low	Negligible	Negligible	Slight
Negligible	Negligible	Negligible	Negligible

3.4 Overall Odour Significance

Following completion of the Risk Assessment, the IAQM guidance¹² states that an assessment must reach a conclusion on the likely significance of the predicted impact. Where the overall effect is **moderate** or **substantial**, the effect is likely to be considered **significant**, whilst if the effect is **slight** or **negligible**, the impact is likely to be considered **not significant**. It should be noted that this is a binary judgement of either it is **significant** or it is **not significant**. This has been considered to determine the overall significance of potential odour effects at the proposed development site.

The IAQM recognises that assessment of odour requires some degree of professional judgement¹³. Qualitative methodologies such as those utilised within this report provide guidance for assessing potential impacts. However, professional judgement should be exercised in order to take account of the specific details which are unique to each development. This has been considered as necessary throughout the assessment.

¹² Guidance on the Assessment of Odour for Planning, IAQM, 2018.

¹³ Guidance on the Assessment of Odour for Planning, IAQM, 2018.

4.0 BASELINE

4.1 Introduction

Existing conditions in the vicinity of the proposed development site were identified in order to provide a baseline for assessment. These are detailed in the following Sections.

4.2 Site Description

The development is located in a mixed urban-agricultural setting which comprises open space, industrial/commercial land use and residential properties. Existing dwellings are adjacent to the northern and eastern boundaries of the site with agricultural fields to the west and south-west. The site is bordered to the south by TJ Waste & Recycling.

4.3 Potential Odour Sources

TJ Waste & Recycling is located approximately 65m south of the proposed development. Consultation was undertaken with the operator in order to understand activities on site. The following information was provided:

- The site operates under an Environmental Permit authorised by the EA (reference: FB3330AE/V003);
- The site is operational between 8:00 and 17:00 from Monday to Friday and 8:00 and 12:00 on Saturdays;
- Materials accepted on site include mixed waste, wood, soil, hardcore, plasterboard, cardboard, UPVC and some green wastes; and,
- All tipping and processing activities take place within a dedicated building to the north of the site.

Due to the nature of works undertaken at the premises, there is the potential for waste type odours to occur.

Reference should be made to Figure 3 for a map showing the location of the TJ Waste & Recycling facility.

4.4 Sensitive Receptor Locations

A review of the proposed development layout was undertaken in order to identify relevant receptor locations throughout the site. These are summarised in Table 6 and shown visually in Figure 4.

Table 6 Sensitive Receptors

Receptor		NGR (m)		Distance from Source (m)	Direction from Source	Sensitivity
		X	Y			
1	Plot 13	498485	102620	95	North-west	High
2	Plot 15	498515	102639	80	North	High
3	Plot 17	498534	102649	75	North	High
4	Plot 20	498573	102672	85	North	High
5	Plot 21	498569	102695	110	North	High

4.5 Meteorological Conditions

The potential for odour emissions to impact at sensitive locations depends significantly on the meteorology, particularly wind directions, during release. In order to consider prevailing conditions at the site, review of historical weather data was undertaken. Shoreham meteorological station is located at NGR: 520095, 105457, approximately 21.9km east of the development. It is considered that conditions are likely to be reasonably similar over a distance of this magnitude and the information is a suitable source of data for an assessment of this nature.

Meteorological data was obtained from Shoreham meteorological station over the period 1st January 2015 to 31st December 2019 (inclusive). This is summarised in Table 7. Reference should be made to Figure 5 for a wind rose of the meteorological data. The sector with the highest frequency of winds is shown in **bold**.

Table 7 Wind Frequency Data

Wind Direction	Frequency of Wind (%)
345 - 15	16.25
15 - 45	7.26
45 - 75	4.03
75 - 105	2.96
105 - 135	4.93
135 - 165	4.37
165 - 195	6.32
195 - 225	12.97
225 - 255	17.25
255 - 285	10.21
285 - 315	5.37
315 - 345	6.75
Sub-Total	98.68
Calms	0.73
Missing/Incomplete	0.59

As shown in Table 7, the prevailing wind direction at the site is from the south-west. Winds from the north, east and south-east are relatively infrequent, which is indicative of conditions throughout the majority of the UK.

5.0 ASSESSMENT

There is the potential for odour emissions from the TJ Waste & Recycling facility to cause adverse impacts at the proposals, as well as the development itself to prevent or constrain operations at the premises. These issues were therefore assessed in accordance with the methodology outlined in Section 3.0.

The first step was to classify the Source Odour Potential for TJ Waste & Recycling. This was rated as **medium** due to the following considerations:

- The development is a Part A Environmental Permitted Process (Permit Reference Number: FB3330AE/V003);
- Operations are restricted to the conditions outlined in the Environmental Permit, including opening hours, material acceptance and site management;
- The facility is small scale in nature; and,
- Tipping and processing activities take place within a dedicated building, providing effective containment of any odours.

The pathway effectiveness was subsequently defined based on the distance between the identified source and the development and the prevailing wind direction in relation to the proposals. These are summarised in Table 8.

Table 8 Odour Pathway Effectiveness

Receptor		Pathway Effectiveness	Justification
1	Plot 13	Ineffective	The development is local to the source (95m) Receptor predominantly upwind of source with respect to prevailing wind direction Processing activities will take place within a dedicated building providing effective containment of any odours
2	Plot 15	Ineffective	The development is local to the source (80m) Receptor predominantly upwind of source with respect to prevailing wind direction Processing activities will take place within a dedicated building providing effective containment of any odours
3	Plot 17	Ineffective	The development is local to the source (75m) Receptor predominantly upwind of source with respect to prevailing wind direction Processing activities will take place within a dedicated building providing effective containment of any odours
4	Plot 20	Ineffective	The development is local to the source (85m) Receptor predominantly upwind of source with respect to prevailing wind direction Processing activities will take place within a dedicated building providing effective containment of any odours
5	Plot 21	Ineffective	The development is local to the source (110m) Receptor predominantly upwind of source with respect to prevailing wind direction Processing activities will take place within a dedicated building providing effective containment of any odours

The above information has been used to assess odour risk from TJ Waste & Recycling. This is summarised in Table 9.

Table 9 Odour Risk Assessment

Receptor		Source Odour Potential	Pathway Effectiveness	Exposure Risk	Sensitivity of Receptor	Effect Significance
1	Plot 13	Medium	Ineffective	Negligible	High	Negligible
2	Plot 15	Medium	Ineffective	Negligible	High	Negligible
3	Plot 17	Medium	Ineffective	Negligible	High	Negligible
4	Plot 20	Medium	Ineffective	Negligible	High	Negligible
5	Plot 21	Medium	Ineffective	Negligible	High	Negligible

As shown in Table 9, the predicted odour effect significance is **negligible** at the development as a result of odours from TJ Waste & Recycling facility.

The IAQM guidance¹⁴ states that only if the impact is greater than **slight**, the effect is considered **significant**. As impacts were predicted to be **negligible**, overall effects are considered to be **not significant**, in accordance with the stated methodology.

Based on the results of the assessment the following outcomes have been determined:

- Operations at TJ Waste & Recycling are unlikely to cause loss of amenity at the proposed development site; and,
- The siting of a residential development to the north of TJ Waste & Recycling will not prevent or prejudice the use of the facility.

As such, the proposals are considered to comply with the requirements of the NPPF and Policy W2 of the Waste Local Plan¹⁵.

¹⁴ Guidance on the Assessment of Odour for Planning v1.1, IAQM, 2018.

¹⁵ Waste Local Plan, WSCC, 2014.

6.0 SUMMARY

This report has been prepared in support of a planning application for a residential development on land off Burndell Road, Yapton.

The site is located in the vicinity of the TJ Waste & Recycling facility. ADC have subsequently raised concerns that this may form a source of odour emissions and act as a constraint to development due to associated impacts on future amenity. There are also concerns that the development itself would prevent or constrain operations at the premises due to the change in land use. An Odour Assessment was therefore undertaken in order to investigate potential impacts at the development, consider its suitability for the proposed end-use and determine whether the development would prevent ongoing operations at TJ Waste & Recycling.

The risk of potential odour effects was assessed using the IAQM methodology. This included consideration of the Source Odour Potential, pathway effectiveness and receptor sensitivity. The results of the assessment indicated the predicted odour effect significance was **negligible** at all proposed receptors as a result of emissions from TJ Waste & Recycling.

In accordance with the stated guidance, the overall predicted odour effects on the development are **not significant**. As such, the proposals are considered to comply with the requirements of the NPPF and Policy W2 of the Waste Local Plan¹⁶.

¹⁶ Waste Local Plan, WSCC, 2014.

7.0 ABBREVIATIONS

ADC	Arun District Council
DEFRA	Department for Environment, Food and Rural Affairs
EA	Environment Agency
IAQM	Institute of Air Quality Management
NGR	National Grid Reference
NPPF	National Planning Policy Framework
ODT	Odour Detection Threshold
WSCC	West Sussex County Council

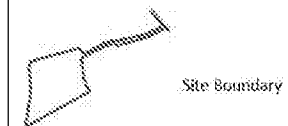
APPENDIX I

Drawings





Legend



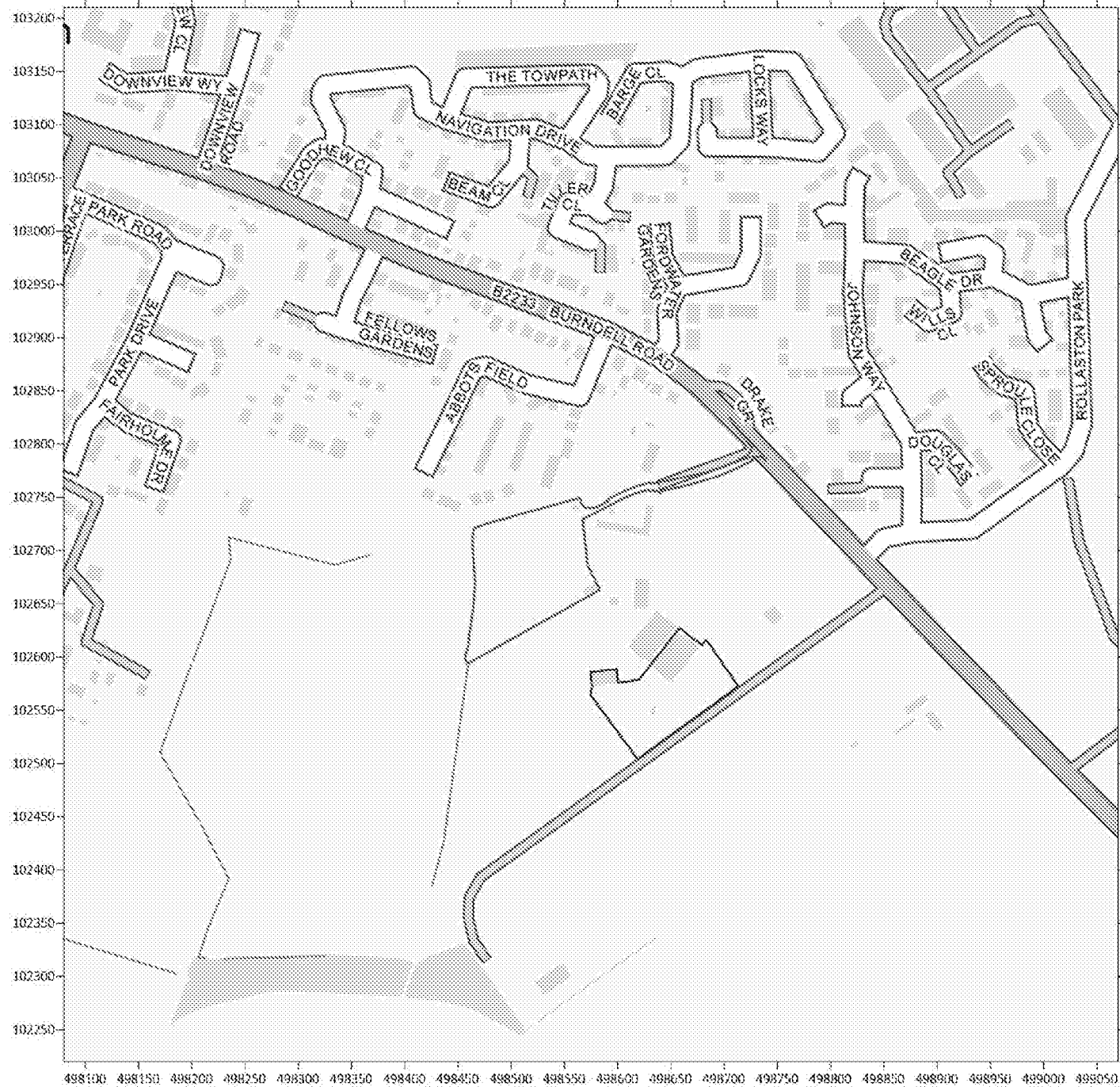
Site Boundary

Title

Figure 2 - Site Layout Plan

Project

Odour Assessment
Burndell Road, Yapton



Legend

-  Site Boundary
-  T J Waste & Recycling

Title

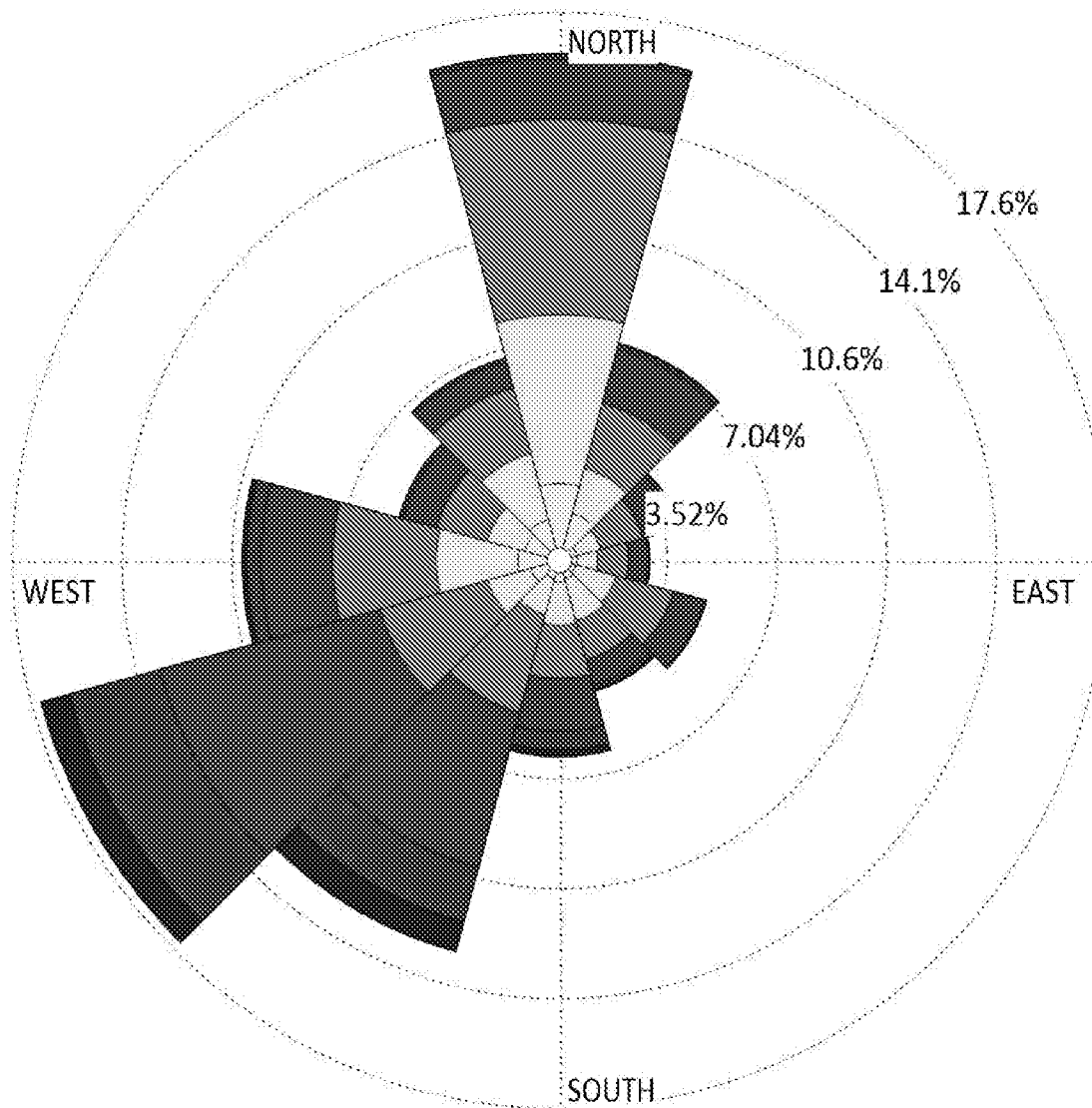
Figure 3 - Potential Odour Source

Project

Odour Assessment
Burndell Road, Yapton

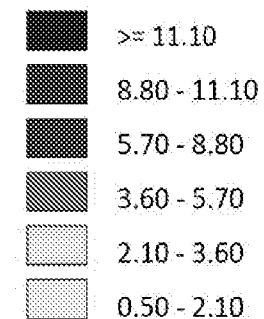
Contains Ordnance Survey Data
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Legend

WIND SPEED (m/s)



Calms: 0.73%

Title

Figure 5 - Wind Rose of 2015-2019
Shoreham Meteorological Data

Project

Odour Assessment
Burndell Road, Yapton