



Dust Assessment

C10638

Burndell Road, Yapton

Prepared for

Jason Osborn

Driftstone Homes

24 Palmerston Business Park

Palmerston Drive

Fareham

PO14 1DJ

November 2021

Omnia ref: C10638/DA/1.1

ISO Accredited Certification (UKAS)



Quality Assurance

Issue/revision	Issue 1	Revision 1	Revision 2	Revision 3
Remarks	Draft for Comment	Final Version		
Date	29/10/2021	03/11/2021		
Prepared by	A.Dale – Redmore Environmental	A.Dale – Redmore Environmental		
Contractor Ref No	4978	4978		
Issued on behalf of Omnia	Elizabeth Samphier	Elizabeth Samphier		
Signature				
Position	Head of Environmental Planning Services	Head of Environmental Planning Services		
Project number	C10638/DA/1.0	C10638/DA/1.1		

South
3-6 The Quarterdeck,
Pork Solent, Portsmouth
PO6 4TP

Midlands
12 High Pavement,
Lace Market, Nottingham
NG1 1HN

We are a UK wide, truly joined up and fully collaborative multi-disciplinary engineering and environmental consultancy.



Ecology



Acoustics



Geotechnical



Geo-environmental



Air Quality

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 has subsequently raised concerns that this may form a source of dust 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. A Dust 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.

A Dust 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 dust effects at the site are not considered to be significant. As such, dust is not considered to represent a constraint to planning consent for the development.

Table of Contents

1.0	INTRODUCTION	1
1.1	Background	1
1.2	Proposed Development	1
1.3	Acronyms	2
1.4	Confidentiality	2
2.0	DUST BACKGROUND	3
2.1	Dust Definition	3
2.2	Dust Impacts	3
2.3	National Planning Policy	4
2.4	Local Planning Policy	4
3.0	METHODOLOGY	6
3.1	Introduction	6
3.2	Risk Assessment Background	6
3.3	Risk Assessment Procedure	6
3.3.1	Source Emission Potential	6
3.3.2	Pathway Effectiveness	7
3.3.3	Estimation of Dust Impact Risk	8
3.3.4	Estimation of Dust Effect Magnitude	8
4.0	BASELINE	10
4.1	Introduction	10
4.2	Site Description	10
4.3	Potential Dust Sources	10
4.4	Receptors	10
4.5	Meteorological Conditions	11
5.0	ASSESSMENT	12
6.0	SUMMARY	14
7.0	ABBREVIATIONS	15

APPENDICES

Appendix I	Drawings
Appendix II	Dispersion Model Input Data

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 this may form a source of dust 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. A Dust 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

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, a Dust 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 would affect 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 DUST BACKGROUND

2.1 Dust Definition

The British Standards Institution (BSI) guidance BS 6069-2:1994 'Characterisation of air quality'¹ defines dust as particulate matter (PM) with an aerodynamic diameter between 1µm and 75µm.

Dust is created through the physical action of crushing and abrasive forces on materials as well as chemical reactions that occur between substances in the environment. As such, emissions are associated with a number of natural and anthropogenic sources. These include:

- Road Transport - Vehicle exhaust emissions, releases generated by wear of automotive components and material that is disturbed from road surfaces
- Industrial - Emissions from combustion processes, commercial waste management activities and mineral extraction operations
- Agricultural - Releases associated with land cultivation and intensive livestock rearing operations
- Residential and Commercial Development - Emissions as a result of demolition, earthworks, construction activities and vehicle track out; and,
- Natural sources - Sea spray and aeolian dust from arid regions.

2.2 Dust Impacts

The potential for impacts to occur at sensitive locations depends significantly on the nature of the dust generating activities and local conditions including surrounding land use and meteorology:

Dust particles are dispersed by their suspension and entrainment in an airflow. Dispersal is therefore affected by the size of the particles emitted and wind speed, as well as their shape and density. Larger dust particles fall out of the atmosphere quickly after initial release and therefore tend to be deposited in close proximity to the source of emission. The Office of the Deputy Prime Minister document 'Mineral Policy Statement 2'² indicates that large dust particles with an aerodynamic diameter greater than 30µm are likely to be deposited out of the atmosphere within 100m of sources. Intermediate sized particles with aerodynamic diameters between 10µm to 30µm are likely to travel up to 200m to 500m from sources before deposition.

Smaller particles which have an aerodynamic diameter of less than 10µm are known as particulate matter with an aerodynamic diameter of less than 10µm (PM₁₀) and represent only a small proportion of total dust released. This also includes a finer fraction with an aerodynamic diameter of less than 2.5µm, which is referred to as particulate matter with an aerodynamic diameter of less than 2.5µm (PM_{2.5}). As these particles are at the smaller end of the size range, they remain suspended in the atmosphere for a longer period of time than larger dust fractions and can therefore be transported by wind over a wider area. 'Mineral Policy Statement 2'³ indicates that PM₁₀ may travel over 1km before deposition occurs.

¹ BS 6069-2:1994, Characterisation of air quality, BSI, 1994.

² MPS2: Controlling and Mitigating the Environmental Effects of Minerals Extraction in England Annex 1: Dust, Office of the Deputy Prime Minister, 2005.

³ MPS2: Controlling and Mitigating the Environmental Effects of Minerals Extraction in England Annex 1: Dust, Office of the Deputy Prime Minister, 2005.

2.3 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 air quality:

"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.

2.4 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

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

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

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.

⁶ Waste Local Plan, WSSC, 2014.

3.0 METHODOLOGY

3.1 Introduction

The site is located in the vicinity of the TJ Waste & Recycling facility. There is the potential for dust emissions from the premises to cause loss of amenity for future residents of the scheme, as well the development itself to prevent or constrain operations at the facility. The potential risk of adverse effects has therefore been assessed utilising the Institute of Air Quality Management (IAQM) 'Guidance on the Assessment of Mineral Dust Impacts for Planning V1.1'⁷. It is noted that the guidance is designed for the assessment of fugitive dust emissions from mineral extraction, rather than waste operations. However, given the similarities in emission dispersion and subsequent impacts, the application of the risk assessment methodology is considered suitable for the purpose of this report in lieu of sector specific guidance. This approach was agreed with Joanne Lewis, Senior Environmental Health Officer at ADC, in October 2021.

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 dust emissions 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:

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

3.3 Risk Assessment Procedure

3.3.1 Source Emission Potential

The first step in the assessment is to estimate the dust generating potential of the site activities. This is termed the Source Emission Potential, which takes into account the scale (magnitude) of the release from the emission source, as well as the effectiveness of any 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).

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

Table 1 Source Emission Potential

Source Emission Potential	Comments
Large	Magnitude - Larger Environmentally Permitted processes or activities with a significant potential for emission generation Emissions - Continuous emissions Mitigation/control - No containment, reliance solely on good management techniques and best practice
Medium	Magnitude - Smaller Environmentally Permitted processes or activities with a moderate

⁷ Guidance on the Assessment of Mineral Dust Impacts for Planning V1.1, IAQM, 2016.

Source Emission Potential	Comments
	potential for emission generation Emissions - Periodic emissions Mitigation/control - Some mitigation measures in place, but significant residual emissions remain
Small	Magnitude - Falls below Environmental Permit Part B threshold or sites with limited potential for emission generation Emissions - Occasional emissions Mitigation/control - Effective, tangible mitigation measures in place leading to little or no residual emissions

3.3.2 Pathway Effectiveness

The next step is to estimate the effectiveness of the pollutant pathway as the transport mechanism for the emission through the air to the receptor, versus the dilution/dispersion in the atmosphere.

The primary factor influencing the pathway is the distance between the sensitive receptor and the dust sources. However, other factors can cause a higher or a lower category to be assigned. These factors include:

- Orientation of receptors relative to the prevailing wind direction; and,
- Topography, terrain and physical features.

Table 2, provides the criteria for determining the frequency of potentially dusty winds, based on twelve 30° wind direction sectors.

Table 2 Categorisation of Frequency of Potentially Dusty Winds

Frequency Category	Criteria
Infrequent	Frequency of winds (>5m/s) from the direction of the dust source on dry days are less than 5%
Moderately frequent	Frequency of winds (>5m/s) from the direction of the dust source on dry days are between 5% and 12%
Frequent	Frequency of winds (>5m/s) from the direction of the dust source on dry days are between 12% and 20%
Very frequent	Frequency of winds (>5m/s) from the direction of the dust source on dry days are greater than 20%

The criteria used to categorise the distance from each receptor to the source is provided in Table 3.

Table 3 Categorisation of Receptor Distance from Source

Category	Criteria
Distance	Receptor is between 125m and 200m from the dust source
Intermediate	Receptor is between 60m and 125m from the dust source
Close	Receptor is less than 60m from the dust source

The Pathway Effectiveness was classified using the frequency of potentially dusty winds from Table 2 and the receptor distance from Table 3, as shown Table 4.

Table 4 Pathway Effectiveness

Category	Frequency of Potentially Dusty Winds			
	Infrequent	Moderately Frequent	Frequent	Very Frequent
Close	Ineffective	Moderately Effective	Highly Effective	Highly Effective
Intermediate	Ineffective	Moderately Effective	Moderately Effective	Highly Effective
Distant	Ineffective	Ineffective	Moderately Effective	Moderately Effective

3.3.3 Estimation of Dust Impact Risk

The Source Emission Potential and Pathway Effectiveness are combined to predict the impact risk, as shown in Table 5.

Table 5 Estimation of Dust Impact Risk

Pathway Effectiveness	Source Emission Potential		
	Small	Medium	Large
Highly Effective Pathway	Low	Medium	High
Moderately Effective Pathway	Negligible	Low	Medium
Ineffective Pathway	Negligible	Negligible	Low

3.3.4 Estimation of Dust Effect Magnitude

The magnitude of effect was predicted based on the interaction between dust impact risk and sensitivity of the receptor. Table 6 outlines the criteria for determining sensitivity to dust soiling effects.

Table 6 Sensitivities of People to Dust Soiling Effects

Receptor Sensitivity	Criteria
High	Users can reasonably expect enjoyment of a high level of amenity; or, The appearance, aesthetics or value of their property would be diminished by soiling; and The people or property would reasonably be expected to be present continuously, or at least regularly for extended periods, as part of the normal pattern of use of the land Indicative examples include dwellings, medium and long term car parks and showrooms
Medium	Users would expect to enjoy a reasonable level of amenity, but would not be reasonably expected to enjoy the same level of amenity as their home; or, The appearance, aesthetics or value of their property could be diminished by soiling; or The people or property wouldn't reasonably be expected to be present continuously or regularly for extended periods, as part of the normal pattern of use of the land Indicative examples include parks and places of work

Receptor Sensitivity	Criteria
Low	The enjoyment of amenity would not reasonably be expected; or, There is property that would not reasonably be expected to be diminished in the appearance, aesthetics or value by soiling; or, There is transient exposure, where the people or property would reasonably be expected to be present only for limited periods of time as part of the normal pattern of use of the land Indicative examples include playing fields, farmland (unless commercially-sensitive horticultural), footpaths, short term car parks and roads

The predicted effect magnitude was determined from the dust impact risk in Table 5 and the receptor sensitivity in Table 6, as shown in Table 7.

Table 7 Descriptors for Magnitude of Dust Effects

Risk	Receptor Sensitivity		
	Low	Medium	High
High	Slight	Moderate	Substantial
Medium	Negligible	Slight	Moderate
Low	Negligible	Negligible	Slight
Negligible	Negligible	Negligible	Negligible

The IAQM guidance⁸ 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 dust effects at the development site.

The IAQM guidance recognises that assessment of dust requires some degree of professional judgement⁹. 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.

⁸ Guidance on the Assessment of Mineral Dust Impacts for Planning V1.1, IAQM, 2016.

⁹ Guidance on the Assessment of Mineral Dust Impacts for Planning V1.1, IAQM, 2016.

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 Dust 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 Environment Agency (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 fugitive dust emissions to occur.

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

4.4 Receptors

A review of the proposed development layout was undertaken in order to identify relevant receptor locations throughout the site. These are summarised in Table 8 and shown visually in Figure 4.

Table 8 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 dust 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 in Table 9. 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 9 Wind Frequency Data

Wind Direction	Total Frequency of Wind (%)	Total Frequency of Potentially Dusty Winds (%) ^(a)
345 - 15	16.25	2.40
15 - 45	7.26	2.25
45 - 75	4.03	1.88
75 - 105	2.96	1.00
105 - 135	4.93	1.35
135 - 165	4.37	0.56
165 - 195	6.32	1.48
195 - 225	12.97	5.35
225 - 255	17.25	9.87
255 - 285	10.21	3.38
285 - 315	5.37	1.83
315 - 345	6.75	1.12
Sub-Total	98.68	32.46
Calms	0.73	66.62
Missing/Incomplete	0.59	0.92

Note: (a) Winds with speed greater than 5m/s on days with no precipitation.

As shown in Table 9, 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 dust 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.

Based on proposed operations at TJ Waste & Recycling, the following potential dust sources have been identified:

- Fugitive dust emissions from the recycling processes including processing commercial waste e.g. wood, metal, cardboard and plastics;
- Fugitive dust emissions from any waste loaded onto conveyors and stored in stockpiles; and,
- Resuspension of dust from vehicles travelling to and from the recycling facility.

The first step in the assessment was to classify the Source Emission Potential. This was rated as **medium** due to the following:

- **Magnitude** - TJ Waste & Recycling operate under conditions imposed by an Environmental Permit (reference: FB3330AE/V003), which requires that dust impacts from the facility do not occur beyond the site. There is also limited potential for emission generation as all tipping and processing is undertaken in a contained building;
- **Emissions** - The facility operates between 8:00 and 17:00 Monday to Friday and 8:00 and 12:00 on Saturdays. The facility is closed on Sundays. As such, significant dust generating operations are not continuous; and,
- **Mitigation/control** - All tipping and processing activities take place within a dedicated building. This is likely to provide effective containment of dust.

The Pathway Effectiveness was subsequently defined based on the distance between the TJ Waste & Recycling facility and sensitive receptors at the proposed development, as well as the prevailing meteorological conditions. This is shown in Table 10.

Table 10 Sensitive Receptor Pathway Effectiveness Classification

Receptor	Frequency of Potentially Dusty Wind		Distance from Site Boundary		Pathway Effectiveness
	Proportion of Time Downwind of Source (%)	Category	Distance from Site Boundary (m)	Category	
R1	2.35	Infrequent	95	Intermediate	Ineffective
R2	2.91	Infrequent	80	Intermediate	Ineffective
R3	2.91	Infrequent	75	Intermediate	Ineffective
R4	3.39	Infrequent	85	Intermediate	Ineffective
R5	3.39	Infrequent	110	Intermediate	Ineffective

As shown in Table 10, the Pathway Effectiveness was determined to be ineffective at all receptor locations.

The residual source emission, Pathway Effectiveness and receptor sensitivity were combined to assess potential impacts at the proposed development. This is summarised in Table 11.

Table 11 Risk Assessment

Receptor	Source Emission Potential	Pathway Effectiveness	Dust Impact Risk	Sensitivity	Effect Significance
R1	Medium	Ineffective	Low	High	Negligible
R2	Medium	Ineffective	Low	High	Negligible
R3	Medium	Ineffective	Low	High	Negligible
R4	Medium	Ineffective	Low	High	Negligible
R5	Medium	Ineffective	Low	High	Negligible

As shown in Table 11, the predicted emission effect significance was **negligible** at all receptor locations.

The IAQM guidance¹⁰ 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 Plan¹¹.

¹⁰ Guidance on the Assessment of Mineral Dust Impacts for Planning V1.1, IAQM, 2016.

¹¹ 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 dust emissions which may affect amenity levels at the development. There are also concerns that the development itself would prevent or constrain operations at the premises due to the change in land use. A Dust 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.

The risk of potential dust effects was assessed using the IAQM methodology. This included consideration of the Source Emission Potential, Pathway Effectiveness and receptor sensitivity. The results of the assessment indicated the predicted dust effect significance was **negligible** at all proposed receptors as a result of emissions from the identified source.

In accordance with the stated guidance, the overall predicted dust 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 Plan¹².

¹² Waste Local Plan, WSCC, 2014.

7.0 ABBREVIATIONS

ADC	Arun District Council
BSI	British Standards Institution
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
WSCC	West Sussex County Council

APPENDIX I

Drawings



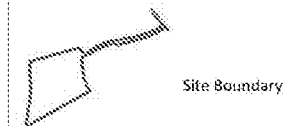
Title
Figure 1 - Site Location

Project
Dust Assessment
Burndell Road, Yapton

Contains Ordnance Survey Data
© Crown Copyright and Database Act 2019



Legend



Site Boundary

Title

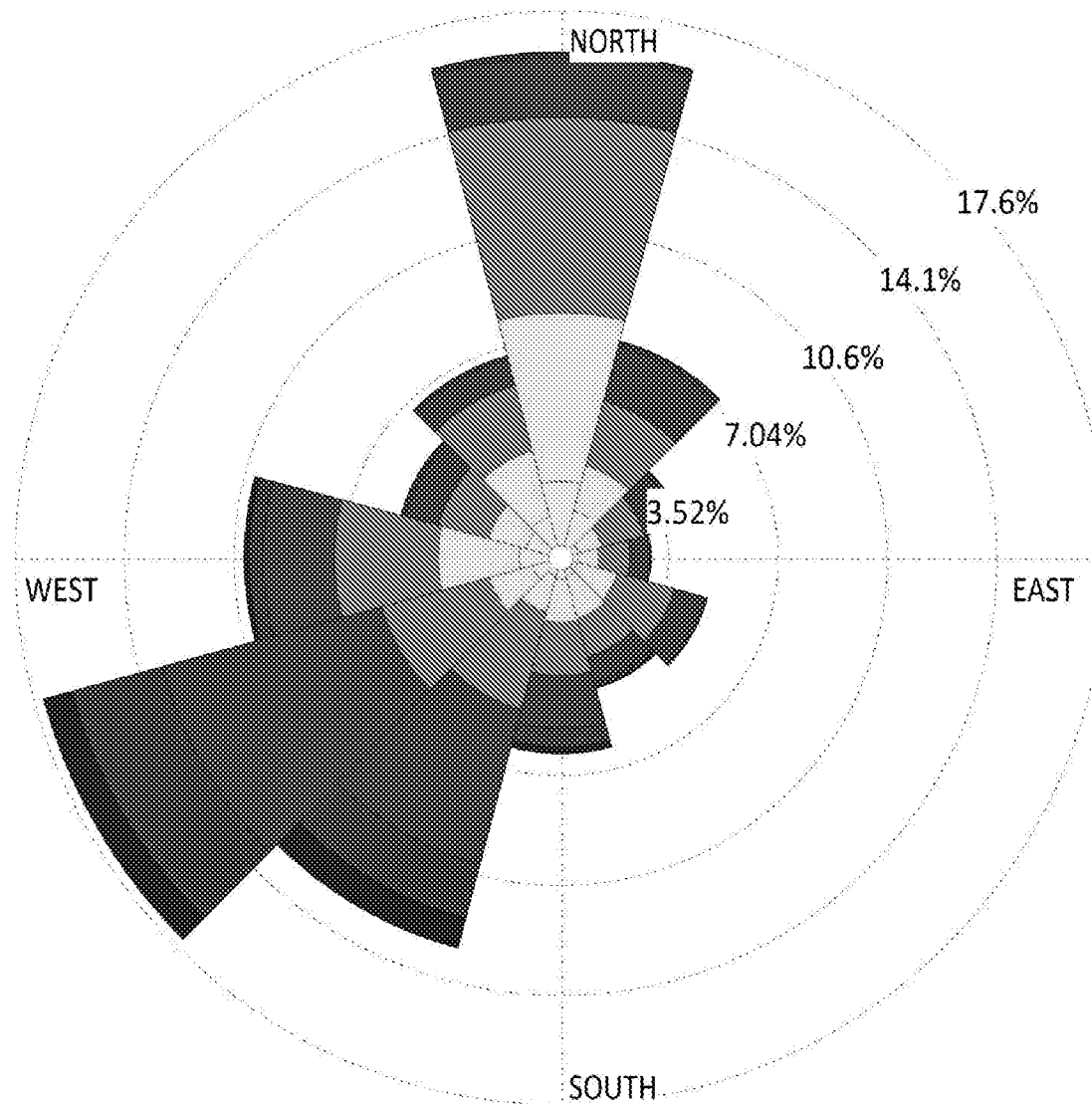
Figure 2 - Site Layout Plan

Project

Dust Assessment
Burnell Road, Yaptan

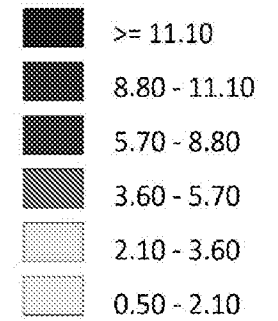






Legend

WIND SPEED (m/s)



Calms: 0.73%

Title

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

Project

Dust Assessment
Burndell Road, Yapton