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Bellway Homes Limited (South London)

Woodfords, Southwater

Emissions Mitigation Assessment

REPORT REF.

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HEAD OFFICE: 3rd Floor, The Hallmark Building, 52-56 Leadenhall Street, London, EC3M 5JE **T** | 020 7680 4088

EDINBURGH: Suite 35 4-5 Lochside Way Edinburgh EH12 9DT **T** | 0131 516 8111

ESSEX: 1 - 2 Crescent Court, Billericay, Essex, CM12 9AQ **T** | 01277 657 677

KENT: Suite 10, Building 40, Churchill Business Centre, Kings Hill, Kent, ME19 4YU **T** | 01732 752 155

MIDLANDS: Office 3, The Garage Studios, 41-43 St Mary's Gate, Nottingham, NG1 1PU **T** | 0115 697 0940

MANCHESTER: Chancery Place, 50 Brown Street, Manchester, M2 2JG **T**| 020 7680 4088

BRISTOL: Temple Studios, Bristol, England, BS1 6QA **T** | 0117 456 4994

SUFFOLK: Suffolk Enterprise Centre, 44 Felaw Street, Ipswich, IP2 8SJ **T** | 01473 407 321

Email: enquiries@ardent-ce.co.uk; airquality@ardent-ce.co.uk

Contents

Page

Appendices

Tables

Document Control Sheet

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JWilloughby Mark Chapman

Distribution

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Statement of Competence

The following authors of this report are Members of the Institute of Air Quality Management (IAQM) and possess the requisite qualifications, expertise, and experience to conduct robust air quality assessments and analyses in accordance with regulatory standards and best practices.

Assessor Name	**Mark Nichols**
Title	Associate (Air Quality)
Qualifications	MIAQM MIEnvSc
Experience	MSc Environmental Policy and Management BSc (Hons) Environmental Resource Management

Checker Name	**Josh Willoughby**
Title	Air Quality Consultant
Qualifications	AMIAQM AMIEnvSc
Experience	MSc Environmental Consultancy BSc Environmental Science

Supervisor Name	**Mark Chapman**
Title	Technical Director (Air Quality)
Qualifications	CEnv MIAQM MIEnvSc
Experience	MSc Air Pollution Management and Control MSc Environmental Impact Assessment, Auditing and Management Systems BSc Science and the Environment

1 Introduction

1.1 Ardent Consulting Engineers (ACE) have been commissioned by Bellway Homes Limited (South London) ("the client") to discharge Pre-Occupation Condition 13 of the Decision Notice (Application No. DC/21/2180) which grants outline planning permission for the following Approved Development at Woodfords, Shipley Road, Southwater, Horsham, RH13 9BQ (the Site):

> *"… the erection of up to 73 new dwellings (up to 100% affordable housing) and retention of existing farmhouse building, associated public open space, landscaping, drainage and highway infrastructure works, including vehicular access from Shipley Road, with all matters reserved except for access."*

1.2 The Site is located within the administrative boundary of Horsham District Council (HDC). The Site is located on land at approximate National Grid Reference (NGR): 515647, 125015, and is shown in Figure 1-1:

Figure 1-1: Site Location

1.3 Pre-Occupation Condition 13 states that:

> *"No part of the development hereby permitted shall be occupied until a scheme of air quality mitigation has been submitted to and been approved in writing by the Local Planning Authority. The details shall have regard to the Council's latest Air Quality & Emissions Reduction Guidance document. The approved scheme shall be installed prior to first occupation of the development and shall thereafter remain as such.*
>
> *Reason: To mitigate the impact of the development on air quality within the District and to sustain compliance with and contribute towards EU limit values or national objectives for pollutants in accordance with Policies 24 & 41 of the Horsham District Planning Framework (2015)".*

1.4 The remainder of this report provides the assessment and mitigation statement in support of Condition 13.

2 Approach

Scope

2.1 It is noted that an Air Quality Assessment (AQA) (ref J4362A/1/F4) was submitted as part of the planning submission for the Approved Development. The AQA was prepared by Air Quality Consultants Ltd and focused solely on the Operation Phase of development. It did not include assessment of the Construction Phase.

2.2 For the avoidance of doubt, this report focuses exclusively on the requirements of Condition 13. It does not repeat or reassess information previously provided in the Approved Development's outline planning submission, unless considered directly relevant to discharging Condition 13. Where this is the case, justification is provided.

Guidance

Air quality and emissions mitigation guidance for Sussex (2021)

2.3 The Air Quality emissions reduction guidance document[1] aims to provide advice to developers and their consultants on how to address local air quality when making a planning application in Horsham District. This guidance forms part of the Horsham District Air Quality Action Plan.

2.4 Of relevance to Condition 13, the guidance requires confirmation of mitigation measures during both the Construction and Operation phases of development.

Non-statutory guidance

2.5 The following guidance documents have been reviewed / followed / referred to in preparing this AQA:

- The EPUK & IAQM 'Land use Planning & Development Control: Planning for Air Quality', (2017 V1.2);
- The IAQM's 'Assessment of dust from demolition and construction' (2024 V2.2;

1 https://www.horsham.gov.uk/__data/assets/pdf_file/0011/67691/Sussex-AQ-Guidance-V.1.1-2021.pdf

Construction Dust Risk Assessment

2.6 The construction phase of the Proposed Development has the potential for fugitive dust emissions to occur owing to construction phase activities, such as demolition, earthworks, construction and trackout activities.

2.7 To determine the proportionate mitigation requirements to be adopted during the Construction Phase, a Construction Dust Risk Assessment has been prepared in accordance with IAQM guidance (see Appendix A for the construction phase methodology).

Damage Cost Methodology

2.8 To determine the proportionate mitigation requirements to be adopted during the Operation Phase, an updated damage cost calculation is required. It is noted that the previous AQA included a damage cost calculation, however several of the inputs, assumptions and datasets used at the time have since been superseded.

2.9 Therefore, it is considered appropriate to re-calculate the damage cost in accordance with the most recent version of the Damage Costs Appraisal Toolkit, published by Defra in March 2023.

2.10 The calculation also utilises the most recent Emission Factor Toolkit (EFT) v13.1, released in March 2025, to determine the Approved Development's transport emissions.

2.11 The damage cost calculation process includes:

- Identifying the additional trips or vehicle numbers generated by the Approved Development;
- Calculating the emissions from these trips for the pollutants of concern (NO_x and $PM_{2.5}$) using the EFT, for each of the five years following the opening year of 2027, starting with the year of opening. This calculation has assumed a 10 km trip length and a 50 kph average speed;

- Calculating the damage costs for the specific pollutant emissions using the damage cost toolkit, based on the costs for road transport in a small urban area. The toolkit allows for reductions in emissions over time, applies a discount in line with HM Treasury's Green Book and adjusts for inflation; and
- Extracting the 'Central' total value for each pollutant and summing these for use as the damage cost total for the scheme.

3 Construction Dust Risk Assessment

3.1 The following sections present the construction phase assessment. Reference should be made to Appendix A for full details of the methodology followed to undertake the assessment.

Potential Dust Emission Magnitude

3.2 Table 3-1 presents a summary of the potential dust emission magnitude for each stage of construction:

Table 3-1: Potential Dust Emission Magnitude

Workstage	Description of Works	Potential Dust Emission Magnitude
Demolition	Minor demolitions works are expected as part the construction phase, as there are a small number of existing buildings within the southeastern corner of the Site. The following descriptors are likely to be met: Total building volume <12,000 m^3, construction material with low potential for dust release (e.g. metal cladding or timber), demolition activities <6 m above ground level.	Small
Earthworks	The total area of the Site is in the 18,000 m^2 – 110,000 m^2 range. There are assumed to be <5 heavy earth moving vehicles likely to be active at any one-time during earthworks. Formation of bunds is likely to be required.	Medium
Construction	The total volume of new structures associated with the Proposed Development is estimated between 12,000 and 75,000 m^3. The construction materials required would likely include traditional materials including concrete and brickwork. Onsite concrete batching or sandblasting is not expected to occur.	Medium
Trackout	The maximum number of outward HDV movements which leave the Site after moving over unpaved ground, where they will accumulate mud and dirt that can be tracked out onto the public highway, is estimated to be between 20-50 HDV (>3.5t) outward movements in a single day during peak construction.	Medium

Sensitivity of the Area

Sensitive Receptors

3.3 The approximate number of receptors sensitive to potential dust impacts during demolition, earthworks and construction has been estimated from a desk top study of the area up to 250m from Site. This is summarised in Table 3-2.

Table 3-2: Demolition, Earthworks and Construction - Dust Sensitive Receptors

Distance from Site Boundary (m)	Approximate No. of Human Receptors	Approximate No. of Ecological Receptors
<20	0	0
<50	1-10	0
<100	10 – 100	0
<250	10 – 100	0

3.4 The approximate number of receptors sensitive to potential dust impacts from trackout were identified from a desk top study of the area up to 50m from the road network within 500m of the Site access. These are summarised in Table 3-3.

Table 3-3: Trackout - Dust Sensitive Receptors

Distance from Road up to 500m from the Site Boundary Entrance (m)	Approximate No. of Human Receptors	Approximate No. of Ecological Receptors
<20	1-10	0
<50	10 – 100	0

3.5 Figure 3-1 shows the identified receptors:

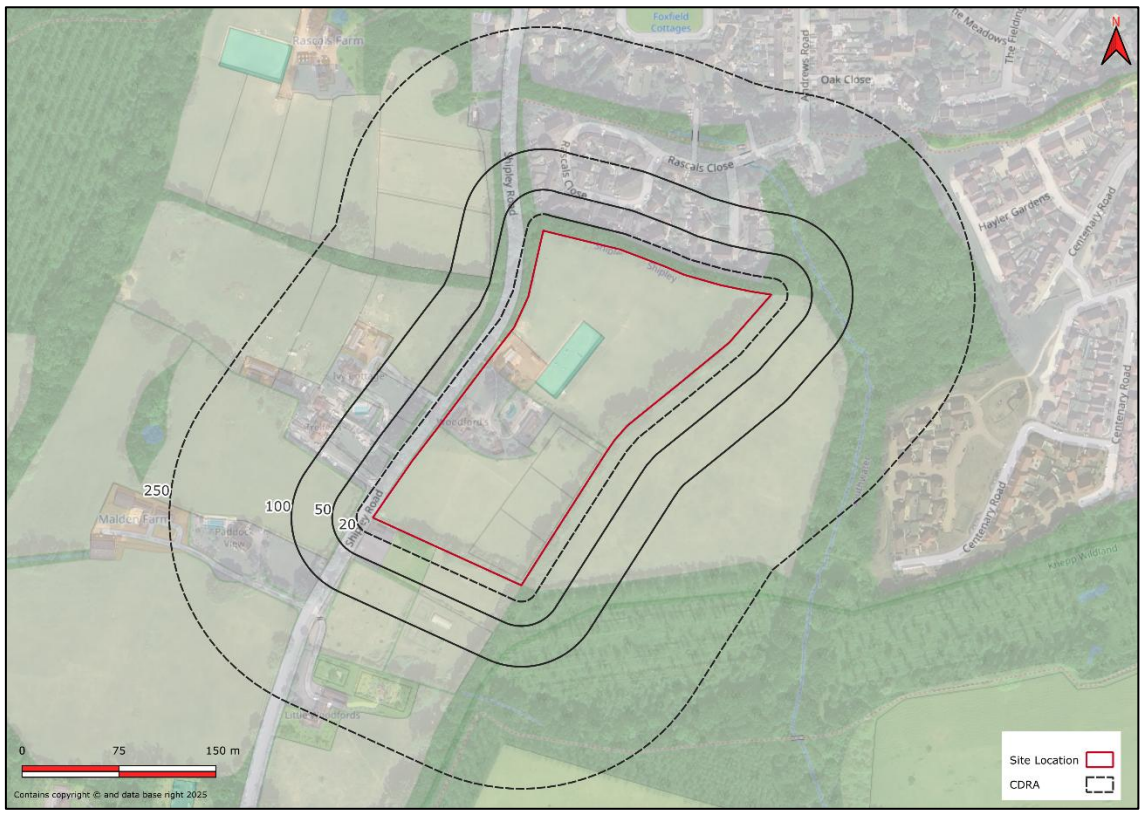

Figure 3-1: Construction Phase Receptors

Dust Deposition

3.6 No sensitive receptors have been identified within 20m, and 1-10 receptors within 50m of the Site boundary. Therefore, the overall sensitivity of the surrounding area to nuisance dust soiling effects during demolition, Earthworks and construction is defined as 'Low', in accordance with IAQM guidance.

3.7 Regarding trackout, the sensitivity is assessed where receptors are located within 50m from trackout routes up to 500m from the Site access. All potential trackout routes have been considered. There are estimated to be 1-10 sensitive receptors within 20m of trackout routes. As such, the sensitivity to dust soiling impacts from trackout is also defined as 'Medium'.

Human Health (PM_{10})

3.8 Annual mean background concentrations for PM_{10} at the Site are estimated in section 5 of the previous AQA, which shows that concentrations for PM_{10} to be approximately 14 µg/m^3.

3.9 Considering the assumed background PM_{10} concentrations and the number of sensitive receptors located within proximity of the Site, the sensitivity of the surrounding area to human health impacts is considered to be 'Low'.

Summary of Area Sensitivity

3.10 The sensitivity of the receiving environment to specific potential dust impacts is shown in Table 3-4.

Table 3-4: Sensitivity of the Surrounding Area to Potential Dust Impacts

Potential Impact	Sensitivity of the Surrounding Area			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	Low	Low	Low	Medium
Human Health	Low	Low	Low	Low

Summary of Potential Unmitigated Dust Risks

3.11 A summary of the risk from each dust generating activity is provided in Table 3-5:

Table 3-5: Summary of Potential Unmitigated Dust Risks

Potential Impact	Risk				
	Demolition	Earthworks	Construction	Trackout	Overall
Dust Soiling	Negligible	Low	Low	Medium	Medium
Human Health	Negligible	Low	Low	Low	Low
Overall					**Medium**

3.12 Overall, the Proposed Development is considered to be Medium Risk for potential nuisance dust soiling effects and Low Risk for PM_{10} health effects, and in the absence of mitigation.

4 Damage Cost Calculations

4.1 Annual emissions of NO_X and $PM_{2.5}$ have been calculated using Defra's Emissions Factors Toolkit (EFT) v13 for the five-year period from 2027 (opening year) as per the Sussex-Air guidance.

4.2 Table 4.1 shows the EFT inputs used to inform the calculation:

Table 4-1: Damage Cost EFT Inputs

Area	Road Type	Traffic Flow	% HDV	Speed (kph)	Link Length (km)
England (not London)	Urban (Not London)	521	2	50[a]	10[a]

[a] Based on the values provided by Sussex-Air guidance

4.3 Regarding Traffic Flows, these were provided by ACE's transport team based on the following assumptions:

> *"The AADT value is the sum of the car driver trip calculated within the TA (based on TRICS data and census data) of 504 movements, motorcycle movements calculated the same way of 6, plus TRICS data for OGVs (11 movements)"*

4.4 For the purposes of this assessment, annual emissions have been calculated for 5 separate years (2027 through 2031) using the EFT. The emissions used for the calculation are shown below:

Table 4-2: Emissions in tonnes per annum

Pollutant	Road Type	Emissions (tonnes per annum)				
		2027	2028	2029	2030	2031
NO_X	Urban (Not London)	0.296	0.257	0.222	0.190	0.162
$PM_{2.5}$	Urban (Not London)	0.035	0.034	0.034	0.033	0.033

4.5 The output of the damage cost calculation using these emissions is shown below:

Table 4-3: Damage Cost Value

Pollutant	Low Sensitivity Value (£)	**Central Present Value (£)**	High Sensitivity Value (£)
NO_x	£1,753	**£8,801**	£32,406
$PM_{2.5}$	£3,602	**£9,085**	£25,998
Total	£5,355	**£17,886**	£58,404

4.6 Summing the values for NO_x and $PM_{2.5}$ gives a total central present damage cost of **£17,886.** Mitigation measures have been costed to be proportionate to this damage cost value in Section 5.

5 Emissions Mitigation Statement

Construction Phase

5.1 The qualitative construction dust risk assessment shows that the works would be High Risk for adverse impacts during construction, in the absence of mitigation. To effectively reduce the risk of impacts to Negligible, appropriate mitigation measures would be adopted.

5.2 The IAQM's highly recommended mitigation measures for Medium Risk sites have been adapted for the Site and are summarised in Table 5-1.

Table 5-1: Fugitive Dust Emission Mitigation Measures

Issue / Control Measure	Site Risk Medium
D = Desirable / H = Highly Recommended	
General	
Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.	H
Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager.	H
Display the head or regional office contact information.	H
Develop and implement a DMP, which may include measures to control other emissions, approved by the Local Authority. The level of detail will depend on the risk and should include as a minimum the committed measures in this document. The desirable measures should be included as appropriate for the site. The DMP may include monitoring of dust deposition, dust flux, real-time PM_{10} continuous monitoring and/or visual inspections.	H
Site Management	
Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.	H
Make the complaints log available to the Local Authority when asked.	H
Record any exceptional incidents that cause dust and/or air emissions, either on- or off site, and the action taken to resolve the situation in the logbook.	H
Monitoring	

Issue / Control Measure	Site Risk Medium
D = Desirable / H = Highly Recommended	
Undertake daily onsite and offsite inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the Local Authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars, and windowsills within 100 m of site boundary, with cleaning to be provided if necessary.	D
Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and inspect log available to the Local Authority when asked.	H
Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.	H
Agree dust deposition, dust flux, or real-time PM_{10} continuous monitoring locations with the Local Authority. Where possible commence baseline monitoring at least 3 months before work commences on site or, if it a large site, before work on a phase commences. Further guidance is provided by IAQM on monitoring during demolition, earthworks, and construction.	H
Preparing And Maintaining the Site	
Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.	H
Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.	H
Fully enclose site or specific operations where there is a high potential for dust production and the site is actives for an extensive period.	H
Avoid site runoff of water or mud.	H
Keep site fencing, barriers and scaffolding clean using wet methods.	H
Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on site cover as described below	H
Cover, seed, or fence stockpiles to prevent wind whipping.	H
Operating Vehicle/Machinery and Sustainable Travel	
Ensure all vehicles switch off engines when stationary - no idling vehicles.	H
Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment where practicable.	H
Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the Local Authority, where appropriate).	D

Issue / Control Measure	Site Risk Medium
D = Desirable / H = Highly Recommended	
Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing)	D
Operations	
Only use cutting, grinding, or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g., suitable local exhaust ventilation systems.	H
Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.	H
Use enclosed chutes and conveyors and covered skips.	H
Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.	H
Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.	H
Waste Management	
Avoid bonfires and burning of waste materials.	H
Measures Specific to Demolition	
Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).	D
Ensure effective water suppression is used during demolition operations. Hand held sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground.	H
Avoid explosive blasting, using appropriate manual or mechanical alternatives.	H
Bag and remove any biological debris or damp down such material before demolition	H
Measures Specific to Earthworks	
Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.	D
Use Hessian, mulches or tackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable.	D
Only remove the cover in small areas during work and not all at once.	D
Measures Specific to Construction	
Avoid scabbling (roughening of concrete surfaces) if possible	D

Issue / Control Measure	Site Risk
	Medium
D = Desirable / H = Highly Recommended	
Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place	H
Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery	D
For smaller supplies of fine power materials ensure bags are sealed after use and stored appropriately to prevent dust	D
Measures Specific to Trackout	
Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use	H
Avoid dry sweeping of large areas	H
Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport	H
Inspect on site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable	H
Record all inspections of haul routes and any subsequent action in a site logbook.	H
Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned	H
Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable)	H
Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits	H

5.3 Implementing these measures should effectively reduce the risk of impacts to Negligible during the construction phase.

Operation Phase

5.4 In relation to the damage cost calculations, mitigation measures need to be costed and be proportionate to the damage cost value. Itemised costing for each proposed mitigation option and total value of all proposed emissions' mitigation is outlined in Table 5-2:

Table 5-2: Operation Phase offsetting measures

Mitigation Measure	Notes	Cost to Implement
Invest in EV charging infrastructure within the development **over and above** the current recommended parking standards	WSCC charging guidance states that EV charging provision is dependent on the opening year. For a 2027 opening year, this is anticipated to be 58% of spaces. A commitment is made to provide 100% active charging infrastructure, to each parking space. There are 171.5 spaces (garages only count as a half) so an overprovision of 42% against WSCC requirements equates to 72 EV spaces **over and above** the current recommended parking standards. An assumption of £976 per space has been assumed.	£70,272
	Sub-Total	£70,272
	Less Damage Cost (-£17,886)	£52,386
	Difference	£52,386
		Additional measures
Invest in local walking and cycling initiatives	The development will provide 100m of new footpath to facilitate connectivity to local amenities and encourage walking as a mode of transport. A cost of approximately £200 per metre of 2m footway has been provided by the transport consultant.	£20,000

6 Discussion and Conclusions

Construction Phase

6.1 A qualitative construction dust risk assessment has been carried out in accordance with IAQM guidance. The qualitative construction dust risk assessment shows that the works would be Medium Risk for adverse impacts during construction, in the absence of mitigation. By following the mitigation measures outlined in this report, the risk of construction phase impacts would reasonably be reduced to Negligible.

Operation Phase

6.1 Damage costs have been calculated using guidance and tools provided by the Sussex-Air partnership. The damage cost value is £17,886. A fully costed statement of mitigation measures has been provided, which shows that the value of mitigation exceeds the value of the damage cost.

Overall

6.2 From the evidence presented, and by following the guidance provided in this report, subject to agreement with HDC full discharge of Condition 13 is recommended.

7 Appendices

Appendix A: Construction Phase Methodology

Step 1

Step 1 is a basic screening stage, to determine whether the more detailed assessment provided in Step 2 is required. Should human receptors be identified within 250m of the boundary or 50m from the construction vehicle route up to 500m from the site entrance, then the assessment proceeds to Step 2. Additionally, should ecological receptors be identified within 50m of the site or the construction vehicle route, then the assessment also proceeds to Step 2.

Step 2a - Potential Dust Emission Magnitude

Step 2a determines the potential for dust to arise during the construction phase. Activities on construction sites with the potential to generate dust can be categorised into 4 types of activities:

1. Demolition – any activities associated with the removal of existing structures on the Site;
2. Earthworks – includes the processes of soil-stripping, ground-levelling, excavation and landscaping;
3. Construction – any activities relating to the provision of new structures on the Site; and
4. Trackout – the transport of dust and dirt from the Site onto the public road network where it may be deposited and re-suspended by vehicle traffic.

The potential dust emission magnitude for each of the activities is determined by the scale and magnitude of the works, and are classified as small, medium or large depending on the criteria outlined below in Table 7-1.

Table 7-1: Construction Dust - Magnitude of Emission

Activity	Potential Dust Emission Magnitude		
	Small	**Medium**	**Large**
Demolition	Total building volume <12,000m^3, construction material with low potential for dust release (e.g., metal cladding or timber), demolition activities <6m above ground, demolition during wetter months	Total building volume 12,000 m^3 – 75,000m^3, potentially dusty construction material, demolition activities 6-12m above ground level	Total building volume >75,000m^3, potentially dusty construction material (e.g., concrete), on Site crushing and screening, demolition activities >12m above ground level
Earthworks	Total Site area <18,000m^2, soil type with large grain size, <5 heavy earth moving vehicles active at any one time, formation of bunds <3m in height	Total Site area 18,000m^2 – 110,000m^2, moderately dusty soil type, 5-10 heavy earth moving vehicles, formation of bunds 3m - 6m in height	Total Site area >110,000m^2, potentially dusty soil type (such as clay, which will be prone to suspension when dry due to small particle size), >10 heavy earth moving vehicles, formation of bunds >6m
Construction	Total building volume <12,000m^3, construction material with low potential for dust release (such as metal cladding or timber)	Total building volume 12,000m^3 – 75,000m^3, potentially dusty construction material (such as concrete), on Site concrete batching	Total building volume >75,000m^3, on Site concrete batching, sandblasting
Trackout	<20 HDV (>3.5t) outward movements in any one day, surface material with low potential for dust release, unpaved roads <50m	20-50 HDV (>3.5t) outward movements in any one day, moderately dusty surface material (such as high clay content), unpaved road length 50m – 100m	>50 HDV (>3.5t) outward movements in any one day, potentially dusty surface material (such as high clay content), unpaved road length >100m

Step 2b - Sensitivity of the Area to Construction Dust

Step 2B defines the sensitivity of the area around the development to potential dust impacts. The influencing factors to determine individual receptor sensitivities are shown in Table 7-2.

Table 7-2: Examples of Factors Defining Sensitivity of an Area

Receptor Sensitivity	Examples	
	Human Receptors	**Ecological Receptors**
High	Users expect of high levels of amenity. High aesthetic or value property. People expected to be present continuously for extended periods of time. Locations where members of the public are exposed over a time period relevant to the AQAL for PM_{10}. e.g., residential properties, hospitals, schools, and residential care homes.	Internationally or nationally designated site e.g., Special Area of Conservation.
Medium	Users would expect to enjoy a reasonable level of amenity. Aesthetics or value of their property could be diminished by soiling. People or property wouldn't reasonably be expected to be present here continuously or regularly for extended periods as part of the normal pattern of use of the land e.g., parks and places of work.	Nationally designated site e.g., Sites of Special Scientific Interest.
Low	Enjoyment of amenity would not reasonably be expected. Property would not be expected to be diminished in appearance. Transient exposure, where people would only be expected to be present for limited periods. e.g., public footpaths, playing fields, shopping streets, farmland, short term car parks and roads.	Locally designated site e.g., Local Nature Reserve.

The sensitivity of the area is defined separately for dust soiling impacts, human health impacts and ecological impacts according to the criteria shown in the following tables, derived from IAQM guidance.

Table 7-3: Sensitivity of the Area to Dust Soiling

Receptor Sensitivity	No. of Receptors	Distance from the Source (m)			
		<20	<50	<100	<250
High	>100	High	High	Medium	Low
	10-100	High	Medium	Low	Low
	1-10	Medium	Low	Low	Low
Medium	>1	Medium	Low	Low	Low
Low	>1	Low	Low	Low	Low

Table 7-4: Sensitivity of the Area to Human Health Impacts

Receptor Sensitivity	Annual Mean PM_{10} Concentration	No. of Receptors	Distance from the Source (m)			
			<20	<50	<100	<250
High	>32 µg/m^3	>100	High	High	High	Medium
		10-100	High	High	Medium	Low
		1-10	High	Medium	Low	Low
	28-32 µg/m^3	>100	High	High	Medium	Medium
		10-100	High	Medium	Low	Low
		1-10	High	Medium	Low	Low
	24-28 µg/m^3	>100	High	Medium	Low	Low
		10-100	High	Medium	Low	Low
		1-10	Medium	Low	Low	Low
	<24 µg/m^3	>100	Medium	Low	Low	Low
		10-100	Low	Low	Low	Low
		1-10	Low	Low	Low	Low
Medium	>32 µg/m^3	>10	High	Medium	Low	Low
		1-10	Medium	Low	Low	Low
	28-32 µg/m^3	>10	Medium	Low	Low	Low
		1-10	Low	Low	Low	Low
	24-28 µg/m^3	>10	Low	Low	Low	Low
		1-10	Low	Low	Low	Low
	<24 µg/m^3	>10	Low	Low	Low	Low
		1-10	Low	Low	Low	Low
Low	-	<1	Low	Low	Low	Low

Table 7-5: Sensitivity of the Area to Ecological Impacts

Receptor Sensitivity	Distance from the Source (m)	
	<20	<50
High	High	Medium
Medium	Medium	Low
Low	Low	Low

Step 2c - Risk of Impacts

Step 2c combines the information from Steps 2a and 2b to determine the risk of dust impacts without mitigation (i.e., excluding embedded mitigation), according to the matrices below.

The risk of impacts is determined for each of the 4 activities using the matrices prescribed in the IAQM guidance, as reproduced below:

Table 7-6: Dust Risk Category from Demolition Activities

Receptor Sensitivity	Distance from the Source (m)		
	Large	Medium	Small
High	High	Medium	Medium
Medium	High	Medium	Low
Low	Low	Low	Negligible

Table 7-7: Dust Risk Category from Earthworks and Construction Activities

Receptor Sensitivity	Distance from the Source (m)		
	Large	Medium	Small
High	High	Medium	Low
Medium	Medium	Medium	Low
Low	Low	Low	Negligible

Table 7-8: Dust Risk Category from Trackout Activities

Receptor Sensitivity	Distance from the Source (m)		
	Large	Medium	Small
High	High	Medium	Low
Medium	Medium	Low	Negligible
Low	Low	Low	Negligible

Step 3

Step 3 requires the identification of site-specific mitigation measures within the IAQM guidance to reduce potential dust impacts based upon the relevant risk categories identified in Step 2. For sites with Negligible risk, mitigation measures beyond those required by legislation are not required. However, additional controls may be applied as part of good practice.

Step 4

Once the risk of dust impacts has been determined and the appropriate mitigation measures identified, the final Step is to determine the significance of any residual impacts. For almost all construction activity, the aim should be to control effects using effective mitigation. Experience shows that this is normally possible. Hence the residual effect will normally be not significant.