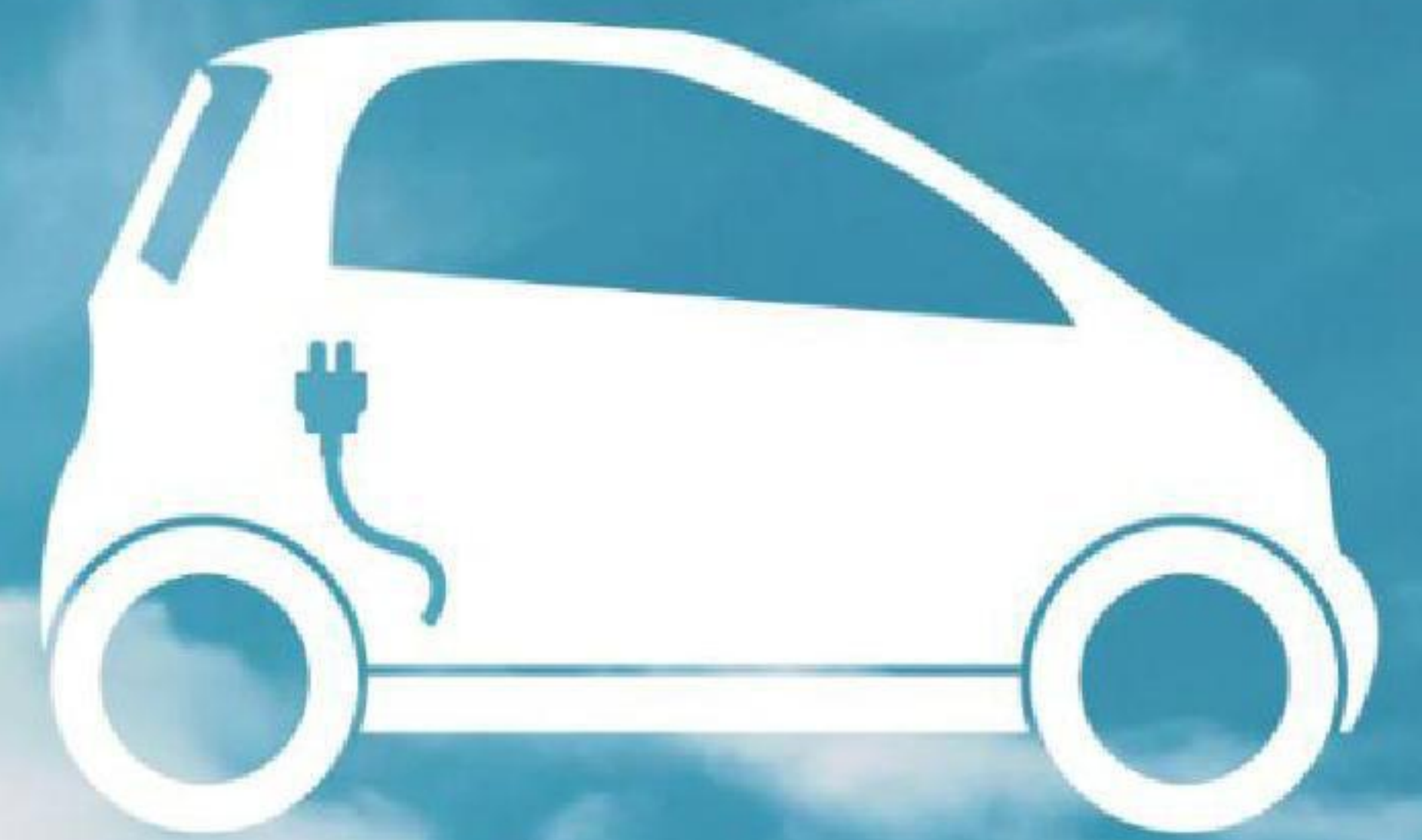




Air Quality Assessment for Land West of Gatesmead

May 2026



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1 Introduction

Aether has been commissioned to undertake an air quality assessment for the proposed residential development located on land at Gatesmead, Haywards Heath, Mid Sussex. The scheme comprises the construction of 49 new homes together with open space and associated infrastructure.

The proposed development lies within the administrative boundary of Mid Sussex District Council (MSDC). While the Council had previously declared one Air Quality Management Area (AQMA) at Stonepound Crossroads in Hassocks, this was formally revoked in December 2024 following five consecutive years of compliance with national air quality objectives.

Given the scale of the development and associated vehicle trips, alongside potential emissions during the construction phase, it remains necessary to consider whether the scheme could give rise to any exceedances of the air quality objectives for nitrogen dioxide (NO₂), particulate matter (PM₁₀), and fine particulate matter (PM_{2.5}), and whether future occupants could be exposed to poor air quality. This assessment therefore evaluates the potential air quality impacts arising from the proposed development and identifies appropriate mitigation where required.

1.1 Assessment Scope

This report describes existing air quality within the study area, assesses the impact of the construction and operation of the development on air quality in the surrounding area and considers the suitability of the site for the proposed development. Potential sources of emissions have been identified and assessed in the context of existing air quality and the nature and location of receptors.

Vehicle movements associated with the construction phase will vary over the build programme, with short-term increases in Heavy Goods Vehicle (HGV) activity associated with the delivery of materials and removal of excavated material. When averaged over a full year (Annual Average Daily Traffic-AADT) and distributed across the local road network, these movements would be substantially lower than peak activity. Access to the site would be taken from Gatesmead and Wickham Way, with construction traffic routing to the wider highway network via local roads in Haywards Heath before joining the strategic road network. On the basis of the scale of the development, construction traffic flows are expected to remain well below the IAQM screening threshold of 100 HGV movements for an assessment to be necessary according to the IAQM guidance. Furthermore, a Construction Environmental Management Plan (CEMP) outlining the measures to control and minimise the risk of adverse effects from construction activities would be expected to accompany the planning application and to be submitted to MSDC for their approval. The CEMP would consider HGV and other construction traffic movements, including details of routing and times of day of movements. Together with the implementation of the CEMP, the construction vehicle movements impact on human health receptors in the area are temporary and considered to be not significant and have therefore been scoped out of this assessment.

The proposed development's energy strategy will be based on non-combustion sources. No centralised gas energy plant or emergency generators are proposed and therefore the proposed development does not include any substantial combustion processes. An assessment of combustion plant emissions has therefore been scoped out of this assessment.

1.2 Pollutants of Concern

The main air pollutants of concern related to construction are dust and particulate matter with an aerodynamic diameter of less than 10 µm (PM₁₀), and for road traffic are nitrogen dioxide (NO₂), PM₁₀ and particulate matter with an aerodynamic diameter of less than 2.5 µm (PM_{2.5}).

The oxides of nitrogen (NO_x) comprise principally of nitric oxide (NO) and NO_2 . NO_2 occurs as a result of the oxidation of NO , which in turn originates from the combination of atmospheric nitrogen and oxygen during combustion processes. NO_2 can also form in the atmosphere due to a chemical reaction between NO and ozone (O_3). Health based standards for NO_x generally relate to NO_2 , where acute and long-term exposure may adversely affect the respiratory system.

Particulate matter is a term used to describe all suspended solid matter, sometimes referred to as Total Suspended Particulate matter (TSP). Sources of particles in the air include road transport, power stations, quarrying, mining and agriculture. Chemical processes in the atmosphere can also lead to the formation of particles. Particulate matter with an aerodynamic diameter of less than $10\text{ }\mu\text{m}$ is the subject of health concerns because of its ability to penetrate deep within the lungs and is known in its abbreviated form as PM_{10} .

A growing body of research has also pointed towards the smaller particles as a metric more closely associated with adverse health impacts. In particular, particulate matter with an aerodynamic diameter of less than 2.5 micrometres, known as $\text{PM}_{2.5}$. Ultimately, Local Authorities in England have a flexible role¹ in working towards reducing emissions and concentrations of $\text{PM}_{2.5}$ as there is no specific objective for them as the responsibility sits with national government.

Further information on the health effects of air pollution can be found in the reports produced by the Committee on the Medical Effects of Air Pollutants².

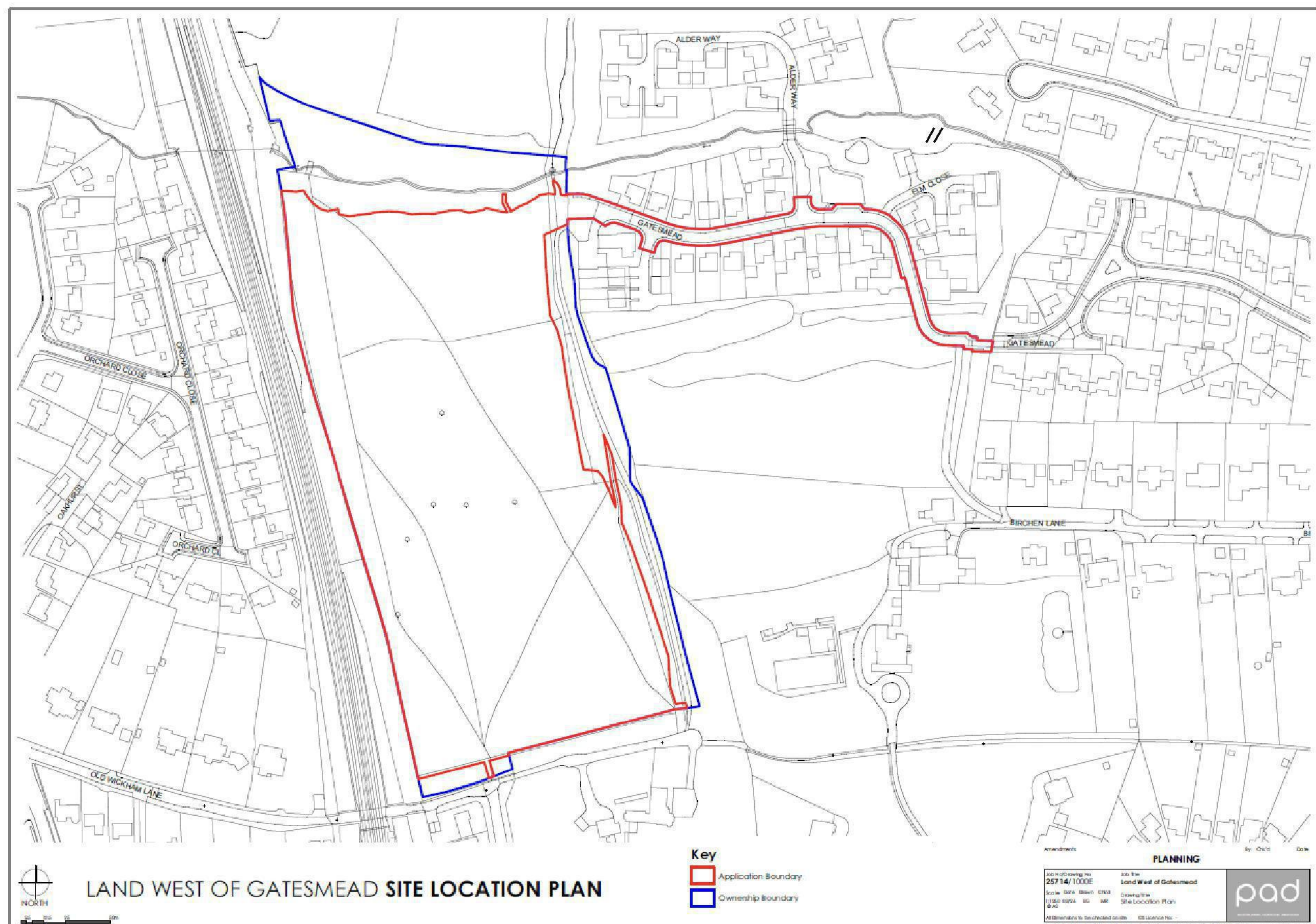
¹ LAQM TG22 – paragraph 1.14 and 1.15 <https://laqm.defra.gov.uk/air-quality/featured/uk-regions-exc-london-technical-guidance/>

² <https://www.gov.uk/government/collections/comeap-reports>

2 Site description

2.1 Site Location

The existing site is located off Gatesmead, on the northern edge of Haywards Heath in Mid Sussex, as shown in Figure 1.



Source: PAD Design drawing 25714_1000E Gatesmead Site Location Plan

Figure 1: Location of the development site

The site occupies an enclosed field off Gatesmead, on the northern edge of Haywards Heath within Mid Sussex District. It is bordered by a mix of land uses, including existing residential development to the south and west, with areas of open countryside and woodland to the north and east. Gatesmead provides the principal local road access, linking to the wider Haywards Heath road network and connecting the town to nearby settlements such as Lindfield and Cuckfield. The site is well integrated into the town and lies within reasonable walking and cycling distance of local amenities including the train station, schools, retail provision, public houses, health facilities, and recreational spaces.

2.2 Site designations

Local authorities are required to review and assess air quality in their areas. Where air quality objectives are unlikely to be met, the authority must declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) to outline how improvements will be achieved.

Mid Sussex District Council had previously declared one AQMA at Stonepound Crossroads, Hassocks, 11 km south-west of the site, due to elevated traffic-related nitrogen dioxide concentrations. However, this AQMA was formally revoked in December 2024 following five consecutive years of compliance with national air quality objectives. The proposed development site at Gatesmead is not located within, or in close proximity to, any declared AQMA.

2.3 Proposed Development Description

The proposed redevelopment of the site involves the construction of 49 residential dwellings, including a mix of house types and tenures, as shown in Figure 2. The layout incorporates a shared surface road network, areas of public open space, sustainable drainage features, and landscaping to integrate the scheme into the surrounding townscape and natural setting. Access will be provided from Gatesmead, with provision for turning areas suitable for refuse and emergency vehicles.

Construction is anticipated to be completed before 2030, subject to planning approval and programme finalisation. The development also includes provision for affordable housing in line with local policy. Parking will be provided on-plot and in designated bays, with cycle storage integrated into private plots where appropriate. The vehicular and cycle parking standards are set out in the Transport Assessment, in accordance with Mid Sussex District Council and West Sussex County Council standards, including electric vehicle charging infrastructure:

- ❶ The site is located in Parking Behaviour Zone 3, where the standard is 0.9 spaces per 1 bed dwelling; 1.3 car parking spaces per 2 bed house; 1.8 spaces per 3 bed house and 2.5 spaces per 4+ bed house
- ❷ Residential cycle parking standards require a minimum of 1 space for one- and two-bedroom houses, 2 spaces for three-bedroom (or larger) houses

One electric vehicle charging point per dwelling will be installed in accordance with The Building Regulations 2010, Part S: Infrastructure for the Charging of Electric Vehicles³.

³ Ridge Transport Scoping Report Land West of Gatesmead, Haywards Heath



Source: PAD Design drawing 25714_5000F Gatesmead Planning Layout

Figure 2: Planning Layout

3 Policy Context

The assessment has been informed by the following legislation, policies and published guidance:

- International Legislation including:
 - The European Air Quality Framework Directive and Daughter Directives^{5,6}, which set out a series of limit values for the protection of human health
- National Legislation and Policy including:
 - Air Quality Standards (Amendment) Regulations 2016⁷, which amended the Standard Regulations 2010⁸
 - The Environment Act⁹
 - Part IV of the Environment Act 1995 (as amended)¹⁰
 - Clean Air Strategy¹¹
 - National Planning Policy Framework (NPPF)¹² and Planning Practice Guidance (PPG)¹³
 - Environmental Improvement Plan 2023¹⁴
 - Regulation 2 of the Environment (Miscellaneous Amendments) (EU Exit) Regulations 2020/1313 (“Environment EU Exit Regulations 2020”)¹⁵
 - Environmental Targets (Fine Particulate Matter) (England) Regulations 2023¹⁶
- National guidance and industry standards, including:
 - Air Quality Strategy for England, Scotland, Wales and Northern Ireland, and updated Air Quality Strategy for England¹⁷ which implements the European Union’s Directives and sets out the air quality objectives (AQOs) and government policy on achieving these objectives¹⁸
 - Local Air Quality Management Technical Guidance 2022 (LAQM.TG(22))¹⁹, which provides advice as to where the national AQOs apply and support to local authorities in carrying out their duties under the Environment Act 1995 and subsequent regulations

⁵ Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe.

⁶ European Air Quality Directive 2004/107/EC. European Air Quality Directive 2004/107/EC of the European Parliament and of the Council of 15 December 2004 relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air.

⁷ Secretary of State, 2016. Statutory Instrument 2016, No. 1184, The Air Quality Standards (Amendment) Regulations 2016. HMSO, London.

⁸ Secretary of State, 2010. Statutory Instrument 2010, No. 1001, The Air Quality Standards Regulations 2010. HMSO, London.

⁹ Secretary of State, 2021. The Environment Act Chapter 30. HMSO

¹⁰ Secretary of State, The Environment Act 1995 part IV Air Quality. HMSO.

¹¹ Department for Environment, Food and Rural Affairs (Defra), 2019. Clean Air Strategy.

¹² Ministry of Housing, Communities and Local Government, 2025. National Planning Policy Framework. HMSO.

¹³ Ministry of Housing, Communities and Local Government, 2019. Planning Practice Guidance. Available from: <https://www.gov.uk/government/collections/planning-practice-guidance>

¹⁴ <https://www.gov.uk/government/publications/environmental-improvement-plan>

¹⁵ <https://www.legislation.gov.uk/uksi/2020/1313/made>

¹⁶ <https://www.legislation.gov.uk/uksi/2023/96/contents/made>

¹⁷ <https://www.gov.uk/government/publications/the-air-quality-strategy-for-england>

¹⁸ Department of the Environment, Transport and the Regions in Partnership with the Welsh Office, Scottish Office and Department of the Environment for Northern Ireland, 2007. The Air Quality Strategy for England, Scotland, Wales, Northern Ireland. HMSO, London.

¹⁹ Defra, 2022. Local Air Quality Management Technical Guidance (England) 2022 (TG22). HMSO. <https://laqm.defra.gov.uk/air-quality/featured/uk-regions-exc-london-technical-guidance/>

- IAQM guidance on Land-Use Planning and Development Control: Planning for Air Quality²⁰
- Institute of Air Quality Management (IAQM) guidance on the Assessment of Dust from Demolition and Construction 2024²¹

3.1 Adopted Local Plan

The Mid Sussex District Plan 2014–2031²² sets out the spatial vision and development strategy for the district, including policies to protect environmental quality, promote sustainable growth, and safeguard public health. Policy DP29: Noise, Air and Light Pollution states:

NOISE, AIR AND LIGHT POLLUTION

The environment, including nationally designated environmental sites, nationally protected landscapes, areas of nature conservation or geological interest, wildlife habitats, and the quality of people's life will be protected from unacceptable levels of noise, light and air pollution by only permitting development where: [...]

1. *"It does not cause unacceptable levels of air pollution.*
2. *Development on land adjacent to an existing use which generates air pollution or odour would not cause any adverse effects on the proposed development or can be mitigated to reduce exposure to poor air quality to recognised and acceptable levels.*
3. *Development proposals (where appropriate) are consistent with Air Quality Management Plans."*

In addition to Policy DP29, Policy DP21: Transport of the Mid Sussex District Plan 2014–2031 is also relevant. Policy DP21 seeks to ensure that development proposals prioritise sustainable and active travel. This policy states:

1. *"A high quality transport network that promotes a competitive and prosperous economy;*
2. *A resilient transport network that complements the built and natural environment whilst reducing carbon emissions over time;*
3. *Access to services, employment and housing; and*
4. *A transport network that feels, and is, safer and healthier to use."*

This policy framework ensures that new development proposals, such as the Gatesmead scheme, are assessed against their potential to affect local air quality and public health, with mitigation required where significant risks are identified.

²⁰ IAQM, 2017. Land-use Planning & Development Control: Planning for Air Quality. V1.2. Institute of Air Quality Management, London. <http://iaqm.co.uk/guidance/>

²¹ IAQM, 2024. IAQM Guidance on the Assessment of Dust from Demolition and Construction, v2.2, Institute of Air Quality Management, London. <http://iaqm.co.uk/guidance/>

²² Mid Sussex District Council (2018) *Mid Sussex District Plan 2014–2031*. Adopted March 2018. Haywards Heath: Mid Sussex District Council. Available at: <https://www.midsussex.gov.uk/planning-building/mid-sussex-district-plan/>

3.2 Mid Sussex Air Quality Strategy

Following the revocation of the Stonepound Crossroads Air Quality Management Area (AQMA) in December 2024, Mid Sussex District Council (MSDC) prepared a new Air Quality Strategy²³ in line with the Government's *Air Quality Strategy: Framework for Local Authority Delivery (2023)*.

As there are no longer any AQMAs within the district, the Strategy sets out how the Council will maintain compliance with national air quality objectives and continue improving air quality across Mid Sussex. Monitoring data indicate that statutory objectives for nitrogen dioxide (NO₂) and other key pollutants are currently being met.

The Strategy outlines the Council's commitment to ongoing monitoring and reporting through Annual Status Reports, integration of air quality considerations into development management decisions, promotion of sustainable transport and electric vehicle infrastructure, and collaborative working through the Sussex Air Quality Partnership.

The approach aligns with the Council's Sustainable Economic Strategy and Net Zero objectives, recognising that transport emissions remain the principal source of local air pollution.

3.3 Air Quality and Emissions Mitigation Guidance for Sussex

In determining planning applications, Mid Sussex District Council applies the Air Quality and Emissions Mitigation Guidance for Sussex (2021), prepared by the Sussex Air Quality Partnership²⁴. This guidance provides a consistent framework across Sussex authorities for assessing air quality impacts from new development and identifying proportionate mitigation.

It requires screening against recognised IAQM/EPUK thresholds, consideration of both construction and operational impacts, and incorporation of measures such as sustainable transport provision and electric vehicle charging infrastructure where appropriate. The Gatesmead development has been assessed in accordance with this guidance, and the proposed mitigation measures are consistent with its requirements.

²³ Mid Sussex District Council (2025) *Mid Sussex Air Quality Strategy 2025–2030*. Haywards Heath: Mid Sussex District Council.

²⁴ Sussex Air Quality Partnership (2021) *Air Quality and Emissions Mitigation Guidance for Sussex*. Available at: <https://www.sussex-air.net>.

4 Methodology

4.1 Assessment Criteria

A summary of the AQOs relevant to the proposed development, as set out in the UK Air Quality Strategy²⁵ and Air Quality Standards Regulations 2010 (as amended by the Environment (Miscellaneous Amendments) (EU Exit) Regulations 2020²⁶), is presented in Table 1 below.

Table 1: UK Air Quality Objectives for NO₂ and PM₁₀ and target for PM_{2.5}

Pollutant	Concentration	Measured as
NO ₂	40 µg/m ³	Annual mean
	200 µg/m ³	Hourly mean not to be exceeded more than 18 times per year (99.8 th percentile)
PM ₁₀	40 µg/m ³	Annual mean
	50 µg/m ³	24 hour mean not to be exceeded more than 35 times a year (90.4 th percentile)
PM _{2.5}	20 µg/m ³	Annual mean

In January 2023, a legally binding PM_{2.5} Annual Mean Concentration Target (AMCT) and a legally binding Population Exposure Reduction Target (PERT) were prescribed in the Environmental Targets (Fine Particulate Matter) (England) Regulations 2023²⁷ pursuant to the Environment Act 2021. These statutory targets require that by 31 December 2040:

- Annual average of 10 µg/m³ not to be exceeded at any monitoring station.
- Population exposure at least 35% lower than in 2018.

The Environmental Improvement Plan²⁸ set interim targets to be met by 31 January 2028, specifically:

- An annual mean PM_{2.5} concentration target of 12 µg/m³.
- A 22% reduction in population exposure compared to 2018.

The 2025 Environmental Improvement Plan²⁹ updates and accelerates interim ambition by committing to achieve the following by December 2030:

- Annual mean PM_{2.5} concentration target of 10 µg/m³.
- A 30% reduction in population exposure compared to 2018.

²⁵ Department for Environment, Food and Rural Affairs. Air Quality Strategy – Framework for Local Authority Delivery. 2023.
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1180706/Air_Quality_Strategy_Web.pdf

²⁶ Statutory Instrument 2020, No. 000, The Environment (Miscellaneous Amendments) (EU Exit) Regulations 2020.

²⁷ Statutory Instrument 2023, No. 96, The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023.

²⁸ Defra, 2023. Environmental Improvement Plan 2023. Available from:
<https://www.gov.uk/government/publications/environmental-improvement-plan/environmental-improvement-plan-2023-executive-summary>

²⁹ Defra, 2025. Environmental Improvement Plan 2025. Available from:
<https://www.gov.uk/government/publications/environmental-improvement-plan-2025/environmental-improvement-plan-eip-2025#chapter-2-environmental-quality>

Analysis of long-term monitoring data³⁰ suggests that if the annual mean NO₂ concentration is less than 60 µg/m³ then the one-hour mean NO₂ objective is unlikely to be exceeded where road transport is the main source of pollution; this concentration has been used in this assessment to screen whether the one-hour mean objective is likely to be achieved. Similar to NO₂, a PM₁₀ annual mean below 32 µg/m³ is used to screen whether the 24-hour PM₁₀ mean objective is likely to be achieved.

As defined by the regulations, the AQOs for the protection of human health are applicable outside of buildings (or other natural or man-made structures above or below ground) and where members of the public are regularly present. AQOs do not apply in workplace locations, to internal air or where people are unlikely to be regularly exposed (i.e., centre of roadways). Guidance on where the AQOs should and should not apply is provided within LAQM.TG (22), as detailed in Table 2.

Table 2: Locations where the AQOs should and should not generally apply

Averaging Period	Objectives Should Apply at	Objectives Should Generally Not Apply at
Annual mean	All locations where members of the public might be regularly exposed. Building façades of residential properties, schools, hospitals, care homes etc.	Building façades of offices or other places of work where members of the public do not have regular access. Hotels, unless people live there as their permanent residence. Gardens of residential properties.
24-hour mean	All locations where the annual mean objective would apply, together with hotels. Gardens of residential properties.	Kerbside sites (as opposed to locations at the building façade), or any other location where public exposure is expected to be short-term.
1-hour mean	All locations where the annual mean and: 24 and 8-hour mean objectives apply. Kerbside sites (for example, pavements of busy shopping streets). Those parts of car parks, bus stations and railway stations etc. which are not fully enclosed, where members of the public might reasonably be expected to spend one hour or more. Any outdoor locations where members of the public might reasonably expect to spend one hour or longer.	Kerbside sites where the public would not be expected to have regular access.

4.2 Air Quality Objectives Applicable to the Proposed Development

Since the intended use for the site is residential, the annual mean, 24-hour and 1-hour mean objectives will all apply.

4.3 Baseline

The baseline air quality within in the vicinity of the site was established based on review of relevant monitoring data. Data was obtained from the following sources:

³⁰ Defra, 2022. Local Air Quality Management Technical Guidance (England) 2022 (TG22). HMSO.

- Air quality monitoring conducted by Mid Sussex District Council and West Sussex County Council, detailed in their latest Annual Status Reports (ASRs), has been used to inform this assessment.
- National background pollution maps published by Defra³¹. These cover the whole country on a 1x1 km grid.

4.4 Construction Impacts

The IAQM Guidance on the Assessment of Dust from Demolition and Construction³² contains a methodology for determining the significance of construction developments on local air quality using a simple four step process:

- STEP 1: Screen the requirement for a more detailed assessment
- STEP 2: Assess the risk of dust impacts
- STEP 3: Determine any required site-specific mitigation
- STEP 4: Define post mitigation effects and their significance.

The risk of dust emissions from a demolition and construction activities is related to a number of factors, including: the activities being undertaken and proximity to sensitive receptors; the duration of these activities; the size of the site; the mitigation measures implemented and meteorological conditions. Receptors include both ‘human receptors’ and ‘ecological receptors’.

The guidance recommends that no assessment of the significance of effects is made without mitigation in place, as mitigation is assumed to be secured by planning conditions, legal requirements or required by regulations. With appropriate mitigation in place, the effect of demolition and construction impacts on air quality is assessed as not significant. The purpose of the construction dust assessment is therefore to identify the appropriate level of mitigation to employ.

4.5 Operational impacts

4.5.1 Road traffic emissions

Emissions associated with vehicles flows generated by the proposed development were assessed following IAQM guidance. The guidance provides indicative criteria for when an air quality assessment might be required:

- A change of Light Duty Vehicles (LDVs) flows of more than 100 Annual Average Daily Traffic (AADT) within or adjacent to an AQMA or more than 500 AADT elsewhere
- A change of Heavy-Duty Vehicles (HDVs) flows of more than 25 AADT within or adjacent to an AQMA or more than 100 AADT elsewhere.

If traffic from a development exceeds these levels, then it does not necessarily mean that a detailed modelling assessment is required, only that air quality impacts of traffic require more detailed consideration.

Traffic flows associated with the proposed development were compared against the IAQM criteria to determine whether they would result in significant increases in traffic on the local road network.

³¹ Defra, 2024. 2021 Based Background Maps for NO_x, NO₂, PM₁₀ and PM_{2.5}. Available from: <https://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html>

5 Baseline Assessment

This section provides an overview of the local data available for use in the assessment.

Local authorities are required to periodically review and assess air quality within their boundaries. The application site lies within the administrative area of MSDC, which operates a network of nitrogen dioxide (NO₂) diffusion tubes across the district. In Haywards Heath, relevant monitoring is undertaken at South Road and other town-centre locations, providing roadside and kerbside measurements in areas subject to higher traffic flows.

5.1 Nitrogen Dioxide

To inform the assessment, nitrogen dioxide (NO₂) diffusion tube monitoring data from MSDC’s network have been considered. Data reported in the Mid Sussex District Council 2024 Air Quality Annual Status Report³³ include roadside monitoring at South Road, Haywards Heath, which provides a representative indication of conditions in the town.

While these sites are not located in the immediately proximity to Gatesmead, they represent the nearest routinely monitored locations under Local Air Quality Management (LAQM) procedures. Given their urban setting at roadside locations with expected higher traffic flows, they provide a conservative comparator when assessing conditions at the proposed development site, which is set back from the main road network and subject to lower traffic exposure.

A summary of the closest monitoring locations is shown in Figure 3 and described in Table 3.

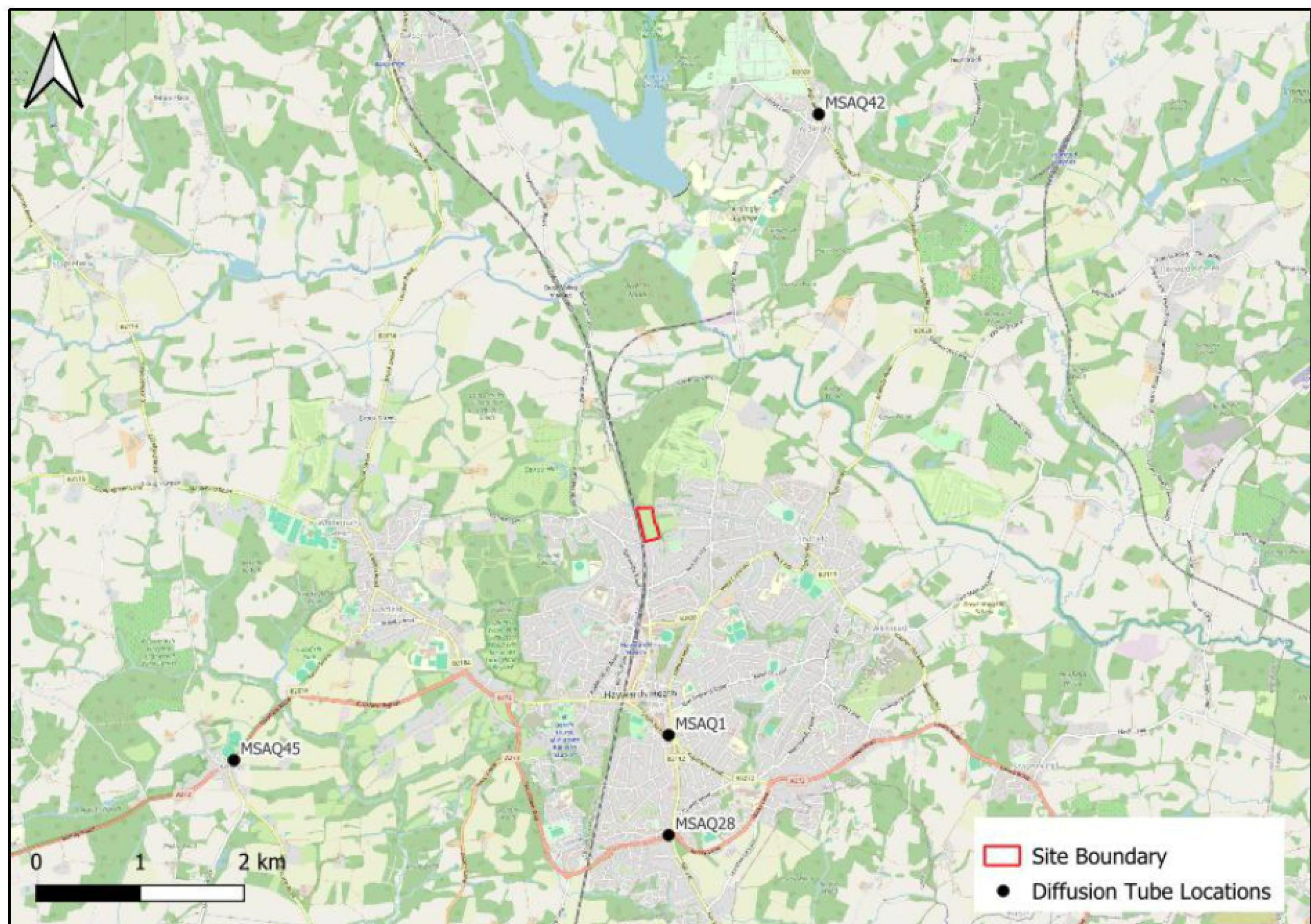
Table 3: Measured NO₂ concentrations in proximity to the development site

Site Name	Site Type	NO ₂ Annual Mean (µg/m ³)				
		2020	2021	2022	2023	2024
MSAQ1- South Road Haywards Heath	R	12.7	14.8	14.4	12.9	12.3
MSAQ28- Lamp Post Rocky Lane Haywards Heath	S	22.2	22.4	24.5	21.4	21.0
MSAQ42- 20 High Street Ardingly	R	-	21.4	20.6	18.6	18.0
MSAQ45 - Telegraph Pole Cuckfield Road Ansty	R	-	-	-	35.0	32.6
AQO		40				

Note: R = roadside S- Suburban

Between 2020 and 2024, NO₂ concentrations recorded at roadside and suburban diffusion tube monitoring sites in Haywards Heath consistently remained below the annual mean AQO of 40 µg/m³. These sites, are located in a mixture of locations, such as adjacent to busy roads in the urban centre of Haywards Heath, where traffic flows and population exposure are significantly higher than at the proposed rural development site in Gatesmead.

³³ [2025 Air Quality Annual Status Report](https://www.sussex-air.net/wp-content/uploads/2025/09/Mid-Sussex-ASR-2025.pdf) https://www.sussex-air.net/wp-content/uploads/2025/09/Mid-Sussex-ASR-2025.pdf



Contains Open Street Maps data

Figure 3: Monitoring locations within the vicinity of the site*.

*This is an indicative site boundary that was not updated to match the final boundary since it does not affect the assessment outcome.

5.2 Particulates (PM₁₀ and PM_{2.5})

There are no automatic air quality monitoring stations located within the immediate vicinity of the proposed development at Gatesmead. Mid Sussex District Council does not operate any automatic monitoring sites within the proximity of the site, and none are located near the application site. In particular, no direct measurements of particulate matter (PM₁₀ or PM_{2.5}) are recorded locally.

5.3 Background mapped data

Background concentrations are those levels that would be observed away from specific sources such as roads and industry. Background pollutant concentration maps are available from the Defra LAQM website³⁴. These 2021 baseline, 1 kilometre grid resolution maps are derived from a complex modelling exercise that takes into account emissions inventories and measurements of ambient air pollution from both automated and non-automated sites.

The estimated mapped background NO₂, PM₁₀ and PM_{2.5} concentrations at the development site in 2024 and projected concentrations for 2030 (estimated year of completion) are presented in Table 4.

³⁴ Defra, 2024. 2021 Based Background Maps for NO_x, NO₂, PM₁₀ and PM_{2.5}. Available from: <https://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html>

Table 4: Defra’s Projected Mapped Annual Mean Background Concentrations (µg/m³)

Year	Grid Ref	Annual Mean (µg/m³)		
		NO ₂	PM ₁₀	PM _{2.5}
2024	533500, 125500	8.5	10.0	6.4
2030		8.8	6.9	6.0
AQO/Target		40	40	20/10*

* 2030 target in line with Environmental Targets (Fine Particulate Matter) (England) Regulations 2024³⁵

The background concentrations are all below the relevant objectives and target.

5.4 Conclusions

The development site is located in a semi-rural setting on the northern edge of Haywards Heath. The surrounding area comprises a mix of residential development and open countryside, and the site is not immediately adjacent to any significant emission sources. The nearest classified roads are the B2112 (Balcombe Road) and the B2115, which experience moderate traffic flows typical of the town, but not at levels associated with significant exceedances of air quality objectives.

Measured concentrations within Haywards Heath town centre, including those recorded at diffusion tubes along South Road, are consistently below the relevant Air Quality Objectives (AQOs) for nitrogen dioxide (NO₂). These roadside sites represent conservative, worst-case conditions due to higher traffic flows and congestion compared with the Gatesmead site, which lies further from the town centre and main road network.

In contrast, pollutant concentrations at the application site are expected to be more closely represented by Defra background mapping data for Mid Sussex, which indicate annual mean concentrations of NO₂, PM₁₀ and PM_{2.5} comfortably below the relevant AQOs. These values confirm that pollutant levels at the development site are not expected to pose a risk to future occupants.

Future concentrations are projected to decline further as a result of national and local policy interventions, improvements in vehicle emissions technology, and wider adoption of clean transport. Based on the evidence available, air quality across the development site is expected to remain comfortably below the AQOs throughout the operational lifetime of the development.

The Gatesmead site is not located within, or in close proximity to, any AQMA and is situated away from major roads or significant industrial sources of air pollution. Local air quality is generally good, supported by background monitoring data reported in MSDC’s 2024 Air Quality Annual Status Report.

³⁵ Statutory Instrument 2024, No. 96, The Environmental Targets (Fine Particulate Matter) (England) Regulations 2024.

6 Construction Phase Assessment

Emissions and dust from the demolition and construction phase of a development can have a significant impact on local air quality. The main air quality impacts that may arise during demolition and construction activities are:

- Amenity loss and annoyance resulting from dust deposition and soiling
- Visible dust plumes, which are evidence of dust emissions
- Elevated PM₁₀ concentrations, as a result of dust generating activities on site
- An increase in concentrations of airborne particles and nitrogen dioxide due to exhaust emissions from diesel powered vehicles and equipment used on site (non-road mobile machinery) and vehicles accessing the site.

The following activities have the potential to cause emissions of dust:

- Site preparation including delivery of construction material, erection of fences and barriers
- Earthworks including digging foundations and landscaping
- Materials handling such as storage of material in stockpiles and spillage
- Construction and fabrication of units
- Disposal of waste materials off-site.

Typically, the main cause of unmitigated dust generation on construction sites is from demolition and vehicles using unpaved haul roads, and off-site from the suspension of dust from mud deposited on local roads by construction traffic. The main determinants of unmitigated dust annoyance are the weather and the distance to the nearest receptor.

Receptors include both 'human receptors' and 'ecological receptors'. A 'human receptor', as defined by the IAQM Guidance³⁶, refers to any location where a person or property may experience the adverse effects of airborne dust or dust soiling, or exposure to PM₁₀ over a time period relevant to the air quality objectives. The guidance states that this will most likely refer to dwellings but may apply to other premises. Ecological receptors are defined as any sensitive habitat affected by dust soiling, through both direct and indirect effects.

6.1 Construction Dust

The assessment of potential construction dust impacts will follow the guidance published by the Institute of Air Quality Management (IAQM) on assessment of dust from demolition and construction.

During the demolition and construction stage, the main potential effects are dust annoyance and locally elevated concentrations of PM₁₀. There is the potential for significant impacts during construction at sensitive receptors within 250 m of the development site. The most significant impacts are likely to occur at those receptors closest to the site including residential properties within the proximity of the site.

6.2 Dust Risk Assessment

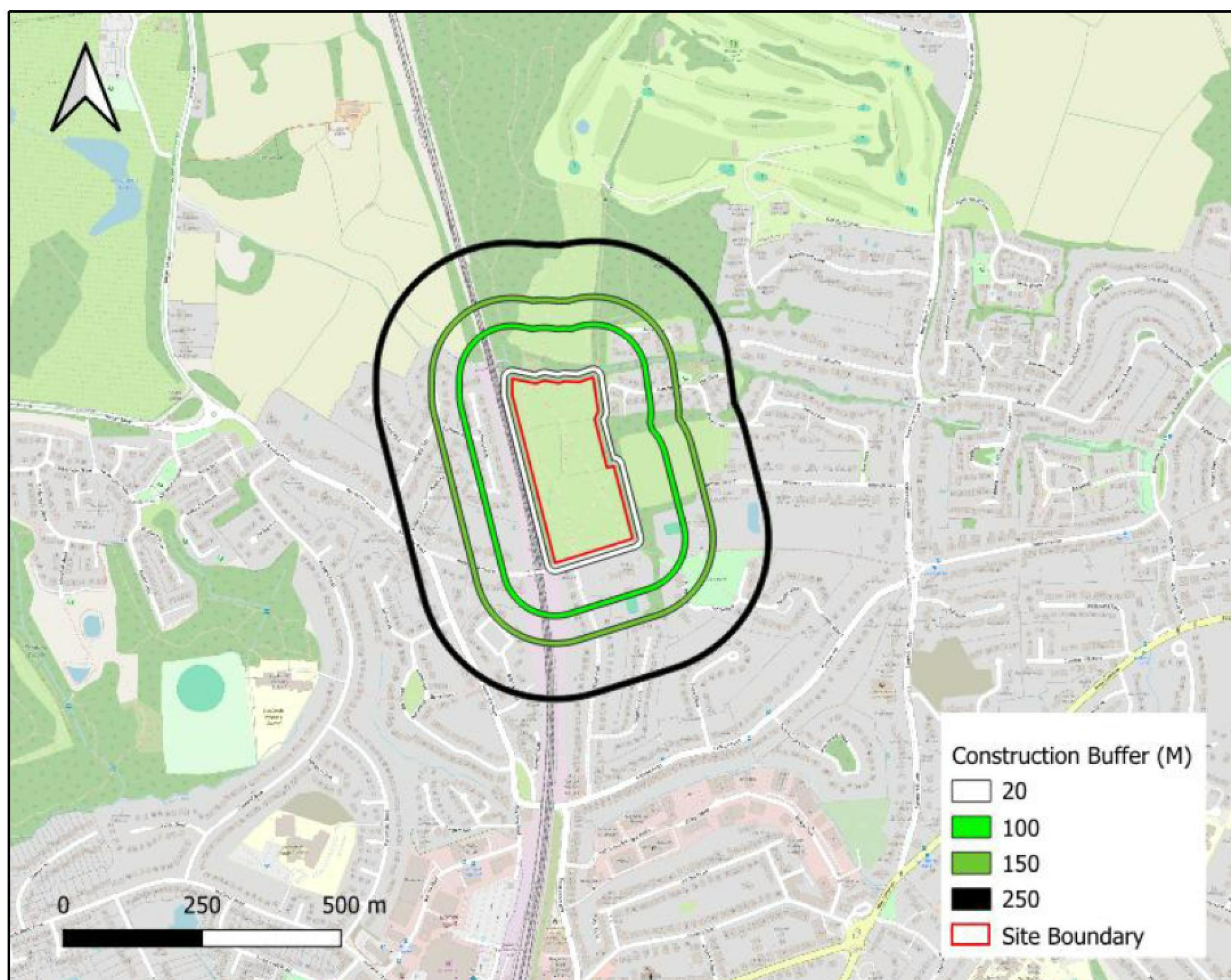
STEP 1: Screen the requirement for a more detailed assessment

The site is located to the west of Gatesmead on the northern edge of Haywards Heath, from which access would be provided. It comprises undeveloped land with a total site area of approximately [

³⁶ IAQM, 2024. IAQM Guidance on the Assessment of Dust from Demolition and Construction, Institute of Air Quality Management, London. <http://iaqm.co.uk/guidance/>

4.5 hectares, including the proposed access. The immediate surroundings are characterised by a mix of residential properties to the south and west, with areas of open countryside and woodland to the north and east. The site is not adjacent to any major road corridors or industrial land uses.

Given the semi-rural context and the limited number of sensitive human receptors in close proximity to the construction site boundary, the risk of significant construction dust impacts is considered to be low. Nevertheless, in accordance with Institute of Air Quality Management (IAQM) guidance, a qualitative construction dust risk assessment has been undertaken to identify appropriate best-practice mitigation measures. No designated ecological receptors are located within 50 metres of the site boundary, and therefore ecological impacts associated with construction dust emissions are not considered further in this assessment.



Contains Open Street Maps data

Figure 4: The location of the proposed development site (red) and potential receptors within 20m, 50m, 100m and 250m*

**This is an indicative site boundary that was not updated to match the final boundary since it does not affect the assessment outcome*

STEP 2: Assess the risk of dust impacts

Using the evaluation criteria within the IAQM's Guidance, the potential dust emission magnitude has been identified for each stage of the Proposed Development, as shown in Table 5.

Table 5: Dust Emission Magnitude

Activity	Dust Emission Magnitude	Justification
Demolition	N/A	No demolition activities will occur
Earthworks	Medium	The site area is approximately 4.5ha (<45,000m ²) of gentle sloping grassland
Construction	Medium	The site developable area is approximately 4.5ha. Total building volume expected to be 12,000 m ³ – 75,000 m ³
Trackout	Small	No more than <20 outward HGV movements expected per day.

The next stage of the process is to define the sensitivity of the assessment area to dust soiling and human health and ecological impacts. Residential dwellings are “high” sensitivity receptors. Commercial and industrial sites as well as short-term car parks are considered to be of “medium” sensitivity to dust soiling. Locally designated conservation areas are considered “low” sensitivity ecological receptors, whereas Sites of Special Scientific Interest would be classed as “medium” sensitivity receptors. This process combines the sensitivity of the receptor with distance from the source to determine the overall sensitivity as summarised in Table 6.

Table 6: Sensitivity of the area to dust impacts

Sensitivity to Dust Soiling	Sensitivity to Human Health Impacts
High – 10-100 high sensitivity residential receptors within 20 m of the site. Residential properties to the east and south of the site.	Low - 10-100 high sensitivity receptors within 50 m of the site and background PM ₁₀ concentrations are below 24 µg/m ³ .

The dust emission magnitude determined in Table 5 has been combined with the sensitivity assessment in Table 6 to define the risk of impacts for each construction activity of the Proposed Development in the absence of mitigation, as shown in Table 7.

Table 7: Summary of the dust risk impacts for the proposed development

Sensitivity of Surrounding Area to Impacts	Dust Emission Magnitude			
	Demolition (N/A)	Earthworks (Small)	Construction (Medium)	Trackout (Small)
Dust Soiling (High)	N/A	Low risk	Medium risk	Low risk
Human Health (Low)	N/A	Negligible	Negligible	Negligible

The overall maximum dust risk from the proposed development is predicted to be **Medium**. This is due to the high sensitivity of the residential receptors in the surrounding area.

The highest risk category should be applied to determine which mitigation measures are applicable. Therefore, the general mitigation measures applicable to a **Medium risk site** should be applied.

6.3 Mitigation

STEP 3 and 4: Determine any required site-specific mitigation and define post mitigation effects and their significance

Step 2 identifies that the development is a **medium risk site**. The following best practice measures for medium risk sites will help to reduce the impact of the construction activities to an acceptable level from the IAQM guidance are recommended. These measures should be included in the Construction Environmental Management Plan (CEMP):

Communication

- Develop and implement a stakeholder communications plan.
- Display the name and contact details of persons accountable on the site boundary.
- Display the head or regional office information on the site boundary.

Management

- Develop and implement a dust management plan.
- Record all dust and air quality complaints, identify causes and take measures to reduce emissions.
- Record exceptional incidents and action taken to resolve the situation.
- Carry out regular site inspections to monitor compliance with the dust management plan and record results.
- Increase site inspection frequency during prolonged dry or windy conditions and when activities with high dust potential are being undertaken.
- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as possible.
- Erect solid screens or barriers around dusty activities or the site boundary at least as high as any stockpile on site.
- Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period.
- Avoid site run off of water or mud.
- Keep site fencing, barriers and scaffolding clean using wet methods.
- Remove potentially dusty materials from site as soon as possible.
- Cover, seed or fence stockpiles to prevent wind whipping.
- Ensure all vehicles switch off engines when stationary.
- Avoid the use of diesel or petrol powered generators where possible.
- Produce a Construction Logistics Plan to manage the delivery of goods and materials.
- Only use cutting, grinding and sawing equipment with dust suppression equipment.
- Ensure an adequate supply of water on site for dust suppressant.
- Use enclosed chutes and conveyors and covered skips.
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use water sprays on such equipment where appropriate.
- Ensure equipment is readily available on site to clean up spillages of dry materials.
- No on-site bonfires and burning of waste materials on site.

Earthworks

- Re-vegetate earthworks and exposed areas /soil stockpiles to stabilise surfaces as soon as practicable.
- Only remove the cover in small areas during work and not all at once.

Demolition

- Incorporate soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).
- Ensure water suppression is used during demolition operation.
- Avoid explosive blasting, using appropriate manual and mechanical alternatives.

- Bag and remove any biological debris or damp down such material before demolition.

Construction

- Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless required for a particular process.
- Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored silos with suitable emissions control systems.

Trackout

- Use water assisted dust sweepers on the site access and local roads.
- Avoid dry sweeping of large areas.
- Ensure vehicles entering and leaving the site are covered to prevent escape of materials.
- Record inspection of on-site haul routes and any subsequent action, repairing as soon as reasonably practicable.
- Install hard surfaced haul routes which are regularly damped down.
- Install a wheel wash with a hard-surfaced road to the site exit where site layout permits.
- The site access gate to be located at least 10m from receptors where possible.

7 Operational Phase Assessment

7.1 Impact of the development

7.1.1 Building emissions

The proposed development strategy for up to 55 new dwellings at Gatesmead is not expected to involve the use of large combustion-based heating systems. Instead, the scheme is anticipated to incorporate low-emission technologies, including electric heating systems and/or air source heat pumps, in line with emerging energy efficiency standards and sustainability goals.

As a result, it can be concluded that building-related emissions will be minimal and will not contribute to a deterioration in local air quality.

7.1.2 Transport emissions

To assess the potential contribution of traffic-related emissions associated with the proposed development at Gatesmead, business as usual trip generation has been estimated using industry-standard data from the TRICS³⁷ database, by the project's Transport consultant Ridge³⁸. This method derives trip rates from comparable residential developments and applies them to the proposed 55 dwellings within the scheme.

The development-only traffic flows indicate a maximum two-way Annual Average Daily Traffic (AADT) increase of 307 vehicle movements on the local road network, with lower increases of 277 AADT heading south and 30 AADT heading north on Portsmouth Lane. The vast majority of these trips comprise light-duty vehicles, with only up to three heavy-duty vehicle movements per day predicted.

These flows represent the total daily activity associated with the development and therefore provide a robust basis for assessment without the need for further factoring from peak-hour surveys. All predicted increases are well below the IAQM/EPUK screening threshold of 500 AADT that would normally trigger the requirement for detailed dispersion modelling.

Given the scale of the traffic increases, the predominantly light-vehicle composition, and the location of the site outside of any Air Quality Management Area and away from heavily trafficked road corridors, the operational phase traffic generated by the development is not expected to result in significant localised air quality effects.

7.2 Site Suitability

The proposed development at Land west of Gatesmead will introduce approximately 55 new residential dwellings, comprising a mix of house types and tenures. The site consists of undeveloped land on the northern edge of Haywards Heath and is currently unoccupied. As such, the development will introduce new sensitive receptors (i.e. future residents) into an area where there are presently no residential occupants within the site boundary.

As outlined in Section 5, the closest air quality monitoring data available are from urban roadside and kerbside locations in Wickham, which record nitrogen dioxide (NO₂) levels well below national

³⁷ TRICS Consortium, 2025. *TRICS Database v7.9.1 – Trip Rate Information Computer System*. [online] Available at: <https://www.trics.org>

³⁸ 5029426 - Land West of Gatesmead - Transport Scoping Report - P02

Air Quality Objectives (AQOs), despite being exposed to higher traffic volumes and congestion than the Gatesmead site. In addition, background concentrations derived from Defra's LAQM³⁹ maps for the grid square encompassing the site indicate that pollutant levels for NO₂, PM₁₀ and PM_{2.5} are also well below objective thresholds. Given the site's rural context, distance from significant sources of emissions, and the forecast modest traffic generation associated with the development (as outlined in Section 6.1.2), it is reasonable to conclude that future residents will not be exposed to pollutant levels exceeding health-based limits.

7.3 Emissions mitigation statement

In line with the Sussex air quality and emissions mitigation guidance⁴⁰, an assessment of emissions and calculation of the cost of the development to the environment has been carried out.

To determine the air quality emissions cost of the proposed development to the environment, hereafter referred to as damage cost, the trip generation of the development has been input into the Defra missions Factors Toolkit (EFT)⁴¹ and the annual NO_x and PM_{2.5} emissions calculated for a 2030 opening year assuming a speed of 50 kph and a distance travelled of 10 km. The calculated annual emissions have been input into Defra's Damage Cost Appraisal Toolkit⁴² for a five-year period with an appraisal year for the latest available costs of 2025. The NO_x and PM_{2.5} emissions were assumed to remain at 2030 levels for the 5 years' period.

Table 8: Transport Emission development offsetting payment calculation

Emissions type	Emissions (kg/year)	Type Pollutant Sector	5 years' Damage Cost central value
Transport NO _x emissions	103.3	NO _x Road Transport	£6,214
Transport PM _{2.5} emissions	18.6	PM _{2.5} Road Transport	£8,097
Total offsetting amount			

The annual increase in emissions is calculated to be 103 kg NO_x and 18.6 kg PM_{2.5}. The total calculated damage costs for 5 years is £14,311 or £2,862 per year.

7.4 Mitigation Measures

The proposed development at Gatesmead is not anticipated to result in significant air quality impacts during its operational phase. As demonstrated in Sections 5 and 6.2, the site is located in a rural setting away from major sources of pollution, and projected traffic generation falls below recognised thresholds for detailed modelling. As such, no specific air quality mitigation measures are required to protect future occupants or the surrounding environment.

The damage cost is used to determine the appropriate level of mitigation, which is required to help avoid, minimise and/or off-set the impact on air quality as a result of increased transport emissions. The mitigation value should be integrated into the scheme (on-site), and, where this is not possible, the Local Planning Authority might require this through a planning condition(s) or seek contribution

³⁹ Department for Environment, Food and Rural Affairs (Defra), 2023. Local Air Quality Management (LAQM) Background Maps – 2021-based Projections. [online] Available at: <https://uk-air.defra.gov.uk/data/laqm-background-home>

⁴⁰ [Sussex-air :: Promoting better Air Quality in Sussex :: sussex-air.net :: Air Quality Guidance Planning](https://www.sussex-air.net)

⁴¹ <https://laqm.defra.gov.uk/air-quality/air-quality-assessment/emissions-factors-toolkit/>

⁴² <https://www.gov.uk/government/publications/assess-the-impact-of-air-quality>

to wider air quality mitigation measures through a section 106 agreement. To align with best practice and support wider sustainability and health objectives, the proposed development has incorporated sustainability measures and air quality mitigation measures into its site design. To further reduce the impacts of traffic associated with the development, the following measures in the excess of £14,311 are being proposed:

- Provision of cycle parking
- Provision of electric vehicle (EV) charging points
- Implementation of a Travel Plan
- Improve active travel routes to the closest bus stops and to railway station and introduce new facilities, such as including the installation of dropped kerbs and tactile paving to enhance accessibility and connectivity
- Landscape strategy creating separation barrier between emission sources and receptors, promoting pollutant deposition, thereby reducing exposure at nearby sensitive receptors

These measures are intended to encourage active travel and the use of low-emission transport options, thereby contributing to broader local and national goals to reduce transport-related emissions.

In addition, the layout and design of the scheme further help to minimise potential exposure. Residential units are positioned away from the main access roads and are set back within the site, benefitting from separation distance from vehicle movements. This layout supports lower exposure to traffic-related pollutants, recognising that concentrations of pollutants such as NO₂ and PM decrease rapidly with distance from the emission source.

8 Summary

This report presents an air quality assessment for the proposed residential development at Gatesmead, Haywards Heath, Mid Sussex.

The site lies within the administrative boundary of Mid Sussex District Council (MSDC). The Council previously declared an Air Quality Management Area (AQMA) at Stonepound Crossroads, Hassocks; however, this designation was revoked in December 2024 following five consecutive years of compliance with the air quality objectives. The application site is not located within, or in close proximity to, any current AQMA and is not adjacent to any significant sources of pollution such as heavily trafficked roads or industrial uses.

A qualitative assessment of construction-phase dust has been undertaken. In the absence of mitigation, construction activities have the potential to generate fugitive dust emissions; however, given the scale of the development and the local context, the risk is considered to be medium. Appropriate best-practice mitigation measures will be secured through a Construction Environmental Management Plan (CEMP). Construction traffic associated with the development is predicted to remain well below the IAQM screening threshold of 100 HGV movements per day, and with mitigation in place, construction dust and traffic emissions are not expected to result in significant effects on nearby receptors.

The proposed development comprises 49 residential dwellings and is predicted to generate a maximum of 307 two-way vehicle movements per day on the local network, which is below the IAQM/EPUK threshold of 500 AADT that would trigger the need for detailed dispersion modelling. As such, no significant operational air quality impacts are expected.

The energy strategy for the development is based on an all-electric approach, with space heating and hot water provided by air source heat pumps and no on-site combustion plant. Building-related emissions will therefore be negligible and will not adversely affect local air quality.

Baseline conditions have been characterised using MSDC diffusion tube monitoring data, including sites on South Road, Haywards Heath, which represent conservative roadside locations subject to higher traffic flows than the application site. These monitoring data indicate that annual mean nitrogen dioxide (NO₂) concentrations are below the relevant Air Quality Objective. In addition, Defra background mapped concentrations for NO₂, PM₁₀ and PM_{2.5} at the site are well below the applicable objectives and are projected to decline further over time due to improvements in vehicle emissions and national policy measures.

The proposed development at Land west of Gatesmead is not expected to result in significant adverse air quality effects, and future occupants will not be exposed to pollutant concentrations exceeding national objectives. No additional mitigation beyond standard best practice is considered necessary.

In conclusion, there are no air quality constraints to the proposed development. The scheme accords with adopted Local Plan Policy DP29 and national air quality policy and is considered acceptable in air quality terms.

Appendix A Dust Risk Assessment Methodology

Determining Dust Emission Magnitude

Large	Medium	Small
Demolition		
- total building volume >75,000 m³ - potentially dusty construction material (e.g. concrete) - on-site crushing and screening - demolition activities >12m above ground level	- total building volume 12,000 m³ – 75,000 m³ - potentially dusty construction - demolition activities 6-12m above ground level	- total building volume <12,000 m³ - construction material with low potential for dust release (e.g. metal cladding or timber) - demolition activities <6m above ground - during wetter months
Earthworks		
- total site area >110,000m² - potentially dusty soil type (e.g. clay, which will be prone to suspension when dry due to small particle size) >10 heavy earth moving vehicles active at any one time - formation of bunds >6m in height	- total site area 18,000m² - 110,000m² - moderately dusty soil type (e.g. silt) 5-10 heavy earth moving vehicles active at any one time - formation of bunds 3m - 6m in height	- total site area <18,000m² - soil type with large grain size (e.g. sand) <5 heavy earth moving vehicles active at any one time - formation of bunds <3m in height
Construction		
- total building volume >75,000 m³ - on-site concrete batching - sandblasting	- total building volume 12,000 m³ – 75,000 m³ - potentially dusty construction material (e.g. concrete) - on-site concrete batching	- total building volume <12,000 m³ - construction material with low potential for dust release (e.g. metal cladding or timber)
Trackout		
>50 HGV (>3.5t) movements in any one day - potentially dusty surface material (e.g. high clay content) - unpaved road length >100m	20-50 HGV (>3.5t) movements in any one day - moderately dusty surface material (e.g. high clay content) - unpaved road length 50m – 100m	<20 HGV (>3.5t) movements in any one day - surface material with low potential for dust release - unpaved road length <50m

Determining Receptor Sensitivity

High	Medium	Low
Sensitivities of People to Dust Soiling Effects		
- 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, museums and other culturally important collections, medium and long term car parks and car showrooms.	- 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 - 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 here 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.	- The enjoyment of amenity would not reasonably be expected; or - Property would not reasonably be expected to be diminished in 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.
Sensitivities of People to the Health Effects of PM₁₀		
- Locations where members of the public are exposed over a time period relevant to the air quality objective for PM₁₀ (in the case of the 24-hour objectives, a relevant location would be one where individuals may be exposed for eight hours or more in a day). - Indicative examples include residential properties, Hospitals, schools and residential care homes should also be considered as having equal sensitivity to residential areas for the purposes of this assessment.	- Locations where the people exposed are workers, and - Exposure is over a time period relevant to the air quality objective for PM₁₀ (in the case of the 24-hour objectives, - A relevant location would be one where individuals may be exposed for eight hours or more in a day). - Indicative examples include office and shop workers, but will generally not include workers occupationally exposed to PM₁₀, as protection is covered by Health and Safety at Work legislation.	- Locations where human exposure is transient. - Indicative examples include public footpaths, playing fields, parks and shopping streets.
Sensitivities of Receptors to Ecological Effects		
- Locations with an international or national designation and the designated features may be affected by dust soiling; or - Locations where there is a community of a particularly dust sensitive species such as	- Locations where there is a particularly important plant species, where its dust sensitivity is uncertain or unknown; or - Locations with a national designation where the	- Locations with a local designation where the features may be affected by dust deposition. - Indicative example is a local Nature Reserve with dust sensitive features.

vascular species included in the Red Data List For Great Britain. Indicative examples include a Special Area of Conservation (SAC) designated for acid heathlands or a local site designated for lichens adjacent to the demolition of a large site containing concrete (alkali) buildings.	features may be affected by dust deposition. Indicative example is a Site of Special Scientific Interest (SSSI) with dust sensitive features.	
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Determining sensitivity of the area

Dust Soiling Effects on People and Property

Receptor Sensitivity	Number of receptor	Distance from 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

Human health impacts

Receptor Sensitivity	Annual Mean PM ₁₀ Concentration	Number 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	Low
		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
	<28 µg/m ³	1-10 or >10	Low	Low	Low	Low
Low	-	>1	Low	Low	Low	Low

Ecological impacts

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

Determining risk of dust impacts

Demolition

Potential Impact	Risk		
	Large	Medium	Small
High	High Risk	Medium Risk	Medium Risk
Medium	High Risk	Medium Risk	Low Risk
Low	Medium Risk	Low Risk	Negligible

Earthworks

Potential Impact	Risk		
	Large	Medium	Small
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Medium Risk	Low Risk
Low	Low Risk	Low Risk	Negligible

Construction

Potential Impact	Risk		
	Large	Medium	Small
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Medium Risk	Low Risk
Low	Low Risk	Low Risk	Negligible

Trackout

Potential Impact	Risk		
	Large	Medium	Small
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Medium Risk	Low Risk
Low	Low Risk	Low Risk	Negligible



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