

Project

Newsome Mill, Huddersfield
Air Quality Screening and Dust Risk
Assessment

Prepared for

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P4	13/02/2026	Updates to housing mix	Tom Farris MSci AMIEnvSc AIAQM
P3	11/02/2026	Updates to site plan and IAQM guidance. Updates made by Tom Farris MSci AMIEnvSc AIAQM	Tom Conboy BA (Hons) AMIEnvSc AIAQM
P2	28/04/2023	Updates to introduction and summary	Ryan Thorpe BSc (Hons) AMIEnvSc AIAQM
P1	27/04/2023	First issue	Ryan Thorpe BSc (Hons) AMIEnvSc AIAQM

Summary

You are proposing the construction of 68 residential dwellings, including 24 houses and 44 apartments at Newsome Mill, Huddersfield.

The site is not within an Air Quality Management Area (AQMA). The nearest AQMA is *Kirklees AQMA 9* approximately 1.2km north of the site, which was defined by Kirklees Metropolitan Borough Council (KMBC) for annual mean NO₂ exceedances.

This air quality screening assessment has shown that:

- the IAQM threshold for construction HDVs is unlikely to be exceeded
- the IAQM threshold for development-generated LDVs is not expected to be exceeded
- construction activity associated with the proposed development is assessed to be:
 - medium risk for dust soiling
 - low risk for human health effects

Through good site practice and by adopting suitable mitigation measures, the residual effects are likely to be low. Recommended mitigation measures are in **Section 6.1**.
- occupants of the development will likely be exposed to acceptable levels of NO₂, PM₁₀, and PM_{2.5}.

Although the IAQM/EPUK thresholds for construction and operational traffic are unlikely to be exceeded, the measures in **Sections 6.2** must be implemented to where practicable to reduce the development's impact on local air quality.

A detailed air quality assessment is not necessary in line with IAQM guidance.

Find below the summary of the dust risk impacts:

Table 1 - Summary of dust risk impacts

Potential Impact	Risk			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	Low Risk	Medium Risk	Medium Risk	Medium Risk
Human Health	Negligible Risk	Low Risk	Low Risk	Low Risk
Ecological	N/A	N/A	N/A	N/A

Contents

Summary.....	3
Contents.....	4
1.0 Introduction.....	5
2.0 Relevant Policy and Guidance	6
3.0 Existing Conditions	8
3.1 AQMAs	8
3.2 Wind direction	8
3.3 Industrial point sources.....	8
3.4 Background pollutant concentrations.....	8
3.5 NO ₂ Monitoring.....	9
3.6 PM ₁₀ Monitoring.....	10
3.7 PM _{2.5} Monitoring	10
4.0 Dust Risk Assessment.....	11
4.1 Dust emission magnitude.....	11
4.2 Sensitivity of the Study Area	13
4.3 Overall dust impact risk.....	17
5.0 Construction and Operational Phase Impacts.....	18
5.1 Construction vehicles and plant.....	18
5.2 Operational road traffic	18
6.0 Mitigation.....	19
6.1 Construction Phase Mitigation	19
6.2 Good practice measures	23
7.0 Conclusions	24
7.1 Existing air quality	24
7.2 Construction phase.....	24
7.3 Operational phase	24
7.4 Mitigation	24

1.0 Introduction

The project is for the construction of 68 residential dwellings, including 24 houses and 44 apartments at Newsome Mill, Huddersfield.

The potential air quality impacts associated with the proposed development relate to:

- dust and particulate matter generated by construction activities
- increase in concentrations of nitrogen dioxide (NO₂) and particulate matter (PM₁₀ and PM_{2.5}) due to emissions from construction traffic and additional road traffic once operational.

This screening assessment looks at the existing air quality conditions around the site, considers the local and national policy context, and describes the proposed assessment methodology.

Figure 1 - Site area



2.0 Relevant Policy and Guidance

The Air Quality Strategy

The Air Quality Strategy for England, Scotland, Wales, and Northern Ireland¹ sets out air quality objectives and policy options to improve air quality in the UK. The main aim of the Strategy is to ensure that ambient air quality is of an acceptable level to protect human health and the environment. It takes account of the Limit Values set out in EU legislation.

Local Air Quality Management (LAQM)

The Environment Act 1995 introduced the LAQM system, whereby local authorities have a duty to review and assess air quality within their areas against the air quality objectives defined in the Air Quality Strategy. Where exceedances of the objectives are identified during this process, the authority must then declare an Air Quality Management Area (AQMA) and define the measures which will be implemented to improve air quality.

National Planning Policy Framework (NPPF)

The NPPF (2024)² sets out the Government's planning policies for England and outlines how they are expected to be applied to achieve the Government's aim of sustainable development. The NPPF states in paragraph 198 that:

“Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development.”

And at paragraph 199:

“Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement..... Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan.”

¹ Department for Environment, Food and Rural Affairs (DEFRA) and the Devolved Administrations (2007). The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (Volumes 1 and 2)

² Ministry of Housing, Communities and Local Government (2024).

Kirklees Council Air Quality Action Plan

In its Air Quality Action Plan (AQAP)³, Kirklees Metropolitan Borough Council (KMBC) states:

“This Air Quality Action Plan (AQAP) has been produced as part of our duty to Local Air Quality Management (LAQM). It outlines the action we will take to improve air quality in Kirklees Council between April 2019 and March 2024...”

Air pollution is associated with a number of adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society: children and older people, and those with heart and lung conditions. There is also often a strong correlation with equalities issues, because areas with poor air quality are also often the less affluent areas.”

Kirklees Council Local Plan (2013-2031)

In Policy LP51, the Kirklees Council Local Plan⁴ states:

“Proposals that have the potential to increase local air pollution either individually or cumulatively must be accompanied by evidence to show that the impact of the development has been assessed in accordance with the relevant guidance. Development which has the potential to cause levels of local air pollution to increase must incorporate sustainable mitigation measures that reduce the level of this impact.”

Guidance

The following guidance documents have also been used where appropriate, in this assessment:

- Local Air Quality Management Technical Guidance (LAQM.TG(22))⁵
- Land-Use Planning and Development Control: Planning for Air Quality. VI.2⁶
- National Planning Practice Guidance - Air Quality⁷
- Guidance on the Assessment of Dust from Demolition and Construction⁸

³ Kirklees Council (2019). Air Quality Action Plan

⁴ Kirklees Council (2019). Kirklees Local Plan Strategy and Policies

⁵ DEFRA (2022). Part IV of the Environment Act 1995 Environment (Northern Ireland) Order 2002 Part III Local Air Quality Management Technical Guidance (TG22).

⁶ Environmental Protection UK / Institute of Air Quality Management (2017).

⁷ Department of Communities and Local Government (DCLG) (2014).

⁸ Institute of Air Quality Management (2024).

3.0 Existing Conditions

Existing air quality conditions near to the site have been defined after reviewing the following:

- KMBC Review and Assessment reports and monitoring data;
- National Atmospheric Emissions Inventory (NAEI) data and maps;
- DEFRA's Local Air Quality Management (LAQM) Support Pages, including background maps; and
- Maps and plans of the site and surrounding area.

3.1 AQMAs

The site is not within an Air Quality Management Area (AQMA). The nearest AQMA is *Kirklees AQMA 9* approximately 1.2km north of the site, which was defined by KMBC for annual mean NO₂ exceedances.

3.2 Wind direction

The nearest meteorological monitoring station to the site is *Emley Moor No.2* 8.4km southeast of the site⁹. The prevailing wind direction at this monitor is westerly, and this is likely to be the same at the site.

3.3 Industrial point sources

The NAEI point source inventory shows the nearest industrial point source to the site is Lubrizol Ltd approximately 1.9km north of the site. Emissions from this point source are likely to typically be transported away from the site due to the prevailing westerly wind. Road traffic is therefore likely to be the main emissions source at the site.

3.4 Background pollutant concentrations

Table 2 summarises the background pollutant concentrations of NO₂, PM₁₀, and PM_{2.5} used in the assessment for the area encompassing the proposed development. Background concentrations of NO₂, PM₁₀ and PM_{2.5} have been taken from the most recent version of DEFRA's background maps. 2024 represents the base year; 2024 is the most recently reported monitoring dataset for the KMBC area. 2028 represents the year in which the development will be complete. The DEFRA annual mean background concentrations are below the relevant objectives in each assessment year.

Table 2 - Background pollutant concentrations (µg/m³)

Grid Square	NO ₂		PM ₁₀		PM _{2.5}	
	2024	2028	2024	2028	2024	2028
413500, 414500 (Site)	8.6	7.5	10.7	10.5	6.4	6.2
413500, 415500	11.3	10.2	11.4	11.1	7.0	6.7
414500, 416500	15.6	13.8	11.8	11.6	7.0	6.7

⁹ ADM Ltd (2023). Accessed via: <https://www.aboutair.com/met-data-search/>

3.5 NO₂ Monitoring

Figure 2 shows the most relevant NO₂ monitoring locations to the site. Data from these monitors are shown in **Table 3**.

Figure 2 - Most relevant NO₂ monitors (yellow) in relation to site (red)



Table 3 - NO₂ monitoring data

Monitoring Site ID	Site Type	OS Grid Ref.	Height (m)	Annual Mean NO ₂ Concentrations (µg/m³)				
				2020	2021	2022	2023	2024
Diffusion Tube								
11	Roadside	414359, 416277	2.0	27.7	31.3	32.0	27.9	29.7
56	Roadside	415009, 416420	2.0	30.3	37.4	36.1	34.8	48.6
159	Roadside	413659, 415215	2.0	-	-	-	-	29.9
Objective								
40µg/m³								

Annual average NO₂ concentrations exceeding the NO₂ objective are shown in bold. NO₂ annual means exceeding 60µg/m³, indicating a potential exceedance of the NO₂ 1-hour mean objective are shown in bold and underlined.

KMBC has 2 automatic NO₂ monitors in its administrative area. These aren't considered representative of the NO₂ concentrations at the site however because one is located on an A road and one is 6.5km northwest in a less urbanised area, both different to the site.

Monitors 11 and 56 are located within *Kirklees AQMA Area 9* and are adjacent to either the A62 (11) or A629 (56), whereas the site is located away from A roads outside of an AQMA. Monitor 159 is outside of the AQMA but still located roadside of the A616. However, conclusions can be drawn from the data. The NO₂ concentration at the site is likely to be lower than at these monitors as it located away from A roads. Although 56 shows an exceedance of the annual mean objective limit, the NO₂ concentration at the site is likely to be below the annual mean objective limit. Therefore, users of the development will likely be exposed to acceptable concentrations of NO₂.

3.6 PM₁₀ Monitoring

KMBC doesn't monitor PM₁₀ in its administrative area. Therefore, DEFRA background PM₁₀ values (**Table 1**) are used to assess the PM₁₀ concentration at the site. The background PM₁₀ concentration at the site in 2024 was 10.7µg/m³. This is below the annual mean objective limit, meaning users of the development will likely be exposed to acceptable concentrations of PM₁₀.

3.7 PM_{2.5} Monitoring

KMBC monitors PM_{2.5} at 2 locations in its administrative area. These aren't considered representative of the PM_{2.5} concentrations at the site however for the reasons stated in **Section 3.6**. Therefore, DEFRA background PM_{2.5} values are used to assess the PM_{2.5} concentration at the site. The background PM_{2.5} concentration at the site in 2024 was 6.4µg/m³. This is below the annual mean objective limit, meaning users of the development will likely be exposed to acceptable concentrations of PM_{2.5}.

4.0 Dust Risk Assessment

4.1 Dust emission magnitude

During the construction phase, activities may generate dust and particulate matter, as well as exhaust emissions from construction vehicles and plant, which could result in complaints of nuisance and human health effects.

The likely level of risk has therefore been assessed following guidance published by the Institute of Air Quality Management (IAQM). The assessment considers the nature and scale of the activities undertaken and the sensitivity of the surrounding area. Mitigation measures proportionate to the level of risk identified are then set out.

As precise information on the number of vehicles and plant associated with each part of the construction phase is not yet known, a qualitative assessment of their impact on local air quality has been done using professional judgement and by considering the following:

- The likely number and type of construction traffic and plant;
- The number and proximity of sensitive receptors to the site;
- The likely duration of the construction period; and
- The nature of the activities undertaken.

The IAQM assessment methodology has been used to determine the potential dust emission magnitude for the following four different dust and PM₁₀ sources: demolition, earthworks, construction, and trackout.

4.1.1 Demolition

The 'Mill Office' and 'Weavers Shed remains' will be demolished, with a total volume below 12,000m³ and height below 10m. The materials being demolished are potentially dusty. The potential dust emission magnitude from demolition is judged to be small, following IAQM guidance.

4.1.2 Earthworks

The total site area is approximately 12,300m². The site is on an area of *sandy loam*¹⁰; sand is made up of coarse particles less prone to suspension in the air than finer particles such as clay. It is possible that up to 10 earth moving vehicles may operate on site at once, based on the size of the site. The potential dust emission magnitude from earthworks is judged to be medium, following IAQM guidance.

4.1.3 Construction

The total construction volume is 29,195m³, based on proposed plans and elevations. Materials used in construction will likely include brickwork and concrete. The potential dust emission magnitude from construction is judged to be medium, following IAQM guidance.

¹⁰ UK Soil Observatory (2023). Accessed via <https://mapapps2.bgs.ac.uk/ukso/home.html>.

4.1.4 Trackout

It is likely there will be no more than 20 outward HDV movements per day, based on the size of the site. However, vehicles will potentially travel over more than 100m of unpaved road length, based on the size of the site. The potential dust emission magnitude from trackout is judged to be medium, following IAQM guidance.

4.1.5 Summary of dust emission magnitude

Table 4 summarises the dust emission magnitude of each activity.

Table 4 - Dust emission magnitude

Activity	Dust Emission Magnitude
Demolition	Small
Earthworks	Medium
Construction	Medium
Trackout	Medium

4.2 Sensitivity of the Study Area

4.2.1 Dust soiling effects

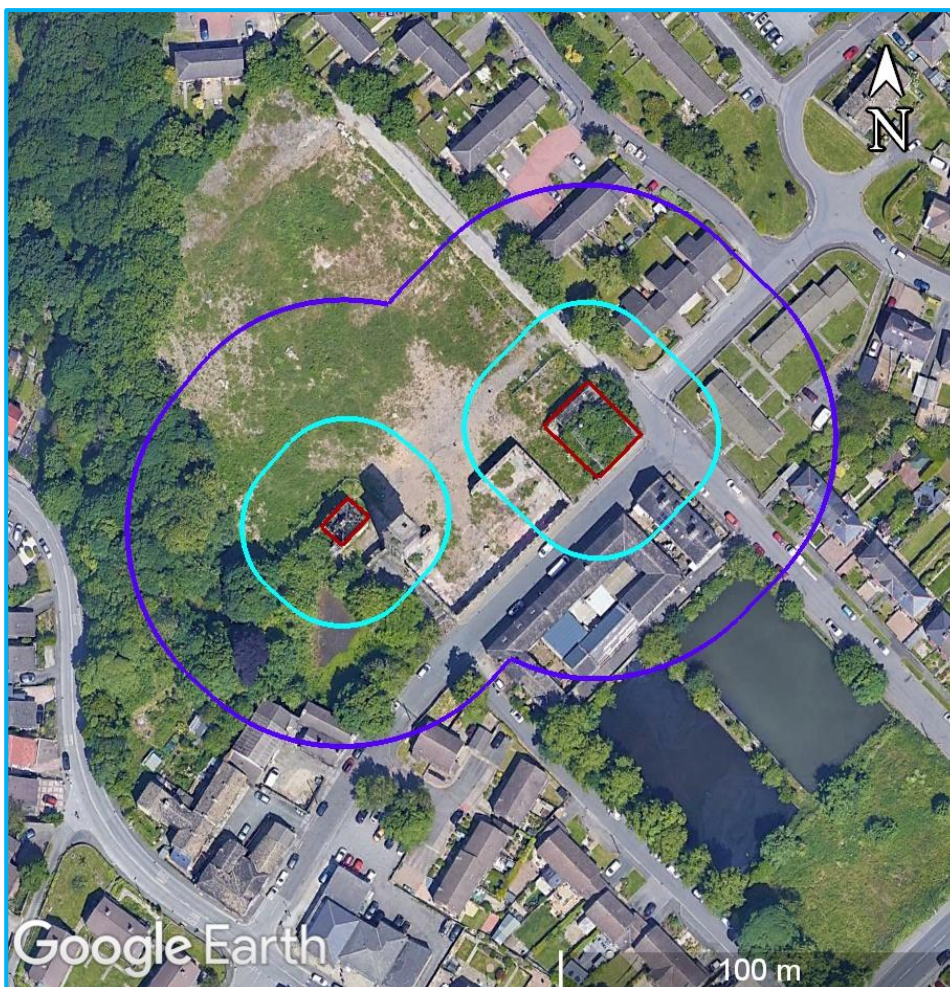
There are residential dwellings around the site, which are classed as high sensitivity receptors. East to southeast, there are also commercial receptors, including Roadrider Motorcycle Training, Cw Leisure Vehicle Repairs, and Rowlands Pharmacy Newsome. Commercial receptors have medium sensitivity to dust soiling effects.

Receptors to the east of the site are likely to be the most affected by dust generated on site due to the prevailing westerly wind direction.

1) Demolition

There are approximately 5 residential receptors within 20m of the demolition boundaries. Within 50m, there are approximately 13 more residential dwellings, as well as Roadrider Motorcycle Training and Cw Leisure Vehicle Repairs. The sensitivity of the local area to dust soiling effects to due to demolition is medium.

Figure 3 - Demolition boundaries with 20m (blue) and 50m (purple) buffers

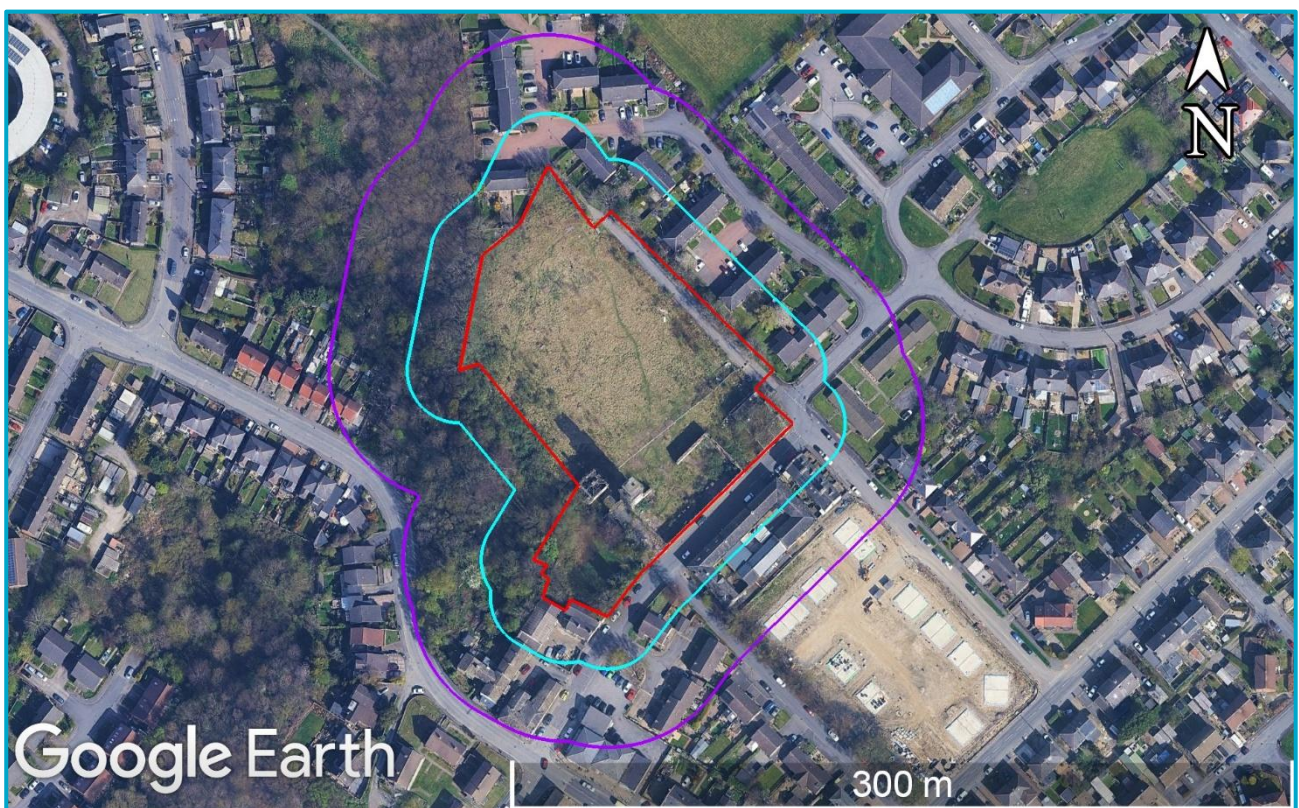


2) Earthworks and construction

Earthworks and construction are considered together as they are likely to occur within the same boundary.

There are approximately 18 residential receptors within 20m of the earthworks and construction boundary (.). Within 50m, there are approximately 37 more residential dwellings, as well as Roadrider Motorcycle Training, Cw Leisure Vehicle Repairs, and Rowlands Pharmacy Newsome. The sensitivity of the local area to dust soiling effects to due to earthworks and construction is high.

Figure 4 - Earthworks and construction boundary with 20m (blue) and 50m (purple) buffers



3) Trackout

The site is small following IAQM guidance. The guidance recommends assessing the effects of trackout on the first 50m of public road from the site exit of large sites.

Construction traffic will exit the site onto Hart Street, travelling south.

There are approximately 14 residential dwellings within 20m of the northwest trackout route. There are approximately 13 additional dwellings within 50m. The sensitivity of the local area to dust soiling effects to due to trackout is high.

Figure 5 - Assumed northwest trackout route (yellow) with 20m (blue) and 50m (purple) buffers



4.2.2 Health effects of PM₁₀

The receptors identified in the previous section for the effect of dust soiling are relevant here, as there are health implications for sensitive receptors due to the dispersion and deposition of PM₁₀.

The DEFRA background PM₁₀ data show the concentration was 10.7µg/m³ in 2024, which is below the annual mean objective of 40µg/m³, as well as the 24µg/m³ regime defined in the IAQM guidance.

1) Demolition

There are approximately 5 residential receptors within 20m of the demolition boundaries. Within 50m, there are approximately 13 more residential dwellings, as well as Roadrider Motorcycle Training and Cw Leisure Vehicle Repairs. Health effects due to demolition are judged to be low, with receptors likely be exposed to 10.7µg/m³ of PM₁₀.

2) Earthworks and construction

There are approximately 18 residential receptors within 20m of the earthworks and construction boundary. Within 50m, there are approximately 37 more residential dwellings, as well as Roadrider Motorcycle Training, Cw Leisure Vehicle Repairs, and Rowlands Pharmacy Newsome. Health effects due to earthworks and construction are judged to be low, with receptors likely be exposed to 10.7µg/m³ of PM₁₀.

3) Trackout

There are approximately 14 residential dwellings within 20m of the northwest trackout route. There are approximately 13 additional dwellings within 50m. Health effects due to trackout are judged to be low, with receptors likely be exposed to 10.7µg/m³ of PM₁₀.

4.2.3 Ecological effects

There are no ecological receptors within 50m of site nor within 50m of roads likely to be affected by trackout. The nearest ecological receptor is Castle Hill Local Nature Reserve (LNR) approximately 1km southeast. Dust generated by the site will likely travel predominantly away from this LNR given the westerly prevailing wind direction. The effect of dust on ecological receptors is therefore screened out.

4.2.4 Summary of sensitivity to dust effects

Table 5 summarises the sensitivities assessed for the area.

Table 5 - Sensitivity of area

Potential Impact	Sensitivity of Area			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	Medium	High	High	High
Human Health	Low	Low	Low	Low
Ecological	N/A	N/A	N/A	N/A

4.3 Overall dust impact risk

The predicted dust emission magnitude (**Table 4**) has been combined with the sensitivity of the area (**Table 5**) to determine the risk of impacts during the construction phase, prior to mitigation. **Table 6** summarises the risk of dust impacts for the proposed development. The risk category identified for each construction activity has been used to determine the level of mitigation required.

Table 6 - Summary of dust risk impacts

Potential Impact	Risk			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	Low Risk	Medium Risk	Medium Risk	Medium Risk
Human Health	Negligible Risk	Low Risk	Low Risk	Low Risk
Ecological	N/A	N/A	N/A	N/A

5.0 Construction and Operational Phase Impacts

5.1 Construction vehicles and plant

The number of HGVs visiting site per day during the construction phase is currently unknown. However, it seems unlikely the IAQM/EPUK threshold of 100 HGV annual average daily traffic (AADT) movements will be exceeded based on the works and size of the site. This should be confirmed by the relevant person, such as the transport consultant. A detailed air quality assessment is not necessary to assess HGV impacts if the IAQM/EPUK threshold is not exceeded.

5.2 Operational road traffic

Civic have confirmed the development will generate 167 AADT movements. This is below the IAQM/EPUK threshold of 500 annual average daily light duty traffic movements per day. Therefore, a detailed air quality assessment is not necessary to assess the impact of operational traffic.

6.0 Mitigation

6.1 Construction Phase Mitigation

The assessment of potential construction phase impacts has found that the proposed development is medium risk for dust soiling and low risk for human health effects. **Tables 7-11** present mitigation measures that should be used to reduce the risk of air quality impacts during the construction phase of the proposed development.

Table 7 - General dust mitigation measures

Communications
Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.
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.
Display the head or regional office contact information.
Develop and implement a Dust Management Plan (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 highly recommended measures in this document. The desirable measures should be included as appropriate for the site.
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.
Make the complaints log available to the local authority when asked.
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.
Agree dust deposition, dust flux, or real-time PM10 continuous monitoring locations with the local authority. Where possible commence baseline monitoring at least three months before work commences on site or, if it's a large site, before work on a phase commences.
Monitoring
Undertake daily on-site and off-site 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.
Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked.

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.
Agree dust deposition, dust flux, or real-time PM ₁₀ continuous monitoring locations with the Local Authority. Where possible commence baseline monitoring at least three months before work commences on site or, if it is a large site, before work on a phase commences. Further guidance is provided by IAQM on monitoring during demolition, earthworks and construction.
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.
Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles 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 runoff of water or mud.
Keep site fencing, barriers and scaffolding clean using wet methods.
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.
Cover, seed, or fence stockpiles to prevent wind whipping.
Operating vehicle/machinery and sustainable travel
Ensure all vehicles switch off engines when stationary - no idling vehicles.
Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment where practicable.
Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials.
Impose and signpost a maximum-speed-limit of 15mph on surfaced and 10mph 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).
Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking and car-sharing).
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.
Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.

Use enclosed chutes and conveyors and covered skips.
Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
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.
Waste management
Avoid bonfires and burning of waste materials.

Table 8 - Dust mitigation measures specific to demolition

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).
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.
Avoid explosive blasting, using appropriate manual or mechanical alternatives.
Bag and remove any biological debris or damp down such material before demolition.

Table 9 - Dust mitigation measures specific to earthworks

Measures specific to earthworks
Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.
Use Hessian, mulches or trackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable.
Only remove the cover in small areas during work and not all at once.

Table 10 - Dust mitigation measures specific to construction

Measures specific to construction
Avoid scabbling (roughening of concrete surfaces) if possible.
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.
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.

Measures specific to construction

For smaller supplies of fine powder materials, ensure bags are sealed after use and are stored appropriately to prevent dust.

Table 11 - Dust mitigation measures specific to trackout

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.

Avoid dry sweeping of large areas.

Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.

Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.

Record all inspections of haul routes and any subsequent action in a site logbook.

Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowzers and regularly cleaned.

Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).

Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever the site size and layout permits.

Access gates to be located at least 10m from receptors where possible.

6.2 Good practice measures

In Section 5.10 of the IAQM/EPUK guidance, the following examples of good practice principles are listed:

“Design Phase:

- *The provision of at least 1 Electric Vehicle (EV) “fast charge” point per 10 residential dwellings and/or 1000m² of commercial floorspace. Where on-site parking is provided for residential dwellings, EV charging points for each parking space should be made*
- *New developments should not contravene the Council’s AQAP, or render any of the measures unworkable*
- *Wherever possible, new developments should not create a new “street canyon”, or a building configuration that inhibits effective pollution dispersion*
- *Delivering sustainable development should be the key theme of any application*
- *New development should be designed to minimise exposure to pollution sources, eg. by locating habitable rooms away from busy roads or directing combustion generated pollutants through well sited vents or chimney stacks.*

Operational Phase:

- *Where development generates significant additional traffic, provision of a detailed travel plan (with provision to measures its implementation and effect) which sets out measures to encourage sustainable means of transport (public, cycling and walking) via subsidised or free-ticketing, improved links to bus stops, improved infrastructure and layouts to improve accessibility and safety*
- *All gas-fired boilers to meet a minimum standard of <40mgNO_x/kWh*
- *All gas-fired CHP plant to meet a minimum emission standard of:*
 - *Spark ignition engine: 250mgNO_x/Nm³*
 - *Compression ignition engine: 400mgNO_x/Nm³*
 - *Gas turbine: 50mgNO_x/Nm³*
- *A presumption should be to use natural gas-fired installations. Where biomass is proposed within an urban area it is to meet minimum emissions standards of:*
 - *Solid biomass boiler: 275mgNO_x/Nm³ and 25mgPM/Nm³”*

7.0 Conclusions

7.1 Existing air quality

7.1.1 NO₂

This assessment has shown the NO₂ concentration at the site is likely to be below the annual mean objective limit of 40µg/m³. Future occupants of the development will therefore likely be exposed to acceptable levels of NO₂.

7.1.2 PM₁₀

This assessment has shown the PM₁₀ concentration at the site is likely to be below the annual mean objective limit of 40µg/m³. Future occupants of the development will therefore likely be exposed to acceptable levels of PM₁₀.

7.1.3 PM_{2.5}

This assessment has shown the PM_{2.5} concentration at the site is likely to be below the annual mean objective limit of 25µg/m³. Future occupants of the development will therefore likely be exposed to acceptable levels of PM_{2.5}.

7.2 Construction phase

The assessment of potential construction phase impacts has found that the proposed development is high risk for dust soiling and low risk for human health effects.

The IAQM/EPUK threshold for HDVs is unlikely to be exceeded, but this will need to be confirmed by transport consultants. This will not need to be assessed further in a detailed air quality assessment if the IAQM/EPUK is not exceeded.

7.3 Operational phase

The IAQM/EPUK threshold for LDVs is not expected to be exceeded; therefore, this does not need to be assessed further in a detailed air quality assessment.

7.4 Mitigation

This assessment has shown overall dust risk to be high. The mitigation measures in **Section 6.1** are recommended by the IAQM for high-risk sites and must be implemented, where practicable, to reduce dust risk.

The measures in **Section 6.2** must be implemented where practicable to reduce the development's impact on local air quality.