

60 Bath Road
Reading

Air Quality Statement

July 2025

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1 Introduction

NRG Consulting have been commissioned to undertake an Air Quality review for a proposed development located at **60 Bath Road, Reading, RG30 2AY**.

The proposed description of development is:

Change of use from a hotel to day nursery with associated works, including refuse, cycle and buggy storage.

The local authority is **Reading Council** and is situated within an Air Quality Management Area (AQMA).

The pollutants reviewed as part of this assessment are nitrogen oxides (NO_x) and particulate matter (PM_{2.5} and PM₁₀)

Executive Summary

Based on the findings of this report relating to the air quality levels at the proposed development, it is considered that Air Quality levels are below the national objectives.

2 Pollutants and Legislation

Air Quality Objectives

The UK Government and the devolved administrations published the latest Air Quality Strategy for England, Scotland, Wales and Northern Ireland on 17 July 2007¹. The Strategy provides an over-arching strategic framework for air quality management in the UK.

With regards to this assessment, the Air Quality Strategy contains national air quality standards and objectives established by the Government to protect human health. The objectives for nitrogen dioxide and particulates (PM₁₀ and PM_{2.5}) have been set, along with seven other pollutants (benzene, 1,3-butadiene, carbon monoxide, lead, PAHs, sulphur dioxide and ozone). Those which are limit values required by EU Daughter Directives on Air Quality have been transposed into UK law through the Air Quality Standards Regulations 2016² which came into force on 31st December 2016. Table 2 provides the UK Air Quality Objectives for NO₂ and PM₁₀.

Pollutant	Objective	Concentration measured as
Particles (PM ₁₀)	50µg/m ³ not to be exceeded more than 35 times a year	24 hour mean
	40µg/m ³	Annual mean
Particles (PM _{2.5})	25µg/m ³ (except Scotland)	Annual Mean
Nitrogen Dioxide (NO ₂)	200µg/m ³ not to be exceeded more than 18 times a year	1 hour mean
	40µg/m ³	Annual mean
Table 2.1: UK Air Quality Objectives for Nitrogen Dioxide and Particulate Matter		

Environmental Targets (fine particulate matter) (England) Regulations 2023

The Environment Act established a new framework for environmental targets for England. The Environmental Targets (fine particulate matter) (England) Regulations 2023³ set targets under this framework for the air pollutant of most harm to health – fine particulate matter (PM_{2.5}). The two targets, both to be met by 2040 are:

- Annual mean concentrations of PM_{2.5} to be 10 µg m⁻³ or lower
- Population exposure to PM_{2.5} to be reduced by 35% compared to 2018 levels

The two targets are designed to work together to drive actions that both reduce concentrations where it is highest and reduce the pollution that everyone in the country experiences.

Both PM_{2.5} targets are legally binding.

¹ The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, Department for Environment, Food and Rural Affairs in partnership with the Scottish Executive, Welsh Assembly Government and Department of the Environment Northern Ireland, July 2007

² <https://www.legislation.gov.uk/uksi/2016/1184/contents/made>

³ <https://www.legislation.gov.uk/uksi/2023/96/contents/made>

3 Planning Policy & Guidance

3.1 National Planning Policy Framework

On a national level, air quality can be a material consideration in planning decisions. The National Planning Policy Framework (NPPF) for England, updated in December 2024, is considered a key part of the Governments reforms to make the planning system less complex and more accessible, to protect the environment and to promote sustainable growth.

- Paragraph 187(e): Preventing developments from contributing to unacceptable levels of air pollution.
- Paragraph 198: Considering cumulative effects of pollution

Land-Use Planning & Development Control

In January 2017, Environmental Protection UK (EPUK) and the Institute of Air Quality Management (IAQM) produced guidance to ensure that air quality is adequately considered in the land-use planning and development control processes⁴.

The guidance document is particularly applicable to assessing the effect of changes in exposure of members of the public resulting from residential and mixed-use developments, especially those within urban areas where air quality is poorer. It is also relevant to other forms of development where a proposal could affect local air quality and for which no other guidance exists.

Planning Practice Guidance – Air Quality

In November 2019 the UK Government provided updated guidance⁵ on how planning can take account of the impact of new development on air quality.

All development plans can influence air quality in a number of ways, for example through what development is proposed and where, and the provision made for sustainable transport. Consideration of air quality issues at the plan-making stage can ensure a strategic approach to air quality and help secure net improvements in overall air quality where possible.

This planning Practice Guidance also provides routes to the sources used throughout this report, including but not limited to:

- the [UK Air Information Resource \(UK-AIR\)](#), which contains information on historic and current air quality across the UK, including a [GIS portal](#) of Defra's national assessment against relevant Limit Values and air quality management areas;
- [air quality management area records](#) and [modelled background pollution concentrations](#);
- the [Clean Air Strategy](#) sets out actions for dealing with 5 major sources of air pollution. A detailed [National Air Pollution Control Programme](#) was published by the Department for Environment, Food and Rural Affairs in April 2019.

Whether air quality is relevant to a planning decision will depend on the proposed development and its location. Concerns could arise if the development is likely to have an adverse effect on air quality in areas where it is already known to be poor, particularly if it could affect the implementation of air quality strategies and action plans and/or breach legal obligations (including those relating to the conservation of habitats and species). Air quality may also be a material consideration if the proposed development would be particularly sensitive to poor air quality in its vicinity.

⁴ Land-Use Planning & Development Control: Planning for Air Quality. Guidance from Environmental Protection UK and the Institute of Air Quality Management for the consideration of air quality within the land-use planning and development control processes. EPUK & IAQM. January 2017

⁵ <https://www.gov.uk/guidance/air-quality--3>

Where air quality is a relevant consideration the local planning authority may need to establish:

- the 'baseline' local air quality, including what would happen to air quality in the absence of the development;
- whether the proposed development could significantly change air quality during the construction and operational phases (and the consequences of this for public health and biodiversity); and
- whether occupiers or users of the development could experience poor living conditions or health due to poor air quality.

3.2 Local Policy

Reading Borough Council - Local Plan (2019)

Policy EN15 - Air Quality

Development should have regard to the need to improve air quality and reduce the effects of poor air quality.

i. Development that would detrimentally affect air quality will not be permitted unless the effect is to be mitigated. The following criteria should be taken into account:

Whether the proposal, including when combined with the cumulative effect of other developments already permitted, would worsen air quality;

Whether the development is within, or accessed via, an Air Quality Management Area; and

Whether it can be demonstrated that a local worsening in air quality that would not detrimentally affect human health or the environment would be offset by an overall improvement in air quality, for instance through reduction in the need to travel.

ii. Where a development would introduce sensitive uses (such as residential, schools and nurseries, hospitals, care facilities) into, or intensify such uses within, an Air Quality Management Area, detrimental effects on that use will be mitigated. Mitigation measures should be detailed in any planning application. If there are significant detrimental effects that cannot be mitigated, the application should be refused.

iii. Where required, planning obligations will be used to secure contributions to measures to tackle poor air quality or for air quality monitoring."

Air Quality Annual Status Report (June 2024)

The Local Authority publish an annual report on Air Quality detailing the initiatives and status of air quality within the borough.

4 Air Quality Statement

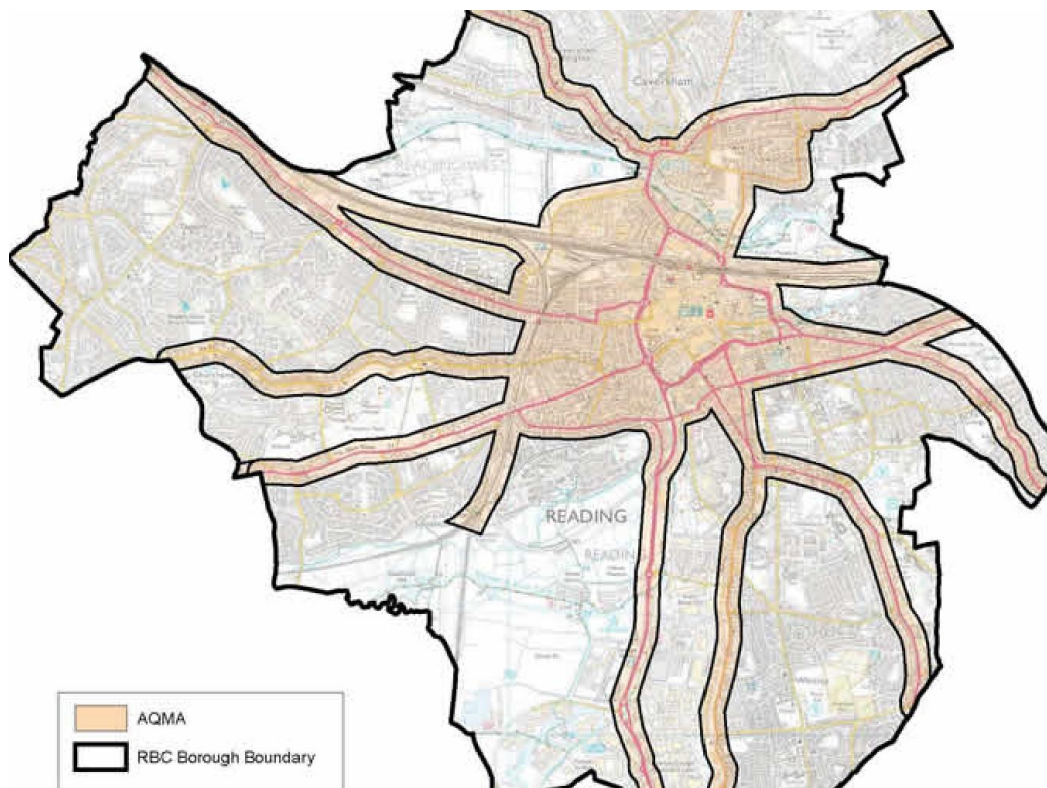
4.1 Local Area Designations

Air Quality Focus Area

The site is not in an Air Quality Focus Area.

Air Quality Management Area

The site is in an Air Quality Management Area (AQMA) as shown below.



4.2 Impact from Rail

The site is approximately 250m away from the Great Western Line (2 tracks). The railway line is not listed within 'Table 7.2 - Rail Lines with a Heavy Traffic of Diesel Passenger Trains' of LAQM.TG (22). Furthermore, LAQM.TG (22) recommends determining exposure when stationary locomotives are 15 m from receptor or 30 m for moving diesel locomotives.

As the development site is sufficient distance from the railway line and the line itself is not listed as having a high volume of diesel trains, the impact of the railway is likely to be insignificant. Therefore, this has been excluded from our assessment.

4.3 Impact from Traffic and Traffic Scoping Assessment

Transport Statement and Trip Generation

The Transport Statement produced by Evoke in June 2025 (ref: R-24-0184-01) states:

4.4.3. As demonstrated in Table 9, the robust assessment of proposed development is anticipated to result in an increase in vehicular trips in all assessment periods, equivalent to an additional 23 vehicle trips during the AM peak period (08:00-

09:00), 27 additional vehicle trips during the PM peak period (17:00-18:00) and up to 72 additional vehicle trips over the daily period.

Therefore, 72 additional vehicle trips have been used as the baseline for the scoping assessment.

Trip Generation Impact

Hidden within the additional figures noted above are several considerations that should be factored in:

- A proportion of these trips are considered linked-trips in that parents drop-off or pick-up en-route from other activities.
- The provision of a nursery does not increase demand. Therefore, trips are not all additional.
- Parents are likely to use the nursery if closer than their existing one, leading to reduced road journeys.

Therefore, in reality, the number of unique additional trips is likely to be much lower than the Transport Statement figure.

Air Quality Scoping Assessment

The EPUK & IAQM guidance - *Land-Use Planning & Development Control: Planning For Air Quality (2017)*, Table 6.2, states that a significant change in LDV traffic flow within an AQMA is defined as more than 100 Annual Average Daily Trips (AADT). As the proposal falls below this threshold and given the high baseline traffic on the existing network, the proposed development does not meet the criteria to trigger a requirement for dispersion modelling.

Furthermore, baseline traffic flows along the local roads are available from the Department for Transport (DfT)⁶ and the results are below. As can be seen, the projected increase is a absolute miniscule amount when compared to daily traffic figures with it being a circa 0.3% increase only.

Link Name (Count Point)	AADT - LDV	AADT - HDV
Bath Road (58002)	24,558	482
Table 4.1: Annual Average Daily Traffic Flows, Percentage HDV and Speeds for Modelled Roads		

On this basis, the impact of emissions from road traffic from the proposed development will be negligible. When reviewed in context of the background air quality levels, this is compounded as the levels of NO₂ and PM are far below the national objectives.

⁶ <http://www.dft.gov.uk/traffic-counts/>

4.4 Defra - Background Concentrations

Background concentrations have been obtained from Defra⁷. Predictions of total pollutant concentrations include contributions from local emissions sources (such as roads, chimney-stacks, etc.) and local background concentrations. In many situations, the background contribution may represent a significant or dominant proportion of these concentrations. Background concentrations for regulated pollutants are expected to decline in future years as a result of government policies/legislation to reduce pollution emissions.

In order to establish a prediction of total concentrations of pollutants, road source contributions are combined with a background concentration. LAQM.TG(22) recommends the use of empirically derived national background estimates available from the Defra website. These 1 km x 1 km grid resolution maps are currently derived from a base year of 2023 (for NO_x, NO₂, PM₁₀ and PM_{2.5} only), and results for the grid where the scheme is located are provided in the table below.

Location	Pollutant	Data for 2023 (µg/m ³)
Proposed Development Coordinates: Easting: 530685 Northing: 189493	NO ₂	9.66
	NO _x	12.81
	PM ₁₀	11.06
	PM _{2.5}	6.87
Table 4.2: Background NO _x , NO ₂ , PM ₁₀ and PM _{2.5} Concentrations		

All pollutant concentrations are far below the national objectives.

4.5 Local Air Quality Monitoring

Reading – Air Quality Status Report (AQSR)

Each year, local authorities publish an annual report of the air quality monitoring in the borough. This report includes the latest published version, the *Reading Borough Council - Air Quality Annual Status Report for 2025*. This was published in June 2024 and contains verified and adjusted data for 2023 and thus can be considered reference grade and current.

Reading Borough Council – Automatic Monitoring

The Council does undertake monitoring of NO₂ using automatic monitoring stations within the borough. Based on the Air Quality Status Report, there are no automatic monitors within 2km of the proposed development:

Reading Borough Council – Non-Automatic Monitoring

The council also operate a network of diffusion tubes within the borough. Details of the closest monitoring stations are:

Monitoring ID	Location	Distance from Site	NO ₂ (µg/m³)	PM ₁₀ (µg/m³)	PM _{2.5} (µg/m³)
RD006	15 Southcote Lane	120m	16.2		
RD010	17a Southcote Lane	150m	19		
Annual Mean NO ₂ Ratified and Bias-adjusted Monitoring Results					
Table 4.3: Modelled Verification Locations – Non-Automatic Monitoring – Data from 2023					

⁷ <https://uk-air.defra.gov.uk/data/gis-mapping/>

Note that these monitor locations and this area of Reading that the proposed development site is in has the lowest background air quality figures within the borough. This is from the data from the 60 diffusion tubes currently being monitored by Reading Borough Council. These monitors are also very close to the development site and thus give very accurate projections of the anticipated NO₂ emissions for the development.

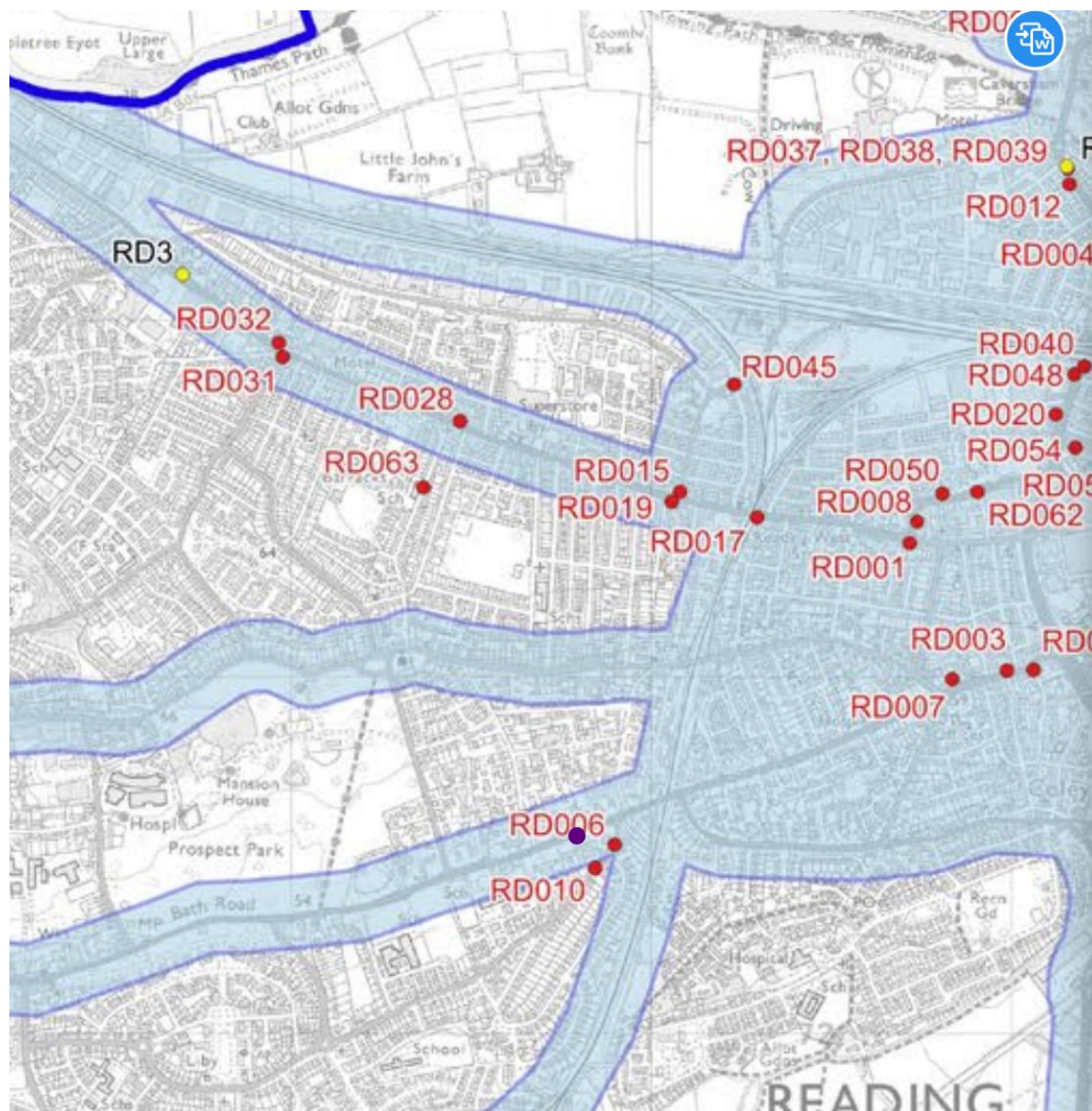


Figure: Monitor Network – Reading – Site is Purple Dot.

5 Conclusion

Air Quality

Based on the results of this assessment there is no need for mitigation for air quality purposes as the levels of air quality are significantly below the national objectives for NO₂. Background data from DEFRA confirms that PM₁₀ and PM_{2.5} are also well within national guidelines.

There is a monitor at 17a Southcote Lane that is 150m from the site and has the parameters of being 5m from relevant exposure and 2m from the kerb with this being considered a similar scenario to the location of the proposed development.

Development Mitigation

The development will adhere to the standard mitigation measures for all developments to ensure impacts on local air quality are reduced. These include:

Standard mitigation measures for all development:	
Residential Uses	
For all development	All gas-fired boilers to meet a minimum standard of <40mgNO _x /kWh
Dwellings with On-Plot Parking	1 Active Charging Point* per dwelling
Dwellings with unallocated communal parking	10% Active Charging Spaces with all other spaces to be provided as Passive Charging Spaces
Visitor Parking	A minimum of two visitor spaces or 10% of the total visitor provision (which ever is greatest) should be provided with passive charging provisions suitable for future conversion
Non-Residential Uses	
All Uses with Off - Street Parking	10% Active Charging Spaces with all other spaces to be provided as Passive Charging Spaces
Demolition/Construction	
Mitigation in accordance with the Institute of Air Quality Management (IAQM) 'Guidance on the Assessment of Dust from Demolition and Construction'	

It can be confirmed that the existing Electric Vehicle Charging Point (EVCP) is being retained. Further EVCPs will be considered based upon staff demand however, this is considered sufficient. Based on current statistics (June 2025: <https://www.zap-map.com/ev-stats/ev-market>) circa 4.6% of UK cars are electric.

Sustainable Transport

The nursery will encourage walkings, bike use and carpooling to further reduce car journeys. There will also be a buggy store area.

Overall Summary

The proposed hotel to nursery conversion at 60 Bath Road, Reading will have no negative impact on local air quality and thus air quality should not be a constraint to the granting of planning permission for the scheme.

