North West Leicestershire District Council

DRAFT AIR QUALITY SUPPLEMENTARY PLANNING DOCUMENT

September 2022

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1 Introduction

1.1 The objectives of the adopted North West Leicestershire Local Plan 2011-2036 (as amended by the Partial review)[1] are to promote the health and wellbeing of the District's population, whist also supporting the delivery of new homes, ensuring high quality new development, reducing the need to travel and supporting economic growth.

1.2 The Council must balance economic, social and environmental factors when deciding to grant or refuse planning permission or decide if conditions are required to achieve sustainable development. Air quality is one of the material considerations that the Council is required to consider when preparing plans and taking planning decisions.

1.3 Air quality is the largest environmental health risk in the UK[2]. It shortens lives and contributes to chronic and acute health effects. Health can be affected both by short-term, high pollution episodes and by long-term exposure to lower levels of pollution. Air pollution can arise from a variety of sources and can travel long distances. Emissions from both distant and local sources can build up into high, local concentrations of pollutants.

1.4 At present, air pollution policy is mainly driven by exceedances of the nitrogen dioxide (NO_2) annual average objective or limit value, although the greater health impact of particulate matter (specifically $PM_{2.5}$[3]) is acknowledged. $PM_{2.5}$ is currently not a statutory air quality monitoring requirement for the District Council under the Local Air Quality Management (LAQM) regime. At present, the legal limits for $PM_{2.5}$ are higher than the World Health Organisation's (WHO) health-based guideline and are met in most places in the UK. However, as WHO recognises, there is no safe level of $PM_{2.5}$, so any concentration-based target does not fully reflect the health evidence. The Environment Act 2021, however, now requires government to set new environmental targets, including an annual mean $PM_{2.5}$ target, which is likely to be more stringent than current objectives[4]. Therefore, the focus of air pollution policy is shifting to also include particulate matter. Defra is intending to make changes to the LAQM regime and is currently considering what role local authorities will be required to implement with regards to $PM_{2.5}$. There are many more sources of particulate matter, which include industrial sources, road transport, domestic heating, agriculture, secondary particulate generation and transboundary sources.

1.5 The planning system has an active role in improving air quality and reducing exposure to air pollution (which will improve health) as well as considering the impact of new development and finding sustainable solutions. Both the development of local planning policies and the determination of

1 North West Leicestershire Local Plan (as amended by Partial Review) March 2021

2 Defra 2020. Air Pollution in the UK 2019 https://uk-air.defra.gov.uk/assets/documents/annualreport/air_pollution_uk_2019_issue_1.pdf

3 The fractions of particulate matter (PM) where particles are less than 2.5 micrometres in diameter

4 Consultation on the new targets is expected by October 2022.

individual planning applications are important, the former setting the framework for the latter. There is industry standard guidance already available from Environmental Protection UK (EPUK) and the Institute of Air Quality Management (IAQM)[5], which has been developed to provide a methodology to assess the significance of proposals in terms of their effects on air quality. It is not intended that this document either replaces or supersedes this guidance, but that it provides a local context, as well as further information on the level of assessment and the mitigation measures expected in North West Leicestershire.

1.6 As such, this document has been developed to provide guidelines for new development and to assist the application of **Policy D2** of the North West Leicestershire Local Plan[1]. The Supplementary Planning Document (SPD) aims to:

- Aid consideration of air quality in the planning process, including assisting with the delivery of the Council's Air Quality Action Plan[6];
- Contribute to sustainable development in air quality terms;
- Outline when an air quality assessment is necessary to support a planning application and the requirements for assessing the air quality impacts of a development including:
    - the determination of impacts;
    - calculation of damage costs; and
    - identification of measures to be implemented to reduce, minimise or mitigate the impact of development on air quality;
- Provide clarity and consistency to developers and their consultants, on the consideration of air quality by the Council; and
- Outline good practice to reduce emissions and exposure for all developments at the outset, at a scale commensurate with the emissions.

1.7 There are several acronyms included in the document, which are described in full for their first citation, and also covered by the Glossary at end of the document.

5 Moorcroft and Barrowcliffe *et al* 2017. Land-Use Planning & Development Control: Planning for Air Quality. Institute of Air Quality Management and Environmental Protection UK.

6 North West Leicestershire District Council. Air Quality Action Plan May 2021 https://www.nwleics.gov.uk/files/documents/draft_air_quality_action_plan_for_castle_donington/Draft%20AQAP%20.pdf

2 Air Quality in North West Leicestershire

2.1 There are several sources of air pollutants within North West Leicestershire. As already noted, air pollution policy has been mainly driven by exceedances of the nitrogen dioxide objective, with the principal source of emissions being road traffic, including that on the strategic road network with the M1 and A42 passing through the district. East Midlands Airport (EMA), one of the UK's major freight airports and its associated infrastructure will also contribute to both nitrogen dioxide and particulate emissions. The District also has a long history of mining for coal and other minerals, such as brick clay, and there are a number of mineral extraction sites across the District which are potential sources of particulate matter. Other sources within the District also include domestic and industrial sources as well as 'background pollution' from locations outside the District.

2.2 Air quality is improving in North West Leicestershire with fewer locations exceeding the air quality objectives, although health effects do still occur even at concentrations below current objective levels. The Environment Act 2021, however, requires government to set new environmental targets including an annual mean $PM_{2.5}$ target, which is likely to be much more stringent than current objective.

Air Quality Management Areas (AQMA)

2.3 Where health-based air quality objectives are not met, the LAQM regime requires local authorities to declare an AQMA and put in place an Air Quality Action Plan to improve air quality. Since the inception of the LAQM regime, several AQMAs have been declared and subsequently revoked in North West Leicestershire. There are two remaining AQMAs in the District (as shown in **Figure 1**). The previously-declared AQMAs on the M1, Kegworth and Coalville, were revoked in 2020 and 2022 respectively, due to improvements in air quality, likely due mainly to a reduction in emissions from new vehicles.

2.4 All of the District's AQMAs have been declared in relation to traffic-related nitrogen dioxide concentrations (annual mean objective). No exceedances of any of the other regulated pollutants, including Particulate Matter (PM_{10}), have been identified in the District. Particulate Matter has a much wider range of pollutants than nitrogen dioxide and has the strongest evidence of a range of health effects. Even if concentrations of Particulate Matter are below air quality objectives, health effects will still occur.

2.5 The remaining AQMAs are at a narrow, congested locations encompassing the High Street and Bondgate in Castle Donington and an area around Copt Oak close to the M1. Further information on air quality in the District can be found in the latest Annual Status Report[7]. This Supplementary

[7] North West Leicestershire Annual Status Report 2021. https://www.nwleics.gov.uk/pages/local_air_quality_review_and_assessment

Planning Document is designed to ensure that both nitrogen dioxide and Particulate Matter are considered within the planning process.

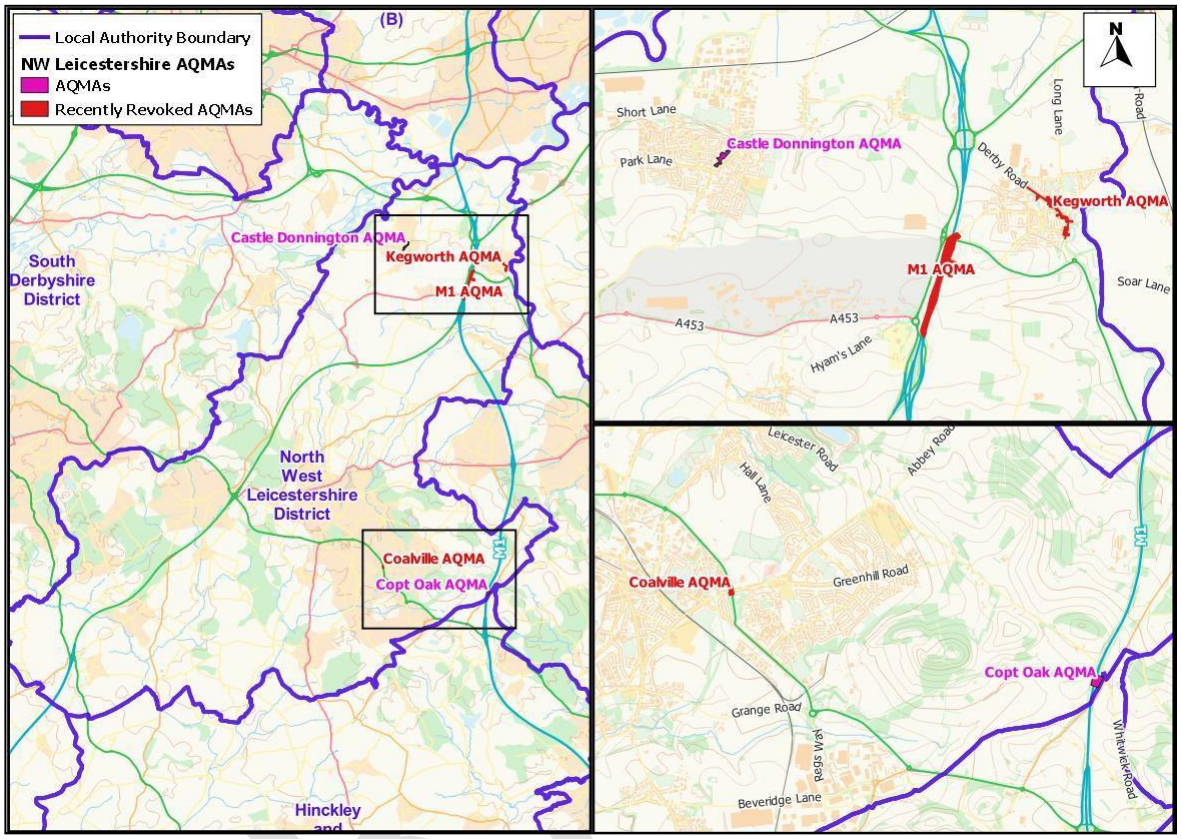


Figure 1: North West Leicestershire Air Quality Managements Areas (AQMAs)

Exceedances of Limit Values

2.6 EU Directive 2008/50/EC[8] sets limit values for nitrogen dioxide, PM_{10} and $PM_{2.5}$, and is implemented in UK law through the Air Quality Standards Regulations[9]. The limit values for nitrogen dioxide are the same numerical concentrations as the UK objectives but achievement of these values is a national obligation rather than a local one. How they are assessed and interpreted is different to that of the air quality objectives. North West Leicestershire does not have any Limit Value exceedance.

8 The European Parliament and the Council of the European Union 2008. Directive 2008/50/EC of the European Parliament and of the Council

9 HMSO 2010 The Air Quality Standards Regulations 2010 Statutory Instrument 1001

Future Air Quality in North West Leicestershire

2.7 $PM_{2.5}$ is not a statutory air quality monitoring requirement under the Local Air Quality Management regime and current objectives are met, however, the Environment Act 2021[10] introduces the requirement for additional targets for $PM_{2.5}$ to be set. These may introduce targets closer to (or equivalent to) the World Health Organization's (WHO) health-based guideline[11]. However, as the WHO recognises, the health evidence shows that there is no safe level of $PM_{2.5}$, so any concentration-based target for $PM_{2.5}$ does not fully reflect the health evidence. Any reductions in concentrations of $PM_{2.5}$ will bring health benefits to the local population.

2.8 For the purpose of improving air quality and reducing health impacts this SPD is concerned with achieving and maintaining compliance with Air Quality Objectives and with improving air quality further, particularly in relation to $PM_{2.5}$ concentrations.

[10] HMSO The Environment Act 2021

[11] The WHO Guideline (2005) for $PM_{2.5}$ is an annual mean of 10 µg/m^3. This was revised down to 5 µg/m^3 in 2021. It is generally considered highly unlikely that Defra would adopt the 2021 guideline.

3 Policy Context

National Policy and Practice Guidance

3.1 The consideration of air quality impacts is a material consideration within the planning process.

National Planning Policy Framework

3.2 The National Planning Policy Framework (NPPF)[12] sets out planning policy for England and the overarching objectives relating to air quality and development. It states that the purpose of the planning system is to contribute to the achievement of sustainable development, and that the planning system has three overarching objectives, one of which (Paragraph 8c) is an environmental objective:

"to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy".

3.3 It also states in paragraph 174:

"Planning policies and decisions should contribute to and enhance the natural and local environment by:

e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality(…)"

More specifically on air quality, Paragraph 186 makes clear that:

"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. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. 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".

[12] Ministry of Housing, Communities & Local Government. National Planning Policy Framework https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf

National Planning Practice Guidance

3.4 The NPPF is supported by Planning Practice Guidance (PPG)[13], which includes guiding principles on how planning can take account of the impacts of new development on air quality.

3.5 Regarding plan-making, the PPG states:

"It is important to take into account air quality management areas, Clean Air Zones and other areas including sensitive habitats or designated sites of importance for biodiversity where there could be specific requirements or limitations on new development because of air quality".

3.6 It also states that plans need to consider (Paragraph: 002 Reference ID: 32-002-20191101):

- *"what are the observed trends shown by recent air quality monitoring data and what would happen to these trends in light of proposed development and / or allocations;*
- *the impact of point sources of air pollution (pollution that originates from one place);*
- *the potential cumulative impact of a number of smaller developments on air quality as well as the effect of more substantial developments, including their implications for vehicle emissions;*
- *ways in which new development could be made appropriate in locations where air quality is or is likely to be a concern, and not give rise to unacceptable risks from pollution. This could, for example, entail identifying measures for offsetting the impact on air quality arising from new development including supporting measures in an air quality action plan or low emissions strategy where applicable; and*
- *opportunities to improve air quality or mitigate impacts, such as through traffic and travel management and green infrastructure provision and enhancement."*

3.7 The role of the local authorities through the LAQM regime is covered, with the PPG stating that a local authority Air Quality Action Plan "*identifies measures that will be introduced in pursuit of the objectives and can have implications for planning*" (Paragraph: 001 Reference ID: 32-001-20191101).

3.8 Regarding the need for an air quality assessment, the PPG states that:

"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

[13] Ministry of Housing, Communities & Local Government Planning Practice Guidance 2019

proposed development would be particularly sensitive to poor air quality in its vicinity" Paragraph: 005 Reference ID: 32-005-20191101.

3.9 The PPG sets out the information that may be required in an air quality assessment, making clear that:

"Assessments need to be proportionate to the nature and scale of development proposed and the potential impacts (taking into account existing air quality conditions), and because of this are likely to be locationally specific" Paragraph: 007 Reference ID: 32-007-20191101.

3.10 Regarding sites that will operate under an Environmental Permit, PPG states that:

"It is not necessary for air quality assessments that support planning applications to duplicate aspects of air quality assessments that will be done as part of non-planning control regimes, such as under Environmental Permitting Regulations" Paragraph: 007 Reference ID: 32-007-20191101.

3.11 The PPG also provides guidance on options for mitigating air quality impacts, as well as examples of the types of measures to be considered. It makes clear that:

"Mitigation options will need to be locationally specific, will depend on the proposed development and need to be proportionate to the likely impact. It is important that local planning authorities work with applicants to consider appropriate mitigation so as to ensure new development is appropriate for its location and unacceptable risks are prevented" Paragraph: 008 Reference ID: 32-008-20191101.

Examples of mitigation include:

- *"maintaining adequate separation distances between sources of air pollution and receptors;*
- *using green infrastructure, in particular trees, where this can create a barrier or maintain separation between sources of pollution and receptors;*
- *appropriate means of filtration and ventilation;*
- *including infrastructure to promote modes of transport with a low impact on air quality (such as electric vehicle charging points);*
- *controlling dust and emissions from construction, operation and demolition; and*
- *contributing funding to measures, including those identified in air quality action plans and low emission strategies, designed to offset the impact on air quality arising from new development."* Paragraph: 008 Reference ID: 32-008-20191101.

Environment Act 2021

3.12 The UK's new legal framework for protection of the natural environment, the Environment Act 2021 passed into UK law on 9th November 2021. The Act gives the Government the power to set long-

term, legally binding environmental targets. It also establishes an Office for Environmental Protection (OEP), responsible for holding the government to account and ensuring compliance with these targets.

3.13 The Act requires the government to set at least one long-term target (spanning a minimum of 15 years), supported by interim targets set in a five-year cycle, in each of four identified areas: Air Quality, Biodiversity, Water and Resource Efficiency and Waste Reduction. An additional target for mean levels of $PM_{2.5}$ is also required. These targets must be set before November 2022 – a scope for what these targets will involve has been outlined but they are not yet precisely defined[14]. Once new targets are set, it is likely that these will need to be addressed, at least to some extent, through the planning system, and there is potential for $PM_{2.5}$ to become more prominent within in air quality assessments.

Local Policy

3.14 The North West Leicestershire Local Plan 2011-2036 (as amended by the Partial review)[1] provides the current planning polices for the District. The Local Plan was adopted in November 2017 and the partial review was adopted in March 2021. The Council has two policies relating to air quality and one relating to Green Infrastructure which benefits air quality.

Policy D2 Amenity

Proposals for development should be designed to minimise their impact on the amenity and quiet enjoyment of both existing and future residents within the development and close to it. As such, development proposals will be supported where:

1) They do not have a significant adverse effect on the living conditions of existing and new residents through loss of privacy, excessive overshadowing and overbearing impact.

2) They do not generate a level of activity, noise, vibration, pollution or unpleasant odour emission, which cannot be mitigated to an appropriate standard and so, would have an adverse impact on amenity and living conditions.

Development which is sensitive to noise or unpleasant odour emissions will not be permitted where it would adversely affect future occupants. Proposals for external lighting schemes should be designed to minimise potential pollution from glare or spillage of light. The intensity of lighting should be necessary to achieve its purpose, and the benefits of the lighting scheme must be shown to outweigh any adverse effects.

[14] https://consult.defra.gov.uk/natural-environment-policy/consultation-on-environmental-targets/#:~:text=The%20Environment%20Act%202021%20requires,5)%20and%20species%20abundance.

Policy EN6 Land and Air Quality

Proposals for development on land that is (or is suspected of being) subject to land instability issues or contamination, or is located within the defined Development High Risk Area or within or close to an Air Quality Management Area or close to a known source of noise will be supported where:

(a) A planning application is accompanied by a detailed investigation and assessment of the issues; and

(b) Appropriate mitigation measures are identified which avoid any unacceptably adverse impacts upon the site or adjacent areas, including groundwater quality.

Development should avoid any unacceptably adverse impact upon soils of high environmental value (for example wetland and other specific soils) and ensure that soil resources are conserved and managed in a sustainable way.

Policy IF1 Development and Infrastructure

Development will be supported by, and make contributions to as appropriate, the provision of new physical, social and green infrastructure in order to mitigate its impact upon the environment and communities. Contributions may be secured by means of planning obligations and/or a Community Infrastructure Levy charge, in the event that the Council brings a Charging schedule in to effect. The type of infrastructure required to support new development includes, but is not limited to:

(…)(d) Green infrastructure including open space, sport and recreation, National Forest planting (either new provision or enhancement of existing sites) and provision of or improvements to sites of nature conservation value; *(…)*

The infrastructure secured (on or off-site) will be provided either as part of the development or through a financial contribution to the appropriate service provider and may include the long-term management and maintenance of the infrastructure. *(…)*

3.15 The Leicestershire Minerals and Waste Local Plan[15] was adopted in 2019 and this has one policy relating to air quality and the need to safeguard minerals and waste sites.

Policy W9: Safeguarding Waste Management Facilities

Planning permission will be granted for the redevelopment of existing and permitted waste management facilities to a non-waste use where it is demonstrated that the loss of the facility does not prejudice the County's implementation of the waste hierarchy either through the provision of a new waste facility in the vicinity of that to be lost or that there is no longer a need for the waste facility at that location.

Planning permission will be granted for development which adjoins, is adjacent to or would locate a potentially sensitive receptor in closer proximity to an existing or permitted waste management facility where it is demonstrated that there would be no adverse effect upon amenity and the development would not prejudice the current and future operation of the facility.

[15] Leicestershire Minerals and Waste Local Plan Up to 2031 (2019) https://www.leicestershire.gov.uk/sites/default/files/field/pdf/2019/10/3/Leicestershire-Minerals-and-Waste-Local-Plan-Up-to-2031-Adopted-2019.pdf

4 Development Classification and Air Quality Assessment Requirements

4.1 New development may lead to the worsening of air quality if the development increases emissions, from, for example, road traffic, energy plant, dust emissions during construction or through fugitive[16] emissions of dust, odour or industrial/commercial sources of pollutants. Development may also introduce sensitive receptors[17] into an area of potentially poor air quality and therefore the suitability of the site for the proposed uses requires assessment.

4.2 The consideration of air quality to support planning applications for new development should determine:

- the classification of the development;
- the suitability of the site in air quality terms;
- the air quality assessment scope; and
- the measures needed to minimise emissions and where required, mitigate any adverse impacts.

4.3 The scope of the air quality assessment should be proportionate to the size of the development, the potential impacts of the scheme, and whether it will introduce receptors into an area of poor air quality.

4.4 A summary of the requirements for an assessment for different classifications of development are summarised in

[16] Fugitive Dust is defined as small particles suspended in the air, primarily mineral dust. Sources include but are not limited to: Quarrying and mineral extraction sites; landfill sites; coal and material stockyards, or materials handling; major construction works; and waste management sites.

[17] The Air Quality Objectives only apply where 'receptors' (people) are exposed for a period of time relevant to the objective in question (for example for an annual mean the objectives apply at the facades of residential properties, schools etc). Therefore, introduction of people into an area which already has concentrations above objectives, could require an AQMA to be declared.

4.5 **Table** 1 and explained further in Step1 to Step 3 below.

Table 1: Summary of Development Classification and Assessment Requirements

<table>
<tr><th colspan="2" rowspan="2">Assessment Requirements</th><th colspan="4">Development Classification</th></tr>
<tr><th>Minor</th><th>Major</th><th colspan="2">Major + (larger scale development as defined in Table 2)</th></tr>
<tr><td rowspan="4">Assessment Scope</td><td>Site Suitability Assessment</td><td>Yes (Where applicable)</td><td>Yes (Where applicable)</td><td colspan="2">Yes (Where applicable)</td></tr>
<tr><td>Impact Assessment</td><td>No</td><td>No</td><td colspan="2">Yes</td></tr>
<tr><td>Damage Cost Calculation</td><td>No</td><td>Yes</td><td colspan="2">Yes</td></tr>
<tr><td>Construction Dust Assessment</td><td>No</td><td>Yes</td><td colspan="2">Yes</td></tr>
<tr><td colspan="2">Good Practice Measures Statement</td><td>Yes</td><td>Yes</td><td colspan="2">Yes</td></tr>
<tr><td colspan="2" rowspan="2">Mitigation/Minimum Measures</td><td rowspan="2">No</td><td rowspan="2">Additional Measures</td><td>Not Significant Effects</td><td>Significant Adverse Effects</td></tr>
<tr><td>Additional Measures</td><td>Additional Measures

Onsite Mitigation Measures

Offsetting</td></tr>
</table>

Step 1: Determination of Minor or Major Development

4.6 The first step is to determine whether the proposed development is a Minor or Major Development. This stage is intended to screen out smaller developments, or developments where impacts can be considered to have insignificant effects. The criteria outlined is based on the EPUK and IAQM Guidance on Planning and Air Quality[5] with reference to the Town and Country Planning Act[18] definition for 'major development'.

[18] Central Government Town and Country Planning (Development Management Procedure) (England) Order 2015 Statutory Instrument 2015 No. 595

A development is Major if:

- For residential development, the number of dwellings is 10 or where the number of dwellings is unknown, the site is more than 0.5ha
- For all other uses, the floorspace is 1000 m^2 or more or the site area is greater than 1ha

AND

- The development has more than 10 parking spaces

OR

- The development is a centralised energy facility or other centralised combustion process

4.7 If the scheme does not meet the above criteria, it is a 'Minor' Development. Applicants for minor development will need to:

- Review the need for a Site Suitability Assessment (Step 2)
- Provide a Good Practice Measures Statement (see Section 5)

4.8 Applicants for minor development **will not** need to prepare the Air Quality Impact Assessment described at Step 3.

Step 2: Site Suitability Assessment

4.9 The second step is for the applicants of both minor and major development to consider whether they need to carry out a Site Suitability Assessment. Site Suitability Assessments will be required in locations which exceed the air quality objectives and locations where receptors could be subject to environmental nuisance.

A Site Suitability Assessment is required if:

- The proposed development is in an Air Quality Management Area (AQMA) and includes 'relevant exposure'
- It introduces new receptors representing relevant exposure within 30m of A Roads (M1, A42, A50, A6, A444, A453, A511)
- It introduces new receptors within 1km of Safeguarded Sites[20] and/or there are no existing sensitive receptors between the application site and the Safeguarded Site or an industrial source/East Midlands Airport.

4.10 'Relevant exposure' refers to locations where members of the public are likely to be regularly present and are likely to be exposed over the averaging period of the objective. If the AQMA is designated only for exceedances of an annual mean objective (which is currently the case in North West Leicestershire) then relevant exposure comprises the façades of residential properties, schools, hospitals and care homes etc.

4.11 Site Suitability Assessments can be submitted either as part of a wider air quality assessment, or as a standalone report to accompany the planning application, will include a judgement as to whether there are any risks of introducing relevant receptors into locations which are unsuitable from an air quality perspective. This judgement will be accompanied by evidence as required. More information on the expected content of Site Suitability Assessments is at Section 6.

Step 3: Scope of Air Quality Impact Assessment

4.12 This step is only for those identified in Step 1 as major developments. At this stage, it is necessary to ascertain if a scheme is **major** or **major+** as this will determine the scope of the Air Quality Assessment required to support the planning application.

4.13 If any of the criteria in Table 2 are met, then the scheme is classified as Major+. These criteria are based on the EPUK and IAQM Guidance on Planning and Air Quality[4]. If none of the criteria are met, then the scheme is 'Major'.

4.14 All Major schemes are required to provide a Damage Cost Calculation, a Construction Dust Risk Assessment, a Good Practice Measures Statement and the consideration of Additional Measures.

4.15 In addition to the above requirements for Major schemes, Major+ schemes will be required to provide an Impact Assessment. Where the Impact Assessment concludes that impacts are significantly adverse, development proposals will need to either include mitigation to reduce the impacts or offset where onsite mitigation is not possible.

4.16 Where it is not clear cut, the final decision as to whether an impact assessment will be required will be made by the relevant local authority officer. A flow chart and Checklists to assist in identifying the Assessment Scope are provided in

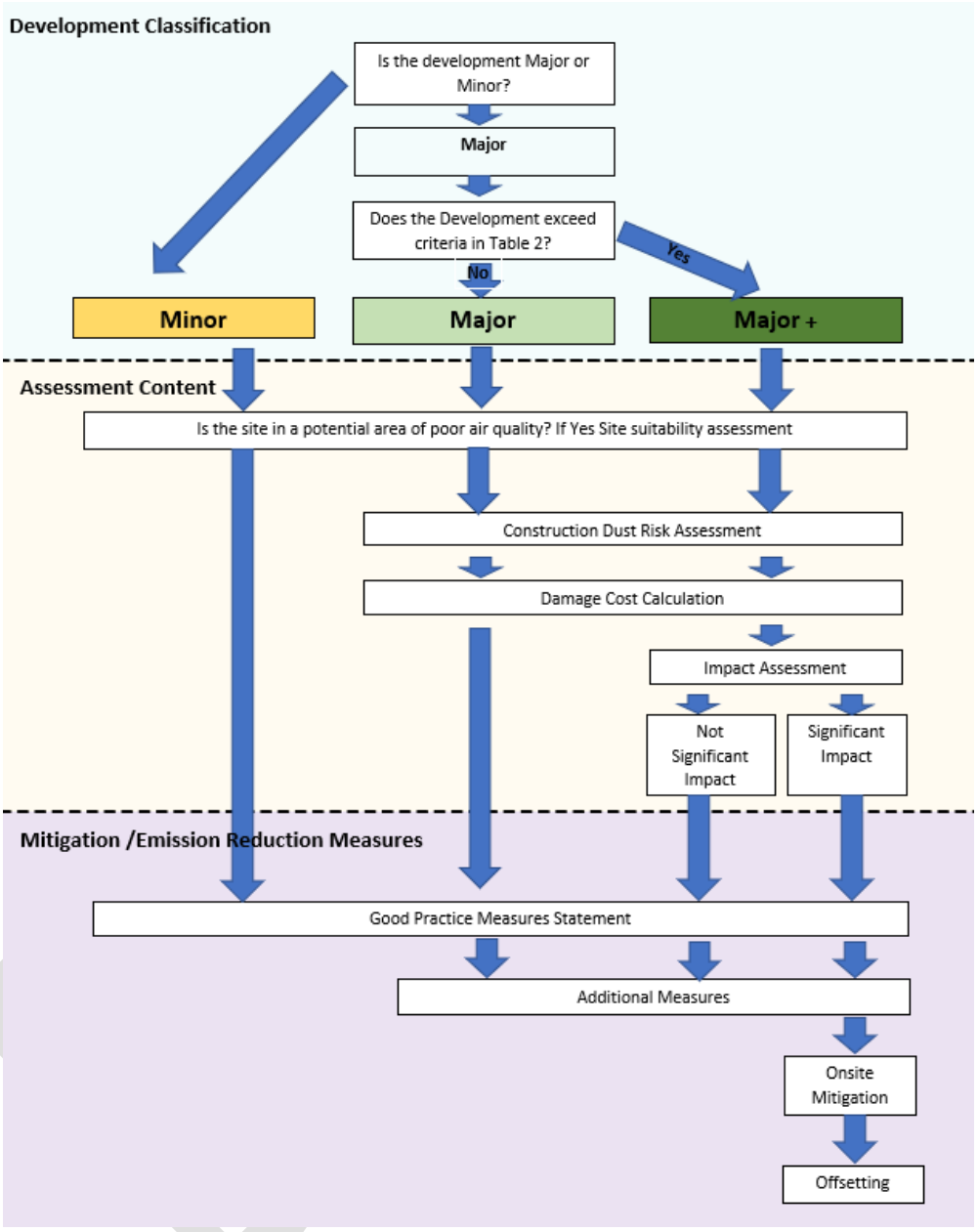
4.17 Figure 2 and in Appendix A1 respectively.

A development is Major + if it:

- requires an EIA (Environmental Impact Assessment)
- increases Light Duty Vehicle (LDV) flows of more than 100 Annual Average Daily Traffic (AADT) within or adjacent to an AQMA, or more than 500 AADT elsewhere
- increases Heave Duty Vehicles (HDV) flows of more than 25 AADT within or adjacent to an AQMA, or more than 100 AADT elsewhere
- realigns a road by 5 m or more if the road is within an AQMA (i.e. change the proximity of receptors to traffic lanes)
- introduces a new junction or removes an existing junction near to relevant receptors
- introduces or changes a bus station (increase bus movements by more than 25 AADT within or adjacent to an AQMA, or more than 100 AADT elsewhere)
- has an underground car park with extraction system (within 20m of a relevant receptor and with more than 100 movements per day, in and out)
- has one or more substantial combustion processes, where there is a risk of impacts at relevant receptors (this includes combustion plant associated with standby emergency generators (typically associated with centralised energy centres)).[19]
- potentially impacts ecologically sensitive locations (e.g. Special Area of Conservations (SAC), Sit of Special Scientific Interest (SSSI), Local Nature Reserve (LNR) etc) or
- it includes a regulated process under the Environmental Permitting (Amendment) Regulations 2018 with emissions to air.[20]

Table 2: Indicative Criteria for Major+ Development

Figure 2 Air Quality Assessment Requirements Flow Chart



5 Good Practice Measures – All Schemes

5.1 Achieving compliance with the air quality objectives is a principal target to protect public health and to comply with national and local policy. However, measures to minimise air quality impacts, particularly in relation to particulate concentrations have beneficial impacts for society in general and are also important to assist in achieving sustainable development. The early consideration of air quality within the design of a scheme will ensure the air quality benefits are maximised.

5.2 Good practice principles should, therefore, be applied to **ALL** developments, even those that have been screened out of requiring an air quality assessment. Good practice measures incorporated into a scheme should be set out in either a stand-alone Good Practice Statement, or as a section within the Air Quality Assessment, and accompany the planning application.

Principles of Good Practice

Design Phase

5.3 The design of new development should consider air quality constraints and opportunities to minimise exposure of users to air pollution and reduce the impacts of development on air quality. Adopting good design at an early stage has the potential to reduce the need to mitigate the impact of the development. Delivering sustainable development should be the key theme of any application;

- New development should be designed to minimise public exposure to pollution sources, for example by:
  - locating habitable rooms, schools, hospitals and playgrounds away from busy roads;
  - directing combustion generated pollutants through well sited flues;
  - separating pedestrians from vehicles by providing separate access routes into the development or using green infrastructure to provide a barrier between the two; and
  - separating areas of the public realm from areas of poor air quality such as busy roads.
- Wherever possible, a new development should not create a new "street canyon"[19], or a building configuration that inhibits effective pollution dispersion;
- Green infrastructure should be integrated into the design from the beginning, for example, through the use of appropriate tree planting, green roofs and walls and soft landscaping. This supports Policy IF1 of the Local Plan. Advice on the use of green infrastructure to protect people

[19] A street canyon is defined as a relatively narrow street with buildings on both sides where the height of the buildings is general greater than the width of the road

from air pollution has been provided within the 6 C's Green Infrastructure Strategy [20]. Examples include:

- locating evergreen hedges between roads and receptors; and
- locating hedges and trees around outdoor play areas or amenity space.

Construction and Demolition Phase

5.4 For major sites recommended mitigation measures should be based on IAQM Guidance[21] and the risk of dust emissions during the construction works identified through the construction dust risk assessment. Further information on this assessment is outlined in section 6. For major sites a Dust Management Plan would be necessary which may be integrated into a Code of Construction Practice (COP) or a Construction Environmental Management Plan (CEMP), and compliance monitoring, undertaken by the developer, may be required.

5.5 The latest version of this guidance[31] should be used to determine the measures that should be employed to reduce the impacts, along with guidance on monitoring during demolition and construction[22].

Operational Phase

5.6 A key theme of the NPPF is that developments should enable future occupiers to make "green" vehicle choices and "*incorporate facilities for charging plug-in and other ultra-low emission vehicles*" (paragraph 35). The Government plans to phase-out the sale of new petrol and diesel car and vans by 2030[23] and an ambition "*By 2050, we want virtually every car and van on the road to be zero emission*". Electric Vehicle (EV) charging provision will be provided in accordance with the Building Regulations.

5.7 The provision of heat and hot water to new development is often provided by either domestic boilers or through the use of centralised heating systems and biomass fuels. The use of low or zero emission technology to provide heat and hot water is encouraged. Should combustion plant be included within a scheme, due to the potential for a significant increase in polluting emissions in built up areas, minimum default standards are also included in the list below. This includes a requirement for low NOx domestic boilers.

[20] North West Leicestershire 6 C's Green Infrastructure Strategy https://www.nwleics.gov.uk/files/documents/6_cs_gi_strategy_volume_1_sub_regional_strategic_framework_july_2010/6C%27s%20GI%20Strategy%20Volume%201%20-%20Sub-Regional%20Strategic%20Framework%20-%20July%202010.pdf

[21] Environmental Protection UK and the Institute of Air Quality Management (2017) Land Use Planning and Development Control: Planning for Air Quality. Available at: https://www.iaqm.co.uk/text/guidance/air-quality-planning-guidance.pdf

[22] IAQM Air Quality Monitoring in the Vicinity of Demolition and Construction Sites 2018

[23] Office for Low Emission vehicles Reducing Emissions from Road Transport: Road to Zero Strategy. 2018 https://www.gov.uk/government/publications/reducing-emissions-from-road-transport-road-to-zero-strategy

Table 3: Good Practice Measures for all Developments

Good Practice Measures for all Developments		
Design Measures		New development should be designed to minimise public exposure to pollution sources, Wherever possible, new developments should not create a new "street canyon", or a building configuration that inhibits effective pollution dispersion; and Green infrastructure should be integrated into the design from the beginning
EV Charging Points[24]	**Residential**	EV charging infrastructure 1 charging point per unit (dwelling with associated parking) with cable route provided for all spaces
	Non-residential building (with more than 10 parking spaces)	EV charging infrastructure minimum of 1 charging point with cable routes for 20% of total spaces
Construction Dust Mitigation		Implement dust management procedures and for Major Development adhere to dust management guidance and best practice for all demolition and construction works
Heating		All gas-fired boilers to meet a minimum standard of <40mgNOx/kWh
Centralised Plant and Generators		All gas-fired CHP plant to meet minimum emission standard of: • Spark ignition engine 250mgNOx/Nm^3 • Compression ignition engine 400mgNOx/Nm^3 • Gas turbine: 50 mgNOx/ Nm^3 All Biomass boilers to meet minimum emission standard of 275mgNOx/Nm^3 & 25mgPM/Nm^3 Running of the flue for centralised and generator plant to a specified height above roof level to ensure the best possible dispersion environment. Use of exhaust flues for the CHP/Emergency generators and boilers that discharge vertically upwards, unimpeded by any fixture on top of the stack (e.g. rain cowls)

[24] Summary provided but see regulations for further details in relation to connection price cap, covered spaces, mixed-use building and buildings subject to major renovation.

6 Content of Site Suitability Assessment

6.1 A site suitability air quality assessment will comprise either:

- a simple qualitative assessment; or
- a detailed quantitative assessment.

6.2 The air quality assessment should provide evidence to enable a sound conclusion of the suitability of the site for its intended use from an air quality perspective.

6.3 A simple qualitative assessment may be appropriate if there is sufficient evidence to demonstrate this; for instance, using local monitoring data within an AQMA to determine whether air quality is poor. The proposed assessment approach should be agreed with the local authority prior to submission of the planning application.

6.4 For proposals where a detailed air quality assessment is required, this may require modelling using an atmospheric dispersion model such as ADMS or AERMOD. The air quality assessment should predict concentrations at the façade of the receptor to determine compliance with air quality objectives (including revised targets as a result of the Environmental Act 2021). This will identify whether scheme re-design or mitigation to protect future occupiers from poor air quality is necessary. Further details on appropriate mitigation measures are provided in paragraph **Error! Reference source not found.**.

6.5 For developments close to sources of fugitive dust or odours which have the potential to cause a nuisance, assessment should be undertaken in accordance with appropriate IAQM guidance, such as for Mineral Extraction sites[25] or odours[26].

6.6 In some circumstances, a model might not accurately reflect the local situation (for example in a complex street canyon, or at a junction within a street canyon), and in this case a short monitoring study using diffusion tubes may be more appropriate, and less costly. Before undertaking this approach, the specific location for monitoring should be discussed with the Council.

[25] IAQM Guidance on the Assessment of Mineral Dust Impacts for Planning 2016

[26] IAQM Guidance on the Assessment of Odour for Planning 2018

7 Content of Air Quality Assessment

7.1 For those proposals where a detailed air quality assessment is required, this may require modelling using an atmospheric dispersion model such as ADMS Roads ADMS 5 or AERMOD.

7.2 The impact assessment should:

- determine the impact of any changes in air quality (particularly nitrogen dioxide, PM_{10} and $PM_{2.5}$) at sensitive receptor locations;
- determine compliance with air quality objectives (including revised targets as a result of the Environmental Act 2021); and
- determine the overall significance of the development on air quality.

7.3 The assessment needs to consider:

- impacts during the demolition/construction phases[27];
- impacts during the operational phase; and
- cumulative impacts with other projects.

7.4 The determination of the magnitude of impacts as a result of changes in pollutant concentrations at individual receptors and also the overall judgment of significance should be based on EPUK and IAQM Guidance[5]. This should also take account of the fact that development should not contravene the Council's Air Quality Action Plan, or render any of the measures unworkable. In accordance with this guidance a binary judgement of 'significant' or 'not significant' is required.

7.5 In some cases, for large scale developments, construction may be phased over a number of years, with residents or businesses occupying part of the development before the whole development is finished. In these cases, careful consideration should be given to what future assessment year should be applied. In some cases more than one future year may be required to fully assess the impacts. Further consideration for schemes which are subject to the Environmental Permitting Regulations or provide standby power generation are outlined in **Section 8**.

[27] Schemes subject to an Environmental Impact Assessment will need to consider the impacts of emissions from construction traffic as well as construction dust. This should follow the approach outlined in section 0 which outlines the required content of an Impact Assessment.

7.6 If the air quality assessment does not meet the requirements set out in this SPD, the Council may request that the applicant amends, or undertakes the assessment again. If the assessment does not meet the required standards, the application may be refused.

Where a Detailed Air Quality Assessment is needed, the most up to date relevant guidance documents should be used. Currently these are EPUK/ IAQM Guidance (Land-use Planning & Development Control: Planning for Air Quality) and LAQM Technical Guidance TG(16)

Damage Cost Calculation (All Major Schemes)

7.7 All major schemes are required to provide a Damage Cost Calculation. See Box 1 for more information regarding the background to Damage Costs including how they were derived and how they are used. The pollutant emission cost calculation will assist the Council in the assessment of the overall impacts on air quality from major developments (not in defining the cost of mitigation to reduce significant impacts). The costs may be used by the Council as a guide in considering the appropriate scale and kind of 'additional measures' that are required to make certain major schemes acceptable in terms of air quality or to minimise emissions from the scheme. The Council acknowledges the limitations of damage costs as set out in Box 1.

Box 1: Background to Damage Costs

Defra developed the damage cost approach to enable proportionate analysis when assessing relatively small impacts on air quality. The damage costs are a set of impact values which were derived using the more detailed Impact Pathway Approach. These values estimate the societal costs associated with small changes in pollutant emissions. Combined with emission change estimates, they provide an approximate valuation of the aggregate societal impacts of a policy. Such impacts can then be set against the direct monetary costs of a scheme to provide a cost-benefit calculation. Thus, damage costs do not provide a figure for the abatement of emissions to a given level.

Abatement costs are usually derived from a marginal abatement cost curve (MACC) which gives the incremental cost of measures to achieve a certain outcome, such as the removal of an exceedance of the air quality objectives. However, the measures available and their associated costs are quite time-specific which means that they need to be updated in a regular basis. Defra's last MACC for NO_2 exceedances was produced several years ago and has now been withdrawn. There are therefore no Defra approved abatement costs for air quality currently available. Thus, while damage costs are not the same as abatement costs, they provide a current, available and regularly used resource by Councils for assigning value to air pollution emissions.

7.8 The calculation of the additional pollutant emissions from a proposed development should utilise either the most recent Department for the Environment, Food and Rural Affairs (DEFRA Emissions)

Factor Toolkit[28] for road traffic emissions, or calculate emissions from centralised or permitted combustion plant, based on emission rate and energy usage.

7.9 The latest DEFRA Air Quality appraisal Damage Costs approach for the specific pollutant of interest, should be used to calculate the resultant damage cost[29]. The calculation process currently comprises the following steps:

1. Calculate the additional pollutant emissions:
    - Road transport:
        - identify the additional trips generated by the proposed development;
        - calculate the emissions from these trips for the pollutants of concern (NOx and $PM_{2.5}$) using the EFT, for five years, with the five years commencing at the year of opening. This calculation should assume a 10 km[30] trip length and a 48 kph average speed;
    - Point Sources
        - calculate the annual emissions from the combustion plant for the pollutants of concern based on emission rate and annual fuel or energy usage, These emissions are likely to be the same for the five years assessed.
2. calculate the damage costs for the specific pollutant emissions using the damage cost toolkit. The toolkit allows for reductions in emissions over time, applies a discount in line with HM Treasury's Green Book and also adjusts for inflation; and
3. extracting the 'Central' total value for each pollutant and summing these for use as the damage cost total for the scheme.

7.10 The Council **may use** the calculated damage costs to consider the appropriate scale and kind of 'additional measures' that are required to minimise emissions from the scheme ensuring they are proportionate to the likely impact and also to make certain major schemes acceptable in terms of air quality.

7.11 For Major+ schemes with significant impacts, the priority is to mitigate these impacts at the location where they occur, however where mitigation cannot be implemented onsite, the damage costs may also be used to determine the appropriate level of planning contribution required to implement mitigation offsite, through offsetting. This is discussed further in paragraph 8.11 8.11 to 8.12.

[28] Defra Emissions Factor Toolkit Defra LAQM Support https://laqm.defra.gov.uk/air-quality/air-quality-assessment/emissions-factors-toolkit/

[29] Defra Air quality appraisal: damage cost guidance https://www.gov.uk/government/publications/assess-the-impact-of-air-quality/air-quality-appraisal-damage-cost-guidance

[30] If a different trip length is deemed to be appropriate for the development, this would need to be justified.

Construction Dust Assessment (All Major Schemes)

7.12 The demolition/ construction phase is a source of dust emissions. Any Major scheme should consider the impact of dust emissions during the demolition and construction phase. A Dust Assessment should follow the most up to date relevant methodology provided by IAQM[31]**Error! Bookmark not defined.**. It may be possible to screen out construction dust assessment using this guidance if there are no receptors within 350m of the site boundary or 50m of routes used by construction traffic. For major schemes the dust risk assessment should inform the measures outlined within the Good Practice Statement.

Content of Impact Assessment (Major + Schemes)

7.13 An impact assessment will comprise either:

- a simple qualitative assessment; or
- a detailed quantitative assessment

7.14 The air quality assessment should provide enough evidence to enable a sound conclusion of the presence, or otherwise, of a significant air quality impact. Most developments that require an impact assessment are likely to need a detailed assessment. A simple qualitative assessment may be appropriate if there is sufficient evidence to demonstrate the potential for significant effects; for instance the use of monitoring data or absence of sensitive receptors. The proposed assessment approach should be agreed with the local authority prior to submission of the planning application.

[31] IAQM Assessment of dust from demolition and construction 2014

8 Emission Reduction/ Mitigation Measures

Additional Measures for Major Schemes (All Major Schemes)

8.1 Major developments will often result in increases in emissions[32]. All Major Schemes should minimise emissions to achieve sustainable development in air quality terms, therefore, further measures over and above Good Practice Measures should be implemented.

8.2 Measures to minimise emissions from a scheme should be considered within the following hierarchy, with preference given to measures which prevent emissions rather than reduce:

- Prevent:
    - measures that reduce number of vehicle movements, for example by encouraging modal shift to active travel; and
    - the use of heating systems with no emissions; avoiding the use of onsite combustion plant or backup emergency diesel generators.
- Reduce
    - measures that reduce vehicle emissions, for example by encouraging low emission vehicles;
    - measures to support improved public transport;
    - measures to support the development of alternative technologies; and
    - measures to reduce emissions from energy plant through the use of Low NOx plant.
- Protect
    - Protect receptors from existing poor air quality; and
    - flue design to maximise dispersion and distance to sensitive receptors.

8.3 Measures which could be considered by the applicant to minimise emissions from a new development are provided in Table 4. This is not an exhaustive list, but rather a suggested suite of measures for consideration. The Council also welcomes the opportunity to work with developers to devise innovative measures that will lead to improving local air quality. Applicable measures will be dependent on the type of development, and the development emissions, location and impact.

8.4 The Council will review the Additional Measures outlined within the assessment to determine whether these are appropriate for the scale, emissions and impact of the development (note these measures are not to mitigate adverse effects but to minimise emissions from the scheme, although if mitigation for Major + schemes are necessary some measures maybe the same).

[32] There are exceptions such as a scheme will result in changes to the road geometry and therefore will not itself increase emissions or where there are no sources of emissions, or if the development will lead to reduction compared to an existing use.

8.5 The Council **may use** the calculated damage costs to consider whether the measures proposed are appropriate to minimise emissions from the scheme, ensuring they are proportionate to the scale of the development. If these are not deemed to be sufficient, additional measures may be necessary.

Table 4: Examples of Suggested Additional Measures

- Implement a travel plan to encourage active travel and minimise vehicle movements;
- Improved infrastructure and layouts to improve accessibility and safety and link to existing infrastructure
- Prioritise walking and cycling in new junctions and crossings or by improving existing junctions and crossings
- Provide high quality and secure covered cycle parking and cycling infrastructure such as lockers or showers and changing facilities
- Provide Car Club parking spaces (prioritising the use of electric vehicle)
- Provide a direct connection to existing cycle and walking infrastructure to facilitate active travel
- Include designated parking spaces or differentiated parking charges for low emission vehicles
- Encourage sustainable means of transport (public, cycling and walking) for instance through subsided ticketing
- Provide shared mobility schemes cycle/ e-cycle/scooter hire schemes, or provide hubs for existing schemes
- Encourage commercial fleets to meet the latest European emission standards
- Provide a commercial fleet emission reduction strategy/low emission strategy to encourage the update of low emission fuels and technologies
- Use of freight consolidation schemes/ last mile zero emission deliveries
- Provide parcel lockers to minimise redeliveries
- Encourage the use of ultra-low NOx boilers (less than 15mgNOx/kWh)
- Request Construction Traffic Management Plans (CTMP) outlining measures to reduce emissions such as meeting highest Euro standard, steps to reduce the number and length of journey, or timing and routing of journeys to avoid congestion
- Avoid the use of onsite combustion plant, such as gas-fired boilers, Combined Heat and Power Plant (CHP) or backup diesel emergency generators
- Define ‘engine off’ areas, such as bus stands, taxi ranks, tourist coach parking and outside of schools
- Improve traffic flow by reducing congestion, stop-start traffic and traffic queues and the consequent emission ‘spikes’

Mitigation of Adverse Impacts

8.6 All Major+ Developments which are predicted through the impact assessment to have significant air quality effects, are expected to mitigate these impacts.

8.7 The implementation of mitigation is expected to be in accordance with the following hierarchy:

- redesign to eliminate or reduce the impact;
- implement mitigation measures onsite (these measures should not be considered as an alternative to fundamental redesign);
- if mitigation measures cannot be implemented onsite, then offsetting may be necessary.

8.8 The mitigation required will need to be specific to the development's impact, taking into account local air quality issues, but also be proportional to the impact of the development. The design and mitigation package should be presented with the planning application.

8.9 Applicants must demonstrate that proposed mitigation is likely to effectively address the adverse impact of development in air quality terms. Where adverse impacts are not appropriately mitigated, this may result in the application being refused. The Council will evaluate all material considerations in determining the acceptability of a scheme.

8.10 Where mitigation is not integrated into a proposal, the Council will require this to be secured through a planning condition or through Section 106 agreements. If on-site mitigation is not possible then the Council will seek contributions for offsetting the identified air quality impacts offsite through a Section 106 or similar agreement (see paragraph 8.21) where planning permission would otherwise be refused on air quality grounds. The cost of the mitigation necessary may not be related to the damage cost of the scheme (see Box 1).

Offsetting

8.11 Where impacts cannot be mitigated onsite, it may be necessary to offset emissions offsite. This may be provided as a financial contribution to the Council from the developer. The Council may seek this funding through a Section 106 agreement which will be used to offset the impact on air quality arising from new development.

8.12 NPPG suggests measures to offset the air quality impact of a development by supporting measures including those identified in air quality action plans and low emission strategies, would be appropriate.

8.13

8.14

8.15 Table provides examples of what the Council may seek contributions towards.

Table 5: Examples of Measures for Offsetting Contributions

Financial Contributions may be requested by the Council for:

- Implementing measures within the Air Quality Action Plan
- Implementing Low Emission Strategies
- Growth in low and ultra-low emission public transport, including buses
- Electric Vehicle infrastructure
- Car Clubs (including electric) and car sharing schemes
- Micro mobility hubs include bike, e-bike and scooter hire
- Plugged- in development and demonstration schemes e.g. new occupants given demonstration use of plug-in vehicles
- Low emission waste collection services
- Infrastructure for low emissions, alternative fuels, e.g. refuse collection and community transport services

Mechanical Ventilation

8.16 The site suitability assessment outlined in Section 6.1 may identify the need for mitigation, to ensure users of a scheme experience acceptable air quality.

8.17 Mechanical ventilation is the intentional fan driven flow of outdoor air into a building. Mechanical ventilation systems may include supply fans (which push outdoor air into a building), exhaust fans (which draw air out of building and thereby cause equal ventilation flow into a building), or a combination of both. Mechanical ventilation is an option to ensure users are not exposed to concentrations above the air quality objectives because the inlets can be situated away from pollution sources. This also may involve sealed windows / triple glazing and a forced ventilation system, incorporating filters to remove pollutants such as NOx and particulates.

8.18 Mechanical ventilation increases the energy requirements of developments and are not ideal if users are not able to open windows for purge ventilation when desired. Therefore, mechanical ventilation is not necessarily a satisfactory solution to mitigating against exposure, particularly in the event of mechanical failure.

8.19 It is expected that first the design of the scheme is revisited with the aim of eliminating exceedances of the objective (see Good Practice Measures outlined in section 5.2), followed by a pragmatic review of the risk to occupiers considering the period of exceedance and assumptions within the assessment.

8.20 Where the above considerations cannot achieve acceptable exposure for a sensitive development, then consideration will be given to a refusal of the scheme.

Section 106 Payments/ Planning Contributions

8.21 The Council may seek Section 106 Agreements and other relevant obligations with developers to secure mitigation, including off-set, on larger schemes, where appropriate, to make the scheme environmentally acceptable.

8.22 Section 106 Agreements will only be sought where the following tests are satisfied in accordance with national requirements:

- necessary to make the development acceptable in planning terms;
- directly related to the development; and
- fairly and reasonably related in scale and kind to the development.

8.23 Where the Council specifies contributions towards air quality infrastructure then this will be considered as part of negotiating wider developer contributions to avoid any issue of double counting and consideration of viability of the scheme.

9 Glossary

AADT	Annual Average Daily Traffic
ADMS-Roads	Atmospheric Dispersion Modelling System model for Roads
ADMS-5	Atmospheric Dispersion Modelling System model for point sources
AQC	Air Quality Consultants
AQAL	Air Quality Assessment Level
AQMA	Air Quality Management Area
AURN	Automatic Urban and Rural Network
CDRA	Construction Dust Risk Assessment
CEMP	Construction Environmental Management Plan
CTMP	Construction Traffic Management Plan
CHP	Combined Heat and Power
Defra	Department for Environment, Food and Rural Affairs
DfT	Department for Transport
DMP	Dust Management Plan
EFT	Emission Factor Toolkit
EPUK	Environmental Protection UK
Exceedance	A period of time when the concentration of a pollutant is greater than the appropriate air quality objective. This applies to specified locations with relevant exposure
EU	European Union
EV	Electric Vehicle
HDV	Heavy Duty Vehicles (> 3.5 tonnes)
HMSO	Her Majesty's Stationery Office
IAQM	Institute of Air Quality Management
kph	Kilometres Per hour
kW	Kilowatt
LAQM	Local Air Quality Management
LDV	Light Duty Vehicles (<3.5 tonnes)

LNR	Local Nature Reserve
µg/m^3	Micrograms per cubic metre
MACC	Marginal Abatement Cost Curve
NO_2	Nitrogen dioxide
NOx	Nitrogen oxides (taken to be NO_2 + NO)
NPPF	National Planning Policy Framework
NRMM	Non-road Mobile Machinery
Objectives	A nationally defined set of health-based concentrations for nine pollutants, seven of which are incorporated in Regulations, setting out the extent to which the standards should be achieved by a defined date. There are also vegetation-based objectives for sulphur dioxide and nitrogen oxides
OEP	Office for Environmental Protection
PM_{10}	Small airborne particles, more specifically particulate matter less than 10 micrometres in aerodynamic diameter
$PM_{2.5}$	Small airborne particles less than 2.5 micrometres in aerodynamic diameter
PPG	Planning Practice Guidance
SAC	Special Area of Conservation
SPD	Supplementary Planning Document
SSSI	Site of Special Scientific Interest
Standards	A nationally defined set of concentrations for nine pollutants below which health effects do not occur or are minimal
WHO	World Health Organisation

10 Appendices

A1 Checklists

Checklist 1: Screening Assessment to Determine is Major or Minor Scheme

Question	Screening Checklist	Yes	No	Next Step
A	Does the proposed development comprise: A residential development of 10 or more dwellings or a site area of 0.5ha where the number of dwellings is unknown; or More than 1000m2 floor space / a site area greater than 1ha for all other uses?			If **yes** - go to **Question B** If **no**, the development is **minor** - go to **Question D**
B	Does it have more than 10 car parking spaces or include any centralised energy plant?			If **yes**, the development is **major** - go to **Question C** If **no,** the development is **minor** - go to **Question D**

Checklist 2: To Determine whether Site Suitability Assessment is Required

Question	Site Suitability Checklist	Yes	No	Next Step
C	Is the proposed development within, or close to an Air Quality Management Area (AQMA), within 30m of an A road or within 1km of a safeguarded site?			If **yes**, a Site Suitability Assessment **is** required. Proceed to **Checklist 3**. If no, a Site Suitability Assessment **is not** required. Proceed to **Checklist 3.**
D	Is the proposed development within, or close to an Air Quality Management Area (AQMA), within 30m of an A road or within 1km of a safeguarded site?			If **yes**, a Site Suitability Assessment **is** required. If **no**, a Site Suitability Assessment **is not** required.

Checklist 3: To Determine What Level of Impact Assessment is Required

	Yes	No	Next Step
Does the development require an Environmental Impact Assessment (EIA)?			If all questions are answered "**no**"**,** development is '**Major'**
Does the development increase Light Duty Vehicle (LDV) flows of more than 100 AADT within or adjacent to an AQMA, or more than 500 AADT elsewhere?			Construction Dust Risk Assessment (CDRA), 'damage cost calculation, good practice measures and additional measures are required
Does the development increase Heavy Duty Vehicle (HDV) flows of more than 25 AADT within or adjacent to an AQMA, or more than 100 AADT elsewhere			"If any question is answered "yes", development is **Major +** Construction Dust Risk Assessment (CDRA), damage cost calculation, impact assessment (to assess whether any further specific mitigation required), 'good practice measures and also additional measures are also required
Proposals that would realign a road by five metres or more if the road is within an AQMA (i.e. change the proximity of receptors to traffic lanes)			
Proposals that would introduce a new junction or remove an existing junction near to relevant receptors			
Proposals that would introduce or change a bus station (increase bus movements by more than 25 AADT within or adjacent to an AQMA, or more than			

100 AADT elsewhere)			
Proposals that have an underground car park with extraction system (within 20m of a relevant receptor and with more than 100 movements per day, in and out)			
Have one or more substantial combustion processes, where there is a risk of impacts at relevant receptors (this includes combustion plant associated with standby emergency generators (typically associated with centralised energy centres).			
Is the development likely to impact on ecologically sensitive locations (eg SSSI's, LNRs etc)?			
Proposals that include a power generation facility that qualifies as a regulated process under the Environmental Permitting (Amendment) Regulations 2018?			