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Guidance

Air quality

Provide guidance on how planning can take account of the impact of new development on air quality.

From: [Department for Levelling Up, Housing and Communities](#)

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1 November 2019 This guidance has been updated since the previous version.

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

What air quality considerations does planning need to address?

The 2008 Ambient Air Quality Directive (<http://eur-lex.europa.eu/eli/dir/2008/06/01/oj>) sets legally binding limits for concentration in outdoor air of major air pollutants that affect public health such as particulate matter (PM₁₀ and PM_{2.5}) and nitrogen dioxide (NO₂).

The UK also has national emission reduction commitments for overall UK emissions of damaging air pollutants:

- fine particulate matter (PM_{2.5})
- ammonia (NH₃)
- nitrogen oxide (NO_x)
- sulphur dioxide (SO₂)
- non-methane volatile organic compound

MVOCs

As well as having direct effects on public health, habitat and biodiversity, these pollutants can combine in the atmosphere to form ozone, a harmful air pollutant (and potent greenhouse gas).

which can be transported great distances by weather systems. Odour and dust can also be a problem in some cases, for example, because of their effect on local amenity.

The Department for Environment, Food and Rural Affairs carries out an annual national assessment of air quality (<http://uk-air.defra.gov.uk/air-pollution/>) using modelling and monitoring to determine compliance with relevant Limit Value (<http://environment.ec.europa.eu/topic/air/en>). It is important that the potential impact of new development on air quality is taken into account where the national assessment indicates that relevant limits have been exceeded or are near the limit, or where the need for emission reduction has been identified.

The local air quality management (LAQM) regime (<http://laqm.defra.gov.uk/>) requires every local authority to regularly review and assess air quality in their area. Air quality is a devolved matter, and for England the reviews identify whether national objectives in the Air Quality (England) Regulations 2010 (<http://www.legislation.gov.uk/uk/si/2010/928/content/made>) have been, or will be, achieved by an applicable date.

If national objectives are not met, or at risk of not being met, the local authority concerned must declare an air quality management area (<http://uk-air.defra.gov.uk/aqma/>) and prepare an air quality action plan. This identifies measures that will be introduced in pursuit of the objectives and can have implications for planning.

Air quality considerations may also be relevant to obligations and policies relating to the conservation of nationally and internationally important habitats and species. The Air Pollution Information Systems (<http://www.api.ac.uk/>) and Natural England's 'Impact Risk Zone' tool (available on GI&A (<http://magic.defra.gov.uk/>)) can help to determine the site type of development proposal which can adversely affect the designated site of special scientific interest and indicate when consultation with Natural England is required.

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Revi io date 1 11 2 19

What is the role of plan-making with regard to air quality?

All development plan can influence air quality in a number of way , for example through what development i propo ed and where, and the provi ion made for u tainable tran port. Con ideration of air quality i ue at the plan-making tage can en ure a trategic approach to air quality and help ecure net improvement in overall air quality where po ible.

It i important to take into account air quality management area ([http //uk-air.defra.gov.uk/aqma/](http://uk-air.defra.gov.uk/aqma/)), clean air zone ([http //www.gov.uk/government/publication /air-quality-clean-air-zone-framework-for-england](http://www.gov.uk/government/publication/air-quality-clean-air-zone-framework-for-england)) and other area including en itive habitat or de ignated ite of importance for biodiver ity where there could be pecific requirement or limitation on new development becau e of air quality. Air quality i al o an important con ideration in habitat a e ment, trategic environmental a e ment and u tainability apprai al ([http //www.gov.uk/guidance/ trategic-environmental-a e ment-and- u tainability-apprai al](http://www.gov.uk/guidance/trategic-environmental-a-e-ment-and-u-tainability-apprai-al)) which can be u ed to hape an appropriate trategy, including through e tabli hing the 'ba eline', appropriate objective for the a e ment of impact and propo ed monitoring.

Drawing on the review of air quality carried out for the local air quality management regime, plan may need to con ider

- what are the ob erved trend hown by recent air quality monitoring data and what would happen to the e trend in light of propo ed development and / or allocation ;
- the impact of point ource of air pollution s (pollution that originate from one place);
- the potential cumulative impact of a number of s maller development on air quality a well a

the sector more substantial development, including their implications for vehicle emissions;

- ways in which new development could be made appropriate in location where air quality is or is likely to be a concern, and not give rise to unacceptable risk 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.

A part of the strategic environmental assessment and sustainability appraisal (<http://www.gov.uk/guidance/strategic-environmental-assessment-and-sustainability-appraisal>) of a plan, considerations will need to be given to potential trends in air quality in the presence and absence of development, as well as any impact and mitigation / improvement opportunities arising from the plan's proposals.

Paragraph 5.2 Reference ID: S2-SS2-2 1911 1

Revision date: 11/2/19

Are air quality concerns relevant to neighbourhood planning?

Air quality concerns can be relevant to neighbourhood planning (<http://www.gov.uk/guidance/neighbourhood-planning-2>), and it is important to consider whether air quality is an issue when drawing up a neighbourhood plan or considering a neighbourhood development order. The local planning and environmental health departments will be able to advise whether air quality is an issue that may need to be addressed in a neighbourhood area, and how this might affect potential policies and proposals that are being considered.

Paragraph 5.3 Reference ID: S2-SS3-2 1911 1 s

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What information is available about air quality?

In addition to the information on local air quality held by environmental health department in local authorities, the Department for Environment, Food and Rural Affairs publishes information and there is a range of other potential sources which can be drawn on, depending on the development and its proposed location.

Information published by Defra

- the UK Air Information Resource (UK-AIR) (<http://uk-air.defra.gov.uk/>), which contain information on historic and current air quality across the UK, including a GIS portal (<http://uk-air.defra.gov.uk/data/gis-mapping>) of Defra's national assessment against relevant Limit Value and air quality management areas;
- air quality management area records (<http://uk-air.defra.gov.uk/aqma/>) and modelled background pollution concentration (<http://uk-air.defra.gov.uk/data/pcm-data>);
- the National Atmospheric Emission Inventory (<http://naei.bei.gov.uk/>) for emission of air pollution including maps at a 1km by 1km resolution for a wide range of pollutants;
- the Pollutant and Release and Transfer Register (<http://www.gov.uk/guidance/uk-pollutant-release-and-transfer-register-prtr-data-set>), which has links to emissions from installations permitted under the Environmental Permitting Regulation, which is useful for point sources;
- the Clean Air Strategy (<http://www.gov.uk/government/publication/clean-air-strategy-2019>) set out action for dealing with major sources of air pollution. A detailed National Air Pollution Control Programme (<http://www.gov.uk/government/publication/air-quality-uk-national-air-pollution-control-programme>) was published by the Department for Environment, Food and Rural Affairs in April 2019.

Other sources of information

- the [Environmental Pollution Incident Data set](http://www.data.gov.uk/data-sets/c862e18-c329-432-b4c7-444b33af678/environmental-pollution-incident-category-1-and-2) (<http://www.data.gov.uk/data-sets/c862e18-c329-432-b4c7-444b33af678/environmental-pollution-incident-category-1-and-2>) published by the Environment Agency, which has information about pollution incidents and [its registered](http://environment.data.gov.uk/public-register/view/index) under the Environmental Permitting Regulations (<http://environment.data.gov.uk/public-register/view/index>);
- information about the impact of air quality on habitat and species (including critical load and level) held by the [Air Pollution Information System](http://www.api.ac.uk/) (<http://www.api.ac.uk/>). This has been developed in partnership by the UK conservation agencies and regulatory agencies and the Centre for Ecology and Hydrology;
- the sustainability appraisal or habitat assessment informing strategic planning policies and whether they require an Air Quality Statement;
- recent environmental statements that may include updated baseline assessment.

Paragraph 4 Reference ID 32-4-2-1911-1

Revision date 11/12/19

When could air quality considerations be relevant to the development management process?

Whether air quality is relevant to a planning decision will depend on the proposed development and its location. Concern 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 habitat 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.

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 phase (and the consequence of this for public health and biodiversity); and
- whether occupiers or users of the developments could experience poor living conditions or health issues due to poor air quality.

The steps a local planning authority might take in considering air quality are set out in this flow diagram.

It is important that applicant engage early on with the local planning and environmental health department (<http://www.gov.uk/guidance/before-submitting-an-application>) to establish the need and scope of any assessment to support an application.

For large and complex industrial processes, the Environment Agency should also be able to help by identifying

- if an environmental permit (<http://www.gov.uk/topic/environmental-management/environmental-permit>) is also required before the proposed development can start operating;
- if there are any significant air quality issues that may arise at the permitting stage (or there are 'no surprises'); and
- whether there are any special requirements that might affect the likelihood of getting planning permission (such as the height of chimney).

Environment Agency guidance – Development requiring planning permission and environmental permit (<http://www.gov.uk/government/publication/development-requiring-planning-permission-and-environmental-permit>) – provide advice on aligning the planning

and permitted process to address the issue efficiently and aid faster decision making.

Paragraph Reference ID 32- -2 1911 1

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What specific issues may need to be considered when assessing air quality impacts?

Consideration that may be relevant to determining a planning application include whether the development would

- Lead to change (including any potential reduction) in vehicle-related emissions in the immediate vicinity of the proposed development or further afield. This could be through the provision of electric vehicle charging infrastructure; altering the level of traffic congestion; significantly changing traffic volume, vehicle speed or both; or significantly altering the traffic composition on local roads. Other matters to consider include whether the proposal involves the development of a bus station, coach or lorry park; could add to turnover in a large car park; or involve construction sites that would generate large Heavy Goods Vehicle flow over a period of a year or more;
- Introduce new point source of air pollution. This could include furnaces which require prior notification to local authorities; biomass boiler or biomass-fuelled Combined Heat and Power plant; centralised boiler or plant burning other fuels within or close to an air quality management area or introduce relevant combustion within a [Smoke Control Area \(http://www.gov.uk/moke-control-area-rule\)](http://www.gov.uk/moke-control-area-rule); or extraction systems (including chimneys) which require approval or permit under pollution control legislation;
- Expose people to harmful concentrations of air pollutant, including dust. This could be by building new homes, schools, workplaces or other development in places with poor air quality; or
- Give rise to potentially unacceptable impacts (such as dust) during construction for nearby

ensitive locations

- Have a potential adverse effect on biodiversity, especially where it would affect the designated sites for their biodiversity value.

Paragraph 6 Reference ID S2-ss6-2 1911 4

Revision date 11 2 19

How detailed does an air quality assessment need to be?

An assessment need to be proportionate to the nature and scale of development proposed and the potential impact (taking into account existing air quality conditions), and because they are likely to be locationally specific. The scope and content of supporting information to be discussed and agreed between the local planning authority and applicant before it is submitted.

It is not necessary for air quality assessment that supports planning application to duplicate a part of air quality assessment that will be done as part of non-planning control regime, such as under Environmental Permitting Regulations. Air quality is a consideration in Environmental Impact

Assessment

([http://www.gov.uk/guidance/environmental-impact-](http://www.gov.uk/guidance/environmental-impact-assessment)

[assessment](http://www.gov.uk/guidance/environmental-impact-assessment)), if one is required and also in a

Habitat Regulations Appropriate Assessment

(<http://www.gov.uk/guidance/appropriate-assessment>).

The following could form part of an assessment

- a description of baseline conditions and any air quality concerns affecting the area, and how they could change both with and without the proposed development;
- sensitive habitats (including designated sites of importance for biodiversity);
- the assessment method to be adopted and any requirements for the verification of modelling air quality;
- the basis for assessing impact and determining the significance of any impacts.

- were relevant, the cumulative or interactive effect arising from several developments;
- construction phase impact;
- acceptable mitigation measures to reduce or remove adverse effect; and
- measures that could deliver improved air quality even when legally binding limits for concentration of major air pollutants are not being breached.

Paragraph 7 Reference ID: 32-7-2-1911-1

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How can an impact on air quality be mitigated?

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 to ensure new development is appropriate for its location and unacceptable risks are prevented.

Planning condition (<http://www.gov.uk/guidance/use-of-planning-condition>) and obligation (<http://www.gov.uk/guidance/planning-obligation>) can be used to secure mitigation where the relevant tests are met.

Examples of mitigation include

- maintaining adequate separation distance between source of air pollution and receptor;
- using green infrastructure, in particular trees, where this can create a barrier or maintain separation between source of pollution and receptor;
- 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, site operation and demolition; and
- contributing funding to measures, including those identified in air quality action plans and low

emissions, designed to offset the impact of air quality arising from new developments.

Paragraph 8 Reference ID: 32-8-2-1911-1

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