Department
for Environment
Food & Rural Affairs

Part IV of the Environment Act 1995 as amended by the Environment Act 2021

Local Air Quality Management

Policy Guidance (PG22)

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Revision of the Guidance

This guidance may be updated from time to time. The table below is an index to the latest changes.

Date of amendment	**Chapter/Paragraph amended**	**Nature of amendment**
May 2025	Chapter 2 NO_2 Plan Authorities (2.24 & 2.25)	2.24 and 2.25 deleted and replaced with new section 2.24 – 2.30

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Chapter 1: Introduction

1.1 Improving air quality is a priority for Government. Poor air quality results in adverse health impacts, as well as wider costs to society for instance to the National Health Service and environmental impacts threatening habitats and biodiversity. The impact of air pollution is not always evenly spread; poor air quality can have a disproportionate impact on certain groups, including those on low incomes. Government is committed to driving improvements to air quality through national measures to reduce emissions of harmful pollutants and by empowering local leaders to act to reduce people's exposure to air pollution.

1.2 We are taking action to support transitioning to clean technologies, such as zero tailpipe and ultra-low emission vehicles to cut pollution. We are releasing significant funds to deliver cleaner buses and improved services and to boost walking and cycling. We are also implementing measures in the Clean Air Strategy which focuses on broader emissions beyond road transport. The UK has ambitious targets in place to reduce emissions of five damaging air pollutants (ammonia, nitrogen oxides, non-methane volatile organic compounds, fine particulate matter, and sulphur dioxide); aiming to cut early deaths from air pollution by half.

1.3 Improving the quality of the air we breathe requires commitment to act by both national Government and local leaders. Local government has a central role in improving local air quality. Their local knowledge and interaction with the communities they serve means they know the issues on the ground in detail and the solutions that are necessary or appropriate locally and can often identify their most vulnerable communities. Local leaders are primarily responsible to their local electorates who will want to see improved air quality in their communities. Local government at all levels will want to work together to harness levers to drive down air pollution, co-ordinating efforts and engaging relevant partners behind a strategic response to the challenge posed often by multiple sources of air pollution.

1.4 All layers of local government have legal duties to act to address elevated concentrations of local air pollution. Through the Local Air Quality Management (LAQM) system local authorities are required to assess air quality in their area and to designate Air Quality ManagementAreas (AQMAs) if improvements are necessary. Where an AQMA is designated, local authorities are required to co-ordinate the production of an Air Quality Action Plan (AQAP) describing the pollution reduction measures to be put in place and by when measures will be taken. All levels of local government are expected to commit to taking the actions necessary to ensure that local air quality objectives are secured.

1.5 Currently, over 500 active AQMAs have been designated across England. Most AQMAs are in urban areas and the vast majority have been established to address the contribution to air pollution from traffic emissions of nitrogen dioxide (NO_2). AQAPs have been put in place to improve local air quality and to address any exceedances. Despite the development of AQAPs many AQMAs have been in place over an extended period. The Environment Act 2021 amends the Environment Act 1995 to strengthen the Local Air Quality Management framework to enable greater local action on air pollution. This revised structure will assist with the achievement of both future national and local air quality objectives.

1.6 There is a distinction between the methods used for local assessments under LAQM and those for assessing national air quality under the Ambient Air Quality Directive

(AQD) for the UK National Plan for tackling roadside nitrogen dioxide concentrations. Criteria differ for compliance with the standards for each pollutant across each regime. The national assessment seeks to represent general exposure and must accord with the location and sampling point requirements in Annex III of the Directive. Air quality assessments for LAQM focus on targeting local pollution hotspots; pollutant concentrations are considered at all areas of relevant public exposure within a local area.

Who is This Guidance For?

1.7 This guidance is for local authorities in England, excluding those in London for whom guidance is provided by the Mayor of London.Supervision of the LAQM system in Greater London has been devolved to the Mayor of London; powers to intervene and direct boroughs have been given to the Mayor under Part IV of the Environment Act 1995. The Secretary of State (SoS) (Department for Environment, Food & Rural Affairs (Defra)) expects London boroughs to participate in the Mayor's London LAQM framework and have regard to any advice or guidance issued by the Mayor of London as to the performance of their functions under LAQM.

1.8 This guidance is statutory and all relevant Local Authorities (both district and county level), the Environment Agency and all designated Relevant Public Authorities (information on designation is provided in Chapter 3) must have regard to it. The guidance applies to local authority led action to improve local air quality using available levers, including planning, public health and transport responsibilities. In two - tier authorities, it is directly relevant to both district and county councils who have obligations under Part IV of the Environment Act. The guidance is also relevant to Mayoral Combined Authorities, and to external organisations who may need to engage with the local authority to assist in the delivery of their statutory duties on managing air quality.

Why Air Quality Matters

1.9 Through improving local air quality, we can reduce harmfuleffects on people's health, especially benefiting those whose conditions are made worse through exposure to air pollution, for example people with heart or lung conditions or breathing problems.

1.10 There is strong evidence associating air pollution with adverse health effects. In 2019 Public Health England published an air pollution evidence review concluding that air pollution is the biggest environmental threat to health in the UK, with between 28,000 and 36,000 deaths a year attributed to long-term exposure [1]. Public Health England utilised evidence on the health risks attributed to long-term exposure to pollution drawn from the Committee on the Medical Effects of Air Pollution (COMEAP) report: Long-Term Exposure to Air Pollution: Effect on Mortality [2]. There is strong evidence that air pollution causes the development of coronary heart disease, stroke, respiratory disease and lung cancer, and also exacerbates asthma [3].

1.11 Though air pollution can be harmful to anyone, some people are more affected because of their characteristics, where they live and the concentration of air pollution they are exposed to day-to-day. Those who are more susceptible include older people, children, those with pre-existing cardiovascular or respiratory disease, pregnant women, communities in areas of higher pollution, deprived and low-income communities. These air quality disparities are explored further in Chapter 7.

1.12 Improving air quality will also reduce damage to water quality, biodiversity and crops. Oxides of nitrogen can contribute to eutrophication of waterways affecting aquatic life. They can react in the atmosphere with volatile organic compounds to create ground level ozone which damages crops as well as having its own health impacts. Dry and wet deposition of air pollution can play a key part in ecosystem impacts.

1.13 Government data on air quality is openly available so that the whole country – people, businesses, and the public sector – can use it to take better decisions and action. The UK-Air [4] site and LAQM website [5] provide useful sources of UK air quality information, in addition many local authority websites present detailed local air quality information. Local authorities have a key role to play delivering targeted pollution reduction measures at a local level.

Summary of legal changes to the Local Air Quality Management framework via the Environment Act 2021

1.14 The Environment Act 2021 received Royal Assent on 9 November 2021. On 8 May 2022 Schedule 11 of the Environment Act 2022 amending Part IV of the Environment Act 1995 came into force. These measures strengthen the Local Air Quality Management framework.

1.15 This guidance incorporates the new strengthened framework. Below is a summary of the most significant changes.

Review of the Air Quality Strategy

1.16 The Environment Act 1995 requires the Secretary of State to publish an Air Quality Strategy which must include statements in respect to:

- standards relating to the quality of air;
- objectives for the restriction of the concentrations at which particular substances are present in the air; and
- measures which are to be taken by local authorities and other persons for the purpose of achieving those objectives.

1.17 The Environment Act 1995 as amended (the Act) includes a commitment to review the Air Quality Strategy within 12 months of the Schedule 11 coming into effect and to subsequently review at least every five years thereafter. In the first review we aim to:

- Review whether air quality standards and objectives require amending

- Review the role of local authorities in contributing to national targets for $PM_{2.5}$ (the Environment Act 2021 established a legally binding duty to set a national target on fine particulate matter ($PM_{2.5}$), in addition to a long-term target on air quality, by 31st October 2022).
- Bring together into one national strategy the national measures outlined in the Clean Air Strategy with the local actions outlined in the current Air Quality Strategy
- Include measures to help build the capability of local authorities to improve local air quality
- Include measures to help local authorities tackle air quality disparities

1.18 The following bodies are required to have regard to the Air Quality Strategy: local authorities, the Environment Agency, designated Relevant Public Authorities.

Annual Statement to Parliament

1.19 To improve transparency and accountability of Government, including how central Government has supported local authorities' air quality obligations, the Act includes a requirement on the Secretary of State to make an annual statement before Parliament that sets out:

- The Secretary of State's assessment of the progress made in meeting air quality objectives, and air quality standards, in relation to England, and
- The steps the Secretary of State has taken in that year in support of the meeting of those objectives and standards.

Strengthening the criteria for Air Quality Action Plans

1.20 AQAPs should, as far as possible, secure required local air quality improvements within a timeframe set within the AQAP. Previously AQAPs had a less ambitious requirement to be 'in pursuit of achievement' of air quality objectives. AQAPs prepared in response to an exceedance or likely exceedance of an air quality objective must now be prepared for **the purpose of securing that air quality objectives are achieved and must set out how the local authority will exercise its functions in order to secure that air quality objectives are achieved.** The AQAPs must set out the measures that will be taken and must specify a date by when each measure will be carried out.

Broadening the range of bodies required to co-operate in the development of AQAPs and carry out measures to assist in securing required air quality improvements

1.21 Upper tier authorities, neighbouring local authorities, the Environment Agency and designated "Relevant Public Authorities" are all required where locally relevant to commit to measures they will take and to commit to dates by when measures will be taken to assist in securing required air quality improvements. The process of designating National Highways as a Relevant Public Authority is progressing, with work to identify and consult on further designations also underway.

Amendments to the Clean Air Act – enforcement of Smoke Control Areas

1.22 The Act makes it simpler and easier for local authorities to enforce smoke control areas [6], within which the emission of smoke is prohibited, as is the acquisition and sale of certain solid fuels (for both domestic and commercial purposes) for use within the smoke control area [7].

Amendments to the Clean Air Act:

- Make emissions of smoke in a smoke control area (SCA) subject to a civil, rather than criminal, regime which will be enforced with a financial penalty. This will remove the particularly difficult aspects that presently hinder enforcement, in particular the statutory defences.
- Extend the system of statutory nuisance to include smoke from private dwellings in SCAs, which are currently excluded.
- Require solid fuel retailers to notify customers of the law in relation to the purchase of certain solid fuels and remove the limit on the fine for offences relating to the sale of these fuels.
- Enable local authorities to bring inland waterways vessels (e.g. canal boats) into scope of SCAs. The use of this power will be subject to local consultation by the relevant local authority.

Chapter 2: Local Air Quality Management Process – An Overview of Reporting

2.1 This chapter provides an overview of the LAQM process in England (excluding London). The Technical Guidance on LAQM (LAQM.TG22) should be consulted for detailed information on Annual Status Reports (ASRs) and AQAPs.

2.2 The air quality objectives set out in the Air Quality (England) Regulations 2000, as amended by the Air Quality (England) (Amendment) Regulations 2002, provide the statutory basis for the air quality objectives under LAQM in England (see Annex A). Local Authorities in England are expected to report on NO_2, PM_{10} and SO_2 as standard within their ASRs. The Government does not expect local authorities to report annually on benzene, 1,3-butadiene, carbon monoxide and lead as objectives for these pollutants have been met for several years.

2.3 The Environment Act 2021 established a legally binding duty to set a target on fine particulate matter ($PM_{2.5}$), in addition to at least one long-term target on air quality, by 31st October 2022. The proposed targets are:
- a maximum annual mean concentration of $PM_{2.5}$ in ambient air
- a population exposure reduction target for $PM_{2.5}$

Whilst the responsibility for meeting the $PM_{2.5}$ targets sits with national government; local authorities have a role to play in delivering reductions in $PM_{2.5}$. SeeChapter 8 of this guidance for further details.

2.4 Section 82 of the Environment Act 1995 provides that every local authority shall review the air quality within its area, both at the present time and the likely future air quality. Section 83 requires local authorities to designate an Air Quality Management Area (AQMA) where air quality objectives are not being achieved, or are not likely to be achieved, as set out in the Air Quality (England) Regulations 2000. Once the area has been designated, Section 83A requires the local authority todevelop an AQAP detailing remedial measures to tackle the problem within the AQMA.

The LAQM Review and Assessment Process

Annual Status Report

2.5 Local authorities are required to submit an ASR each year, inclusive of their diffusion tube monitoring data, automatic monitoring data if available and Top 3 Air Quality Actions. Reports should be submitted by **30 June through the LAQM Portal, accessed via the LAQM support website**. User instructions for local authorities accessing and submitting reports via the Portal are included on the LAQM website. The template Local Authorities are expected to follow for this report is published on the LAQM website.

2.6 The overall aim of this document is to report on progress in achieving reductions in concentrations of emissions relating to relevant pollutants to below air quality objective concentrations. It is also where local authorities identify new or changing sources of emissions.

2.7 On completion, local authorities should submit their report to the Secretary of State

(Defra) through the LAQM portal for consideration [8], who will provide any comments back in a timely manner and to which the local authorities are expected to have regard. The report should also be made available to the public (and published on the local authority website), local stakeholders, the Environment Agency, National Highways and other relevant departments/stakeholders. See Chapter 6: Consultation - for further information.

2.8 Joint ASR:
In certain circumstances, local authorities may have reason to submit an ASR that covers multiple years or multiple authorities. Local authorities who wish to submit an ASR covering multiple years and/or if two / multiple local authorities have reason to submit a combined report they should first contact the LAQM helpdesk prior to submitting their ASR on the LAQM Portal. Once notified, the LAQM Portal can be updated to allow a single ASR submission to be associated with multiple local authorities. For example, if local authority A and local authority B wish to submit a joint ASR, once Defra has been notified, local authority A or B can submit the single ASR, and the ASR record for the other local authority will automatically be updated to say the report has been submit on their behalf. It should be noted that each individual local authority is still required to submit their diffusion tube monitoring data, automatic monitoring data and Top 3 Air Quality Measures separately via the relevant Data Entry System on LAQM Portal.

2.9 Local authorities which have legally combined should transition to submitting a single ASR for the whole authority the year after their formation. At which point only one set of diffusion tube data / automatic data / Top 3 Air Quality Measures must be uploaded via the Diffusion Tube / Automatic / Top 3 Measures Data Entry Systems.

2.10 Core requirements of the ASR [9]:

- To report progress on the implementation of measures in the AQAP and other measures and their impact in reducing concentrations to below air quality objectives;
- To provide a summary of monitoring/modelling data (either locally retrieved and/or from the national network) in order to assess the air quality situation in your area and likelihood of air quality breaches, and to provide the necessary evidence base for the impact of air quality measures;
- To report on significant new developments that might affect local air quality; and
- To present information in a public-facing executive summary for the lay reader so that the local public can more easily engage with local air quality issues and measures taken to improve it.

2.11 If an authority identifies a risk that an air quality objective is or will be exceeded at a relevant location the local authority is required to move to declaring an AQMA either as soon as possible where there are no doubts surrounding the need to declare an AQMA or following additional evidence gathering. Any additional evidence gathered should be proportionate and take no longer than 12 months.

2.12 Once an AQMA has been designated, an AQAP should be prepared within 18 months following the date of designation. Progress on the AQAPshould be included in the ASR.

Appraisal Process

2.13 If Defra has concerns regarding the conclusions in a local authority's report, the authority will be invited to provide written comments justifying their decision within a specified deadline set out in the appraisal letter.

Local Air Quality Strategies

2.14 Local authorities are encouraged to take early preventative action to improve local air quality, avoid exceedances and reduce the long-term health impacts associated with air pollution. Local authorities should consider prevention and reduction of polluting activities in preference to only taking steps to reduce air pollution once exceedances have been identified. This approach may also enable local authorities to adopt measures that reduce the need for costly interventions at a later date.

2.15 Those authorities who have not had todesignate AQMAs and produce AQAPs will from 2023 be required to draw up a local Air Quality Strategy. These strategies will not have a set format and authorities will be able to draw on content within their ASRs and local transport plans to produce them.

Introduction of Reminder and Warning Letters

Annual Status Reports

2.16 To increase transparency and accountability on local air quality, the Secretary of State will publish an annual statement to Parliament on progress towards achieving air quality standards and objectives. In order to assess the progress made, it is essential that local air quality data provided by local authorities as part of their statutory obligations is robust and regularly provided. Low levels of compliance with the LAQM framework risks degrading the coverage and quality of the picture LAQM offers on pollution hotspots at the local level.

2.17 Although many local authorities submit their ASR by the specified deadline of **30th June**, some fail to do so. In such cases, local authorities should contact the LAQM helpdesk at the earliest opportunity so that a revised submission date can be agreed where there is a valid reason for late submission. Where no such contact is made (and in cases where the revised deadline is missed with no further contact) from 2023 Defra will be introducing a new system of reminder and warning letters.

2.18 Should a local authority fail to produce their draft ASR by the end of the calendar year (6 months past ASR deadline) and in the absence of engagement with the LAQM helpdesk, the local authority may be issued with a ministerial direction under section 85 (3) of the Environment Act 1995.

2.19 The table below outlines the reminder and warning process for Annual Status Reports (in the absence of an agreed revised deadline):

Timescale	Enforcement	Recipient
Six months before deadline - **January**	**Pre-reminder letter**	From the Air Quality and Industrial Emissions (AQIE) Deputy Director to all local authority Chief Executives and relevant director/s - environment & public health reminding them of LAQM statutory requirements.
Two months before deadline - **April**	**Final pre-reminder letter**	From Defra's LAQM team to all Air Quality officers reminding them of June deadline
One month overdue - **July**	**Reminder letter**	From Defra's LAQM team to Air Quality Officer at non-submitting local authorities
Three months overdue - **September**	**Warning Letter**	From the AQIE Deputy Director to relevant director/s - environment & public health
Four months overdue - **October**	**Final Warning letter**	From the AQIE Deputy Director to relevant director/s - environment & public health
Six months overdue – **December**	**Ministerial letter:** Section 85 direction	Local Authority Chief Executive

Air Quality Action Plans

2.20 Local Authority AQAPs are a key driver for action to improve local air quality and reduce the impact of air pollution on local communities. Failure to produce an AQAP and regularly review actions to improve local air quality will impact local authorities' ability to ensure air quality standards are achieved.

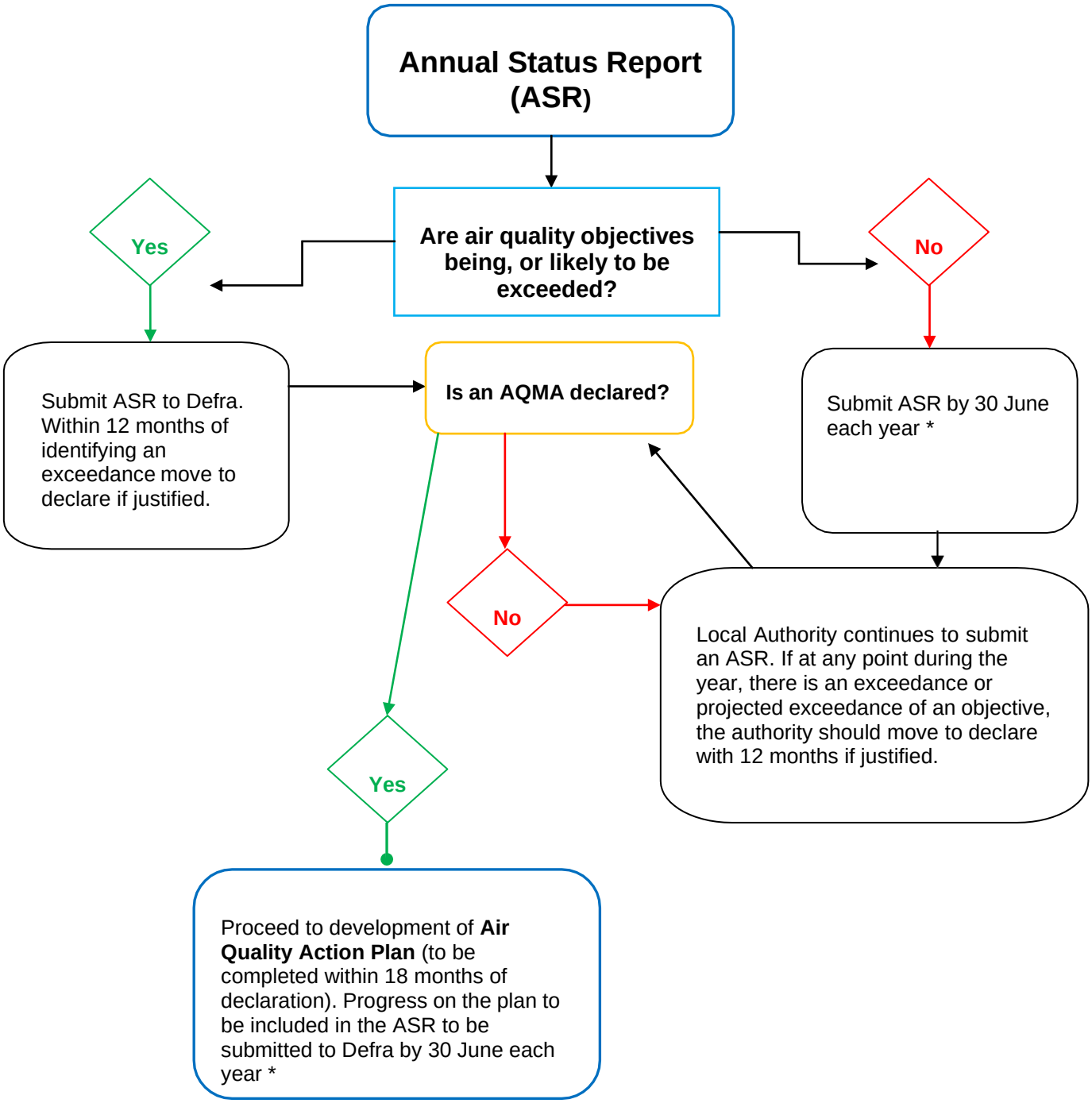
2.21 Local Authorities should produce their AQAP within **18 months** of an AQMA being declared, setting out effective, measurable, proportionate, and feasible measures the LA and their Air Quality Partners intend to secure that air quality objectives are met. Local Authorities are required to ensure that a current and relevant AQAP is in place for all AQMAs.

2.22 For local authorities with AQAPs, from April 2023 it will be recommended where possible that authorities maintain an up-to-date online version of their Air Quality Action as a resource both for the public and for other local authorities. Local Authorities should still, as a minimum, revise their AQAP every 5 years.

2.23 The table below outlines the reminder and warning process for AQAPs (in the absence of an agreed revised deadline):

Timescale	Enforcement letter	Recipient
AQAP 2 months overdue (e.g. 20 months post AQMA designation or 5 years & 2 months since previous AQAP publication)	**Reminder letter**	From Defra's LAQM team to Air Quality Officer at non-compliant Local Authority
AQAP 4 months overdue	**Warning Letter**	From the AQIE Deputy Director to Environment Health / Air Quality Manager at non-compliant Local Authority
AQAP 6 months overdue	**Final Warning letter**	From the AQIE Deputy Director to relevant Director at non-compliant Local Authority
AQAP 8 months overdue	**Ministerial letter**: Section 85 direction	Local Authority Chief Executive

Figure 1 – The Review and Assessment (Reporting) Process



NO_2 Plan Authorities

2.24 This section of the guidance concerns the interaction between two different legal frameworks; the Air Quality Standards Regulations 2010 (AQSR) and Part IV of the Environment Act 1995 (EA 1995).

2.25 This revision to statutory guidance clarifies existing legal obligations and so will assist local authorities in carrying out their existing statutory duties.

2.26 The NO_2 programme is a joint programme between Defra and the Department for Transport

(DfT) to deliver air quality plans to tackle nitrogen dioxide (NO_2) concentrations within statutory limits as set out within the AQSR in the shortest time possible. The programme aims to improve public health and the environment by tackling some of the worst exceedances of roadside NO_2 in local authorities across England.

2.27 Under the EA 1995, local authorities must designate Air Quality Management Areas (AQMA) where it appears that standards or objectives are not being achieved and produce Air Quality Action Plans (AQAP) setting out how they will secure compliance with these standards or objectives.

2.28 In some areas, local authorities may have responsibilities under the NO_2 programme, and also exceedances of air quality objectives requiring declaration of AQMAs. The statutory duties under AQSR are separate to the LAQM legal duties set out in Part IV of the Environment Act 1995. These local authorities with an exceedance of an air quality objective, will still need to meet the requirements of the Environment Act to ensure that compliance with air quality standards and objectives is secured and maintained thereafter through the measures they intend to take.

2.29 . Therefore, these local authorities will still be required to develop and publish an Air Quality Action Plan and to carry out the actions within the plan. Where measures within the AQAP would duplicate measures within the NO_2 Plan, the AQAP should reference the NO_2 Plan measures. In the exceptional circumstances that no additional measures are required to those in the NO_2 Plan to secure compliance with air quality objectives, there would be no need to consult on the AQAP.

2.30 Where a local authority encounters problems adhering to their statutory duties under LAQM while in the NO_2 Programme, they should contact Defra to discuss.

Chapter 3: LAQM - Roles and Responsibilities

3.1 Part IV (Sections 80 to 91) and Schedule 11 of the Environment Act sets out the legal obligations on local authorities in relation to LAQM [10]. The Environment Act 2021 amends Part IV of the Act to clarify duties and enable greater cooperation between different levels of local government, neighbouring authorities and other relevant public authorities in the preparation of AQAPs so that a more strategic view is taken in respect of the achievement of air quality objectives. This chapter sets out the main responsibilities of local government.

Two-Tier Authorities and Mayoral Combined Authorities

3.2 More than 200 local areas are governed by two-tier authorities e.g. a district council and a county council, each of which have powers and functions that are important in tackling air quality. There are obligations on both district and county councils within Part IV of the Environment Act 1995. The Environment Act 2021 ensures that responsibility for solutions to poor air quality is shared across local government. Increasingly some areas are adopting the Combined Authority or Mayoral Combined Authority [11] (MCA) model. Combined authorities and MCAs also have responsibilities within LAQM and are well placed to play a co-ordinating role to facilitate a strategic approach across local authority areas to improving air quality.

District Authorities

3.3 In two-tier authorities, key functions (relating to the assessment of local air quality, designation of an AQMA and preparation of an AQAP) remain at the district council level. Under the changes introduced through the Environment Act 2021, district councils will be required to coordinate action across local government structures and public authorities. This includes identifying key sources of air pollution and actions that could be taken by multiple parties where necessary, identifying authorities who will need to partner the local authority in developing and carrying out AQAPs.

3.4 Under section 82 of Part IV of the Environment Act 1995 district councils should undertake periodic review and assessment of air quality within their area. The results of this review and assessment should be set out in the ASR.

3.5 Under section 83 the district council is required to designate an AQMA when the review and assessment that it has carried out indicates that any air quality objectives are not being, or are not likely to be, achieved. The district council may amend or revoke an area as appropriate in the light of subsequent reviews.

3.6 Under Section 83 Local authorities/district councils are required to identify sources of emissions responsible for any failure to achieve air quality standards or objectives and identify and inform the local or public authorities responsible for the emissions.

3.7 Under section 83A, as amended by the Deregulation Act 2015 - Part 4 of Schedule 13, once an AQMA has been designated the district council should prepare an AQAP that sets out how it will achieve the air quality standards or objectives forthe area that it covers. The district council should provide information on the timescales

for the achievement of measures that it can take under the powers that it has. Relevant powers and mechanisms include environmental health functions including those concerning the Clean Air Act (e.g. the ability to declare smoke control areas) and land use planning. The AQAP should be in place within 18 months of the district council declaring the AQMA.

3.8 Engagement with the county council should take place at the start of the process. In reviewing and assessing air quality in a local authority area or preparing an AQAP, the district council should consider any recommendations made to it by the county council in respect of the areas of responsibility falling to the district council. It may not agree with these recommendations (see paragraph 3.22). The County Council will be required to commit to appropriate actions the county council will take to secure that air quality objectives are achieved (see below). The AQAP will be a collaborative plan reflecting the need for upper and lower tiers to work together to reduce pollution.

3.9 The district council should consult on its AQAP (Chapter 5) and is expected tomake a copy of the Plan and ASR freely available for public inspection on theirwebsite.

County Councils

3.10 County councils have obligations under LAQM as set out below and in practice they should proactively engage with the district council as soon as an air quality issue is identified.

3.11 County councils were already required under the Environment Act 1995 to collaborate with district councils on air quality. We have strengthened this requirement through the Environment Act 2021 making the wording clearer to avoid ambiguity.

3.12 If informed by a district council of its intention to prepare an AQAP, a county council must propose specific measures it will take to help secure the achievement and maintenance of air quality standards and objectives in the relevant district local authority's area, including target dates by which the measures should be carried out. District councils should incorporate county council proposals and dates in their AQAP.

3.13 Upper tier authorities have a duty to support district councils to carry out their functions by providing details on planned action at county level that could impact air quality (e.g. transport plans) and proposing actions they could take using powers and levers available to them. The Environment Act 1995 requires upper tier authorities to:

- Provide the lower tier authority with proposals for particular measures it will take to contribute to the achievement and maintenance of Air Quality Objectives, including a date by which each measure will be carried out.
- Deliver the actions they are responsible for as set out in the AQAPs, to the timescales defined.
- Provide assistance to the district council to coordinate action across neighbouring local authorities and with other public bodies.

3.14 There is very strong evidence on the significant contribution of transport emissions to air pollution in urban areas and the legislation requires county councils to bring forward measures in relation to addressing the transport impacts for inclusion in any AQAP.

3.15 The county council is a consultee to ASRs and AQAPs. Under section 86(2) the county council may make recommendations to the district council in relation to any review and assessment of air quality or development or amendment of AQAPsin the local authority area.

Neighbouring Authorities

3.16 Given the transboundary nature of air pollution, emissions from sources in one local authority can contribute to exceedances of Air Quality Objectives in another. The Environment Act 2021 amended the Environment Act 1995 to place a new duty on local authorities to work collaboratively with neighbouring authorities to create a cooperative framework that would enable authorities to tackle pollution emanating from sources outside of the local authority's area. The changes will ensure local authorities receive support from neighbouring authorities to deliver compliance with local air quality limits and objectives. The duties on neighbouring authorities require them to:

3.17 Actively support district councils to carry out their functions. This includes providing details on planned actions that could impact air quality and proposing actions they could take using powers and levers available to them.

3.18 Provide the relevant neighbouring authorities with proposals for particular measures it will take to contribute to the achievement and maintenance of Air Quality Objectives, including a date by which each measure will be carried out.

3.19 Deliver the actions they are responsible for as set out in the AQAPs, to the timescales defined.

Relevant Public Authorities

3.20 To further strengthen this collaborative framework and ensure local authorities receive support to deliver their Air Quality Objectives, we have broadened the LAQM framework to include relevant public authorities (authorities that have a public function in relation to England), placing a duty on such designated authorities to cooperate with local authorities preparing AQAPs and to deliver actions they commit to within those plans under section 83A, where the local authority determines that those public bodies exercise functions that impact upon the air quality in the local authority's area.

3.21 The Secretary of State has the power to designate, subject to consultation, such authorities as are appropriate, through secondary legislation (See Chapter 5) and has power to issue directions to these public bodies, if it is considered that the public body has failed to discharge its duties under or by virtue of Part IV.

Sharing of Data

3.22 Where a local authority (district or county) makes a reasonable request for information from another local authority to enable it to carry out any of its functions relating to LAQM, the council should provide that information. The council that provides that information is also entitledto recover the reasonable costs of doing so. However, we would hope that in the spirit of cooperation and working together to improve air quality in a local area, that unless such a request is particularly onerous to meet, councils would not feel the need to charge each other for the production of information beneficial to their local area. Neighbouring local authorities will have a duty to provide such information as may be necessary in the event of a relevant source of pollution having been identified by one authority as being within the area of a second authority. Local authorities who choose to collaborate on declaring joint AQMAs and in developing joint AQAPs will need to share data.

3.23 The Office of Gas and Electricity Markets (Ofgem) holds information regarding Renewable Heat Incentive (RHI) payments in relation to combustion activities. Where a memorandum of understanding (MoU) or Data Sharing Agreement (DSA) is put in place between a local authority and Ofgem this data can be accessed for that local authority.

Disagreements between District and County Councils

3.24 Under section 83A(8) where there is disagreement between the county council and the district council in relation to the content of an AQAP, either the district or county council can refer the issue to the Secretary of State for Environment, Food and Rural Affairs. The Secretary of State may choose to accept or reject the disputed AQAP (with or without modifications) and it may not be finalised until adecision from the Secretary of State has been made.

3.25 When seeking the Secretary of State's assistance in resolving an issue, we would expect county and district councils to demonstrate that they have taken all reasonable steps to resolve such a dispute, prior to a referral to the Secretary of State being made.

Unitary Authorities

3.26 For unitary authorities roles and responsibilities are more straightforward. In effect all duties are placed on the authority and it is for it to determine which department is responsible for the production of the reports and AQAPs. In developing the AQAP it should bring forward measures to address air quality covering all the functions for which it has powers or responsibilities.

Public Health Roles and Responsibilities

3.27 Directors of Public Health must be part of the air quality management process in local authorities. Working in partnership will increase support for measures to improve air quality, with co-benefits for all. It is recommended that Directors of Public Health approve local authority draft ASRs prior to submission and AQAPs, and are directly

involved in the formulation and monitoring of Air Quality Strategies, where these are present.

3.28 Further examples of joined-up working include:

Directors of Public Health

- To ensure the Joint Strategic Needs Assessment has up to date information on air quality impacts on the population and the impact on health disparities;
- To work closely with local authority air quality officers in formulating the needs assessment and other air quality initiatives – e.g. have regular update meetings on key, emerging issues;
- To facilitate the consideration of air quality issues at board level within the local authority as required.

Local Authorities (Including Transport and Planning Departments))

- To ensure that Directors of Public Health are fully briefed on the scale of the problem in your local authority area – e.g. what is being done; what is needed; what are the health impacts and effects;
- To commission / undertake a health impact assessment, in collaboration with the Directors of Public Health
- To inform the designation of AQMAs and development of AQAPs to ensure air quality is improved as much as possible to improve public health
- To encourage employment of a public health specialist that has air quality responsibilities outlined in their job profile
- To ensure collaboration between Public Health, Transport and Planning departments.

3.29 In 2017 Defra and Public Health England produced a briefing for Directors of Public Health on air quality which included information on: air pollution, engaging local decision-makers and on communicating with the public [12].

3.30 From July 2022 each Integrated Care Board and their partner local authorities is required to establish an Integrated Care Partnership (ICP), bringing together health, social care, public health and wider representatives as appropriate. ICPs will be tasked with promoting partnership arrangements and developing an Integrated Care Strategy to address the health, social care and public health needs of the area they cover. For many areas air quality is likely to be identified as a key area for public health focus.

3.31 The National Health Service (NHS) are developing a National Bundle of Care for children and young people with asthma. The first National Bundle of Care was published in September 2021 [13] to support local systems with the management of asthma care. It proposes a whole system approach to asthma management that includes addressing environmental triggers, a comprehensive education programme, promoting personalised care, effective preventative medicine and improved accuracy of diagnosis. Given the significance of environmental triggers, the bundle describes the support and expectations for those working with children and young people with expected or diagnosed asthma to understand the dangers of air pollution, indoor air quality and parental smoking and ensure they discuss these risks and potential mitigation strategies with them.

Steering Group

3.32 It is recommended that local authorities form a steering group to include all the main parties involved in developing either AQAPs or Air Quality Strategies. It is recommended that the Chair is of sufficient seniority to ensure that the outputs from the group are being taken forward. Where significant action is required from a county council to resolve the air quality issues, it would be beneficial to have a senior county council representative as co-chair. Membership of the group could include the Environment Agency, National Highways, the Director of Public Health, local businesses and interest groups. Once the strategies and Plans have been published, the steering group can be retained to monitor progress and troubleshoot, if necessary, should difficulties in implementation arise. More information on the role of the steering group is provided in the Technical Guidance.

3.33 The public health impacts of poor air quality are well documented. We would expect the highest level of support from local authorities (e.g. Chief Executive and Council level) to ensure that all parts of a local authority are working effectively together.

3.34 The public can be given further confidence that the work being taken forward to tackle air quality is supported at the highest level through engagement in and sign-off of AQAPs and annual reports by both the Chief Executive and also the heads of the main departments involved e.g. environmental health, planning, transport and public health.

Chapter 4: Air Quality Management Areas

4.1 Local authorities have a duty under Section 83(1) of the 1995 Act to designate those areas where the air quality objectives are not being met or are likely to be shown to be at risk of not meeting them, and where people are likely to be regularly present, as AQMAs.

Declaring AQMAs – Setting Boundaries and Tackling Uncertainty

4.2 It is important that the local authority be confident it has identified all locations and pollutants for which the air quality objectives have or will be exceeded. This requires the authority to have a broad confidence in the monitoring data and/or modelling predictions undertaken. Authorities should demonstrate that they are aware of the uncertainties in monitoring data and the data inputs used for modelling, and to show in their annualreport what steps they have taken to minimise these uncertainties. Further information is provided in the Technical Guidance.

4.3 When determining the boundary of an AQMA the authority should make an appropriate judgement based on the extent of predicted areas of exceedance, the locations of relevant receptors, the nature and location of relevant sources, and other local factors. These areas can cover single streets or road networks, a junction, roundabout or even a single dwelling. In many urban and built-up areas, especially where trans-boundary pollution is an issue, the authority may decide to designate the entire borough as an AQMA; this kind of declaration provides greater flexibility for air quality officers to respond to pollution issues as and when they arise. This does not prevent officers from then focussing action on key areas within an AQMA. Alternatively, applying smaller, individual AQMAs for specific 'hot spot' locations may provide a clearer focus for AQAP measures and allow for strategic targeting based on the best use of resources. However, it is important that local authorities do not expend significant resources narrowing downthe parameters of an AQMA to the detriment of identifying measures and taking action.

4.4 The exact wording of an AQMA Order is at the discretion of the authority, however a template example can be found in Annex B. It is recommended that the authority includes the following information:

- The date on which the Order came (or will come) into force;
- List of the pollutants to which it relates and the relevant objective exceedance;
- Map (shapefile) clearly showing the area to be designated and it is boundaries; and
- A description of the area – e.g. does it include certain roads; any physical features such as street canyons or heavy traffic around a supermarket etc.

4.5 You should also:

- Ensure the Order is accessible to members of the public and enquirers; and
- Ensure Defra receive a copy of the Order for its records via the LAQM Portal [14].

4.6 LAQM has been in operation for over twenty years and we know from past submissions that once a pollutant is identified as exceeding the air quality objective or is at risk ofbeing exceeded, the follow-up assessment more often than not confirms the initial, identified risk, leading to the declaration of an AQMA or appropriate remedial measures. Where normal annual monitoring and local intelligence shows a persistent exceedance (or risk of exceedance) the local authority is encouraged to consider moving immediately to declaring and establishing (or extending) an AQMA and hence to the development of AQAP measures to remediate the problem. It is suggested that only local authorities who, until now, have had few air quality problems, or have sufficient doubts, should consider the necessity of obtaining further supporting information, with the methods used briefly set out in their annual report.

4.7 It is important to note that by additional supporting information we are not advocating production of a Detailed Assessment as per the old system, nor do we expect such additional material to take 12 months or more to gather. We would expect local authorities to gather evidence sufficient to enable a judgement to be made following guidance and quality assurance processes set out in Technical Guidance. A summary of this additional evidence gathered should be included in the next annual report but Local Authorities should not delay declaration of an AQMA until the report's publication but move to declare an AQMA as soon as it is satisfied.

4.8 Local Authorities should complete the declaration process within 12 months, following the recognition of the need to declare, and submit a copy of the AQMA Order to Defra. Local authorities that have yet to submit an Order should doso via the LAQM Portal [15], completing the relevant AQMA details together with a copy of its associated map and also upload a shapefile of the proposed AQMA on the LAQM portal. Further instructions on submitting and editing AQMA details via the Portal are included on the LAQM website.

4.9 Moving directly to declaring an AQMA where possible will allow work to improve air quality in the AQMA to begin much sooner. This will also highlight the action the authority is taking on air quality much more rapidly to the public and key stakeholders.

Revoking or Amending an AQMA

4.10 Authorities wishing to revoke or reduce an AQMA can do so following review. For revocation this should demonstrate that air quality objectives are being met and will continue to do so. In other words they should have confidence that the improvements will be sustained. Further information is provided in the Technical Guidance, but typically this is after three years or more compliance.
It is not advisable for the revocation of an AQMA to be based solely upon compliance in a year not representative of long-term trends. For example, compliance being reached in 2020 may not be representative of long-term trends in pollutant concentrations due to the change in activity observed across the UK as a result of COVID-19. Where 2020 is one of many consecutive years of compliance, this may be considered for revocation. If authorities wish to make any changes to AQMAs, whether declaration, amendment or revocation, based upon 2020 data, please contact the LAQM helpdesk to discuss your approach.

4.11 Where an Order is revised, a copy of the revocation or amendment Order should be submitted to Defra via the LAQM portal and other statutory consultees and made publicly available to ensure the public and local businesses are aware of the situation. It is expected thatthe local authority will take the relevant action imposed by the Order **within four months** following receipt of comments from Defra.

4.12 Following a revocation, from 2023 (where this would result in that local authority no longer having any AQMA) the local authority should put in place a local air quality strategy (paragraph 2.15) to ensure air quality remains a high profile issue and to ensure it is able to respond quickly should there be any deterioration in condition.

Chapter 5: Air Quality Action Plans

5.1 The Environment Act 2021 amends Part IV of the Environment Act 1995 to strengthen requirements on Local authorities to prepare AQAPs to ensure air quality standards or objectives are achieved in AQMAs, and to specify how air quality targets will be achieved and maintained, and dates by which measures will be carried out.

5.2 Where review and assessment of local air quality has required that an AQMA be declared, the local authority is required to develop and publish an AQAP for the purpose of securing that air quality standards and objectives are achieved in the area. The AQAP must set out measures the local authority will take to secure the achievement, and maintenance, of air quality standards and objectives in the area of the AQMA and must specify a date by which each measure will be carried out. A local authority may revise an AQAP at any time and must revise an AQAP if it considers that there is a need for further or different measures to be taken in order to achieve and maintain air quality standards and objectives.

5.3 Local authorities **should** produce their AQAP within 18 months of an AQMA being declared. All tiers of local government, and neighbouring local authorities where relevant, will be required to co-operate in the development of AQAPs.

5.4 An AQAP template is available on the LAQM website/portal. It is recommended that local authorities use this template as a basis for all new AQAPs and where significant revisions are required to existing AQAPs. The template has been updated in line with accessibility regulations and is designed to reduce the administrative burden on local authorities, whilst improving consistency in reporting and allowing for the inclusion of additional sections. The AQAP should take a practical approach towards focussing on what really matters – identifying the nature of the problem whilst detailing measures that are or will be actively implemented to improve air quality and quantifying their impact over time.

5.5 AQAPs should include:

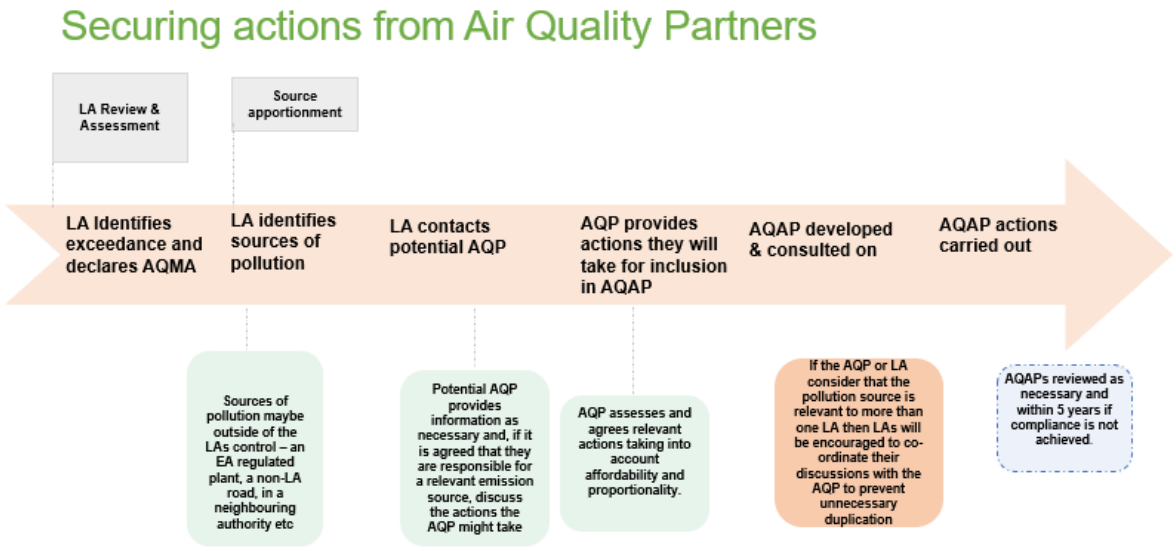
- Quantification of the source contributions responsible for the exceedance of the relevant objective;
- Where the data is accessible the population living within the AQMA;
- Clear timescales, including milestones and expected outcomes which the authority and other delivery partners propose to implement the measures within the AQAP;
- Quantification of the impacts of the proposed measures – including, where feasible, data on emissions and concentrations (either locally obtained and/or via national monitoring/modelling statistics);
- Actions, including clear timescales proffered by Air Quality Partners;
- How the local authority, including transport, planning and public health departments, and other external delivery partners, will work together to implement the AQAP; and
- How the local authority intends to monitor and evaluate the effectiveness of the plan.

5.6 Once a draft has been prepared, the AQAP should be submitted to Defra for initial appraisal at the statutory consultation stage. The AQAP should then be finalised and again submitted to Defra for approval. Upon final approval, the AQAP should be published on the Local Authority's website.

5.7 The Environment Act requires that AQAPs be regularly reviewed and must be revised either no later than every five years; or if a local authority considers there is a need for further or different measures to be taken in order to achieve air quality standards; or if significant changes to sources occur within your local area.

Engaging with Air Quality Partners

5.8 The Environment Act 2021 introduces a new concept "air quality partners" into the LAQM framework. Air Quality Partners are required to assist local authorities with reasonable requests (for example by providing information on a source of air pollution) and contribute to AQAPs being developed by local authorities.



5.9 Air Quality Partners may be: a neighbouring local authority; a designated Relevant Public Authority; the Environment Agency. When a local authority's assessment of air quality indicates that local air quality objectives are, or are likely to be, exceeded, the local authority will declare an Air Quality Management Area. The local authority will conduct a source apportionment exercise to identify sources of pollution. It is likely that some sources of pollution will be outside of the control of the local authority. In these circumstances the local authority will need to contact any organisations or bodies that may be responsible for a source of pollution to elicit from them actions to reduce emissions. Where such organisations or bodies are; a neighbouring local authority, a designated Relevant Public Authority, the Environment Agency, or a county council there is a statutory requirement for them to engage and to contribute actions they will take to secure achievement of the local air quality objective (and to maintain achievement thereafter).

5.10 Air Quality Partners (AQPs) are required to collaborate with local authorities and to commit to actions for inclusion in AQAPs within 12 months where such actions are needed to meet local air quality objectives.

5.11 County councils in two tier authorities are similarly required where relevant to collaborate with local authorities and to commit to actions for inclusion in AQAPs within 12 months.

5.12 When a potential AQP is contacted the local authority and the potential AQP should first seek to establish that there is agreement that a relevant source of pollution exists broadly within the influence or control of the potential AQP. If that is established, then the conversation can move on to establishing the measures the AQP will take for inclusion within the AQAP. The AQP must provide any reasonable assistance requested in connection with these discussions. A request will not be reasonable if it is disproportionately onerous or expensive, or if it conflicts with core statutory duties or is not relevant to the AQPs functions. When considering the costs and benefits of a measure the long-term implications should be considered as should health costs.

5.13 It is for the AQP to determine the measures they will take, which may or may not be any suggested by the local authority. The AQP must commit to measures and must specify a date by which the measures will be carried out, and as far as reasonably practicable must carry out those measures by the date specified. The AQP should aim to commit to measures they will take for inclusion in the AQAP in good time for the local authority to meet their target to produce the AQAP within 18 months of declaring the AQMA.

Disputes and power of direction

5.14 Local authorities and their partners are expected to reach agreement on actions for inclusion in AQAPs. Areas of disagreement or potential dispute should be resolved amicably. However, areas of disagreement may still arise which are not resolved. These may be in regard to:

i. whether a request for information under 85A of the Environment Act 1995 is reasonable and necessary to secure the achievement and maintenance of air quality standards and objectives in the area to which the plan relates.

ii. Disagreement over whether a potential AQP has a relevant source of pollution for which it is responsible for

iii. Disagreement over whether measures proposed by an AQP for inclusion in the AQAP are sufficient and timely.

iv. Disagreement over whether measures proposed by an AQP are of a suitable priority when compared to other actions of the local authority

5.15 In the event of significant unresolved disagreement existing after meaningful attempts to reach agreement:

1. The local authority should notify the potential AQP in advance that it intends to refer the matter to the Secretary of State providing an outline of their case of dispute and providing the AQP at least 20 working days to respond.

2. If the local authority concludes that they have not received a satisfactory response to the notification, they may refer the matter to the Secretary of State outlining their case of dispute and the steps they have taken to seek amicable agreement. Such complaints should be sent to Secretary of State c/o Air.quality@defra.gov.uk

3. Upon receipt of a complaint Defra will inform the potential AQP that a complaint has been received and will provide the details of the complaint to the AQP and will invite

the AQP to respond within 20 working days.

4. The Secretary of State may conclude that there is insufficient evidence of meaningful attempts to seek prior resolution before lodging the complaint in which case the local authority will be advised to seek further engagement with the AQP aiming to resolve the dispute. If such attempts are unsuccessful the local authority may resubmit their complaint outlining the further action they have taken to seek resolution.

5. Defra will respond to a properly submitted complaint that will:

    i. Advise that Defra officials consider that the request for information is considered a. necessary or b. not necessary.

    ii. Advise that Defra officials consider that the local authority has or has not presented sufficient evidence that the AQP is responsible for a source of pollution contributing to an exceedance of a local objective.

    iii. Advise that Defra officials consider that measures proposed by the AQP for inclusion in the AQAP are sufficient or insufficient. If insufficient advice may outline the area or areas in which the proposed actions are considered insufficient e.g. scope of proposed measures or timetable for completion.

5.16 A response to iii. may be accompanied by a Ministerial Direction requiring the AQP to commit to further measures

5.17 In the event of a AQP wishing to raise a dispute:

6. The AQP should notify the local authority in advance that it intends to refer the matter to the Secretary of State providing an outline of their case of dispute and providing the local authority at least 20 working days to respond.

7. If the AQP concludes that they have not received a satisfactory response to the notification, they may refer the matter to the Secretary of State outlining their case of dispute and the steps they have taken to seek amicable agreement. Such complaints should be sent to Secretary of State c/o Air.quality@defra.gov.uk

8. Upon receipt of a complaint Defra will inform the local authority that a complaint has been received and will provide the details of the complaint to the local authority and will invite the local authority to respond within 20 working days.

9. The Secretary of State may conclude that there is insufficient evidence of meaningful attempts to seek prior resolution before lodging the complaint in which case the AQP will be advised to seek further engagement with the local authority aiming to resolve the dispute. If such attempts are unsuccessful the AQP may resubmit their complaint outlining the further action they have taken to seek resolution.

10. Defra will respond to a properly submitted complaint that will:

    iv. Advise that Secretary of State considers that the request for information is considered a. necessary or b. not necessary.

    v. Advise that Secretary of State considers that the local authority has or has not presented sufficient evidence that the AQP is responsible for a source of pollution contributing to an exceedance of a local objective.

vi. Advise that Secretary of State considers that measures proposed by the AQP for inclusion in the AQAP are sufficient or insufficient. If insufficient advice may outline the area or areas in which the proposed actions are considered insufficient e.g. scope of proposed measures or timetable for completion.

5.18 A response to iii. may be accompanied by a Ministerial Direction requiring the AQP to commit to further measures.

Working with neighbouring Local Authorities

5.19 A local authority with an exceedance or likely exceedance of an air quality standard or objective may conclude that a relevant source of pollution is within the area of a neighbouring local authority (i.e. sharing a border). In these circumstances the local authority with the exceedance shall engage the neighbouring local authority as set out in the above section – 'engaging with Air Quality Partners'.

5.20 The two local authorities may opt to declare a joint AQMA and corresponding AQAP. Disputes should be resolved following the process outlined under 'Disputes and Power of Direction'.

5.21 Local authorities should also consider pro-active action to avoid exceedances occurring. Therefore, local authorities are advised to share information and to co-operate with a view to mitigating or avoiding impacts in the event of a new pollution source arising that may contribute to an exceedance in a neighbouring authority.

Relevant Public Authorities

5.22 The Secretary of State has the power to designate by regulations "Relevant Public Authorities" (RPAs). RPAs will be authorities with functions of a public nature relevant to local air quality. Once designated RPAs can be required to act as "Air Quality Partners" if they are in any way responsible for a source or sources of emissions contributing to an exceedance of a local air quality objective.

5.23 The list of designated RPAs will change over time, so Local Authorities are advised to check the LAQM website for the current list. Local authorities who consider that it would benefit local air quality if a body with functions of a public nature not yet designated be designated are invited to contact Defra (airquality@defra.gov.uk) to discuss the case for designation.

Working with National Highways

5.24 National Highways (NH) is a government-owned company with responsibility for managing the Strategic Road Network (SRN) - motorways and major A roads in England. As such NH is a key partner of local authorities (along with County Councils in two-tier authorities) in addressing localised pollution caused by road vehicles. To ensure that the air quality and environmental effects of all planned interventions on the road network are thoroughly understood before they are implemented, local air quality and transport teams should work in partnership with National Highways. Early engagement at the planning stage is vital to maximise

opportunities to improve air quality and to avoid creating areas of high pollution concentrations. Avoiding problem areas arising in the first place will always be preferable to responding to exceedances of air quality objectives once these have occurred.

5.25 For each local authority area National Highways have an Air Quality Contact who acts as the first port of call for local authorities to discuss air quality issues. Local Authorities can contact National Highways centrally to then be put in touch with the correct contact for their area: Airquality@nationalhighways.co.uk

5.26 The majority of current AQMAs have been declared for NO_2 because of road transport emissions. In some cases, relevant sources will directly or indirectly arise from vehicles using the SRN. As a designated Relevant Public Authority, NH will be an "Air Quality Partner" in such circumstances once contacted by the local authority (see above section "Engaging with Air Quality Partners").

5.27 In the event of source apportionment identifying transport on the SRN as contributing to an exceedance, or likely exceedance, of an air quality objective the LA should contact NH. The LA should provide to NH (and vice versa) any modelling and / or monitoring data relevant to the conclusion that transport on the SRN is contributing to an exceedance.

5.28 Disputes should be resolved following the process outlined under 'Disputes and Power of Direction'. However, Defra will not respond without first agreeing the response with DfT.

Role of National Highways in relation to Air Quality Action Plans

5.29 Any Direction issued under new Section 85B of The Act in relation to National Highways will be issued with agreement of the Department for Transport Secretary of State. The Secretary of State may opt to use alternative governance arrangements to secure the same results.

5.30 Following an extensive programme of air quality research undertaken by National Highways, the following measures have been identified as effective at contributing to reducing roadside concentrations of annual mean NO_2 concentrations and consequently could be considered for inclusion in an AQAP:

- Speed limits – subject to the installation and legal processes to introduce a speed limit, and likely to be limited to 60mph.
- Local traffic management interventions – where local studies show that changes in traffic could lead to an improvement in air quality, whilst not causing a challenge to the achieving the air quality objective elsewhere.

Environment Agency

5.31 The Environment Agency is an air quality partner for local authorities. The Environment Agency will be able to assist local authorities for whom a permitted process / processes in their area is / are problematic.

5.32 The Environment Agency are responsible for the permitting of Part A1 processes. These processes include energy activities, production and processing of metals, mineral industries, the chemical industry and waste management. Background

concentrations are considered in the permitting process and a degree of headroom is incorporated to reduce any potential cumulative impacts of permitted developments. Emission limits are tightened periodically through Best Available Technology (BAT) and permit reviews. Emission limits can be reviewed and then lowered outside of this, if an Environment Agency regulated installation/facility was determined to be 'the' or 'a' significant contributor to an exceedance of a statutory air quality standard. Under these circumstances the operator may need to go beyond BAT to bring down their process contributions as low as practicably possible, which would require a cost-benefit analysis.

5.33 Permits are granted by the Environment Agency where permit conditions to prevent and where that is not possible, minimise pollution from the process are adhered to. If a process is non-compliant with a permit the Environment Agency can serve notices to achieve compliance. Where a process does not achieve permit compliance a suspension notice can be served, suspending the ability to operate. The Environment Agency can prosecute where it is considered to be in the public interest.

5.34 The Environment Agency also enforces permits for Medium Combustion Plant and Specified Generators further information on these sources is included in Chapter 10.

5.35 The Environment Agency has a duty not to permit a process that will result in the exceedance of an air quality objective. Local authorities identifying an Environment Agency permitted site as contributing to an exceedance should contact the Agency to discuss what actions the Agency can take through the permitting process to reduce this contribution.

NHS Trusts

5.36 "As a key priority, the NHS will work to reduce air pollution and improve local environments, thereby supporting the development of local economies in geographical areas of deprivation. Air pollution disproportionately affects people in these areas, many of whom are already at risk of poorer health outcomes." - Delivering a Net-Zero National Health Service.

5.37 In October 2020 the NHS published "Delivering a Net-Zero National Health Service" [16]. This recognises the air quality co-benefits from many carbon reduction measures. The net zero actions proposed include both actions to address direct emissions from NHS Trusts and NHS Foundation Trusts and those emissions the NHS can influence for example vehicle journeys by staff and visitors.

5.38 Local authorities developing AQAPs should expect NHS Trusts and NHS Foundation Trusts to already have plans to reduce air pollution the Trusts have influence over. Discussions with local Trusts to integrate such plans into Local Authority Air Quality Action Planning and to co-operate over for example transport measures should be productive.

Network Rail/Rail Operators

5.39 Idling diesel trains, buses and taxis can sometimes cause a local air pollution issue especially where this takes place near to residential buildings. The use of anti-idling signage at taxi ranks and in station car parks can help. Rail operators are expected to avoid unnecessary lengthy periods of idling and should be receptive to examining and implementing potential solutions if they or a local authority identifies a potential pollution issue caused by idling.

5.40 Railway stations may be managed by Network Rail or individual train operating companies.

Public Health Bodies

5.41 There will be a role for public health in increasing public knowledge and understanding about the adverse health impacts caused by poor air quality.

5.42 Public health bodies may be able to assist local authorities in estimating potential health benefits of proposed air quality action planning measures.

5.43 Local authorities may be able to gain an increased level of engagement from public health bodies if able to include air quality in their Joint Strategic Needs Assessment (JSNA). Directors of Public Health can review and approve ASRs and AQAPs.

Public Health Case Study

5.44 An example of partnership working between Public Health and other local authority teams is taking place in Bradford. Bradford will soon be launching a charging Clean Air Zone in the city [17]. The Public Health Team have strong links with the Born In Bradford (BiB) research programme. Early BiB research shared with the Council showed relationships between air pollution and low birth weight, higher blood pressure at ages 4-5, childhood obesity at ages 6-11 and at a molecular level they found exposure to pollution relates to shorter telomere length in children (an indicator of biological ageing).

5.45 The most recent figures in Bradford suggest that 500 people die from respiratory disease each year. There are over 13,000 diagnosed cases of Chronic Obstructive Pulmonary Disease (COPD) and more than 41,000 people diagnosed with asthma [18]. Through health impact assessment the team have shown that the greater burden of pollution on health are amongst more deprived communities, exacerbating health disparities. It is estimated that 25% of childhood asthma cases in the city are as a result of air pollution from vehicles and 1 in 5 children has a breathing problem.

5.46 This local data gives Bradford the evidence it needs to prioritise addressing air pollution. In addition to getting ready for the Clean Air Zone the researchers and Council officers have been working with communities and schools across the district to implement interventions to reduce exposure to air pollution. As part of BiB Breathes project [19] they have trained over 200 primary school pupils to be ‘citizen scientists’ monitoring their pollution exposure using mobile sensors on their journey to and from school. These insights have led to local authority investment in anti-idling campaigns and a programme of school streets (where roads around schools are closed during key

commute periods) which are currently being piloted. The Public Health and Clean Air team also work together to reduce exposure impacts on new developments. The Council have cleaned up their vehicle fleet and are working with bus companies, taxi operators and local businesses to aggressively reduce air pollution in the city. Bradford Council will be working with BiB and other partners to measure the actual health improvements in the city as a result of these changes.

Strategic Partnership Working – role of local partnerships

5.47 Local Authorities are encouraged to consider local partnerships to manage air quality wherever it makes sense to do so, for example, by allowing officers from relevant departments across authorities to work closely together, share resources and best practice, carrying out review and assessment across their area to produce joint reports. It should also help to identify, at an early stage, situations where air quality in one Local Authority may be adversely affected by decisions made in a neighbouring Local Authority, and to pursue joint solutions to shared problems.

5.48 Local Authorities may also want to consider regional collaborations/strategic partnership working when engaging Air Quality Partners. For example; in Mayoral Combined Authorities (MCAs) the MCA could play a co-ordinating role; upper tier authorities could potentially facilitate cross LA working within their area; existing Air Quality partnerships between authorities may be used; Ad hoc co-ordinating bodies could be set to tackle a specific question; an Air Quality Partner/Relevant Public Authority could potentially co-ordinate discussions with multiple Local Authorities.

Case Studies

5.49 This section introduces some case studies of local authority partnership working on air quality. Other case study examples are provided on the Air Quality Hub [17].

The Greater Manchester Combined Authority (GMCA)

- Brought together all 10 district councils in the area to form a single AQMA for Greater Manchester.
- GMCA Low Emission Strategy (LES) and AQAP published in 2016
- The LES & AQAP led by Transport for Greater Manchester (TfGM) on behalf of the GMCA and the 10 Greater Manchester (GM) local authorities
- TfGM work with National Highways, UKHSA, Environment Agency, Greater Manchester Police, and charitable organisations.
- Greater Manchester's 5 Year Environment Plan (5YEP) was published in 2019 - aims for Greater Manchester to be "carbon neutral" by 2038.

Sussex Air Partnership

- Partnership of all the Local Authorities in Sussex
- Helps Local Authorities meet their statutory obligations to assess and report on local air quality
- Provides information to the public on air quality in their area.
- Develops and delivers projects to improve local air quality and to reduce people's exposure to poor air quality.

Kent and Medway Air Quality Monitoring Network

- Funded by the district and borough councils within the county, with an additional contribution from Kent County Council.
- Promotes the improvement of air quality within the region.
- In 2015 Published Air Quality Planning Guidance aimed at local authorities, developers and consultants.

Chapter 6: Consultation and Community Engagement

Public access to local air quality information

6.1 Following the inquest into the death of Ella Roberta Adoo-Kissi-Debrah, on 21st April 2021 the Coroner published his Prevention of Future Deaths Report in which he raised low public awareness of information on air quality as an area of concern. We share the Coroner's concern that whilst a range of information on air quality is available and promoted, there is a need to increase public awareness and support individuals to reduce their personal exposure to air pollution.

6.2 Local authorities are encouraged to provide local communities with clear, accurate and timely information about local air quality that enables them to understand the local problem and make conscious choices - adapting their day-to-day behaviour if at risk of regular exposure to pollutant exceedances.

6.3 Members of the public have a right to know the state of air quality in their area, even when there is full compliance with the local air quality objectives

<u>Communicating advice</u>

- Communicating with the public, local authorities should make communications as meaningful and practical as possible, offering advice and ideas for changes that can be made. Local Authorities may wish to consider providing details on various options people could take, with individuals then picking the one that fits with their own experience and circumstance.

- Local authorities should consider working with trusted messengers; that is those who have strong bonds with local communities and have built up trust over time.

- Local authorities well as communicating advice to the public, advice should be given to those who have an important wider role within individuals lives, for example, landlords, employers, builders, faith groups and community representatives.

- Tie in messaging about co-benefits e.g. financial savings, improved safety, reducing health and climate change impact.

Local authorities should consider the broadest range of options for communicating advice potentially including:

- Healthcare settings (GP, pharmacy, etc.)
- Schools, Colleges, Universities
- Transport hubs
- Workplaces
- Advertising (newspapers, billboards, social media, etc.)
- Supermarkets, high streets, shopping centres
- Sports venues, leisure centres, gyms, swimming pools, wellbeing centres
- Places of worship
- Community centres

6.4 The Air Quality Grant Scheme encourages applications for projects that enhance community engagement and in 2022 awarded over £1m of funding to projects that improve knowledge and information about air quality and steps individuals can take to reduce their exposure to air pollution. Case studies for the Air Quality Grant are published on the Air Quality Hub [21] following completion of the project.

6.5 Local Authority websites can provide a wealth of air quality information for the public. It is recommended where possible to have an Air Quality page rather than Air Quality being part of a page with information on a broader range of topics. The page should include some information for the public on means of reducing emissions, easy access to information on any AQMA's and any AQAP should be provided. Access should also be provided to ideally at least the last three ASRs wherever possible.

Community engagement

6.6 Involving local communities and neighbourhood groups in local air quality will widen the understanding of air quality issues associated with public health and can increase community trust and understanding of need to take local action. Localised air pollution hotspots are a potential focal point for measures to encourage community engagement and ownership, and many local authorities are already looking at ways of involving local communities in decision-making on how these are addressed.

6.7 It is important to ensure decision-making groups include members of the local community who reflect the diversity of that community, those most impacted by poor air quality and by potential measures to improve it. Local authorities are encouraged to involve local communities from the outset of the development of an AQAP and should not wait until the plan exists in draft form before seeking their input. A principle guiding community engagement is to ensure that those who will be affected have a genuine opportunity to have their constructive ideas, as well as their opinions taken on board and input into the future shape of their local area.

6.8 Engagement must include the 'lived experience' of those particularly at risk or living in areas of high population and of deprivation or inequity, with these voices at the centre of decision making. Understanding individual context, particularly barriers, unintended consequences, and limitations that people have in changing lifestyles or behaviours is essential.

6.9 Good public engagement should draw upon an assortment of different approaches, using materials from other successful strategies to build a coordinated suite of multi-media initiatives, with support from communications and behaviour change experts and commitment from a range of actors, e.g. national and local government, public health, public transport providers, businesses and schools.

Forming a Network

6.10 In order to engage communities that are traditionally 'harder to reach' local authorities may wish to consider actively visiting them and participating in their existing events.

6.11 Forming an extended network of local community groups and involving them in every stage of the process gives a local authority a ready-formed group of experts by experience to ask questions of or to aid in communications and reaching a wider network for consultation. Local authorities should ensure to engage and network with all groups representing the most vulnerable in society, such as those representing individuals with disabilities, serious medical conditions, the elderly, etc.

6.12 Local authorities should also engage with groups with a strong community presence for example faith groups.

Case Studies

RADE (Residents Against Dirty Energy) / Saaf Hava (Clean Air)

- Community group in the Easton area of Bristol.
- As well as community engagement, RADE monitors air quality & traffic in real-time across the area.
- Citizen sensors & prototypes from Universities like Bath and the University of the West of England measure air pollution, including $PM_{2.5}$ and NO_2.
- With the Council of Bristol Mosques, RADE runs the Saaf Hava (Clean Air) project that supplies this data to the Easton Neighbourhood Forum to help plan the future of Easton, as well as supporting educational and campaigning groups.

Burngreave Clean Air Campaign, Sheffield

- Community group in the Burngreave area of Sheffield, an area of higher-than-average deprivation near to one of England's largest hospitals.
- As a group they run community events, work with schools to raise awareness and have good links with local businesses, including taxi drivers.
- The group has a good working relationship with local government.

Healthy Streets, Southwark

- Air pollutions impact on Urban Health assessed working with ClearView who recruited people from the community and trained them as researchers.
- The aim was to understand the views and feedback of people who would not engage with traditional consultation platforms or digital platforms.

Engagement and Consultation Guidance

6.13 A guide to community-centred approaches to health and wellbeing [22] was produced in 2015 by Public Health England and NHS England. A need was identified to shift to more person and community centred ways of working in public health and healthcare. The core concepts that underpin this shift are voice and control - leading to people having a greater say in their lives and health; equity - leading to a reduction in avoidable inequalities, and social connectedness - leading to healthier more cohesive communities.

6.14 The Knightsbridge Neighbourhood Forum was designated by Westminster City Council as the neighbourhood forum for the Knightsbridge Neighbourhood Area. The Knightsbridge Neighbourhood Plan includes policies on a range of matters including character, heritage, community uses, retail, offices, housing, cultural uses, transport and the environment. The Knightsbridge Neighbourhood Forum produced useful best practice guidance on community engagement [23].

6.15 The University of the West of England produced guidance on Community engagement for a clean air future [24]. This guidance outlines means to approach community engagement and potential methodology.

6.16 The 1995 Act provides the statutory basis for consultation and liaison in respect of LAQM. Defra (for England authorities, outside of London) is the key statutory consultee under LAQM. Schedule 11 of the 1995 Act also requires local authorities to consult the following:

- Environment Agency;
- National Highways;
- The Mayor of London (for London Boroughs only);
- All local authorities neighbouring the local authority in question;
- The County Council (if a District Council);
- Any National Park authority as appropriate;
- Other public authorities as appropriate; and
- Bodies representing local business interests and other organisations as appropriate.

6.17 Local authorities in England are encouraged to consult (though a full public consultation would not be required) on the following:

- **Annual Status Report (ASR)** - including review and assessment of air quality, progress on AQAP measures and decisions to declare, revoke or amend (subject to the degree of amendment) AQMAs

Local authorities in England are required to consult on the following:

- **Preparation or revision of an AQAP -** Local authorities must consult on their preparation of an AQAP, ideally in both draft and final form, are encouraged to consult widely and consider innovative approaches to engage with their local area. Finalisation of the AQAP should take account of consultees' comments on the draft AQAPs may operate over long timescales and authorities may only be able to specify broad proposals in the first draft or consider a need to revise an AQAP if there is a need for further different measures to be taken to secure air quality standards. It is therefore important to carry out a further consultation if the initial proposals are revised significantly or in a potentially contentious way while implementing the plan.

6.18 In determining how to consult, local authorities should have regard to the Consultation Principles issued by the Cabinet Office [25].

6.19 In the case of a decision to declare, revoke or significantly amend an AQMA it may be prudent to consult widely. In any case, all reports and decisions should be made easily

available to the public, for example though publication on the local authority's website.

6.20 In order to develop schemes that work for local communities local authorities should consider:

- publishing plans to show how they will consult their communities.
- show evidence of appropriate consultation prior to schemes being implemented.
- highlight how schemes have been modified based on local feedback to ensure they work for their communities.

Chapter 7: Air Quality Disparities

Air Quality Disparities and Health

7.1 Poor air quality represents the largest environmental risk to public health, long-term exposure to air pollution can cause chronic conditions such as cardiovascular and respiratory diseases as well as lung cancer, leading to reduced life expectancy [26].

7.2 Though air pollution can be harmful to anyone, some people are more affected as a result of where they live, the concentration of air pollution they are exposed to in their day-to-day lives, or their inherent susceptibility to health problems caused by air pollution. Those who are more susceptible include older people, children, those with pre-existing cardiovascular or respiratory disease, pregnant women, communities in areas of deprivation, higher pollution and low-income communities.

7.3 Generally, more air pollution sources and higher pollutant concentrations are found in more socially disadvantaged areas, consequently air pollution tends to cause most harm to people in socially deprived groups [27]. For those on low incomes problems are compounded as they are more likely to have existing medical conditions, they are more likely to live in areas with poorer outdoor and indoor environments and have less access to jobs, healthy food, decent housing and green spaces, which all contribute to poorer health [28].

7.4 These disparities can also affect people throughout their lives, from the prenatal stage through to old age, particularly as deprived communities often have limited opportunities to improve their environment. As with social conditions, environmental factors, such as air quality have a significant influence on health and well-being and affect human health both positively and negatively. In the case of air quality this impact can be short term and long term.

7.5 It is important to consider how vulnerability to pollution impacts is unevenly experienced by different groups in society, where possible action needs to be focussed on pollution/deprivation hotspots. This will help to reduce scenarios where air pollution is exacerbating the existing health disparities associated with deprivation and will provide a focus for the most effective actions in terms of improving public health.

7.6 It is important to also consider when implementing measures to improve air quality whether they could put disadvantaged communities at further disadvantage, either economically or because generalised air quality improvements can mask pockets of deteriorating air quality, for example through displacement activity.

7.7 When communicating with the public on air quality it is important to consider how effectively you are reaching those in more vulnerable groups. Traditional communication strategies may not always reach those who are most vulnerable.

Limitation of Choice

7.8 Those living in areas of deprivation or on low incomes are likely to be less able to take individual action to reduce their exposure and individual emissions.

7.9 **Employment** – Many workers can't choose to work from home or travel at non-peak times to avoid congestion. Certain roles are likely to be more exposed to pollution sources and may have limited choice over the work they do.

7.10 **Housing** – Those living on lower incomes may be limited in what changes they can make to their homes, also in their choice of where to live. Moving home to reduce exposure is unlikely to be a simple option.

7.11 **Fuel-poverty** – Those living in fuel-poverty are limited in their choice of how, when and with what they heat their homes. These people are also likely to be less willing to well-ventilate their homes due to the loss of heat.

7.12 **Travel** – Those living on lower incomes are likely to have less choice over their transport options and reduced capacity to change how they travel. Those who drive may be less able to upgrade their vehicle.

7.13 **Schools** – Those living on lower incomes are likely to have less choice over where they live and where their children go to school and consequently the air pollution they are exposed to both whilst travelling to school and whilst there.

7.14 **Access to green space** – Individuals from deprived communities generally have less access to quality green space close to where they live. Green spaces can provide locations for people to congregate, relax and exercise further from sources of traffic pollution. Access to green space helps to achieve multiple health objectives.

Local Authority avenues to address Air Quality Disparities

7.15 Local Authorities have a range of options they can explore which may help to address air quality disparities.

7.16 **Community participation** - Participation of local residents is essential for decision-making and local planning at the municipal level. Community participation aims to facilitate the involvement of local residents and is based on the belief that those who are affected have the right to be involved in the decision-making process.

7.17 **Planning** - Planning guidance takes into consideration the protection vulnerable populations such as those in day care centres, schools and hospitals from poor air quality and exposure impacts. It can be a very useful tool to mitigate environmental risks in disadvantaged areas and to ensure balanced distribution of air quality burden across a local authority, avoiding the accumulation of environmental deprivation and pollution hotspots in specific areas.

7.18 **Transport planning** - Transport is an essential part of modern life but can also cause a significant effect on air quality, health, environment and local economies. The benefits and negative impacts of transport are not evenly spread across society. A sustainable

transport system will not only reduce vehicle emissions, but will also help to mitigate health and mobility disparities and improve social interactions, liveability and amenity values.

7.19 **Housing departments** – Indoor air quality requires a specific approach and set of interventions and policies (see subsequent section on Indoor Air Quality). Individuals in rented accommodation may be limited in the choices they can make when it comes to improving or modifying their properties to decrease the concentrations of indoor air pollution. Local authority housing teams have an important role to play, not just in offering guidance and support to both tenants and landlords, but in encouraging higher standards in rental accommodation.

7.20 **Open / Green space** - Open space is a public resource in cities and covers any open space but is often used as a synonym for natural and green spaces. Public and accessible open and natural spaces provide air quality, social and health benefits through nature and ecosystem functions. They also have recreational and cultural functions and can provide social gathering and meeting spaces.

7.21 **Pollution control and environmental protection** - Actions may include, zoning approaches and functional restrictions, promotion of active and public transport choices, clean energy programmes and careful siting and control of hazardous activities and polluting industries.

Joint Working with Public Health

7.22 Local authority air quality officers should work with public health professionals to integrate LAQM effectively with other local initiatives aimed at reducing health risks and disparities in effected communities. Local authorities may be able to utilise existing data sets for their administrative areas on deprivation and air quality monitoring and modelling to identify key pollution/deprivation hotspots for focussed action.

7.23 UKHSA and the Office for Health Inequalities and Disparities (OHID) have developed an Air Quality and Health Indicator Tool (for England) which draws together relevant air quality and health indicators for stakeholders to access in one place. This incorporates a pilot Air Pollution Exposure Surveillance (APES) vulnerability indicator that suggests areas where population vulnerability to air pollution may be high. This is currently out for consultation and will be made publicly available when published.

7.24 Directors of Public Health can consider how well potential means to address disparities has been addressed when signing off ASRs and AQAPs. Within Air Quality: A Briefing for Directors of Public Health there is guidance on communicating with the public during an air pollution episode and on communicating on the long-term impacts of exposure to air pollution [29].

7.25 The Joint Air Quality Unit (JAQU) utilised the Department for Transport (DfT), Transport Analysis Guidance (TAG) UNIT A4.2 Distributional Impact Appraisal [30] alongside the Green Book [31] to generate a methodology to carry out Options Appraisal work for local authorities implementing Local NO_2 Plans. Local authorities may be able to carry out similar Distributional Impact Appraisal work for different AQAP measures.

Indoor Air Quality

7.26 Another area local authorities may wish to consider is indoor air quality (though consideration of indoor air quality is not a statutory LAQM duty). The UK population generally spends around 80-90% of their time indoors. How we heat and cook in our homes, the cleaning and decorating products we use (e.g. cleaning and cosmetic products) and the use of certain construction materials can all be sources of indoor air pollution, contributing to the build-up of harmful concentrations within homes, especially if there is inadequate ventilation. Local authorities can advise the public about means of reducing their exposure to poor indoor air quality. It should be recognised that disparities exist as those on lower incomes may have reduced ability to modify their homes to improve indoor air quality.

7.27 The National Institute for Health and Care Excellence (NICE) has produced guidance on indoor air quality at home [32]. This guidance aims to raise awareness of the importance of good air quality in people's homes and actions to take to achieve this. This includes recommendations for actions local authorities can take, including for example embedding a plan for improving indoor air quality in local strategies or plans to help improve people's health. For example, indoor air quality issues can be included as a criteria to check for as part of existing home visits by for example: housing officers, environmental health practitioners, community health services, social workers, care workers and fire and rescue services.

7.28 The guidance highlights housing conditions that may lead to indoor air quality issues:

- Location (external factors such as high concentrations of outdoor air pollution, or where noise or security risks mean residents do not open windows)
- Physical infrastructure (such as small room size, inadequate ventilation and the building's layout and orientation)
- Standard of housing (for example, with damp and mould or physical disrepair including flood damage or with unflued or poorly maintained fuel-burning appliances)
- Overcrowding.

7.29 It is also recommended that a structured process is developed so that health and social care professionals and housing and local authority staff can use existing referral pathways to help people request a housing assessment if poor indoor air quality has been identified or is suspected.

7.30 Councils may also wish to consider the use of selective licensing schemes to support indoor air quality improvements in the private rented sector.

7.31 Given the importance of awareness raising, it is recommended that advice and information for the public is a key component of mitigating the impacts of poor indoor air quality on people's health. The guidance further recommends the use of existing communication strategies to ensure members of the public and relevant professionals are aware of the causes of poor indoor air quality, the health impacts, who is most vulnerable, and what they can do to mitigate the risks of poor air quality in their homes.

7.32 When advising members of the public about indoor air quality local authorities may wish to:

- Advise people on how to reduce damp and condensation and prevent mould.
- Advise people on how to use trickle vents correctly.
- Advise private and social tenants to contact their local authority if no action is taken to improve ventilation or carry out repairs.
- Advise people not to use unflued paraffin heaters in the home.
- Advise people to follow the product instructions when using, for example, candles, paints, glues and solvents, to minimise exposure to pollutants.
- Advise people to choose low-emission materials (for example, products with a low volatile organic compound [VOC] or formaldehyde content and emissions) if furniture or flooring needs replacing.
- Advise people installing a new cooker about the need for ventilation, especially for gas cookers.
- Advise people not to use gas cookers to heat a room.
- Increase awareness of the harms of second-hand smoke in indoor settings as part of wider tobacco control approaches.

7.33 Local authorities could also highlight that the following activities may lead to poor indoor air quality and that they should think about increasing ventilation:

- using cookers, especially gas cookers
- using open solid-fuel fires
- using candles
- using free-standing gas heaters
- using cleaning products, household sprays or aerosols and paints
- having a bath or shower air-drying clothes in the home.

Chapter 8: $PM_{2.5}$

Particulate Matter

8.1 Atmospheric particulate matter is made up of a range of materials and can be solid or liquid particles. Particulate matter is measured in different size fractions most commonly PM_{10} (particles with a diameter less than 10 µm) and $PM_{2.5}$ (particles with a diameter less than 2.5 µm).

8.2 Particulate matter can be classified as primary or secondary, primary particles are released directly into the air and secondary particles are formed in the atmosphere by chemical reactions. Sources of primary particulate matter include road transport (combustion by-products [33], brake and tyre wear and re-suspension of dust from road surfaces [34]); stationary combustion (mainly domestic wood and coal burning); and industrial processes (including production of metals, cement, lime, coke and chemicals, bulk handling of dusty materials, construction, mining and quarrying).

8.3 Secondary particles are less easy to ascribe to their original sources. They are formed mainly from ammonium, sulphate and nitrate precursors. The chemical processes involved in their formation are relatively slow and their persistence in the atmosphere is prolonged. They can also travel large distances, resulting in the transport of particles across national boundaries.

8.4 PM_{10} was defined as a metric as this is the fraction of particles that is most likely to be deposited in the lung. $PM_{2.5}$ can penetrate deeply into the lungs and can irritate and corrode the alveolar wall, impairing lung function. $PM_{2.5}$ can enter the bloodstream and has both short term and long-term impacts on human health. Short-term exposure to elevated concentrations is known to exacerbate the impact of pre-existing respiratory and cardiovascular health conditions, with elderly people and children the most vulnerable groups, whilst long-term exposure is linked to a number of health impacts including respiratory and cardiovascular disease, cancer and dementia [35].

8.5 The World Health Organisation (WHO) Air Quality Guidelines recommend a considerably lower level for annual mean $PM_{2.5}$ concentration than the pre-existing legal limit in the UK (20 µg/m^3). There is consensus amongst health experts that reducing people's exposure to $PM_{2.5}$ is a key priority for future policy direction. There is no evidence of a safe limit for $PM_{2.5}$ exposure.

8.6 The Environment Act 2021 establishes a legally binding duty to set a target on fine particulate matter ($PM_{2.5}$), in addition to at least one long-term target on air quality, by the Act's 31st October 2022 deadline.

8.7 Whilst responsibility for meeting the $PM_{2.5}$ target sits with national government; local authorities have a role to play in delivering reductions in $PM_{2.5}$.

8.8 Local authorities have powers to reduce emissions from local sources including traffic management, encouragement of uptake of cleaner vehicles and increased use of public transport alongside more sustainable transport methods such as walking and cycling, these measures will also reduce emissions of $PM_{2.5}$.

8.9 The ability of local authorities to tackle smoke emissions from domestic solid fuel burning has been strengthened, domestic burning through wood burning stoves

and coal fires is one of the largest contributors to our national emissions of particulate matter.

8.10 Legislation to limit the domestic burning of wet wood came into force 1 May 2021 [36]. Burning wet wood can result in at least twice the amount of smoke emissions produced when seasoned or dry wood is burned. Legislation to phase out the sale of bagged traditional house coal also came into force on 1 May 2021. Guidance is available on the requirements for selling, both wood [37] and coal [38], for domestic use in England.

Local Authority $PM_{2.5}$ Role

8.11 Local authorities will need to take action to reduce emissions and the precursors of $PM_{2.5}$, with action to tackle PM_{10}/NO_x usually contributing to this.

8.12 Local authorities should:

- Identify measures already in place that can help with reducing concentrations of $PM_{2.5}$ (examples of these type of measures are included in the Technical Guidance);
- Identify new priority measures to tackle $PM_{2.5}$ (these should be discussed with the Director of Public Health and other relevant partners).

8.13 Local authorities can consider how to address $PM_{2.5}$ alongside, its precursors and other pollutants when tackling their own vehicle fleets and services and/or work with communities and businesses to achieve improvements in air quality.

8.14 Public Health England compiled a report entitled 'Estimating Local Mortality Burdens Associated with Particulate Air Pollution' [39] which is designed to help local authority air quality practitioners and public health professionals understand the mortality burden of fine particulate pollution within their area, which can then be used to raise awareness of the problem and how best to remediate it.

Public Health Indicators

8.15 The Public Health Outcomes Framework (PHOF) sets out a vision for public health that is to improve the nation's health and to improve the health of the poorest fastest. The framework concentrates on two high-level outcomes (healthy life expectancy and differences in life expectancy and healthy life expectancy between communities) to be achieved across the public health system. It groups further indicators into four 'domains' that cover the full spectrum of public health. The outcomes reflect a focus not only on how long people live, but on how well they live at all stages of life. Recognising the significant impact that poor air quality can have on health, the PHOF includes an indicator relating to fine particulate matter ($PM_{2.5}$).

8.16 Public health professionals and air quality specialists within local authorities should be aware of the PHOF indictor [40] for air pollution in their area and should work together towards achieving it, for example through producing joint communications on air quality.

Chapter 9: Transport

9.1 Transport is a major source of air pollution in the UK. As such, transport measures will play a significant role in improving air quality and public health. The transport-related examples below will help you develop a framework for action.

9.2 The Government published a report on Decarbonising Transport in 2021 [41]. As local authorities adopt measures to reduce greenhouse gas emissions co-benefits with improvements to air quality should be a key consideration while potential disbenefits should be avoided or mitigated where possible.

9.3 It is estimated that road transport alone contributes 20-30% of NO_2 national emissions. Around 70% of roadside NO_2 concentrations, where the UK is exceeding limits, are due to NOx emissions from road transport. Local authorities have identified road transport as the primary source for over 90% (526) of AQMAs. For a further 21, road transport has been identified as a contributory source (October 2021).

9.4 The expansion of road vehicles over recent decades has led to many exceedances of local air quality objectives for NO_2 and contributes to particulate matter emissions. Government policy interventions and improved legal vehicle standards will contribute to ongoing emissions reductions from road vehicle pollution. Over the next few years, a combination of cleaner fleet and local authority action supported by Government measures, we should see a steady reduction in AQMAs caused by emissions from road vehicles. However, the uptake of electric vehicles will not resolve the issue of particulate emissions from tyre and brake wear. Measures which reduce road vehicle journeys will have the greatest positive impact on local air quality.

9.5 Local authorities along with their partners will continue to play an important role. Most transport journeys are local. The challenge varies from location to location. Local authorities therefore need to develop a set of actions that are appropriate to the local context.

9.6 Practical measures are available to local authorities to reduce levels of pollutants from vehicles, either directly or indirectly. Traffic management measures including junction design and speed limits should be carefully considered. Measures to reduce traffic levels and to promote use of low and zero tailpipe emission vehicles will often be the most effective in reducing pollution concentrations. Local authorities and their partners should consider both “soft” measures such as marketing and information to encourage people to use sustainable transport modes, and “hard” measures such as improvements to infrastructure and services.

9.7 To secure achievement of local air quality objectives, local authorities will often need to engage with relevant partners responsible for contributing sections of the road network – whether upper tier authorities, Mayoral Combined Authorities and Metro Mayors, neighbouring local authorities or National Highways when developing transport strategies within AQAPs.

Road Transport Planning

9.8 Local transport authorities in England (outside London) are required to produce Local Transport Plans (LTPs) under the Local Transport Act 2008. LTPs should include strategies and implementation plans related to all relevant environmental issues. It is good practice to align AQAPs with LTPs. To ensure that the air quality and environmental effects of all planned interventions on the road network are thoroughly understood before they are implemented, local air quality and transport teams should work in partnership with National Highways. Local authorities should ensure that there is sufficient alignment with AQAPs and Local Cycling and Walking Infrastructure Plans (LCWIPs) [42].

9.9 Cooperation between transport, environmental services, public health, and planning departments, as well as with partner organisations such as National Highways, will help ensure a strategic approach to improve air quality and quality of life, especially for those living near busy roads and junctions. Partnership working in two-tier and metropolitan areas (as described in Chapter 3) is crucial. Local Transport Plans should ensure better integration across local transport services and help to facilitate a shift to public transport.

9.10 A transport demand management toolkit [43] was provided by the Department of Transport to assist local transport authorities to manage the impacts of the COVID-19 pandemic on the transport system.

Local Authority Example Measures

9.11 A number of practical measures are available to local authorities to reduce levels of pollutants from vehicles, either directly or indirectly. Examples of potential measures are provided on the Air Quality Hub [44].

Idling

9.12 The Road (Vehicle Emissions) (Fixed Penalty) (England) Regulations 2002 give local authorities the power to issue Fixed Penalty Notices of £20, to drivers leaving vehicles idling unnecessarily.

9.13 The police also have powers to enforce against unnecessary idling. Regulation 98 of the Road Vehicles (Construction and Use) Regulations 1986, as amended, makes it an offence to leave a vehicle's engine running unnecessarily whilst stationary on the road other than when in traffic. The offence carries a maximum fine on conviction of £1000.

Traffic Management Act 2004: Part 6 Moving Traffic Enforcement

9.14 Regulations to allow local authorities outside London powers to issue fines to motorists

who commit moving traffic contraventions such as: no entry, banned turns, unlawful entry into box junctions and driving in mandatory cycle lanes came into force on 31 May 2022. **However, this was not the point at which local authorities can start enforcing.** Under the primary legislation, councils with existing civil parking enforcement powers wanting to undertake civil enforcement of moving traffic contraventions must apply to the Secretary of State for Transport for an Order to be made designating them as the enforcement authority in their area. The first Order came into effect on 15 July in respect of twelve local authorities [45].

9.15 The purpose of traffic enforcement schemes is to help local authorities manage traffic on their road network, and to dissuade motorists from breaking the rules as indicated by traffic signs. To ensure that enforcement is carried out fairly, statutory guidance (to which local authorities must have regard) was published in tandem with the regulations coming into force advising councils how to apply for, and use, the moving traffic enforcement powers, including publishing their introduction in advance [46].

Speed Limits

9.16 Speed restrictions of 20mph may decrease exhaust emissions, but the effectiveness of speed restrictions to improve air quality will always be dependent on specific local conditions. The aim of speed management is to deliver a balance between safety objectives for all road users and mobility objectives, to ensure efficient travel, as well as environmental and community outcomes. Lower speed limits can also reduce noise, promote walking and cycling and increase community cohesion.

9.17 Local authorities have the power to introduce 20mph speed limits (without traffic calming) or zones (which have traffic calming). They are best placed to determine such limits for their areas based on their local knowledge and the views of the community, taking a balanced account of the full range of impacts of changing speed limits including economic and environmental effects. The Department for Transport has published guidance [46] designed to make sure that speed limits are appropriately and consistently set while allowing for the flexibility to deal with local needs and conditions.

9.18 Reduced speed and smoother driving result in less fuel consumption and reduces brake and tyre wear. The speed that drivers choose, and particularly the style of driving, may have an impact on air quality; the topography of the road also has an effect. Speed restrictions will be most effective when this enables positive changes in driver behaviour (e.g. fewer accelerations/decelerations). When applying speed restrictions, it is important to avoid an increase in ‘stop-start’ traffic, as this will lead to a worsening of emissions. Specific local circumstances are likely to determine whether a lower speed limit delivers air quality benefits, so it is important to consider specific local circumstances when assessing whether 20mph speed limits will be effective in reducing emissions.

9.19 The Government consulted on reforms to the process for making Traffic Regulation Orders between March and April 2022. Responses are currently being analysed and the outcome will be published later in 2022.

Promoting Zero Tailpipe Emission Transport

9.20 Government driven policy will deliver sustainable, permanent improvements to the level of road transport emissions through the electrification of vehicles. By 2035 all new cars and vans will be zero exhaust emission. Government is investing £1.3 billion to accelerate the rollout of charging infrastructure on motorways, on streets, in homes and workplaces. The Government will work closely with local authorities to encourage uptake of central government funding and ensure more widespread action in the transition to Zero Emission Vehicles (ZEVs). As of July 2021, over 117 local authorities have applied for central government funding to support installation of on-street electric vehicle charge-points including new and innovative technologies.

9.21 In July 2021 the Government published the Transitioning to zero emission cars and vans 2035 Delivery Plan [48]. The Office for Zero Emission Vehicles (OZEV) [49] works across government to support the transition to ZEVs. OZEV provides support for the take-up of plug-in vehicles, as well as funding to support charge-point infrastructure across the UK. This will contribute to economic growth and will help reduce greenhouse gas emissions and air pollution on our roads. OZEV is part of the Department for Transport and the Department for Business, Energy & Industrial Strategy.

9.22 Local authorities will play a key role in enabling the transition to ZEVs. Local areas will require tailored solutions to boost clean transport and roll out the right mix of charging infrastructure. This will need to complement other strategies to improve local air quality such as increasing the use of public transport. Many local authorities are electrifying their own fleet. For example, Nottingham City Council has fully electric bin lorries, street sweepers, cage tippers and minibuses.

9.23 It is important that local areas join up transport planning and housing planning. The Government's National Planning Policy Framework provides direction to ensure that local authorities fully consider the inclusion of charge-point infrastructure in all new developments.

Zero Tailpipe Emission Vehicle Support Available

9.24 In March 2022 the Government published Taking charge: the electric vehicle infrastructure strategy [50]. This strategy was developed to assist with the transition to Zero Emission Vehicles (ZEVs).

9.25 The Local Government Support Programme [51] is available to local authorities and offers an impartial advisory service which helps local authorities in England to develop local policies and strategies to support ZEV uptake.

Parking Levies

9.26 Workplace Parking Levies, such as that in operation in Nottingham [51] could be considered. Such levies can encourage car sharing or use of public transport, while the funds can be used to improve infrastructure benefiting air quality. When considering parking levies mitigation of potential disproportionate impact on those with lower

incomes will need to be considered.

Clean Air Zones

9.27 The most polluting vehicles can be discouraged through Clean Air Zones (CAZs). CAZs are areas where only the cleanest vehicles are encouraged to operate to improve air quality. They are geographically defined areas allowing action and resources to be targeted to deliver the greatest health benefits. The concept of CAZs was introduced in 2017 in the Air Quality Plan for Nitrogen Dioxide (NO_2) in the UK [53]. The UK's first CAZ was launched in Bath in 2021.

9.28 CAZs have been introduced with a specific focus on tackling roadside NO_2 concentration limits as set out in the Air Quality Standards Regulations 2010. The UK is compliant with other limit levels of other exhaust pollutants, but CAZs will also help to reduce public exposure to pollutants such as particulate matter.

9.29 Government has published a Clean Air Zone Framework [54] to support those local authorities implementing these zones to deliver legal levels of Nitrogen Dioxide in the shortest possible time, in line with the actions set out in the 2017 NO_2 plan. Whilst the framework is principally targeted at those local authorities identified in the 2017 plan, (and 2018 supplement [55]), other local authorities may wish to refer to it if they are considering such an intervention to deliver air quality objectives using powers under the Transport Act 2000

9.30 There are four different classes of CAZ. Each successive class includes more vehicle types to bring about a larger reduction in emissions. Vehicle owners will be required to pay a charge if they drive in a zone and their vehicle does not meet the required emission standard. Given the potential impacts on individuals and businesses, when considering between equally effective alternatives to deliver compliance, the UK government believes that if a local authority can identify measures other than charging zones that are at least as effective at reducing NO2 and are at the same or lower cost, those measures should be preferred if the local authority can demonstrate that this will deliver compliance as quickly as a CAZ.

9.31 Should a decision be taken to introduce a CAZ, a local authority will need to take account of any impacts on any AQMAs outside the Zone as well as other areas, for example through displacement of vehicles.

School Streets

9.32 School Street schemes offer a proactive solution for communities to tackle air pollution and improve road safety around schools. 'Gear Change: A bold vision for cycling and walking' [56], published on 28 July 2020, included a commitment to create more school streets. Under these schemes, during term time, streets are closed to through traffic and have parking restrictions at school pick-up and drop-off times. Access is maintained for residents and other requirements. The schemes can reduce the number of people driving their children to school by up to a third and reduce the risk of casualties by reducing the road accidents involving pedestrians, cyclists and vehicles, as well as contributing to better air quality. Local authorities can bring forward school streets proactively, using standard traffic signs and Traffic Regulation Orders, as well

as working with communities to respond to requests to implement schemes. The powers in part 6 of the Traffic Management Act 2004 introduced in [date] (see paragraph 9.12) enable local authorities outside London to take on powers to enforce moving traffic restrictions, including those used for School Streets. This will make enforcement more effective.

9.33 When considering the introduction of School Streets local authorities will need to consider impacts elsewhere as a result of diverted traffic.

Low Traffic Neighbourhoods and Designing Streets for People

9.34 Big increases in the amount of traffic on residential streets over the past few decades have resulted in more local air pollution as well as more noise and greater danger on roads. Low-traffic neighbourhoods are a collection of measures, including road closures to motor traffic. They deliver a wide range of benefits – a safer and more pleasant environment for residents, more walking and cycling and better air quality. When assessing the need to implement Low-traffic Neighbourhoods due consideration should be given to avoiding potential displacement of traffic causing elevated pollution concentrations elsewhere.

9.35 More widely, street design that places consideration of the needs of people walking and cycling at the top of the hierarchy can reduce the need to travel by car and make walking and cycling more attractive, reducing congestion and thereby helping improve air quality. DfT has set out the principles of good street design in the Manual for Streets (MfS) and Manual for Streets 2 (MfS 2), which are recommended to local authorities in designing and managing their streets. DfT is currently in the process of revising MfS and MfS 2, bringing them together into one up-to-date piece of guidance.

Behaviour Change Campaigns

9.36 Behaviour change measures can support a switch to more sustainable and active forms of transport including walking and cycling. Encouraging behaviour change can include:

- Travel awareness campaigns – information on walking, cycling and public transport and incentives to encourage change;
- Workplace travel plans – working directly with business to understand staff commuting and business travel patterns and provide support to encourage greater use of more sustainable modes;
- Promote shared car ownership and shared occupancy schemes
- School travel plans – working with teachers and pupils directly through a range of activities to support behaviour change for children and their parents.

- School travel can be a particularly good target for these campaigns directed at teachers, pupils and their parents.

9.37 Local authorities can also collaborate in partnerships with other organisations to encourage and support change. This can be working with an organisation to encourage changes to business travel or with bus and freight operators through ‘quality partnerships’ to support cleaner more efficient transport operations. Behaviour change initiatives can aim to achieve:

- A reduction in the number of trips by car.
- An overall reduction in traffic.
- Increased use of public transport.
- Increased active travel – walking and cycling.

9.38 Within the National Planning Policy Framework there is a section on promoting sustainable transport, opportunities to promote walking, cycling and public transport associated with new developments should be identified and pursued. The need to ensure an adequate provision of parking spaces for charging plug-in and other ultra-low emission vehicles in new developments is also highlighted.

Active Travel: Promoting walking and cycling

9.39 Active travel campaigns can be effective in improving air quality and quality of life especially if behaviour change awareness campaigns are combined with provision of quality infrastructure.

9.40 Journeys below two miles represented 43% of all urban and town journeys in 2019. The Government has a target that half of all journeys in towns and cities are cycled or walked by 2030.

9.41 Increasing the share of journeys taken by walking and cycling is fundamental to any good local transport plan. People will feel safer and more confident walking and cycling for short journeys as a consequence of provision of high quality road design, dedicated routes, and networks. Increasing walking and cycling can help improve air quality, combat climate change, improve health and wellbeing, address disparities and tackle congestion on our roads.

9.42 Cycling facilities, such as safer cycle routes and more cycle parking, make it easier for people to cycle to their local railway station or bus route and should provide for the same door-to-door travel as a car. E-cycles make it possible to cycle for longer journeys than conventional cycles.

9.43 Backed by £2 billion of new funding, the Government’s "Gear Change" White Paper and new design standards set a new level of ambition for cycle schemes. More than 300 walking and cycling schemes have already been delivered on the ground.

Promoting and improving public transport

9.44 Although COVID-19 has caused a relatively large reduction in demand for public transport this needs to be temporary as there needs to be an increase in the share of journeys taken by public transport – particularly in congested areas.

9.45 The National Bus Strategy, launched in March 2021 [57], charted a new path towards lower, simpler fares, more frequent buses, services which are easier to understand and use, more bus priority lanes and thousands more zero tailpipe emission buses.

Traffic Control Systems

9.46 Many Local Transport authorities adopt traffic management systems such as SCOOT (Split Cycle Offset Optimisation Technique) or MOVA (Microprocessor Optimised Vehicle Actuation) to control traffic signals in urban areas. Benefits from the ability to adapt traffic signal controls include more efficient use of road capacity, shorter journey times, reducing the number and frequency of congestion periods, and lowering of pollution and CO_2 emissions. SCOOT is an adaptive system that responds automatically to fluctuations in traffic flow using on-street detectors embedded in the road and reduces vehicle emissions by reducing delays and congestion within the network. MOVA is a method of controlling the traffic signals based on the presence of vehicles detected on the approach to a signalised junction, and controls one junction at a time rather than looking at total traffic flow.

Contracting and procurement

9.47 All public contracting authorities must consider energy and environmental impacts by:

- Setting technical specifications for energy and environmental performance in the documentation for the procurement of road transport vehicles;
- Including energy and environmental impacts in the purchasing decision by using energy and environmental impacts as award criteria as part of a procurement procedure; and
- Including energy and environmental impacts in purchasing decisions by monetising them.

Rail

9.48 Rail is the greenest form of motorised transport, with almost 38 per cent of the network electrified and more to come. In 2021, the Williams-Shapps Plan for Rail set out our strategy to grow the network, make it easier to use, and simpler and cheaper to run. Electrified trains are faster, quicker to accelerate, more reliable and much cheaper to run. There will also be a role for new technologies like hydrogen trains where they make economic and operational sense. The Government has committed to achieve net zero greenhouse gas emissions from trains by 2050, transforming rail journeys within a

generation. These measures will also improve air quality.

9.49 Locally idling diesel trains may contribute to poor local air quality and local authorities are encouraged to engage with rail companies to address these issues.

Ports & shipping

9.50 Shore power has a role to play in immediately reducing emissions from vessels visiting ports.

9.51 Ports are encouraged to produce a Port Air Quality Strategy (PAQS). Ports should understand the emissions that arise from their core operations, have an appreciation of the emissions that arise from other maritime activity (such as shipping and cargo operations) in areas under their jurisdiction, and develop responses to these emissions at an appropriate level that reflects their ability to influence the emissions source.

9.52 DfT's new UK Shipping Office for Reducing Emissions (UK SHORE) will use £206m of government research and development funding from 2022 - 2025 to deliver a suite of interventions transforming the UK into a global leader in the design, manufacture and operation of clean maritime technology.

Airports

9.53 Airports are encouraged to develop their own Air Quality Plans or Strategies. These should include how the airport will work with local authorities to improve air quality, especially where emissions from travel to and from the airport contributes to pollution concentrations within an AQMA. Where this is the case local authorities are advised to contact the airport to discuss co-operation.

Evaluating the Benefits of Transport Measures

9.54 Defra has developed abatement cost guidance for valuing the impacts of changes in air quality [58]. As part of its guidance, summary values (known as 'damage costs') have been developed for use in appraisal processes where the impacts on air pollution are relatively small (defined as impact valued at less than £50 million). Damage costs provide the benefits of marginal air quality improvements reckoned in £ per tonne of pollutant reduced. The damage costs value the health impact of a unit of air pollutant emission on mortality (both chronic and acute) and morbidity (hospital admissions).

Chapter 10: Non-Transport Nitrogen Oxides (NO_x) and other sources

Power Stations

10.1 In the UK about one-quarter of NO_x is from power stations, one half from motor vehicles and the rest is from other industrial and domestic combustion processes [59].

10.2 The main emissions to air from power stations that give cause for concern are sulphur dioxide (SO_2), NO_x and dust (particulate matter, or $PM_{2.5}$). All three are relevant to coal-fired stations, but NO_x is the most significant emission from gas-fired stations. It is important to note that the deadline to remove coal from the UK energy system has been brought forward to October 2024.

10.3 Large power stations are permitted by the Environment Agency.

Domestic Combustion Processes

10.4 Domestic burning through wood burning stoves and coal fires now makes up the single largest contributor to our national emissions of particulate matter.

10.5 Increased controls on materials burnt will help to limit these emissions. Legislation to limit the domestic burning of wet wood came into force 1 May 2021. Burning wet wood can result in at least twice the amount of smoke emissions produced when seasoned or dry wood is burned. When wet wood is burned, the heat output is significantly reduced, and chemicals can build up on the inside of the stove and chimney, which increases the risk of chimney fires.

10.6 Legislation to phase out the sale of bagged traditional house coal came into force on 1 May 2021. The World Health Organization classifies coal smoke as a carcinogen. The use of less polluting fuels in the domestic setting is encouraged such as smokeless coal (or anthracite) and low sulphur manufactured solid fuels for the purpose of domestic heating. Sulphur standards and smoke emission limits are applied to all manufactured solid fuels. Defra have produced practical guidance on open fires and wood burning stoves [60].

Industrial Combustion Processes

10.7 Industrial processes can emit a range of pollutants. More complex plants tend to be permitted by the Environment Agency and less complex, often smaller processes are usually permitted by the local authority.

Part A1 processes that are permitted by the Environment Agency include:

- Energy activities
- Production and processing of materials

- Mineral Industries
- Chemical Industries
- Waste Management (not all)
- Other Activities.

10.8 In some parts of the country permitted processes can contribute to the declaration of AQMA's. Resolution of any non-compliance of a process with their permit is essential to controlling emissions.

Non-Road Mobile Machinery (NRMM)

10.9 NRMM includes mobile machines and transportable equipment or vehicles which are fitted with an internal combustion engine which are not intended for transporting passengers or goods on roads. Gaseous and particulate emissions from NRMM are controlled, in some areas, for example where there is ongoing construction work emissions from NRMM can be a significant pollution source.

10.10 Schemes exist in the UK that encourage developers who are using NRMM to register compliant equipment. Under these schemes local authorities inspect sites for compliance and provide recommendations to remedy any non-compliance. Compliant developers are able to publicise their contribution to improving air quality. Some local authorities may choose to apply minimum NRMM standards to contracts they put to tender, including, for example, road maintenance, or construction projects funded or administered by the authority.

Medium Combustion Plant (MCP) and Specified Generators

10.11 The Environmental Permitting Regulations 2018 implemented the Medium Combustion Plant Directive (MCPD) and introduced additional controls on specified generators. The MCPD introduces new requirements on emissions of sulphur dioxide, nitrogen oxides and particulate matter from combustion plat with a capacity more than or equal to 1 megawatt thermal (MWth) and less than 50MWth burning any fuel. Tighter controls on nitrogen oxides from specified generators (plant that generate electricity) were also introduced for MCP and some plant below 1MWth. The controls apply to all new MCP and will apply to existing MCP (those first used pre-December 2018) in 2025 or 2030 depending on their capacity.

10.12 Emissions from this type of generation are controlled by permit enforced by the Environment Agency once implementation dates have passed.

10.13 As set out in the Clean Air Strategy, as legislation on medium combustion plants and generators comes into force, the government are considering the case for tighter emissions standards on this source of emissions. We are also considering options for closing the regulatory gap between the current Ecodesign and medium combustion plant regulations to tackle emissions from plants in the 500kW to 1MW thermal input range.

Local Authority Permitting

10.14 Local authorities issue environmental permits in relation to Part A(2) or Part B activities, Small Waste Incinerating Plants (SWIPs) and Solvent Emissions Activities.

10.15 A Part A(2) permit is required for the following activities:

- Refining gas.
- Casting/melting ferrous and non-ferrous metals with a capacity of 20 tonnes per day.
- Applying fused metal coatings with a capacity of 2 tonnes hour.
  - Surface treating metals and plastic materials with an aggregated vat volume exceeding 30m^3 that involves another A2 or B activity.
- Grinding cement clinker or metallurgical slag
- Glass manufacturing with a melting capacity of 20 tonnes per day.
  - Ceramic product manufacturing, including roof tiles and bricks, with a capacity exceeding 75 tonnes per day.
  - Manufacturing wood-based boards, e.g. plywood, with a capacity exceeding 600m^3 a day.
- Surface treatment with organic solvents with a capacity exceeding 200 tonnes per year
- Preservation of wood with chemicals with a capacity exceeding 75m^3 a day.
- New tyre manufacturing
- Disposing of or recycling animal carcasses with a capacity exceeding 10 tonnes per day.

10.16 A Schedule 13 Small Waste Incinerators is required when incinerating waste in an appliance that has the capacity of:

- Less than 3 tonnes per hour for non-hazardous waste.
- Less than 10 tonnes per day for hazardous waste.

10.17 A Part B permit is required for the following activities:

- Storage of fuels in terminals.
- Vehicle refuelling at service stations.
- Casting/melting ferrous/non-ferrous metals below A2 threshold.
- Metal decontamination using a furnace.
- Surface treatment of metals in a vat under 30m^3.
- Cement and lime processing.
- Manufacturing glass below A2 threshold.
- Crushing and screening of bricks, tiles, concrete and virgin minerals.
- Heating and processing of virgin minerals.
- Roadstone coating plants.
- Manufacturing ceramic products below A2 threshold.
- Use of isocyanates.
- Incineration of clean waste biomass.
- Human and animal crematoria.
- Tar and bitumen activities.

- Coating activities using solvents including car body repair shops.
- Manufacturing of coating materials.
- Manufacturing products out of timber.
- Processing and storing vegetable or animal matter.
- Breeding maggots.

10.18 A Schedule 14 solvent emissions permit is required for the following activities are above the relevant threshold:
- Printing activities
- Coating activities
- Manufacturing activities using solvents.
- Surface cleaning and dry cleaning.

10.19 In some areas emissions from permitted processes can trigger the declaration of an AQMA or impact on short- and long-term environmental quality standards. Adequately assessing all permit applications for their impact on air quality is essential. Where emissions from a Part B or A2 process are predicted to be detrimental to air quality the local authority can tighten the emission limits and other Best Available Technique (BAT) controls. Where emissions from a Schedule 13 or 14 activity are predicted to be detrimental to air quality the local authority can refuse the application. Controlling any non-compliance of a process with their permit is essential to controlling emissions. Where emissions cannot be controlled or the impact results in any air quality issues the local authority should undertake appropriate enforcement action to bring the operator back into compliance.

10.20 For new development, planning permission determines if the development is an acceptable use of land. A small proportion of developments need both planning permission and an environmental permit. Planning policies and decisions should ensure that a site is suitable for its proposed use and is appropriate for its location. Where planning conditions are used to secure additional mitigation, these should be properly enforced to ensure realisation of those mitigation measures. Where a planning decision has been made on a particular development, issues beyond the scope of the permit should not be revisited through the permitting regimes operated by pollution control authorities. Chapter 11 of this guidance provides further information on planning.

Non-Regulated Plant

10.21 Not all manufacturing and commercial activities require an environmental permit. Though these activities may also have an impact on air quality. Some are below the threshold for permitting and others are not required to hold permits at all, although some of these activities may be regulated by other means.

Ammonia

10.22 Ammonia is a pollutant of concern for several reasons; it is a species important in $PM_{2.5}$ formation, it impacts upon human health, it also impacts and on ecosystems, causing damage and biodiversity loss through nitrogen enrichment, and soil acidification. It is toxic to some plant life; lichens and mosses are particularly sensitive. Currently there is

no statutory LAQM duty on local authorities to consider ammonia.

10.23 National statutory targets for ammonia include a reduction in emissions from 2005 levels of 8% by 2020 and 16% by 2030. Linked to these statutory targets, the Clean Air Strategy also includes a target to reduce the deposition of reactive nitrogen to priority, protected sensitive sites in England by 17% by 2030.

10.24 In the UK agriculture is the predominant source of ammonia generating around 88% of emissions. Agricultural sources include organic manures, livestock housing and manufactured urea-based fertilisers. A Code of Good Agricultural Practice for Reducing Ammonia Emissions [61] has been produced by Defra in collaboration with the farming industry. Other sources include the waste sector, industrial sources and a small amount is emitted from vehicle exhausts.

10.25 Currently all reporting on ammonia is done nationally and there is no local authority responsibility on ammonia monitoring.

10.26 Ammonia may have particular significance for local authorities when considering planning applications – particularly for in-combination assessments - as ammonia (together with NO_x emissions) can contribute to exceedance of critical loads of nitrogen deposition and, resulting in development near vulnerable sensitive habitats having planning permission delayed or even refused.

10.27 Although vehicles emit a small amount of ammonia it could be significant where traffic flows close to, or through, sensitive habitats. There can be significant impacts on these from exposure to ammonia and on nitrogen deposition close to traffic flows. (Consideration of ref to Habitats Regulation)

10.28 Shared Nitrogen Action Plans (SNAPs) focus on targeted action in an area around a sensitive site and bring together stakeholders and regulatory agencies who need to work together cooperatively to reduce impacts caused by pollution deposition or exposure. Natural England is leading on the development of several SNAPs for the Natura 2000 sites most at risk of harm [62], and local authorities can take part in their development and implementation. SNAPs can be referenced in local authority AQAPs.

Chapter 11: Planning and Building Regulations

National Planning Policy and Guidance

11.1 The planning system can play a crucial role in managing or improving air quality. Planning policy is a key factor for local authorities in carrying out their air quality functions, close cooperation between planning and air quality officers is essential. The National Planning Policy Framework (NPPF) [63] sets out national planning policies and principles for England and how these are expected to be applied.

11.2 The NPPF includes specific policies in relation to air quality and air quality management areas, but also other national policies that are relevant to air quality, including promoting sustainable locations for growth and sustainable transport.

11.3 To support the NPPF, planning practice guidance [64] on air quality [65] has been published which provides guiding principles on how planning should take account of the impact of new development on air quality. This includes guidance on the role of Local Plans with regards to air quality, when air quality may be relevant to a planning application and how impacts on air quality can be mitigated.

11.4 Several other planning guidance documents will be relevant to considering air quality including travel plans, transport assessments and statements in decision taking, planning obligations and use of conditions.

11.5 A small proportion of developments need both planning permission and an environmental permit. A range of environmental issues are considered when planning applications and environmental permits are determined. The range of environmental issues is generally wider for planning than it is for permitting, for example, off site traffic and its air quality implications. The focus of planning policies and decisions should be on whether proposed development is an acceptable use of land, rather than the control of processes or emissions (which is covered by permitting). There are benefits in some cases for planning and environmental permit applications [66] to be submitted at the same time (parallel tracking).

11.6 Some major infrastructure projects, such as major new transport, utilities and energy infrastructure or large-scale business and commercial developments, will be classed as Nationally Significant Infrastructure Projects (NSIPs) [67]. This means that the decision for such a development will not be made by the local authority, but by the Planning Inspectorate. The local authority will still participate in the process and will be responsible for discharging requirements and monitoring. National guidance on NSIPs: National Policy Statements, set out government policy in more detail; some cover air quality issues as well.

Local Planning Policy and Guidance

11.7 Local Plans set out the vision and development of a local area. It contains several policies that set out rules for planning applications. Local planning policy

therefore also plays an important role for managing air quality.

11.8 Local authorities should include air quality policies in their Local Plans in accordance with the NPPF. Planning decisions must be taken in line with this development plan unless material considerations indicate otherwise. In addition, parish councils and neighbourhood planning groups can also include air quality policies in Neighbourhood Plans. Air pollution has significant local health impacts, planning policies and decisions are required to consider local health and wellbeing needs, such as those contained in JSNAs.

11.9 Local authorities may benefit from producing a supplementary planning document (SPD) on air quality. An SPD [68] provides more detail or guidance on an air quality policy in an adopted Local Plan and is a material consideration in local decision making on development.

11.10 An SPD can provide detailed information for developers about areas where sensitive development (such as residential, nurseries, schools, hospitals and care homes) should not go ahead and requirements for air quality assessments for different types and sizes of development. Detailed information about potential use of mitigation can also be included.

11.11 Without such policy in place, it can be much more difficult to ensure inappropriate development on air quality grounds can be refused. An SPD can make demonstrating non-compliance with an air quality policy in a local plan simpler, increasing the likelihood of achieving local targets on air quality as part of sustainable development. For instance, a local authority may have clearer grounds to refuse an application (entirely or partially) on air quality grounds.

11.12 Local authorities may propose planning conditions or planning obligations to mitigate the impacts of poor/deteriorating air quality on the local area and population and ensure adequate monitoring and enforcement takes place.

Building Regulations

11.13 The Building Regulations [69] typically apply to the construction, extension or conversion of a building and also the provision of some services and fittings for example replacement windows and the installation of boilers. The Building Regulations include requirements to provide adequate ventilation. Ventilation is a key consideration in maintaining the quality of indoor air.

11.14 The ventilation requirements of the building regulations are set out in Part F of Schedule 1 to the Building Regulations. The amendment regulations and accompanying Approved Documents F: Volumes 1 and 2 [70] come into force on 15 June 2022 and consider the ventilation requirements to maintain indoor air quality. Though the changes will not apply in relation to building work where a building notice or an initial notice has been given to, or full plans deposited with, a local authority before 15 June 2022 provided that the building work is started before 15 June 2023.

Chapter 12: Air Quality and Climate Change

12.1 Climate change is driven by emissions of greenhouse gases which result in large-scale shifts in weather patterns. The UK government is working towards achieving net zero greenhouse gas emissions by 2050 and a 78% reduction in carbon dioxide emissions on 1990 levels by 2035.

12.2 Local air quality pollutants and greenhouse gases, such as carbon dioxide can often have the same sources.

12.3 This can mean efforts to achieve net zero can bolster air quality management efforts and vice versa. It is estimated that through optimizing climate policy decisions to account for air pollution additional benefits of approximately £24 billion could be achieved by 2050 [70].

12.4 Areas where there are synergies between reducing local air pollutant and greenhouse gas emissions include improving energy efficiency, the use of renewable electricity production and the use of low emission vehicles, public transport and alternatives such as walking and cycling.

Joint Working

12.5 Wherever possible local authority officers working on air quality and climate change need to work together to ensure action on both fronts is tailored to get the maximum benefit for both areas.

12.6 It will also be important to avoid any focus wherever possible on the actions that benefit one area but could be negative for the other for example, actions that could be beneficial for climate change but negative for air quality include: increase in some biofuels, biomass, combined heat and power. Equally to be avoided actions that may benefit air quality but be negative for climate change include: flue gas desulphurisation and three-way catalysts (petrol). Though policy can be harmonised, it is important to retain separation on reporting for air quality and climate change for clarity. AQAPs for example are required to be related to air quality only.

12.7 Where buildings are being retrofitted with the aim of achieving net zero it is important that ventilation is carefully considered to ensure any issues around indoor air quality are not exacerbated.

12.8 Local authorities may wish to consider whether it is possible for them to have the same committee dealing with both air quality and climate change concerns. Authorities with this in place may note better coherence on these issues as a result.

12.9 Through harmonising their policy proposals and actions local authority officers working on air quality and climate change can efficiently move to improve air quality and move towards net zero.

Behaviour Change

12.10 When working on behaviour change actions it can be beneficial to work alongside officers working on climate change as public interest in climate change concerns is growing. The joint issues of improving air quality and preventing climate change are more likely to gain greater public engagement than if the issues are kept as entirely separate concerns. There can be a challenge in gaining engagement on certain measures necessary to reduce carbon emissions as the risk of climate breakdown can seem distant, whereas improvements to air quality can be more easily appreciated over the short term. Consequently, messages highlighting co-benefits can be more effective.

Chapter 13: Government Support for Local Authorities

Defra's Air Quality Grant

13.1 Defra's annual Air Quality Grant scheme provides funding to local authorities to carry out projects in local communities to tackle air pollution and reduce emissions affecting schools, businesses and residents.

13.2 The objectives of the grant are reviewed annually in order to encourage applications for measures that will be most effective in delivering air quality improvements or positive behaviour change.

13.3 Local authorities are encouraged to submit applications for projects that contain measures relating to their AQAPs to help deliver compliance in areas of current and projected exceedance of air pollution standards and objectives (and for priorities set out that year).

13.4 We will provide support to local authorities. Including releasing information and news about the grant as early as possible through the LAQM Website. We will hold an annual webinar ahead of the scheme launch to discuss the application process.

13.5 Local authorities should note that non-compliance with statutory LAQM reporting requirements could adversely affect ability to get funding through the grant, from the 2023/2024 grant application year we will make compliance with LAQM reporting duties a requirement for grant application.

13.6 To support local capability building, as part of the grant application local authorities will be required to provide summaries and evaluations of measures to be shared on the Air Quality Hub.

How to Apply

13.7 Information about the launch date and grant objectives, are published each year on Gov.uk [72] and the LAQM Website [73].

Other funding opportunities available for Local Authorities

13.8 A variety of funding options are available annually or as limited opportunities for Local authorities which can support improvements to local air quality for measures including active travel, electric charge points and general local improvements. For example the Government's Active Travel Fund [74], Grants for electric vehicle charging infrastructure [75], Levelling Up Fund [76], Future High Streets Fund [77], Capability Fund [78] and Town's Fund [79].

13.9 An up-to-date list of some of the funding opportunities available, will be maintained on the LAQM website.

LAQM Website

13.10 The local air quality management website provides a wide range of resources and tools to support local authorities in their LAQM work, and including relevant tools, guidance documents, FAQs and best practice examples of statutory reports. Local authorities are strongly encouraged to make full use of this

Air Quality Hub

13.11 Funded by Defra's Air Quality Grant, the Air Quality Hub is a free online knowledge sharing resource for those working in the field of local air quality management. It has been developed and is operated by the Low Emission Partnership.

13.12 Focused on facilitating information exchange between local authority professionals, the Air Quality Hub features a range of content areas related to strategy measures that local authorities can adopt, as well as more specific practitioner advice notes that focus on various aspects of air quality management planning, monitoring and enforcement. The Hub also includes a growing library of relevant case studies and a forum for direct peer to peer communication.

13.13 The Air Quality Hub can be accessed through the LAQM website [80] and local authorities can submit an online form [81] to register.

LAQM Portal

13.14 The LAQM Portal provides all local authorities with a single access point to submit and maintain all relevant information regarding LAQM. The LAQM Portal can be used to submit ASRs, diffusion tube monitoring data, automatic monitoring data, Top 3 Air Quality Actions, AQAPs and declare and revoke AQMAs. Detailed instructions for using the LAQM Portal are provided on the LAQM website.

LAQM Dashboard

13.15 To assist assessment of progress towards meeting the required standards and objectives, an LAQM local authority dashboard has been developed (for all England local authorities excluding London) to view an interactive summary of local air quality activities. The local authority dashboard is available to local authorities through their individual report user areas on the LAQM portal.

13.16 The dashboard provides the opportunity to maximise the full extent and accuracy of recorded data provided as part of ASRs and the supporting information captured through the LAQM regime. It can help users make the best sense of the data, analyse trends and drive decision making by providing a preview of crucial information and trends important to local authorities.

13.17 Through the dashboard local authorities have the ability to:

- View a status summary of the past five years of ASRs, making it easy to identify any outstanding reports;

- Quickly identify whether a new or updated AQAP is required by checking the summary statistics on number of AQMAs with AQAP of a certain age;
- View the total number and area of declared AQMAs within the local authority area, as well as number of AQMAs per pollutant;
- View a summary of the number of LAQM Helpdesk enquiries made by the local authority over the last two years, as well as a breakdown of the query topics;
- View their contact information so it is easily recognisable when this should be updated;
- View summary statistics including total number of diffusion tube sites as well as the number of sites that continue to monitor annual average exceedances of the objective limit.

13.18 Through the dashboard, local authorities can also navigate to the Data Centre Homepage, which includes:

- A map of all diffusion tube sites operated by the local authority, classified by site type (roadside, urban background, etc); and
- Corresponding monitoring data tables and graphs broken down by site type, concentrations recorded, and change in concentration over time.

13.19 A major overhaul of the UK-Air website and other Air Quality Web services is well underway. This will deliver a simplified holistic service for all users. Our aim is to complete the whole web system by 2024/2025.

13.20 The action we are taking to improve our services will support people across the nation to better understand how air pollution impacts them, and what they can do to protect themselves and others.

Webinars

13.21 Defra will be running webinars to support local authorities with their local air quality management duties. Information on such events will be publicised on the LAQM website and where viewing needs to be restricted the webinar itself will be made available on the Air Quality Hub.

References

1. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/938623/Review_of_interventions_to_improve_air_quality_March-2019-2018572.pdf
2. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/304667/COMEAP_long_term_exposure_to_air_pollution.pdf
3. https://www.gov.uk/government/news/public-health-england-publishes-air-pollution-evidence-review
4. https://uk-air.defra.gov.uk/
5. https://laqm.defra.gov.uk/
6. https://uk-air.defra.gov.uk/data/sca/
7. https://www.gov.uk/government/publications/smoke-control-area-enforcement-local-authorities-in-england
8. https://laqm.defra.gov.uk/laqm-portal/
9. https://laqm.defra.gov.uk/air-quality/annual-reporting/annual-status-report-templates-england-exc-london/
10. http://www.legislation.gov.uk/ukpga/1995/25/part/IV
11. For the purposes of this document when discussing two tier authorities we refer to district or county councils: where we discuss district councils this covers any council that is classified as a lower tier council; and where we discuss county councils, this covers any council that is classified as an upper tier council. Unitary authorities also include metropolitan districts.
12. https://laqm.defra.gov.uk/assets/63091defraairqualityguide9web.pdf
13. https://www.england.nhs.uk/publication/national-bundle-of-care-for-children-and-young-people-with-asthma/
14. https://laqm.defra.gov.uk/laqm-portal/
15. https://laqm.defra.gov.uk/laqm-portal/
16. https://www.england.nhs.uk/greenernhs/wp-content/uploads/sites/51/2020/10/delivering-a-net-zero-national-health-service.pdf
17. https://www.bradford.gov.uk/breathe-better-bradford/breathe-better-bradford/
18. https://jsna.bradford.gov.uk/documents/People%20are%20living%20their%20lives%20well%20and%20ageing%20well/4.3%20Ill%20Health/Respiratory%20disease.pdf
19. https://borninbradford.nhs.uk/what-we-do/schools/bib-breathes/
20. www.airqualityhub.co.uk
21. www.airqualityhub.co.uk
22. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/768979/A_guide_to_community-centred_approaches_for_health_and_wellbeing__full_report_.pdf
23. https://www.knightsbridgeforum.org/best-practice-guidance-community-engagement/
24. file:///C:/Users/x956310/Downloads/Community%20engagement%20on%20air%20quality.pdf
25. https://www.gov.uk/government/publications/consultation-principles-guidance
26. https://www.gov.uk/government/publications/health-matters-air-pollution/health-matters-air-pollution
27. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/690846/CMO_Annual_Report_2017_Health_Impacts_of_All_Pollution_what_do_we_know.pdf
28. https://www.gov.uk/government/publications/health-matters-air-pollution/health-matters-air-pollution
29. https://laqm.defra.gov.uk/assets/63091defraairqualityguide9web.pdf
30. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/940846/tag-a4-2-distribution-impact.pdf
31. https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-governent/the-green-book-2020

32. https://www.nice.org.uk/guidance/ng149/resources/indoor-air-quality-at-home-pdf-66141788215237
33. https://uk-air.defra.gov.uk/assets/documents/reports/cat09/2112201014_1272021_Exaust_Emissions_From_Road_Transport.pdf
34. https://uk-air.defra.gov.uk/assets/documents/reports/cat09/1907101151_20190709_Non_Exhaust_Emissions_typeset_Final.pdf
35. https://www.gov.uk/government/publications/estimating-local-mortality-burdens-associated-with-particulate-air-pollution
36. https://www.legislation.gov.uk/uksi/2020/1095/contents/made
37. https://www.gov.uk/guidance/selling-wood-for-domestic-use-in-england
38. https://www.gov.uk/guidance/selling-coal-for-domestic-use-in-england
39. https://www.gov.uk/government/publications/estimating-local-mortality-burdens-associated-with-particulate-air-pollution
40. https://fingertips.phe.org.uk/profile/public-health-outcomes-framework
41. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1009448/decarbonising-transport-a-better-greener-britain.pdf
42. https://www.gov.uk/government/publications/local-cycling-and-walking-infrastructure-plans-technical-guidance-and-tools
43. https://www.gov.uk/government/publications/transport-demand-management-toolkit-for-local-authorities
44. https://www.airqualityhub.co.uk/
45. https://www.legislation.gov.uk/uksi/2022/686/contents/made
46. https://www.gov.uk/government/publications/bus-lane-and-moving-traffic-enforcement-outside-london/traffic-management-act-2004-statutory-guidance-for-local-authorities-outside-london-on-civil-enforcement-of-bus-lane-and-moving-traffic-contravention
47. https://www.gov.uk/government/publications/setting-local-speed-limits
48. https://www.gov.uk/government/publications/transitioning-to-zero-emission-cars-and-vans-2035-delivery-plan
49. https://www.gov.uk/government/organisations/office-for-zero-emission-vehicles
50. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1065576/taking-charge-the-electric-vehicle-infrastructure-strategy.pdf
51. https://energysavingtrust.org.uk/service/local-government-support-programme/
52. https://www.nottinghamcity.gov.uk/wpl
53. https://www.gov.uk/government/publications/air-quality-plan-for-nitrogen-dioxide-no2-in-uk-2017
54. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/863730/clean-air-zone-framework-feb2020.pdf
55. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/915958/air-quality-no2-plan-supplement.pdf
56. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904146/gear-change-a-bold-vision-for-cycling-and-walking.pdf
57. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/980227/DfT-Bus-Back-Better-national-bus-strategy-for-England.pdf
58. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/197898/pb13912-airquality-abatement-cost-guide.pdf and https://www.gov.uk/guidance/air-quality-economic-analysis
59. http://www.apis.ac.uk/overview/pollutants/overview_NOx.htm
60. https://uk-air.defra.gov.uk/assets/documents/reports/cat09/1901291307_Ready_to_Burn_Web.pdf#:~:text=Wood-burning%20stoves%20produce%20much%20less%20smoke%20than%20open,been%20rigorously%20tested%20and%20demonstrate%20low%20smoke%20emissions.
61. https://www.gov.uk/government/publications/code-of-good-agricultural-practice-for-reducing-ammonia-emissions/code-of-good-agricultural-practice-cogap-for-reducing-ammonia-emissions
62. http://publications.naturalengland.org.uk/file/5688662740172800

63. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf
64. https://www.gov.uk/government/collections/planning-practice-guidance
65. https://www.gov.uk/guidance/air-quality--3
66. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/297009/LIT_7260_bba627.pdf
67. https://infrastructure.planninginspectorate.gov.uk/
68. https://laqm.defra.gov.uk/air-quality/guidance/spds/
69. https://www.gov.uk/topic/planning-development/building-regulations
70. https://www.gov.uk/government/publications/ventilation-approved-document-f
71. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69340/pb13378-air-pollution.pdf
72. https://www.gov.uk/government/collections/air-quality-grant-programme
73. https://laqm.defra.gov.uk/
74. https://www.gov.uk/government/publications/active-travel-schemes-supported-by-government-funding
75. https://www.gov.uk/government/collections/government-grants-for-low-emission-vehicles
76. https://www.gov.uk/government/publications/levelling-up-fund-prospectus
77. https://www.gov.uk/government/collections/future-high-streets-fund
78. https://www.gov.uk/government/publications/capability-fund-local-transport-authority-allocations
79. https://www.gov.uk/government/collections/towns-fund
80. https://laqm.defra.gov.uk/air-quality-hub/
81. https://www.airqualityhub.co.uk/register/#register-form

Part 2: Further Guidance

Defra Local Air Quality Management

Defra has dedicated webpages which provide advice on Local Air Quality Management, including a range of LAQM support tools and funding opportunities for Local Authorities.

http://laqm.defra.gov.uk/

Defra's Air Quality Grant

Information about the launch date and grant objectives, are published each year on Gov.uk and the LAQM Website.

Further information about the grant can be found on Gov.uk at
https://www.gov.uk/government/collections/air-quality-grant-programme
More detail on specific projects can be found on the Air Quality Hub (airqualityhub.co.uk)

Defra UK Air website

The UK-AIR (Air Information Resource) webpages provide in-depth information on air quality and air pollution in the UK. A range of information is available, including the latest pollution levels, pollution forecast information, AQMA summary information and map, a data archive that includes automatic data from both national and locally managed networks,, and details of the various monitoring networks, including locally managed automatic networks.

http://uk-air.defra.gov.uk/

LAQM Support Helpdesk

A Helpdesk is operated on behalf of Defra and the Devolved Administrations:
http://laqm.defra.gov.uk/helpdesks.html

Tel: 0800 032 7953

Email: laqmhelpdesk@uk.bureauveritas.com

Frequently asked questions: http://laqm.defra.gov.uk/laqm-faqs/

Air Quality Hub

The Air Quality Hub provides free online information and is a knowledge sharing resource for local authority air quality professionals

Planning and Development Guidance

Links are provided below to planning and development guidance:

National Planning Policy Framework (publishing.service.gov.uk)

Planning practice guidance - GOV.UK (www.gov.uk)

Air quality planning practice guidance - GOV.UK (www.gov.uk)

Guidance for developments requiring planning permission and environmental permits LIT_7260_bba627.pdf (publishing.service.gov.uk)

Smoke Control Area Guidance

https://www.gov.uk/government/publications/smoke-control-area-enforcement-local-authorities-in-england

Glossary of Terms

APES	Air Pollution Exposure Surveillance
AQD	Air Quality Directive
AQAP	Air Quality Action Plan
AQIE	Air Quality and Industrial Emissions
AQMA	Air Quality Management Area
AQP	Air Quality Partner
ASR	Annual Status Report
BAT	Best Available Techniques
BiB	Born in Bradford
CAZ	Clean Air Zone
COMEAP	Committee on the Medical Effects of Air Pollution
COPD	Chronic Obstructive Pulmonary Disease
Defra	Department for Environment, Food and Rural Affairs
DfT	Department for Transport
DSA	Data Sharing Agreement
GMCA	Greater Manchester Combined Authority
ICP	Integrated Care Partnership
JAQU	Joint Air Quality Unit
JSNA	Joint Strategic Needs Assessment
LAQM	Local Air Quality Management
LCWIP	Local Cycling and Walking Infrastructure Plan
LES	Low Emission Strategy
LTP	Local Transport Plan
MCA	Mayoral Combined Authority
MCP	Medium Combustion Plant
MfS	Manual for Streets
MoU	Memorandum of Understanding
MOVA	Microprocessor Optimised Vehicle Actuation
NHS	National Health Service
NICE	National Institute for Health and Care Excellence

NO2	Nitrogen Dioxide
NOx	Oxides of Nitrogen
NPPF	National Planning Policy Framework
NRMM	Non-Road Mobile Machinery
NSIPs	Nationally Significant Infrastructure Projects
Ofgem	Office of Gas and Electricity Markets
OHID	Office for Health Inequalities and Disparities
OZEV	Office for Zero Emission Vehicles
PAQS	Port Air Quality Strategy
PG22	Local Air Quality Management Policy Guidance 2022
PHOF	Public Health Outcomes Framework
PM10	Particulate Matter – 10 micrometres in diameter
PM2.5	Particulate Matter – 2.5 micrometres in diameter
RHI	Renewable Heat Incentive
SCOOT	Split Cycle Offset Optimisation Technique
SEA	Strategic Environmental Assessment
SNAPs	Shared Nitrogen Action Plans
SO2	Sulphur Dioxide
SoS	Secretary of State
SPD	Supplementary Planning Document
SWIP	Small Waste Incinerating Plant
TAG	Transport Analysis Guidance
TfGM	Transport for Greater Manchester
TG22	Local Air Quality Management Technical Guidance 2022
UKHSA	UK Health Security Agency
ULEBS	Ultra-Low Emission Bus Scheme
VOC	Volatile Organic Compound
WHO	World Health Organisation
ZEV	Zero Emission Vehicles

Annex A: Air Quality Objectives Contained in the Air Quality (England) Regulations 2000 (as Amended in 2002)

Pollutant	Objective	Averaging Period
Nitrogen Dioxide - NO_2	200 µg/m^3 not to be exceeded more than 18 times/year	1-hour mean
	40 µg/m^3	Annual mean
Particles - PM_{10}	50 µg/m^3 not to be exceeded more than 35 times/ year	24-hour mean
	40 µg/m^3	Annual mean
Sulphur Dioxide (SO_2)	266 µg/m^3 not to be exceeded more than 35 times/year	15 minute mean
	350 µg/m^3 not to be exceeded more than 24 times/year	1 hour mean
	125 µg/m^3 not to be exceeded more than 3 times/year	24 hour mean
Benzene*	16.25 µg/m^3	Running annual mean
	5.00 µg/m^3	Annual mean
1,3-butadiene	2.25 µg/m^3	Running annual mean
Carbon Monoxide	10.00 mg/m^3	Maximum daily running 8-hour mean
Lead	0.5 µg/m^3	Annual mean
	0.25 µg/m^3	Annual mean

*As stated in Chapter 2, local authorities in England are not required to report on Benzene, 1,3- butadiene, Carbon Monoxide and Lead. However, they remain in statute should local circumstances change and require the local authority to address the issue.

Annex B: Example Air Quality Management Area Order

Environment Act 1995 Part IV Section 83(1) [Name of Council]

- **AQMA Order**

[Name of Council], in exercise of the powers conferred upon it by Section 83(1) of the Environment Act 1995, hereby makes the following Order.

This Order may be cited/referred to as the [name of Council] Air Quality Management Area [No1, 2, 3 if more than one is being designated] and shall come into effect on [date].

The area shown on the attached map in red is to be designated as an air quality management area (the designated area). The designated area incorporates [the wholeborough of said Council] or [name of street/trunk road] or [stretch of road between junction X and junction Y]. The map may be viewed at the Council Offices.

This Area is designated in relation to a likely breach of the [nitrogen dioxide (annualmean)] objective as specified in the Air Quality Regulations 2000.

This Order shall remain in force until it is varied or revoked by a subsequent order.

The Common Seal of [Name of Council] was hereto affixed on [date] and signed in the presence of /on behalf of said Council.

……