

MAYOR OF LONDON

**LONDON LOCAL AIR QUALITY
MANAGEMENT (LLAQM)**

Policy Guidance 2019 (LLAQM.PG (19))

Pursuant to Part IV of the Environment Act 1995

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Chapter 1: Introduction

- 1.01. London's toxic air is a public health crisis and thousands of Londoners are dying prematurely as a result. This crisis requires action at every level – from European cooperation to national, regional and local policies through to the individual choices we all make.
- 1.02. The Mayor of London is delivering a bold and ambitious package of measures to help bring London's air into compliance with legal limits, including bringing forward and expanding the world's first Ultra Low Emission Zone and creating one of the cleanest bus fleets in the world. He is going even further by committing to bring levels into compliance with World Health Organisation (WHO) recommended guidelines by 2030 (the legal limit for PM_{2.5} is already being met, but the legal limit is more than twice the WHO recommended limit).
- 1.03. There is a critical role for Government who control many of the levers to tackle air pollution including funding, fiscal measures, and provision of more effective statutory powers to tackle emissions, and the Mayor continues to request more action from Government and has set out what needs to be done at the national level in his London Environment Strategy.
- 1.04. Local Authorities have a very important role in delivering air quality improvements within their boundaries. They have a unique understanding of local issues, opportunities and stakeholders, and they hold a number of key levers. For example, they control and manage the vast majority of roads and they set parking policy and charges. Furthermore, they have the powers (although some of these require strengthening by Government) to enforce: control of emissions through planning; anti-idling legislation; and smoke control zones.
- 1.05. The national Local Air Quality Management (LAQM) process has been in place for 17 years and the devolved London Local Air Quality Management (LLAQM) system has been in place since May 2016. There have been a host of impressive achievements delivered by boroughs including a world-class air quality monitoring network and delivery of innovative and world-leading projects including projects reducing emissions and exposure at schools and hospitals, the delivery of Low Emission Neighbourhoods and cycling schemes, and the tackling of emissions at construction sites.
- 1.06. However, whilst boroughs are often working with very limited resources there is a need for more co-ordinated, focused, consistent action across London.
- 1.07. The objectives of this revised London Local Air Quality Management (LLAQM) scheme are therefore to:
 - Ensure boroughs are taking ambitious action, which is properly co-ordinated at the regional level, and which supports Mayoral objectives including those set out in the London Environment Strategy;
 - Ensure that London boroughs continue to work towards achievement of World Health Organization safe limits for pollutants even when legal limits are met
 - Update information in the guidance documents to reflect new research, policies, and priorities; and
 - Update Cleaner Air Borough Status (a recognition scheme for boroughs that was introduced under the previous Mayor) so that it is transparent and fair, now promotes continual improvement, and clearly aligns with new LLAQM priorities.

- 1.08. The basic statutory framework is put in place for local air quality management by Part IV of the Environment Act 1995 (“the 1995 Act”, as amended, and “Part IV functions”) and national air quality regulations. This remains in place and is applicable to London’s 32 boroughs and the City of London (collectively referred to as “the boroughs”). However, it was agreed with the Department for the Environment Food and Rural Affairs (“Defra”) in 2016 that the relevant local air quality management policy and technical guidance for London should be different from that in the rest of the country in recognition of the particular challenges London faces. Defra have agreed that policy and technical guidance for London should be issued by the Mayor, in recognition of his London-wide supervisory role. This reflects the Secretary of State’s own statutory guidance (LAQM: Policy Guidance 2016); see below . As a result London boroughs need only refer to this document (LLAQM: Policy Guidance 2019) and to the accompanying LLAQM Technical Guidance 2019 (“LLAQM.TG(19)”), as issued by the Mayor from time to time, rather than national guidance issued by Defra.
- 1.09. Please note that the Government has published its National Air Quality Plan for Tackling Roadside NOx Emissions and the GLA will be keeping the impact of this on LLAQM functions under review.

Chapter 2: London Local Air Quality Management: Process and responsibilities

- 2.01. This chapter provides a brief overview of the LLAQM process and responsibilities. The air quality objectives set out in the Air Quality (England) Regulations 2000¹ (“the 2000 Regulations”), as amended by the Air Quality (England) (Amendment) Regulations 2002² in particular, provide the statutory basis for the air quality objectives under the local air quality management system in London (see **Annex A**). (Information about reporting requirements against these pollutants is set out in Chapter 2).
- 2.02. In addition to the objectives set in 2000 Regulations, London boroughs have a role in working towards reducing emissions and concentrations of PM2.5. (Further details of this issue are set out in Chapter 5 of this Guidance and Chapter 2 of LLAQM.TG(19)).
- 2.03. Section 82 of the 1995 Act provides that every local authority shall review the air quality within its area, both at the present time and the likely future air quality, within the relevant period prescribed by the 2000 Regulations. It shall also cause an assessment to be made of whether air quality standards and objectives are being achieved, or are likely to be achieved within the relevant period within its area. Section 83 requires local authorities to designate an Air Quality Management Area (“AQMA”) where air quality objectives, as set out in the 2000 Regulations, are not being achieved, or are not likely to be achieved within the relevant period. Once the area has been designated, section 84 requires the local authority to develop an “Air Quality Action Plan” detailing remedial measures to tackle the problem within the AQMA. London boroughs must consult the Mayor, in addition to a range of other statutory consultees, whenever undertaking these functions. These core statutory requirements and boroughs’ individual responsibilities under Part IV of the 1995 Act remain unchanged under the LLAQM system in London.

LLAQM roles and responsibilities

- 2.04. The legal basis for the LLAQM system is Part IV of the 1995 Act, which sets out the London authorities’ local air quality management functions, together with the Mayor’s responsibilities and statutory guidance from the Secretary of State for the Environment, Food and Rural Affairs.
- 2.05. LLAQM.TG(19) is based on the national Defra guidance, but with a number of London-specific amends and information.
- 2.06. All local authorities in England must have regard to the Secretary of State’s guidance when discharging their Part IV functions. National guidance (Policy Guidance LAQM.PG(16)) has been issued by the Secretary of State covering the remainder of England except London. The statutory guidance states the following in relation to London (see paragraph 1.5):

“Supervision of the LAQM system in Greater London has been devolved to the Mayor of London, to whom powers to intervene and direct boroughs have been given under Part IV of the Environment Act 1995. The Secretary of State 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 SI 2000/ 928

² SI 2002/ 3053

- 2.07. This Policy Guidance and the accompanying Technical Guidance LLAQM.TG(19) are therefore documents to which the boroughs must have regard.
- 2.08. The LLAQM system reflects the fact that the Mayor has broad powers of intervention under section 85 of the 1995 Act. Under section 85(5A), the Mayor may give directions to boroughs requiring them to take such steps specified in the directions as he considers appropriate for the implementation of any obligation of the UK under the EU Treaties and international agreements to which the UK is a party so far as relating to air quality, including European Union air quality obligations (e.g. under relevant EU directives). These powers are particularly relevant in the context of the current breach of NO₂ air quality objectives and limit values under the EU Ambient Air Quality Directive (2008/ 50/ EC) in parts of London and the requirement on all of those with relevant powers to intervene to do so with the objectives of (1) achieving compliance by the soonest possible date; (2) doing so by a route that reduces exposure as quickly as possible; and (3) by steps which mean meeting limit values is not just possible, but likely.
- 2.09. The Mayor's powers of direction under section 85 are "reserve powers" to be used where the Mayor considers it appropriate to do so, as set out above, and only after consultation in accordance with the procedures set out in the 1995 Act. The purpose of the LLAQM system is to put in place a framework that gives confidence to boroughs, the Mayor, and the Secretary of State that they are properly fulfilling their Part IV duties.
- 2.10. Proper participation in the LLAQM system and compliance with the relevant Mayoral advice and guidance should render statutory intervention by the Mayor unnecessary. However, the Mayor may be minded to direct boroughs in circumstances, and after consultation, where he considers a borough should take steps appropriate for the purposes of achieving any one or more of the above three objectives (or increasing the likelihood of doing so). For example: Air Quality Action Plans (AQAPs) are inadequate or inconsistent with the Mayor's strategies; there has been a refusal to revise the AQAP appropriately and/or to include new actions or targets within Annual Status Reports; a decision has been taken not to participate in or deliver projects or initiatives that are an important step towards achieving compliance with limit values.
- 2.11. Additionally, London authorities are expected to report on NO₂, PM₁₀ and SO₂ as standard within their Annual Status Reports (ASRs). The GLA does not expect them to report annually on benzene, 1,3-butadiene, carbon monoxide and lead as objectives for these pollutants have been met for several years and are well below the air quality objectives (see box below).

Benzene, 1,3-butadiene, lead and carbon monoxide (no requirement to report)

The objectives for pollutants: benzene, 1,3-butadiene, lead and carbon monoxide have been met for several years and are well below limit values. The GLA accepts that, in the absence of any particular concerns in a local area, national monitoring is currently providing a sufficient basis for the review of these four pollutants under LAQM. On this basis, local authorities are not expected to report annually on these pollutants in their ASRs. Should a local authority choose to include one or more of these pollutants in an ASR due to local reasons or circumstances, they are free to do so. Where national monitoring or modelling indicates a significant deterioration in any of these pollutants either nationally or in a particular area, the GLA will inform affected local authorities of any changes in expectations around reporting.

Main LLAQM requirements for boroughs

2.12. The main requirements for boroughs under LLAQM are summarised below. This is a “headline” summary only; further detail on these requirements, and information on other requirements and recommendations, can be found later in this document and within LLAQM.TG(19).

- To ensure an Air Quality Management Area is declared and in place for any locations that are exceeding air quality objectives and EU Limit Values.
- To continue to monitor and assess air pollution in their areas, at a minimum this should include maintaining current monitoring levels for all automatic monitors and all diffusion tubes that have been in place for 2 years or more.
- Boroughs are expected to contact the GLA air quality team to notify them of any plans to remove, move, or add a new automatic air quality monitor in their borough (this only applied to borough-owned sites). This is to enable the GLA to maintain strategic oversight of this crucial network. Boroughs need to send a brief email to the GLA detailing the location of the site, pollutants monitored, and a brief summary of reasons for the proposed change.
- Boroughs are also asked to ensure that their contractor notifies them immediately if any sites stop working or go offline, and boroughs are requested to notify the GLA about any non-functioning sites within 2 weeks.
- To complete the Annual Status Report (ASR) by the required time each year (usually 30th May, unless otherwise stated), and submit these to the GLA via the Report Submission Website (RSW)³ for approval. Once approved these should be placed on the borough’s website. The template ASR can be found on the RSW website and at <https://www.london.gov.uk/what-we-do/environment/pollution-and-air-quality/working-boroughs>.
- Where monitoring shows a significant increase or decrease in pollution, boroughs should utilise local monitoring and mapping provided by the GLA to assess whether an AQMA should be revised. This should be undertaken for the first time in 2020, and every four years thereafter. However, boroughs are asked to maintain AQMA’s for PM₁₀ even if they are meeting the limit values, because this will provide an interim mechanism for ensuring a focus on PM_{2.5} is maintained, so that we can work towards the health-based targets
- To ensure that a current and relevant Air Quality Action Plan (AQAP) is in place for all AQMAs. The Action Plan should be updated every five years at a minimum, and progress against this should be reported every year in the ASR.
- To deliver the actions within the Air Quality Matrix (unless there are extenuating circumstances which have been agreed with the GLA) with exception of the Low Emission Neighbourhoods if no funding has been obtained for these. Boroughs should also commit (within AQAPs) to and ensure a strong focus on the nine key priority actions.
- To ensure that all AQAPs have clear, measurable and focused actions with targets and projected benefits wherever possible.
- Although the full AQAPs only need to be updated every 5 years (at a minimum), this does not enable boroughs to reflect increased action, changing evidence, and

³ <http://laqm.defra.gov.uk/1rsw/>

new priorities, which are common in this fast-paced area. It also does not allow boroughs to reflect additional actions and new priority levels as a result of the new Air Quality Matrix. AQAPs should therefore be “live” documents. Each year as part of the ASR process, boroughs should extract the action table from the AQAP and add/amend any actions as necessary, in order to be providing a clear public document of the action planned for that year. This can be undertaken as part of the process of annually reporting on the progress against the AQAP in the ASR.

2.13. In addition to the action, policy and funding provided by GLA and TfL to improve air quality, as part of the LLAQM system the Mayor will provide the following support to boroughs:

- Bespoke borough-by-borough LAEI-modelled maps and data packages every four years.
- Annual or twice-annual pan-London update meetings at City Hall, and provision of a compendium of borough ASR reports detailing monitoring data, and action taken to improve air quality at the borough level.
- A Cleaner Air Borough (“CAB”) marker for boroughs based on their delivery of air quality actions, awarded as bronze, silver, and gold standard.

Chapter 3: Air Quality Management Areas

- 3.01. Boroughs have a duty under Section 83(1) of the 1995 Act to designate those areas as Air Quality Management Areas where air quality objectives (EU limit values) are not being met, or are shown to be likely at risk of not being met, and where people are likely to be regularly present.

Declaring AQMAs – setting boundaries and tackling uncertainty

- 3.02. When declaring an AQMA, it is important that a borough is confident it has identified all locations and pollutants for which the air quality objectives are or will be exceeded. This requires the borough to have a broad confidence in the monitoring data and/or modelling predictions being undertaken. Boroughs should demonstrate that they are aware of the uncertainties in monitoring data and the data inputs used for modelling, and to show in the ASR what steps they have taken to minimise these uncertainties. Further information is provided in the LLAQM.TG(19).
- 3.03. When determining the boundary of an AQMA the borough 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. AQMAs 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 area of the borough as an AQMA; this kind of declaration provides greater flexibility for borough air quality officers to respond to pollution issues as and when they arise. However, such borough-wide designations should not prevent officers from then focussing and taking action on key areas within the AQMA. The approach under LLAQM of ensuring that Focus Areas are considered when action planning (see the LLAQM.TG(19) for more details) allows for an enhanced focus on problem areas within a wider AQMA.
- 3.04. The exact wording of an AQMA Order is at the discretion of the authority, however a template can be found in **Annex B**. This meets statutory requirements and it is recommended that the authority includes the following information in the Order:
- The date on which the Order (AQMA) came (or will come) into force
 - List of the pollutants to which it relates and the relevant air quality objective exceedance
 - Map showing the area to be designated
 - 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.
- 3.05. Boroughs should also:
- Ensure the AQMA Order is accessible to members of the public and enquirers
- 3.06. Boroughs wishing to revoke or reduce an AQMA may do so following a formal review. For revocation this must demonstrate that air quality objectives are being met and will continue to do so. In other words boroughs must have confidence that the improvements will be sustained. Further information is provided in the LLAQM.TG(19), but typically this would take place after three years or more of objective compliance.

- 3.07. Where an AQMA Order is revoked or revised, a copy of the proposed revocation or amendment Order should be submitted to the GLA (via the AQMA Administration Area) and the other statutory consultees, and made publicly available to ensure the public and local businesses are aware of the situation. Where an AQMA Order is revised it is expected that the borough will take the relevant action imposed by the Order **within four months** following receipt of agreement from the GLA.

Chapter 4: Air Quality Action Plans

- 4.01. When an AQMA has been designated, section 84 (2) of the 1995 Act requires a written “action plan” for the exercise of any of the borough’s relevant potential powers to achieve air quality standards and objectives to be prepared. An AQAP should be prepared within **12 months**⁴ of an AQMA being declared. However, boroughs should bear in mind their duties under EU law to take any appropriate action to address any air quality standards or limit value exceedance in the shortest possible time. The AQAP must include a statement of the time or times by or within which the borough proposes to implement each of the proposed measures comprised in the plan. An AQAP template is available at <https://www.london.gov.uk/what-we-do/environment/pollution-and-air-quality/working-boroughs>. It is recommended that boroughs use this template as a basis for all new AQAPs or where significant revisions are required to existing AQAPs. The template is designed to assist boroughs but can be used flexibly; additional sections and information can be included. The AQAP should take a practical approach towards focussing on what really matters – identifying the nature of the problem and detailing measures that are or will be actively implemented to improve air quality and – where possible - quantifying their impact over time.
- 4.02. AQAPs are expected to include the following:
- Quantification of the impacts of the proposed measures wherever possible – including, where feasible, data on emissions and concentrations (either locally obtained and/or via regional or national monitoring/modelling statistics). It is important that the borough shows how it intends to monitor and evaluate the effectiveness of the plan.
 - Clear timescales, including milestones and expected outcomes which the borough and other delivery partners propose to implement the measures within the AQAP.
 - How the borough, including its transport, planning and public health departments, and its other external delivery partners, will take ownership of the exceedance problem and in what capacity they will work together to implement the AQAP.
- 4.03. The GLA has provided an Air Quality Action Matrix, to help ensure co-ordinated, focused and consistent action across boroughs. Within their AQAPs boroughs should include all of the matrix actions (unless there are extenuating circumstances which have been agreed with the GLA), and commit to and ensure a strong focus on the key priority actions.
- 4.04. Boroughs are expected to revise their Air Quality Action Plans every 5 years as a minimum, and they should keep action records current and relevant by adding any new actions into the Action Table within the ASR, this is especially important with regards to ensuring that all matrix actions are included and that there are ambitious targets and timelines for the nine key priority actions.
- 4.05. It is not necessary to undertake an Environmental Impact Assessment (EIA) for your AQAP, although boroughs will wish to consider whether undertaking an EqlA is appropriate in line with the public sector equality duties under S149 of the Equality Act 2010.

⁴ Northern Ireland policy guidance suggests 12 months.

Ownership and accountability

- 4.06. Of paramount importance in ensuring the Action Plan fulfils its goal in producing quantifiable outcomes to timescale is the need for **all delivery partners** who have an influence on air quality within the borough to take ownership of the Plan. It is therefore strongly recommended that the Action Plan is developed by a steering group that includes representatives from: Environmental Health, Sustainability, Transport and Public Health. It is also strongly recommended that it includes a foreword not only from the relevant Cabinet Members but that this also includes the signatures of the Borough's Director of Public Health and the Head of Transport.

Approvals and Consultation

- 4.07. Boroughs are required to submit their draft Action Plans to the GLA twice. It should be submitted before the public consultation, and again afterwards. The final version of the Action Plan should only be approved by Cabinet and published once the GLA has provided formal agreement of the document.
- 4.08. When carrying out their Part IV functions Schedule 11 of the 1995 Act requires consultation with a range of persons and organisations. The Mayor is the key statutory consultee, and will need to approve final AQAPs prior to publication. In addition, Schedule 11 requires boroughs to consult the following:
- the Secretary of State;
 - the Environment Agency;
 - Transport for London (who will provide a joint response with the Mayor);
 - all neighbouring boroughs and/or neighbouring district and county councils;
 - other public authorities as the borough considers appropriate;
 - bodies representing local business interests and other persons/ organisations as considered appropriate.

Chapter 5: PM_{2.5} and Public Health

5.01. Exposure to particulate matter (PM) can affect both the lungs and the heart, leading to a variety of effects including:

- premature death in people with heart or lung disease
- heart attacks
- irregular heartbeat
- aggravated asthma
- decreased lung function
- increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing.

There is also growing evidence that PM emitted from different sources can have specific health effects, for instance the International Agency for Research on Cancer, a body of the World Health Organization, identified PM emitted from diesel engines as a “group I carcinogen” meaning that a causal relationship has been established between exposure to this pollutant and human cancer. People with heart or lung diseases, children, and older adults are the most likely to be affected by exposure to particulate pollution.

5.02. In the London Environment Strategy 2018 the Mayor has committed to meeting World Health Organisation recommended limits for PM_{2.5} by 2030. Boroughs have a key role to play in helping to meet this target, and the LLAQM will continue to play a vital role in shaping borough action on addressing this pollutant. Boroughs are requested to include a focus on PM_{2.5} in their AQAPs and to maintain AQMAs for PM10, even if they are technically meeting the legal limit.

5.03. The Mayor will engage with Government with regards to ensuring that health-based limits for PM_{2.5} are adopted nationally, and in terms of clarifying the role of Local Authorities in delivering PM_{2.5} reductions through legislation.

5.04. In July 2019 the Government announced it would legislate to make WHO PM_{2.5} limits legally binding but at the time of writing this Guidance it is unclear how and when this will come into force. Boroughs will of course need to follow any new national legislation. If the Government’s does not set a compliance date that is 2030 or sooner, then boroughs are asked to retain the ambition to meet this limit by 2030. The matter will be kept under review by the Mayor.

Public Health Outcomes Framework (PHOF) – Healthy Lives; Healthy People

5.05. The Public Health Outcomes Framework (PHOF)⁵ is a Department of Health data tool for England, intended to focus public health action on increasing healthy life expectancy and reducing differences in life expectancy between communities. The tool uses indicators to assess improvements. 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}).

⁵ <https://www.gov.uk/government/publications/healthy-lives-healthy-people-improving-outcomes-and-supporting-transparency>

- 5.06. Public health professionals and air quality specialists within local authorities should be aware of the PHOF indicator for air pollution in their area. Updates can be found at: <http://www.phoutcomes.info/public-health-outcomes-framework#gid/1000043>
- 5.07. At its heart, PHOF indicator for air pollution is about raising awareness of the effect of air pollution on public health. It is intended to encourage promotion of the need for local, regional and national actions to reduce air pollution and to help form a partnership between all delivery partners in pursuit of this goal. The PHOF concentrates on two high-level outcomes to be achieved across the public health system, and focuses not only on how long people live, but on how well they live at all stages of life.

PM_{2.5} Indicator

- 5.08. The PHOF includes an indicator (PHOF Indicator 3.1) based on the effect of particulate matter (PM_{2.5}) on mortality.

Table 1: PHOF Indicator

PHOF Indicator 3.1 Health Protection	
Fraction of all-cause adult mortality attributable to anthropogenic particulate air pollution (measured as fine particulate matter, PM _{2.5}). ⁶	The estimates of mortality burden are based on modelled annual average concentrations of fine particulate matter (PM _{2.5}) in each local authority area originating from human activities. Local data on the adult population and adult mortality rates is also used. Central estimates of the fraction of mortality attributable to long-term exposure to current levels of human-made particulate air pollution range from approx. 2.5% to 5% in some local authorities in rural areas, to over 8% in some London boroughs. ⁷

- 5.09. This indicator is intended to enable borough Directors of Public Health to prioritise action on air quality in their local area to help reduce the health burden from air pollution. To help with this, in line with the national Defra LAQM system for the rest of England, the GLA has introduced a “PM_{2.5} borough role” for borough air quality teams so that alongside measures to tackle other pollutants, they also consider action that is necessary to address PM_{2.5} issues in their areas, aligning their interests with those of borough public health officers.
- 5.10. Importantly, the PHOF Air Quality Indicator 3.1 should not be seen in isolation from the other PHOF indicators. For instance, as well as reducing emissions, encouragement of active travel will have wider public health benefits captured in other PHOF indicators such as increased physical activity (PHOF indicator 2.13) and reducing excess weight at various ages (PHOF indicators 2.6 and 2.12). These co-benefits should form part of your overall approach as they will maximise the benefits and viability of any proposed measures

⁶ <http://www.phoutcomes.info/public-health-outcomes-framework#gid/1000043/pat/6/ati/102/page/6/nn//par/E12000007/are/E09000002/iid/30101/age/230/sex/4>

⁷ Source: “Estimating Local Mortality Burdens associated with Particulate Air Pollution” – Public Health England 2014
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/332854/PHE_CRCE_010.pdf

Boroughs' role in reducing levels of PM_{2.5}

5.11. Boroughs are expected to work towards reducing emissions and concentrations of PM_{2.5} in their areas. In doing so they are not required to carry out any additional local review and assessment (including monitoring) but can instead make use of the PM_{2.5} modelling and source apportionment provided in the LLAQM borough-specific LAEI packages⁸ supplied by the GLA. Where PM₁₀ monitoring is available, London boroughs may also follow guidance on how to estimate PM_{2.5} from PM₁₀ monitoring data, as provided in Chapter 4 and Appendix B of LLAQM.TG(16). Boroughs are asked to set out in their AQAP how they will fulfil their role to work towards reducing PM_{2.5} and any actions they are taking or will take, including any linkages to the PHOF.

Interpretation of the borough PM_{2.5} role (for reporting purposes)

5.12. There is currently no regulatory standard from national Government applicable to the role English local authorities should play with respect to PM_{2.5} role and action they should take to reduce emissions or concentrations of fine particulate air pollution, although action to tackle PM₁₀/NO_x exceedances would usually contribute to PM_{2.5} reduction. The EU Ambient Air Quality Directive (2008/50/EC) does however set out air quality standards for PM_{2.5} including an exposure reduction obligation, a target value and a limit value⁹, which may act as a guide in how boroughs choose to interpret their role. Furthermore, the Mayor has committed to meeting WHO health-based targets for PM_{2.5} and boroughs are requested to have regard to this locally, either by formally adopting the targets or by outlining their intention to focus on this pollutant in their Air Quality Action Plans.

5.13. Local action on PM_{2.5} could include:

- Identifying measures already in place that can help with reducing levels of PM_{2.5} (more detail is provided in LLAQM.TG(19)).
- Identifying new priority measures to tackle PM_{2.5} (these should be discussed with the Director of Public Health and other relevant partners in the steering group).
- Committing to working towards the health-based limits for PM_{2.5} and/or providing endorsement for the introduction of legally enforceable limits for PM_{2.5} in line with WHO recommendations, as supported by the Mayor.
- Seeking opportunities to install new PM_{2.5} monitors where possible. A suggested mechanism for funding these is S106 or CIL funding.

5.14. It is assumed that many boroughs will consider how to address PM_{2.5} alongside other pollutants when tackling their own vehicle fleets and services and/or working with communities and businesses to achieve improvements in air quality and that few standalone PM_{2.5} measures will be chosen unless in order to address a very specific local problem.

5.15. Public Health England have compiled a report entitled 'Estimating Local Mortality Burdens Associated with Particulate Air Pollution'¹⁰ which is designed to help local authority air quality practitioners and public health professionals understand the mortality burden of fine

⁸ <http://data.london.gov.uk/dataset/llaqm-bespoke-borough-by-borough-air-quality-modelling-and-data>

⁹ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:152:0001:0044:EN:PDF>

¹⁰ <https://www.gov.uk/government/publications/estimating-local-mortality-burdens-associated-with-particulate-air-pollution>

particulate pollution within their area, which can then be used to raise awareness of the problem and how best to remediate it. Further information on how to determine and address the PM_{2.5} mortality burden in your area is also contained in LLAQM.TG(19).

Borough measures to reduce PM_{2.5}

- 5.16. Measures to tackle PM_{2.5} can be broadly separated between mobile and stationary sources such as on-road diesel engine retrofitting and other emission control requirements. These are measures that boroughs may already be taking to address pollutants such as PM₁₀ and NO_x. Further examples are available in LLAQM.TG(19).

Chapter 6: Planning and the building control system

London Plan policy and guidance

- 6.01. Development and construction are very significant contributors to air pollution in London. Boroughs have a vital role to play in reducing this through their Planning and Development Control processes.
- 6.02. Within the Sustainable Design and Construction and Control of Dust and Emissions SPGs, the Mayor has outlined requirements and guidance to reduce air pollution impacts in order to ensure that boroughs have an adequate policy framework to enable them to address this pollution source through the planning process.
- 6.03. The planning process is a key tool that boroughs have to reduce pollution, and one of the aims of the LLAQM system is ensuring that the importance of this role is highlighted. The GLA have provided a template Supplementary Planning Document (SPD) for boroughs so that they can easily incorporate regional Planning policy into their local planning policies, which can be found at <https://www.london.gov.uk/what-we-do/environment/pollution-and-air-quality/working-boroughs> (please note this is due to be updated in late 2019). The GLA publishes guidance on energy assessments (<https://www.london.gov.uk/what-we-do/planning/planning-applications-and-decisions/pre-planning-application-meeting-service-0>) and TfL publishes guidance on transport assessments (<https://tfl.gov.uk/info-for/urban-planning-and-construction/guidance-for-applicants>).

New London Plan

- 6.04. In December 2017 the GLA consulted on a new London Plan. It is expected that this plan will be formally adopted by the end of 2019 and replace the previous London Plan (2016).
- 6.05. The current 2016 Plan ([The London Plan consolidated with alterations since 2011](#)) is still the adopted Development Plan, but the Draft London Plan is a material consideration in planning decisions. The significance given to it is a matter for the decision maker, but it gains more weight as it moves through the process to adoption.
- 6.06. The policies in the new London Plan have been drafted in a way that allows London to implement this ambitious London Plan as soon as possible. Please note that there is no requirement for the policies to be repeated at the local level through local planning documents in order to use London Plan policies in decision making.
- 6.07. "Improving London's air quality, reducing public exposure to poor air quality and minimising inequalities in levels of exposure to air pollution" are identified as key priorities in the overarching "Good Growth" policies (GG3). Consideration of Air Quality is therefore reflected throughout the plan, not just in the core Air Quality policy (SI1). The most important other policies for Air Quality are design policies D1, D2 and D7, energy infrastructure policy SI3 and transport policies in chapter 10.
- 6.08. Particular issues arising where the density or type of existing or desired development poses unusual challenges for air quality (such as the Central Activity Zone, Strategic Industrial Locations, and tall buildings) are addressed in policies SD4, D8, E5, E7, SI8 and SI17 and the interaction of air quality policies and the presumption in favour of small sites is set out in policy H2

National planning policy and guidance

- 6.09. The National Planning Policy Framework (NPPF) sets out national planning policies and principles for England and how these are expected to be applied. It provides a Framework within which local people and their councils produce their own distinctive local and neighbourhood plans which reflect the needs and priorities of their communities.
- 6.10. The Framework includes specific policies in relation to air quality and air quality management areas but also other national policy relevant to air quality including promoting sustainable transport. The Framework is available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/740441/National_Planning_Policy_Framework_web_accessible_version.pdf
- 6.11. The NPPF states that:
- To support the NPPF, national planning practice guidance (NPPG) on air quality 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.
- 6.12. A number of 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. The relevant air quality NPPG is available at: <https://www.gov.uk/guidance/air-quality--3>

Building regulations

- 6.13. Building regulations are also relevant and apply when building work is carried out.
- 6.14. Reference should be made to the Planning Portal - the online planning and building regulations resource for England and Wales:
<http://www.planningportal.gov.uk/buildingregulations/>

Non-Road Mobile Machinery

- 6.15. Building on the success of the Non-Road Mobile Machinery Low Emission Zone (NRMM LEZ), which was introduced in the Control of Dust and Emissions during Construction and Demolition SPG, the NRMM LEZ has now been brought into the core air quality policy in the new London Plan. As such the appropriate planning conditions (or another suitable mechanism) should be applied to all relevant construction sites and boroughs are expected to enforce compliance.
- 6.16. The NRMM LEZ is split into two zones, with all construction plant required to meet Stage IIIB emissions limits in the Central Activity Zone and Canary Wharf. Plant at major developments in the rest of London are required to meet stage IIIA. Exemptions are allowed in limited circumstances.
- 6.17. In 2020 the emission limit will step up to stage IV and IIIB respectively. At that time the applicability of the higher standard will be expanded to cover “growth areas”. Primarily “growth areas” will be the opportunity areas identified in the London Plan. In 2025 the NRMM LEZ will become a single zone covering the whole of London where machines will be required to meet the Stage IV. From 2030 all NRMM will need to meet the stage V standard.

6.18. In order to support the implementation of this scheme the GLA will:

- Continue to support the online register of equipment and centrally manage the exemptions process. This reduces some of the administrative burden on boroughs, maintains consistency across London and provides the information Boroughs need to support enforcement activity
- Support a pan London enforcement programme for the NRMM LEZ through the Mayor's Air Quality Fund.

6.19. More detail and guidance is available on the NRMM website (nrmm.london). A model planning condition is set out in Appendix C.

Further information

- LLAQM bespoke borough-by-borough LAEI modelling and source apportionment packages can be found at: <http://data.london.gov.uk/dataset/llaqm-bespoke-borough-by-borough-air-quality-modelling-and-data>
- The following LLAQM documents: The Air Quality Action Matrix; Template Air Quality Supplementary Planning Document; AQAP and ASR Templates; and Low Emission Neighbourhood Guidance, can be found at: <https://www.london.gov.uk/what-we-do/environment/pollution-and-air-quality/working-boroughs>
- The Sustainable design and Construction SPG can be found at: <https://www.london.gov.uk/priorities/planning/consultations/draft-sustainable-design-and-construction>
- Control of Dust and Emissions from Construction SPG can be found at: <https://www.london.gov.uk/priorities/planning/publications/the-control-of-dust-and-emissions-during-construction-and>

Annex A: Air quality objectives contained in the Air Quality (England) Regulations 2000 (SI 2000/ 928, as amended)

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
Particulate Matter (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 (C ₆ H ₆) ¹¹	16.25 µg/m ³	Running annual mean
	5.00 µg/m ³	Annual mean
1,3-butadiene (C ₄ H ₆) ¹¹	2.25 µg/m ³	Running annual mean
Carbon Monoxide(CO) ¹¹	10.00 mg/m ³	Maximum daily running 8-hour mean
	10.00 mg/m ³	Running 8-hour mean
Lead (Pb) ¹¹	0.5 µg/m ³	Annual mean
	0.25 µg/m ³	Annual mean

¹¹ 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: Model Air Quality Management Area Order

Environment Act 1995 Part IV Section 83(1)

[Name of LB Council]
Air Quality Management Area Order

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

1. 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].
2. The area shown on the attached map in red is designated as an air quality management area (“the designated area”). The designated area incorporates [the whole borough 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
3. This designated area is designated in relation to a likely breach of the [e.g. nitrogen dioxide (annual mean)] objective as specified in the Air Quality Regulations 2000 (as amended)
4. 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]

.....
Authorised signatory

Appendix C: Model NRMM Planning conditions:

Option 1 (longer version)

Condition:

1) All Non Road Mobile Machinery (NRMM) of net power of 37kW and up to and including 560kW used during the course of the demolition, site preparation and construction phases shall meet at least *Stage IIIA of EU Directive 97/68/EC (as amended) if in use before 1 September 2020, Stage IIIB of the directive if in use between 1 September 2020 and 1st September 2025 and stage IV thereafter.* *

2) If NRMM meeting the relevant Stage in paragraph 1 above is not available the requirement may be met using the following techniques:

Reorganisation of NRMM fleet

Replacing equipment (with new or second hand equipment which meets the policy)

Retrofit abatement technologies

Re-engining

This is subject to the local planning authority's prior written consent.

3) If NRMM meeting the policy in paragraph 2 above is not available every effort should be made to use the least polluting equipment available including retrofitting technologies to reduce particulate emissions. This is subject to the local planning authority's prior written consent.

Unless it complies with the above standards under paragraphs 1, 2 or 3 above, no NRMM shall be on site, at any time, whether in use or not, without the prior written consent of the local planning authority.

The developer shall keep an up to date list of all NRMM used during the demolition, site preparation and construction phases of the development on the online register at <https://nrmm.london/>

Reason: To protect local amenity and air quality in accordance with [local policy] and London Plan policies 5.3 and 7.14 and emerging London Plan Policy SI1 (4)

*

If the site is within the CAZ or Canary Wharf the references to emissions stages should be: "at least Stage IIIB of EU Directive 97/68/EC and its amendments if in use before 1st September 2020 or Stage IV of the directive thereafter"

If the site is within an opportunity area or other growth area references to emissions stages should be: at least Stage IIIA of EU Directive 97/68/EC and its amendments if in use before 1st September 2020 or Stage IV of the directive thereafter"

For very large sites an additional clause may be needed to cover the period after 2030.

Option 2 (shorter version)

Condition: All Non-Road Mobile Machinery (NRMM) of net power of 37kW and up to and including 560kW used during the course of the demolition, site preparation and construction phases shall comply with the emission standards set out in chapter 4, proposal 4.2.3.a of the London Environment Strategy.

Unless it complies with the standards set out in the London Environment Strategy, no NRMM shall be on site, at any time, whether in use or not, without the prior written consent of the local planning authority.

The developer shall keep an up to date list of all NRMM used during the demolition, site preparation and construction phases of the development on the online register at <https://nrmm.london/>

Reason: To protect local amenity and air quality in accordance with [local policy] and London Plan policies 5.3 and 7.14 and emerging London Plan Policy SI1 (4)