The Institution of Environmental Sciences

Response to the Environmental Audit Committee Inquiry into Air Pollution in England.

The IES

1. The Institution of Environmental Sciences (the IES) is at the forefront of uniting the environmental sciences around a shared goal: to work with speed, vision and expertise to solve the world's most pressing environmental challenges, together. As the global professional membership body for environmental scientists, we support a diverse network of professionals all over the world – and at every stage of their education and careers – to connect, develop, progress and inspire.

2. Our membership includes over 6000 environmental professionals, who are well placed to share insights from the front lines of work with the environment. The interdisciplinary background of the IES family makes it particularly well-placed to address interconnected environmental challenges such as how air quality, climate change, nature recovery and noise interact.

3. In particular, the IES's Environmental Policy Implementation Community (EPIC) has expertise on how to deliver air quality and environmental policy at the local level. Our sister organisation, the Institute of Air Quality Management (IAQM), is the professional body for air quality professionals and has also submitted a response to this inquiry.

Which questions we are addressing

Questions 2, 5, 6, 7 and 8 are addressed in this response.

Word count:

2,992 (not including questions)

Q2. What evidence exists of the extent of air pollution directly or indirectly impacting the health of individuals or communities in England?

1. Air pollution is the single largest environmental threat to public health, estimated to cause at least 29,000 premature deaths each year in the UK.[1] A robust and well-established body of evidence demonstrates that air pollution has wide-ranging impacts on health, including respiratory and cardiovascular disease, adverse pregnancy outcomes, cancer risk, dementia, and premature mortality.[2]

2. Longitudinal studies provide particularly strong evidence of the impacts on individuals and communities over time. The Born in Bradford (BiB) cohort, which has followed over 12,400 families since pregnancy between 2007 and 2011, has been central to this research.[3] Analysis shows that maternal exposure to particulate matter and nitrogen dioxide increases the risk of low birth weight and smaller head circumference, both predictors of poorer long-term health. Around 38% of childhood asthma cases in Bradford may be attributable to air pollution. Early-life exposure is also associated with higher blood pressure and poorer cognitive development at ages four to five, while poor indoor air quality has been linked to increased childhood obesity between ages six and eleven. Monitoring within BiB households indicates that WHO-recommended pollution thresholds were exceeded on approximately four in ten days.

3. Emerging evidence also highlights the health benefits of local interventions. Early analysis of the Bradford Clean Air Zone suggests it may have delivered approximately £180 million in economic and health benefits over 22 months, including nearly 600 fewer monthly GP appointments for respiratory conditions and around 134 fewer GP visits per month for cardiovascular issues.[4]

Q5. Do local authorities in England have the resources and powers to enforce existing legislation and regulation to improve local air quality?

1. Local authorities play a central role in managing and improving air quality in England. However many do not have sufficient political support, resources, capacity or enforcement powers to fully deliver this responsibility.

2. This challenge has been consistently identified in authoritative reviews, including the National Audit Office report *Tackling Local Air Quality Breaches* (2022), as well as findings from previous air quality inquiries conducted by the Environment, Food and Rural Affairs Committee and the Environmental Audit Committee.[5] These reports point to persistent gaps

[1] Office for Health Improvement and Disparities (2022). Air pollution: applying all our health

[2] Royal College of Physicians (2025). A breath of fresh air: responding to the health challenges of modern air pollution

[3] Born in Bradford (2025) https://borninbradford.nhs.uk/our-impacts/findings/air-quality-pollution-and-health

[4] Mebrahtu, T. F., Santorelli, G., Yang, T. C., Tate, J. E., Jones, S., Wright, J. & McEachan, R. R. C. (2025). Impact of an urban city-wide Bradford clean air plan on health service use and nitrogen dioxide 24 months after implementation: an interrupted time series analysis. Environmental Research, 270, 120988

[5] Tackling local air quality breaches (2022), NAO; https://publications.parliament.uk/pa/cm5803/cmselect/cmpubacc/37/report.html

in local capacity, fragmented responsibilities and a lack of long-term funding to support effective delivery. These systemic issues remain largely unresolved.

3. Local action on air quality needs to be set within an ambitious national strategic vision for air, driving political support, resourcing and public awareness. A new Clean Air Strategy with ambitious targets to protect health could provide this, alongside recognition of the impact of air pollution on and by intersecting areas, such as public health, climate change, energy, planning and transport.

4. The Local Air Quality Management (LAQM) framework was originally designed to address localised exceedances once national policies had resolved most systemic emission sources. In practice, many local authorities are now attempting to act on both systemic and local issues without the necessary legal powers or funding. Air Quality Grant funding has significantly reduced in scope, particularly for project delivery.

5. The Emissions Reduction (Local Authorities in London) Private Members Bill, set out some legal powers needed to address these challenges.[6]

6. As pollution levels come into compliance with legal objectives, there is a shift away from statutory (and therefore funded) work. From 2023, even local authorities which meet the objectives are expected to prepare a local air quality strategy. While this reflects a welcome shift towards a more preventive and strategic approach, it creates a new burden. Without clear statutory underpinning due to outdated targets, and accompanying grant funding, these strategies risk being deprioritised or challenged locally on the basis that they are non-statutory activities.

7. Placing local air quality strategies on a clear statutory footing, within a clear national narrative, and accompanied by appropriate grant support, would help ensure that they are properly consulted upon, prioritised and implemented. This would represent a more coherent and accountable approach than previous short-term, competitive project-based funding rounds.

8. Resourcing remains a fundamental constraint. Effective air quality management requires specialist technical expertise, adequate staffing, and sufficient time for monitoring, modelling, reporting, community engagement and enforcement.

9. Many local authorities do not have a dedicated air quality officer. Environmental health teams - who often lead on air quality - are under significant pressure and must prioritise statutory duties. As a result, air quality enforcement is frequently reactive not proactive. For example, smoke control legislation is largely complaint-led rather than routinely monitored. Vehicle idling restrictions are limited by low penalties; fixed fines of £20-£30 are unlikely to act as an effective deterrent and can be disproportionate to the enforcement effort required.

10. There is also significant disparity between local authorities. Those with additional funding streams, such as revenue from Clean Air Zones, are better able to retain specialist staff and

[6] Emissions Reduction (Local Authorities in London) Bill; https://bills.parliament.uk/bills/3089/publications

sustain comprehensive local air quality programmes. Authorities without such funding often struggle to maintain even basic monitoring and intervention activity.

11. Many authorities also face transboundary challenges, such as pollution drifting from neighbouring urban areas, which complicates enforcement and local interventions.

Q5a. What examples of best practice exist locally and how well are these being rolled out elsewhere?

1. There are clear examples of local authorities using existing powers proactively and effectively to protect public health and improve air quality, demonstrating what is possible where leadership, confidence and specialist expertise are in place. Resources such as Defra's Air Quality Hub and EPIC's guidance for local authorities on *Integrating Action on Air Quality and Climate Change* provide multiple case studies.[7]

2. Several local authorities have adopted air quality measures that go beyond current UK government requirements and have applied pressure to update national targets. For example, Winchester's 2025–2030 Air Quality Strategy commits to more ambitious targets than UK requirements, aiming for 30 µg/m³ for NO_2 by 2030[8], a timeline that the national interim air quality targets now matches. Walsall Council published an interim position statement in 2021 following updated WHO Air Quality Guidelines, setting out that it would not support development proposals where interim air quality targets could not be met within a reasonable timeframe. This precautionary approach prioritises public health, aligning planning decisions with the latest scientific evidence rather than minimum legal compliance.

3. Bradford has implemented several best-practice initiatives funded through its Clean Air Zone, including the Clean Air Schools Programme, low-emission planning guidance, and employing a data analyst to integrate air quality, health, inequalities, and traffic data to inform local policy.[9] Staff have also been moved into the sustainability team to ensure air quality and climate actions are developed in tandem.

4. Strong regional collaboration is evident in the Wessex region, where the Clean Air South Network has formed linking local authorities across the region with academics, health professionals, and local businesses.[10]

5. Despite these examples, best practice is not consistently replicated across England. Variations in financial resources, access to specialist expertise, and competing statutory pressures mean many authorities remain reactive in their approach.

---

[7] Integrating Action on Air Quality and Climate Change: A Guide for Local Authorities (2024) EPIC; https://www.the-ies.org/resources/integrating-action-air-quality

[8] Winchester City Council (2025). Air Quality Strategy 2025–2030; https://www.winchester.gov.uk/assets/attach/44881/Winchester-Air-Quality-Strategy-2025-2030.pdf

[9] Bradford Council (2025). Clean Air Schools Programme; https://www.bradford.gov.uk/clean-air-zone/resources/clean-air-schools-programme/

[10] Wessex Health Partners (2025). Clean Air South Network; https://wessexhealthpartners.org.uk/our-work/networks/23/clean-air-south

6. In the absence of clear national direction, dedicated funding, and consistent policy signals, locally ambitious approaches are not scaled, leaving protection from air pollution dependent on geography rather than need.

7. There is also a risk that best practice and innovation may be inhibited by the proposed changes to the National Planning Policy Framework (NPPF), which might limit local authority ability to go beyond national policy in local plans and supplementary planning guidance.

Q5b. How effectively are national government targets and local government actions aligned?

1. Air quality limit values are set through national legislation, including the Air Quality Standards Regulations 2010 (as amended), which transpose international and retained EU requirements for pollutants such as nitrogen dioxide, particulate matter and ozone. While central government is responsible for meeting these standards, delivery depends heavily on local authority action.

2. Local authorities are only legally responsible for working towards air quality objectives under the LAQM regime. They must review, assess and report on air quality and designate Air Quality Management Areas (AQMAs) where objectives are unlikely to be met. Each AQMA requires an Air Quality Action Plan (AQAP) detailing measures to improve local air quality.

3. However, the air quality objectives within LAQM are widely regarded (including by many local authorities) as outdated and significantly less stringent than current World Health Organization guideline values and even the European standards, which take health and achievability into account. Where authorities seek to apply more ambitious, non-statutory standards through Local Plans or local air quality strategies, these can only be persuasive in planning decisions rather than determinative.

4. Guidance on the content and ambition of local air quality strategies is limited, and without a clear national narrative and delivery mechanisms, prioritisation varies widely between authorities. This can result in air quality assessment becoming a technical compliance or 'tick-box' exercise rather than a strategic tool to guide development design, transport planning and place-making, limiting the effectiveness of national targets on the ground.

5. $PM_{2.5}$ standards represent a significant gap in the current framework. Responsibility for meeting these standards remains with central government, and they are not fully integrated into the LAQM regime. Local authorities are required to report on actions taken to support $PM_{2.5}$ reduction in their Annual Status Reports (ASRs), and Defra guidance suggests that planning should also play a role. However, detailed guidance on how authorities should deliver these targets in practice is still under development, leaving local implementation uncertain.[11]

[11] Department for Environment, Food & Rural Affairs (2024). $PM_{2.5}$ Targets: Interim Planning Guidance; https://uk-air.defra.gov.uk/pm25targets/planning

6. Operational challenges also arise from overlapping regulatory frameworks. Some authorities must simultaneously report progress through LAQM ASRs on objective compliance within AQMAs, and separate compliance reporting linked to national air quality standards in public areas. This duplication increases administrative burden, creates confusion when objectives and standards differ, and makes public communication more difficult. Intersecting issues, such as climate change and planning, bring their own legal frameworks.

7. There are also disparities in support structures between regions. While some regions, such as London, benefit from coordinated technical support through the Greater London Authority, including initiatives such as Air Quality Positive and the Low Emission Zone for Non-Road Mobile Machinery (NRMM), this level of integration is not consistently available elsewhere.

8. Additionally, local authorities often have limited influence over emissions from sources regulated by other bodies, including industrial emissions overseen by the Environment Agency and pollution linked to the Strategic Road Network managed by National Highways.

9. Furthermore, proposed reforms to the NPPF, which aim to streamline or centralise aspects of decision-making in order to accelerate residential development, risk further weakening alignment. Planning is one of the most effective levers available to local authorities to mitigate air quality impacts at source. Any reduction in local discretion or ability to require robust mitigation could significantly undermine delivery of national air quality ambitions.

Q6. Does the Government provide sufficient funding and devolved powers to comprehensively monitor air quality? Is data capture and analysis sufficient to provide a detailed and accurate assessment of air quality within England?

1. England benefits from a relatively extensive monitoring network. The recent expansion of $PM_{2.5}$ monitoring is particularly welcome, though gaps remain in areas including Lincolnshire, the East Midlands, Wiltshire and Kent.

2. A key limitation is that the current system largely reflects historic pollution priorities, particularly traffic-related pollutants, rather than our current and emerging emission profile, in which domestic combustion, ammonia, and non-exhaust emissions, are increasingly important. Monitoring for these pollutants remains extremely limited.

3. Indoor air quality is largely unmonitored, as set out in the Air Quality Expert Group's 2022 *Indoor Air Quality* report.

4. Similarly, monitoring capability for ultrafine particles and black carbon remains extremely limited, despite growing scientific evidence linking them to adverse health outcomes and climate change. Currently, only a very small number of sites nationally monitor particle number concentrations, highlighting a significant data gap.

5. Local authorities face growing challenges in sustaining monitoring infrastructure. Much of the equipment was purchased during periods of greater grant availability in the 1990s and early 2000s and is now approaching the end of its operational life. Monitoring practices vary between authorities, making national comparisons difficult. Rising costs for maintenance,

calibration, data management, and quality assurance are increasingly difficult to meet within constrained public sector budgets, with Highways England recently reducing its monitoring activity.

6. Emerging technologies, such as low-cost electrochemical sensors, offer opportunities to improve spatial coverage of pollutants like $PM_{2.5}$. However, guidance and standards for robust use are limited, and long-term operation can be costly, particularly where sensors require replacement or proprietary apps to access data.

7. Where air quality grants have been made available to support the purchase of low-cost sensors, funding has typically been provided as capital rather than revenue. This approach does not account for ongoing maintenance, calibration, data management, and replacement costs, making sustained operation challenging. As a result, many sensors have been decommissioned or left unused after only a few years.

8. Government should work with the scientific community to set standards and ensure that all monitoring - including citizen science initiatives - is reliable and comparable. The Institute of Air Quality Management already works to provide good practice guidance on air quality monitoring.[12]

9. Robust, strategically targeted monitoring is essential to understand and communicate population exposure, justify funding, direct mitigation measures and protect public health. Evidence drives action; without it, effective interventions are impossible. A sustainable, centrally coordinated national network, supported by local authorities to deliver on-site duties, would ensure high-quality, consistent data and reduce current inefficiencies where local funding is spent on fragmented or low-quality monitoring.

Q7c. To what extent is air quality policy interacting with climate change mitigation, nature recovery and land use planning? How can benefits be maximised through joined up policy?

1. Air quality policy currently interacts with climate change mitigation, nature recovery and land use planning in a limited and inconsistent way. While there are clear opportunities to deliver co-benefits across these policy areas - for more information see EPIC's guidance on *Integrating Action on Air Quality and Climate Change* - fragmented governance, siloed thinking, weak regulatory drivers and inconsistent application through the planning system, and climate and nature policies, mean these opportunities are not fully realised.[13]

2. The Government recognises that planning is one of the most effective mechanisms to influence long-term air quality outcomes.[14] However, its influence is currently weak and

[12] Institute of Air Quality Management (2025) Good Practice on Air Quality Monitoring for Brownfield Projects and Institute of Air Quality Management (2021) Indoor Air Quality Guidance: Assessment, Monitoring, Modelling and Mitigation.
[13] Integrating Action on Air Quality and Climate Change: A Guide for Local Authorities (2024) EPIC; https://www.the-ies.org/resources/integrating-action-air-quality
[14] Department for Environment, Food & Rural Affairs (2023). Local Air Quality Management Policy Guidance (LAQM), p.22

under-utilised. The prominence of air quality in the NPPF has been inconsistent, and guidance for integrating it into planning decisions remains limited. Where air quality is considered, it often focuses on demonstrating compliance with existing objectives rather than delivering improvements. With exceedances of the current targets largely confined to hotspots, this limits the planning system's ability to drive broader air quality and health gains. Increasing the ambition of national objectives would strengthen planning as a tool for public health protection.

3. Proposed reforms to the NPPF published in December 2025 risk further weakening the role of air quality in planning. They could reduce discretionary powers for local authorities and limit opportunities for routine consultation with air quality specialists. This may unintentionally undermine authorities that have developed robust, locally responsive approaches to air quality, reducing their ability to apply more stringent or context-specific requirements where local conditions justify them. In practice, this may weaken local authorities' confidence to prioritise long-term health outcomes over short-term development pressures, particularly where decisions are vulnerable to challenge at appeal.

4. There is an uneven regulatory landscape when it comes to local air quality planning requirements in England. Local authorities often require significant technical and policy resources (for example, employing air quality specialists) to develop strong air quality planning policies, leaving weaker protections in under-resourced, often deprived areas. Developers may favour these areas, increasing commuting and 'imported pollution' into urban centres, and industrial operators may avoid authorities with stricter controls, affecting local economic development, urban quality and inequalities.

5. Planning guidance is also often aimed at air quality specialists rather than planners, limiting its influence on decision-making. This means that planners often have limited understanding of air quality when they consult and take decisions or advise committees on the decision process. Providing clear, accessible guidance tailored to planning professionals, alongside improved cross-disciplinary working between air quality, climate, and planning teams, would help ensure environmental objectives are delivered more consistently and effectively. The EPIC guidance on *Integrating Action on Air Quality and Climate Change* outlines approaches and examples for this.[15]

Q8a. How can communities be better empowered to strengthen accountability and drive local action?

1. Communities can be better empowered to drive local action when air quality impacts are understandable, effectively communicated and clearly linked to everyday health and wellbeing. Achieving this requires sustained public awareness campaigns and meaningful engagement with trusted local networks, including schools, healthcare providers, community groups, and local authorities. Many members of the Healthy Air Coalition provide valuable models of effective community engagement.

[15] Integrating Action on Air Quality and Climate Change: A Guide for Local Authorities (2024) EPIC; https://www.the-ies.org/resources/integrating-action-air-quality

2. The inquest into the death of Ella Adoo-Kissi-Debrah highlighted a significant gap in how the health impacts of air pollution are communicated, particularly within healthcare settings.[16] The coroner noted that medical professionals were not consistently informing patients or carers about air pollution risks and recommended better training. Strengthening communication through healthcare services would support vulnerable individuals, such as those with asthma or cardiovascular conditions, to reduce exposure and engage more confidently in local decision-making.

3. The commitment within the Environmental Improvement Plan 2025 to increase engagement with health practitioners is welcome. There are already promising examples of implementation; for instance, respiratory paediatricians at Evelina London Children's Hospital incorporate postcode-level air pollution data into patient health records. Such initiatives should now be implemented across the country.

4. Accessible, locally relevant information from trusted sources is essential. When communities understand the impact of air pollution on their health, children and neighbourhoods, they are better able to participate in planning processes and hold decision-makers to account. Consistent national health messaging and resources would help ensure that individuals receive the same core information regardless of where they live or access services.

5. Schools offer an effective route for community engagement. Initiatives such as Bradford's Clean Air Schools Programme demonstrate how education can influence both pupils and parents, encouraging behaviours such as reduced vehicle idling. However, many local authorities no longer have sufficient resources to deliver face-to-face engagement, particularly within environmental health teams. Outreach may therefore need to be integrated with wider public health programmes or supported through dedicated national funding. While digital and social media campaigns are valuable, they may not effectively reach older or more vulnerable groups, who often benefit from direct engagement.

6. Community support is strengthened when air quality policy is clearly linked to fairness, public health and climate objectives. Clear communication that recognises equity concerns, including the needs of disabled people and vulnerable groups (including those most vulnerable to any negative impacts of interventions), will help build trust and support for local action.

[16] Coroner Report (2021). Record of Inquest: Ella Kissi-Debrah (2021-0113); https://www.judiciary.uk/wp-content/uploads/2021/04/Ella-Kissi-Debrah-2021-0113-1.pdf