



# **Government response to the Environmental Audit Committee Report on Air Quality in the UK**

Presented to Parliament

By the Secretary of State for Environment, Food and Rural Affairs

By Command of Her Majesty

November 2010

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## **Background**

1. The Environmental Audit Committee published its report on air quality in the UK on 22 March 2010. The Committee identified the purpose of its inquiry as being “to assess whether the Government was developing an effective strategy for meeting its obligations under the EU air quality directives and whether the strategy would ensure that air pollution was reduced to acceptable levels across the UK.” This Command Paper sets out the UK Government’s response to the conclusions and recommendations of that report.

## **Introduction**

2. The Government welcomes the Environmental Audit Committee’s report into air quality and its recommendations.

3. The Committee’s inquiry focussed on what had been achieved in the lifetime of the previous UK Government. While significant improvements have been made in air quality over many years, the present Government takes the view that more needs to be achieved. Securing further improvements is one of the Coalition priorities; and the Coalition Agreement includes the commitment to work towards full compliance with EU air quality standards.

4. The Government considers that several issues identified in the Committee’s report need further review, taking account of the Committee’s recommendations and of the Coalition commitment on air quality. The wider economic and fiscal situation will also be an important factor, which will impose considerable limits on the scope for measures involving public spending. A further consideration will be the Government’s broader aim of taking power away from Whitehall and putting it into the hands of people and communities and reducing regulatory burdens. The responses to the individual recommendations note where further review is needed.

5. Although the Committee’s report formally covered air quality in the UK, in practice the content of its report focussed largely on the situation in England and referred much less to the situation in other parts of the UK. As noted in paragraph 10 below, measures to address air quality in other parts of the UK are largely devolved. This response also focuses, therefore, largely on the situation in England, and does not address comparable issues which arise in Scotland, Wales and Northern Ireland. However many of the levers available to improve air quality, for example fiscal measures and environmental standards for industry and vehicle manufacturers etc, are reserved or in the latter case often agreed at European level. Therefore the devolved administrations can reasonably look to the UK Government to take these reserved measures forward, taking into account their views.

## Current position

6. Since the 1980s there have been significant reductions in emissions of pollutants such as sulphur dioxide, carbon monoxide, lead, particulate matter and oxides of nitrogen or NO<sub>x</sub>. The National Audit Office briefing to the Committee confirmed that the UK has achieved both its national objectives and EU limit values for all key pollutants except nitrogen dioxide (NO<sub>2</sub>), and particulate matter. The Committee's report also confirmed that the UK has achieved limit values for sulphur dioxide, although there are a very small number of instances where we do not meet our 15 minute national objective for this pollutant, which is tighter than the EU limit value. Major industrial sites have significantly cut emissions of fine particles, sulphur dioxide and NO<sub>x</sub> releases. The report states that in a recent assessment of power stations 6 out of the top 10 most polluting emitters in the EU were found to be in the UK. However if allowance is made for the size of plant only one of the UK power stations would be in this list.

7. For particulate matter (PM<sub>10</sub>) there are a very small number of locations in central London where the 24 hour limit value for this pollutant is exceeded. The Government has recently submitted further evidence to the European Commission regarding compliance with the 24 hour limit value for particulate matter. This demonstrates that the Government expects the UK to comply with this limit value by 2011. For NO<sub>2</sub> more action will be needed in order to achieve compliance, especially in large urban areas, including London. Many European Member States face a similar challenge in achieving compliance with this limit value.

8. Road transport is often the most significant factor determining levels of NO<sub>2</sub> pollution in towns and cities, accounting for as much as 70% to 80% of concentrations of NO<sub>2</sub> in some hotspots. Certain key EU measures to improve vehicle emissions have not delivered expected reductions in oxides of nitrogen (NO<sub>x</sub>) emissions. Emerging evidence suggests that Euro IV and V vehicle exhaust emissions standards agreed in the EU for heavy duty vehicles have had considerably less impact in reducing NO<sub>x</sub> emissions from some diesel vehicles, particularly lorries, in urban driving conditions than was anticipated. Evidence also suggests that recent light duty Euro standards have had a limited impact on light duty diesel vehicle NO<sub>x</sub> emissions. Future standards (heavy duty Euro VI and light duty Euro 6) should go some way towards correcting this when they are introduced in December 2013 and September 2015. However the underperformance of previous standards means that fuller consideration must be given to the sorts of measures that can achieve improvements in the timescales available and how these measures should be applied. This makes the task of achieving compliance with NO<sub>2</sub> limits significantly more challenging than was earlier envisaged.

9. Air quality is affected by many other activities and policies including spatial planning and development, and industry and energy efficiency. Personal choice and consumer behaviour can also have an impact. Climate change priorities will play an increasingly strong role, and it is important to

take full advantage of the co-benefits between air quality and carbon reduction to ensure that we maximise the benefits available. Interdepartmental collaboration on air quality is therefore important and is being developed considerably further.

10. As noted above, air quality in the UK is a devolved matter with the administrations in Scotland, Wales and Northern Ireland being responsible for most policy and legislative matters affecting the environment in their own countries. Local Authorities in England have legal responsibility to review and assess air quality locally and to take steps to improve local air quality in consultation with the Environment Agency, the Highways Agency and other authorities as necessary. The Mayor of London has responsibility for air quality in London (along with London Boroughs) and must prepare an air quality strategy for London.

## **Responses to individual recommendations**

### **The air quality problem**

**R1: Air Quality must be a higher priority for Government. Defra must raise the profile of the issue by publicising the latest data on premature deaths more widely and making clear the benefits of improving air quality. (Paragraph 19)**

11. As noted already, this Government, through the relevant Coalition commitment, is giving a high priority to achieving air quality improvements and recognises the impact poor air quality has upon human health and the environment. The Government is committed to making improvements in this area working with local authorities, regulatory agencies, devolved administrations and the GLA as well as with the EU and internationally.

12. Government takes expert advice from the Committee on the Medical Effects of Air pollutants (COMEAP) on the human health impact of poor air quality including on the most accurate means to reflect these impacts.

13. Extensive research considered by COMEAP has shown that both short-term and long-term exposure to air pollution can have effects on health. The effects of particulate pollution are especially well sustained by the available evidence. This shows that day to day variations in concentrations of airborne particles are associated with day to day variations in a range of health effects. These include deaths, admissions to hospital for the treatment of both respiratory and cardiovascular diseases and asthmatic symptoms. In addition, there is evidence that long-term exposure to particulate air pollution is associated with a decrease in life expectancy. This is largely due to an increased risk of death from heart and lung disease. These associations are accepted as likely to be causal.

14. The available health evidence suggests that there is no “safe” level for fine particulate matter exposure (measured as PM<sub>2.5</sub>). Benefits to health can, therefore, be achieved through reductions in population exposure even below

current legal limits. Consistent with EU legislation, Government has set out an 'exposure reduction' approach for PM<sub>2.5</sub> in the Air Quality (Standards) Regulations 2010. This seeks further reductions in the health effects of air pollution by providing a driver to improve air quality across urban areas in the UK, rather than just in a small number of localised hotspot areas where the costs of reducing concentrations are very high.

15. Based on the evidence for the effects of particulate matter, long-term exposure to air pollution is currently estimated to reduce life expectancy by an average of 6 months across the UK population (although there are important uncertainties associated with the quantification of health impacts). In addition, many thousands of people each year die or are admitted to hospital with respiratory or heart problems, due to the effects of short-term exposure to elevated concentrations of air pollutants.

16. For calculating the health impacts of long-term exposure, COMEAP has used life-tables to give results in terms of life-years expected to be gained as a result of reducing concentrations of particles (PM<sub>2.5</sub>). This approach calculates how air pollution changes the pattern of deaths over time. This method has the advantage that it reflects when people die - rather than simply that they do so.

17. As part of its ongoing work to calculate the overall impact of long-term exposure to PM<sub>2.5</sub> on mortality, COMEAP will examine different ways of expressing risks and impacts and will make provisional recommendations by the end of 2010.

18. Government very much agrees that more needs to be done on communication of health impacts. It is important to make clear the benefits of improving air quality to the public and better communication of this is needed. A fuller answer to this point is given under recommendation 5 below.

## **The costs of poor air quality**

**R2: Good air quality makes a key contribution to preventative healthcare. The Government should ensure that local strategic partnerships embed plans to deliver real improvements in local air quality. (Paragraph 27)**

19. Consistent with the Government's broader aim of devolving more responsibility to local areas, it is important that local authorities, especially urban authorities, give proper consideration to further measures in their own local areas, in order to improve air quality.

20. Government recognises the contribution good air quality can make to improving life expectancy and preventative health care. It strongly agrees with the Committee that from the health point of view more emphasis needs to be put on preventing further air pollution relative to the measures used to cope with it after it arises – even though the latter is also important.

21. For improving local outcomes Government believes that there needs to be a shift in power from the central state back into the hands of individuals, communities and councils. Through the Localism Bill, Government intends to devolve greater powers to councils and neighbourhoods and give local communities far more ability to determine the shape of places in which they live by radically reforming the planning system and offering incentives for development and growth. In creating a framework of greater freedom for local councils, the need to maintain minimum environmental standards in air quality remains. Government will be reviewing in more detail how the role of local authorities on air quality can be maintained and enhanced in the light of its broader commitment to localism and the changes to regulation and local structures that are currently being addressed by the Department for Communities and Local Government (CLG).

**R3: The Government must assess the most cost effective way of meeting mandatory EU targets rather than relying only on a cost-benefit analysis of possible actions (Paragraph 35)**

22. Government follows Her Majesty's Treasury 'Green Book' guidance on the comprehensive assessment of the full range of impacts of policy interventions. This includes both an assessment of the costs and benefits as part of a cost-benefit analysis, and the assessment of the cost effectiveness (net cost per unit of pollutant). On the basis of such assessments, the previous Government's Air Quality Strategy, published in 2007, identified some measures as offering benefits marginally greater than costs and these are being considered alongside other options.

23. The cost effectiveness of a full range of options will be compared in determining our approach to achieving NO<sub>2</sub> limit values. This will be used to identify the most cost-effective package of measures available to achieve compliance with the NO<sub>2</sub> limit values, in other words in delivering the UK's obligations at least cost. Implicit in cost effectiveness analysis is the recognition that some technology measures may have costs that exceed their overall benefits, but that relative to other options, they allow us to meet our targets at least cost.

24. Government departments (through the relevant Interdepartmental Group on Costs and Benefits, IGCB) have developed a new approach specifically for use when there are breaches of environmental limits. The IGCB has outlined this approach as best practice appraisal for decisions which may impact on compliance with legally binding obligations and this means that cost effectiveness rather than cost benefit analysis is used. It means that the baseline for any actions to deliver compliance is the range of potential options available to deliver compliance.

25. In order to contribute to the evidence base on the range of technical options to comply with NO<sub>2</sub> limit values, a Marginal Abatement Cost Curve (MAC Curve) approach is being developed to assess a range of technologies on a cost effectiveness basis. This involves a consideration of the capital, operating and maintenance costs of the technology and the emission savings the technology is expected to deliver. It represents the first application of

such an approach. Further work would be necessary though to assess the feasibility of the most cost effective options.

26. The IGCB methodology would also help reduce the risk that policies designed to achieve other goals may damage prospects for compliance with air quality limit values. This is because where an intervention may lead to a breach of air quality limits, the associated costs of compliance should be incorporated into the decision-making process.

27. Having developed this best-practice approach Government is now working across departments to facilitate its integration. This involves both the development of general tools for its application and bespoke analysis consistent with specific departmental guidance.

**R4: The Government's assessment of the costs and benefits of action on air quality does not account for all the health effects of poor air quality, the damage to ecosystems and potential fines. The Government should improve the assessment of the costs and benefits of better air quality. The Government must therefore urgently:**

- **quantify the impact of morbidity and the cost to the NHS of poor air quality;**
- **improve understanding of the health effects of exposure to nitrogen dioxide;**
- **estimate the cost of the damage to ecosystems and the environment from poor air quality;**
- **fund the research necessary to fill the gaps in the evidence base; and**
- **take account of the likely fines from missed EU targets in its air policy appraisal (Paragraph 37)**

28. Government agrees that the full range of possible benefits that could be attained from policy measures to improve air quality has been underestimated, because it has not been possible to quantify all health outcomes or environmental and ecosystems impacts.

29. Government has taken expert advice in deciding which health effects of air pollution to quantify in its assessment of costs and benefits. For some pollutants, the advice has been that the evidence base is not sufficiently strong or consistent to allow quantification. For others (notably chemicals which cause cancer by damaging DNA) expert advice indicates an absence of reliable methods for quantification of impacts. Where possible, the impacts of these pollutants have been included in the government's economic assessments either as part of an uncertainty analysis or in a qualitative way.

## **Morbidity and costs to NHS**

30. The Committee on Medical Effects of Air Pollution (COMEAP) advises Government on morbidity effects. COMEAP is currently examining possible approaches to quantifying morbidity due to chronic obstructive pulmonary disease (COPD) induced by long-term exposure to air pollutants. It plans to expand this work to effects such as asthma, cardio-vascular disease and birth outcomes in future. COMEAP also intends to update its 1998 report and this will be published in stages as blocks of work are completed over the next three years, quantifying the total impact of air pollution in the UK. This will include updated estimates of numbers of hospital admissions.

31. The Department of Health is also funding other research to improve understanding of morbidity due to air pollution. This includes an investigation of the effects of long term exposure to air pollution on cardio-respiratory morbidity in a large population cohort; an examination of life course effects of air pollution on cardio-respiratory mortality in the Medical Research Council's National Survey of Health Development; and research into the short and long term effects of air pollution on cardiovascular disease events.

32. However, these (morbidity) costs are expected to represent only a small proportion of the total costs calculated as being due to air pollution; mortality impacts (deaths brought forward and loss of life-expectancy) dominate cost calculations because of the high value given by the public to avoiding these impacts in "willingness to pay" studies.

## **Understanding of the health effects of exposure to nitrogen dioxide;**

33. Despite considerable research, including epidemiological analysis, the evidence on the health effects associated with both short-term and long-term exposure to NO<sub>2</sub> is inconclusive. While the health effects of particulate pollution are well understood, those resulting from NO<sub>2</sub> are less clear. The available evidence suggests that the reported effects of NO<sub>2</sub> might be due to exposure to particulate pollution owing to the close correlation between their concentrations and similarity of sources.

34. COMEAP examined the evidence on NO<sub>2</sub> in 1998 and again in 2007 and 2009. It concluded that it was not possible, on the basis of the available evidence, to propose coefficients for use in quantifying either mortality or morbidity effects. As a result, the government has been unable to assess the direct health benefits for measures to control NO<sub>2</sub> and no direct health benefits were included, for example, in the main cost-benefit analyses for measures assessed in the Air Quality Strategy (2007). However, a sensitivity analysis was presented for the effects of NO<sub>2</sub> on respiratory hospital admissions to illustrate the possible size of the effect, using a concentration-response function suggested by COMEAP for this purpose. This analysis

suggested that including this had a minimal effect on the scale of health impacts<sup>1</sup>.

35. NO<sub>2</sub> plays a part in chemical reactions in the air that produce fine particles. These particles contain nitrate salts and are a component of the secondary aerosol; in other words they are particles formed in the air and not emitted directly from combustion or other sources. The effects on health of exposure to these nitrate particles are included in assessments of the impacts on health of exposure to fine particles in general. Thus at least some of the impacts on health of NO<sub>2</sub> are assessed.

36. The World Health Organisation (WHO) has recommended guidelines for ambient concentrations of NO<sub>2</sub> and these have been adopted as standards in the European Union. The Government acknowledges that a better understanding is required of the health effects associated with exposure to NO<sub>2</sub>. The Government will continue to support work on this topic within the UK and will work with the WHO and with other European and International forums to ensure this understanding is robust and helps to inform policy development of controls.

#### **Cost of damage to ecosystems and the environment from poor air quality;**

37. Government welcomes the Committee's view that Government is already leading on work to estimate the costs of damage to ecosystems and the environment from poor air quality.

38. Ecosystem damages are currently reflected quantitatively in the form of critical loads and critical limits exceedences. However the fact that these impacts are not monetised is recognised as a gap in the interdepartmentally agreed valuation methodology (see paragraphs 24-28 above). In response, a significant amount of research was undertaken to value these impacts, notably "Valuation of Air Pollution Effects on Ecosystems: A Scoping Study" (2002).<sup>2</sup> This research concluded that the available evidence was not sufficient to undertake such an approach. More recently the development of an "Ecosystems Services Approach" (ESA) as a consistent framework for valuation of ecosystems was identified as the best approach to addressing this gap.

39. Defra is now in the process of procuring further research to investigate the application of the ESA to air quality, using the new framework, with a view to work being completed in spring 2011. This work will then, where possible, be integrated with the other interdepartmentally agreed valuation guidance to address this gap.

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<sup>1</sup> the full results of this sensitivity are published in chapter 5 (section 5.3.2.3) of the IGCB third report available from <http://www.defra.gov.uk/environment/quality/air/airquality/publications/stratreview-analysis/index.htm>

<sup>2</sup> Available from [www.defra.gov.uk/evidence/economics/igcb/](http://www.defra.gov.uk/evidence/economics/igcb/)

40. Our natural environment underpins our economic prosperity, our health and well-being. The commitment of this Government to publish a Natural Environment White Paper provides an opportunity to put a stop to the piecemeal degradation of our natural environment and instead seeks active opportunities to enhance its value. This includes through reducing air pollution. The discussion document launched on 26 July invites views on how best we can protect and enhance our natural environment and the valuable services we derive from it. People, businesses and civil society organisations and local authorities must have larger roles in protecting and enhancing the natural environment. Government cannot tackle these issues on its own. The consultation ended in October and the White Paper will be published in spring 2011.

### **Funding the research to fill the gaps in the evidence base**

41. Government makes maximum use of European and International sponsored Research to ensure effective use of resources. Also the Natural Environment Research Council is currently leading a multi-funder (Medical Research Council, Economic and Social Research Council, Defra and DH) research initiative on environmental exposure and health, which includes air pollution. The funding available through this initiative is of the order of £8 -10 million. Where significant research gaps remain the need for Government funding will be considered alongside competing priorities for research. All evidence streams within Defra are in the process of finalising Evidence Plans which will help implement the Evidence Investment Strategy 2010-2013 and provide a clear line of sight between evidence and policy.

### **Taking into account likely fines from missed EU targets in air policy appraisal**

42. Government intends to comply with Community law and to avoid infraction and any fines that could result. Since compliance is a mandatory requirement, our approach is, instead, to address the issue through the use of cost- effectiveness analysis of alternative options to achieve compliance (see paragraphs 22-27 above).

## **Reshaping Policy**

**R5: Better public understanding of air quality issues is critical. The Government must educate the public about the health risk from poor air quality and about how they can limit their exposure and improve air quality. Any campaign on air quality should raise awareness of the actions people can take to reduce emissions of dangerous pollutants and to reduce their exposure. (Paragraph 41)**

43. The Government agrees that it is important not only to make it easier for people to understand how they can reduce their own exposure to air pollution but also to make clear that they can reduce their contribution to emissions of dangerous pollutants including through personal or business choices made on transport and energy use. This would improve their own

and other people's health. Government and local authorities already provide information to the public in the following ways:

- Information on the risks of poor air quality and what people can do to limit their exposure, for example through information on air pollution provided by the Meteorological Office through leaflets and via its public websites. Members of the public have access to this information at no cost and can use it to make decisions on how to protect their health if air pollution is high.
- In London, the South East and in some other parts of England local authorities have provided text services and mobile phone applications which provide advice on air pollution levels. These are free services which in some areas have benefited from Government Grants or local primary care funding. The Government encourages these services.
- Supporting a number of local initiatives that have been associated with air quality or with promoting behaviour that will benefit air quality. More walking and cycling for short journeys have benefits for individuals' health, but there are also benefits for communities too from the resulting better air quality.
- Commissioning a research report into the consumer response to the air quality banding systems. This provides some insights into communication of air quality to the public and how this can be done to best effect; this report will be published in spring 2011
- Inclusion of information on the air quality emissions performance of new cars in the Vehicle Certification Agency's New Car Fuel Consumption & Emissions Figures booklet and website. The website is well used by car-buyers receiving more than 700,000 visits per year. The Department for Transport is to review the content of these publications, to ensure they provide consumers with a clear and simple message on considering air quality when selecting a new car.

44. At local level a number of locations have been exploring the effectiveness of 'Smarter Choices' measures on behaviour change. Darlington, Peterborough and Worcester recently trialled targeted promotion of sustainable ways to travel to reduce reliance on the car. Overall in the towns involved, car trips decreased by up to 9% with significant increases in walking, cycling and bus use. This is likely to have benefitted air quality as people chose not to travel, or replaced car trips with more sustainable travel modes.

45. The Government is reviewing what further action can be taken to communicate the impacts of air pollution more effectively. In particular Government has started a process of more systematic collaboration with other civil society partners at the national level (including environmental and health charities) to establish how we can together give stronger messages about tackling the health impacts of air pollution.

46. Defra and the NHS also intend to work together more closely, to try to communicate through NHS communication channels both the impact of air pollution and what action can be taken to reduce it. The NHS Carbon Reduction Strategy (for England) recognises that improved air quality is a benefit both for patients and the wider population and that active travel, such as more walking and cycling, leads to reduced health risks and improving air quality.

47. Government will also encourage local authorities to communicate more strongly to local audiences the health impacts of air pollution and the action that individuals can take to reduce it at the local level, for example through transport choices. The precise way in which such messages should be communicated needs to be a matter for local discretion.

48. Further communications activity with those that can influence air quality through local communities, local authorities or through business will be very helpful in affecting transport decisions and behaviour. Government will consider how these could be delivered to best effect with local government colleagues and with other agencies. It should be noted that all communications activity will need to take account of spending constraints, including, for example, the limitations on national campaigning activity announced by the Chancellor on 22 June. For that reason, the emphasis will be on targeted activity and collaboration in communications rather than expensive new national campaigning initiatives.

**R6: Government must raise the priority attached to air quality in all government departments and provide better guidance on including air quality impacts in policy appraisals. Only Defra and DfT are formally accountable for air quality, under the Public Service Agreements; other departments that contribute to the problem, including DCLG, DoH, DECC and HMT, are not. Ministers must drive this from the top, introduce measures to ensure this becomes routine practice and accept responsibility for policies that conflict with air quality. (Paragraph 46)**

49. The Government agrees about the need to raise the priority of air quality across departments, with ministers taking a significant role in this, and taking the Coalition commitment on air quality as the starting point. This need for collaboration is central to action to address air pollution.

50. As already noted, there are already substantial cross-departmental dimensions to air pollution, which are well recognised. Within central government in England, Defra leads on air quality matters. However other Departments play an important role and their policies can significantly impact upon air quality and our response to it:

- The Department for Transport (DfT) has responsibility for transport and leads on measures affecting the transport sector;
- The Department for Communities and Local Government (DCLG) is responsible for planning and overall local authority strategy;

- The Department of Health (DH) is responsible for improving understanding of the health impacts of poor air quality and air pollution;
- The Department for Energy and Climate Change (DECC) is responsible for climate change and energy production and its policies can deliver air quality and climate change co-benefits – for example in delivering renewable sources of electricity which do not involve combustion;
- The Treasury has responsibility for fiscal matters across the UK which can influence air pollution emissions through tax measures such as Reduced Pollution Certificates; and
- The Department for Business Innovation and Skills has responsibility for policy on business and innovation which can influence both regulation and opportunities for business solutions to improving air quality.

51. Previous sections of this response have highlighted the intention for close cross-departmental working on communications on air pollution. Policy appraisal is also a key area requiring an agreed approach across departments. The appraisal of air quality impacts must follow the Treasury Green Book's guidance as supplemented by the advice of the relevant interdepartmental group on costs and benefits.

52. The approach on appraisal seeks to account for all benefits where this can be done; and further work is in hand to improve our understanding and to embed this in guidance for departments and other policy formulators. That work will continue to ensure air quality impacts are properly accounted for.

- Publishing supplementary guidance with HM Treasury to the Green Book setting the approaches to air quality appraisal;

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<sup>3</sup> Green Book [http://www.hm-treasury.gov.uk/d/green\\_book\\_complete.pdf](http://www.hm-treasury.gov.uk/d/green_book_complete.pdf)

- Providing additional detailed guidance on the IGCB website on the use of the impact pathway, damage cost and abatement cost methodologies;
- Continuing activity to integrate the work of the IGCB with other departmental guidance. This can be seen, for example, in its inclusion in DECC appraisal guidance; and
- Presenting the work of the IGCB across Whitehall at both departmental and analytical groups.

55. There is also an existing framework for considering the impact of government policies on air quality through Health Impact Assessment, which is one of the Specific Impact Tests (SITs) in the cross government Impact Assessment process. The Department of Health has provided guidance<sup>4</sup> for completion of HIA's, and the coverage of air quality is an essential component, including the particular impacts on sensitive groups of people who may be more susceptible to respiratory conditions.

56. The Government will also shortly be setting out a radical new approach to public health in a white paper focused on protecting the public from health threats such as environmental hazards, improving the healthy life expectancy of the population, and improving the health of the poorest fastest. Local Government will be given powers and dedicated resources to make a major impact on people's health and wellbeing, and Directors of Public Health will be based in Local Government, jointly appointed with the new Public Health Service.

**R7: Transport policy must change dramatically if the UK is to meet future targets and reduce exposure to air pollution. Much of this agenda is already being driven by efforts to tackle climate change (like modal shift and smarter travel choices) although some conflicts exist. In addition to improving existing policies, the Government must explain the role played by brake, tyre and road wear in generating particulate matter and research the impact of road surface particulate matter on air quality. (Paragraph 50)**

57. The Government is committed to supporting sustainable growth and enterprise, while protecting the environment for future generations, and in line with this we want to make the transport sector greener and more sustainable, with tougher emission standards and support for new transport technologies. We are looking at all options for how to further reduce air pollution from transport. For example, on the 28 July, the Secretary of State for Transport confirmed that motorists will receive up to £5,000 towards the purchase of an ultra-low emission car from January 2011. The grant will reduce the up-front cost of eligible vehicles by 25 per cent, capped at £5,000, and will be open to both private and business buyers.

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<sup>4</sup> Health Impact Assessment Guidance  
<http://www.dh.gov.uk/en/Publicationsandstatistics/Legislation/Healthassessment/index.htm>

58. Much can be done at a local level to change patterns of behaviour and encourage more sustainable travel, and the Department for Transport recently announced important changes to local transport funding which will allow local authorities to set their own priorities, and challenge them to find ways to facilitate sustainable transport modes. We expect local authorities to bring forward packages of measures that could address a number of key challenges, including tackling local air quality problems. Further details of the Fund will be announced in due course. Defra is also working with DfT to investigate measures which would reduce harmful emissions from HGV's and buses in particular. We have already announced that we will not be supporting additional runways at Heathrow, Stansted and Gatwick.

59. The Department for Transport assesses the full range of impacts of transport policy, including road traffic pollutants, in line with the HM Treasury Green Book and guidance from the IGCB. For transport scheme appraisal, this means that air quality impacts are considered in line with the Department's New Approach to Appraisal framework. That enables a range of costs and benefits to be considered, both quantitatively and qualitatively, against the Department's key goals and feeds directly into the value for money assessment of a scheme. We have announced that we will reform the way decisions are made on which transport projects to prioritise, so that the low carbon benefits of proposals are fully recognised and DfT will continue to seek to optimise air quality and carbon benefits in transport projects.

60. Government will keep under review emerging evidence on the health impacts of coarse particulate from brake, tyre and road wear. The Department for Transport will continue to discuss with the European Commission and other EU Member States whether particles from these sources are of widespread air quality and health concern and what potential mitigating measures exist. Further action on transport in other areas, including on communications, has been noted above.

**R8: The Government must urgently explore how planning guidance can be strengthened and applied to reduce air pollution. (Paragraph 54)**

61. Current planning policy expects close co-operation between local planning authorities and those with responsibilities for air quality and pollution control wherever a proposed development is likely to have significant air quality impacts.

62. The Government plans to reform planning policy and publish a simple and consolidated National Planning Policy Framework which will include national economic, environmental and social priorities and will be presented to Parliament. We are currently considering the best way forward for the preparation of the Framework and any accompanying documents.

63. We note that the Committee's report referred to oral evidence that suggested that local authorities and the Environment Agency do not adequately consider air quality in the planning process. We believe this in part to be a misinterpretation as the Environment Agency does not actively

make decisions in the planning process in the way local authorities do. However it is an important body among those consulted in the process.

**R9: Local authorities are key to improving air quality. The Government must raise the profile of air quality with all local authorities, encourage the sharing of best practice and ensure that the issue is given sufficient attention across all areas of local authority responsibility, not just within their environmental departments. (Paragraph 56)**

64. Government agrees that local authorities are key to improving air quality and would like to see them together with local communities to continue to play a strong role on local air quality. We will be taking forward a recent review of local air quality management arrangements, taking into account European obligations on limit values and exposure reduction and allowing greater freedom for local authorities to determine priorities on improving air quality. Our aim must be to ensure LAs have the tools they need to continue to play their key role in improving air quality and can focus scarce resources on actions that will deliver real improvements in air quality rather than unnecessary form filling and bureaucracy. This must also take account of the extent to which local level action can be affected by national decisions on infrastructure planning and national and European decisions on standard setting (such as vehicle emissions standards).

65. Collaboration between different departments within local authorities, for example between air quality and transport departments, is important, just as it is at the national level. To maximise the benefits available from limited resources it will also be important to develop packages of measures which can contribute across a number of environmental priorities.

66. It will be important to ensure local authorities have access to information on best practice to improve air quality, both from the UK and abroad. With this must also go access to information and advice to aid understanding of the health impacts of poor air quality across local authorities and local communities. This will help to ensure informed decisions on measures and better accountability for decisions it takes and the effects they might have on air quality.

**R10: Developing a national framework for low emissions zones would raise the profile of the air quality challenge and help drive down emissions in our cities. The Government must ensure that research into the options for such a framework is completed and published at the earliest opportunity. Low emissions zones are costly and are only likely to be effectively implemented on a longer timescale. They will not be necessary in each local authority. What is needed is for all local authorities to develop wide ranging strategies that reduce emissions and drive down concentrations of key pollutants. Local authorities must develop effective policies, closely linked to planning and coupled with existing monitoring activities. (Paragraph 60)**

67. Government agrees with the Committee's conclusions that a wide range of strategies will be necessary to support local action depending on

sources of pollution and different priorities of communities. In line with the Government's commitment to localism, it will be for individual local authorities to decide which measures will be most appropriate and effective for their circumstances.

68. Defra is working with local authority delivery partners and with the Department for Transport to investigate the Committee's recommendation to develop a national framework for low emission zones (LEZs). Part of this work will be to determine the extent to which retrofitting of abatement equipment can contribute to reductions in levels of NO<sub>2</sub> pollution in urban areas and what measures are necessary to facilitate their introduction and to provide consistency to operators.

69. As noted at paragraph 8, there are uncertainties around the effectiveness of recent diesel NO<sub>x</sub> Euro Standards and we are doing further work to understand the implications of these and the extent of the benefits local authorities could expect to achieve by implementing low emission zones. This is particularly relevant for NO<sub>2</sub> pollution, as particulates have been the primary focus of the majority of LEZs currently in operation in the UK and Europe.

70. Any decisions on how to facilitate specific local actions will be dependent both on their feasibility and on how useful particular interventions would be for local authorities. Defra published guidance on how local authorities could implement low emission zones in 2009 and we are therefore also keen to understand the appetite among local authorities to take forward these sorts of measures, and the type of framework that would be necessary to make it easier for local authorities to take decisions on LEZs for their area.

71. Defra has published other guidance on measures local authorities can take to improve air quality, including on measures to promote low emission vehicles, retrofitting of pollution abatement equipment and Low Emission Strategies, and will work with local government delivery partners to review this and other guidance provided to LAs on measures to improve air quality to ensure these are targeted in the right way and provide the right advice to help them to put in place effective strategies to improve air quality.

72. Government intends to provide the appropriate enabling framework for local management of air quality based on local circumstances. The need for central guidance and direction must be balanced with the benefits of local authorities working together to develop the most appropriate tools based on what is known about best practice in air quality management.

73. This collaboration between local authorities is best demonstrated in the application of Low Emissions Strategies to reduce air pollution. This approach was exemplified by several authorities who now work as a Low Emissions Strategies Partnership. Government will continue to work with the Low Emissions Strategies Partnership to encourage local authorities to develop strategies based around emissions reduction. This will support the achievement of air quality objectives and help generally to drive down emissions of air pollutants.



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