



Photo: Summer Smog. Taken from the Green Group's offices in City Hall on 12 April 2011

## **A manifesto for 'clean air in London' for the Mayoral and London Assembly elections in 2012**

**London must lead the world in tackling 'invisible' air pollution as it did after the 'visible' Great Smog of 1952**

**Clean Air in London intends to rank Mayoral candidates on their commitment to measures in this manifesto before the Mayoral election**

## **Manifesto for ‘clean air in London’**

London has the worst air pollution in the UK and among the worst in Europe. Air pollution is a much bigger crisis than most of us have realised and regularly exceeds twice World Health Organisation (WHO) guidelines and legal limits near our busiest roads. Only smoking causes more early deaths than air pollution in the UK.

In the Great Smog of 1952 there were 4,075 early deaths in London due to short-term exposure to ‘visible’ air pollution. Scientists did not know about the health impact of long-term exposure until about 10 years ago. Mayor Johnson has estimated – using the language used for alcoholism, obesity and smoking – that 4,267 deaths in London in 2008 were attributable to long-term exposure to ‘invisible’ dangerous airborne particles (PM<sub>2.5</sub>). The Committee on the Medical Effects of Air Pollution (COMEAP) has explained that the average loss of life for these people was about 11.5 years. In other words, there are as many early deaths from ‘invisible’ air pollution in London now as we thought occurred in the ‘visible’ Great Smog of 1952.

The estimate of 4,267 extra or excess deaths is a good one for comparing the effects of air pollution with those of other causes of premature death such as alcohol, active or passive smoking, obesity, diet etc which are calculated in the same way. However, COMEAP has shown us that because, in practice, individuals experience multiple health risks, air pollution almost certainly played some part in shortening the life of a much larger number of individuals in London. It is not possible to estimate that number reliably but given that much of the impact of air pollution on mortality is linked to cardiovascular deaths, it is reasonable to consider that air pollution may have contributed to all 15,800 deaths in London (in 2009) due to cardiovascular causes (i.e. one in three of all deaths) at an average additional loss of life for these people of some three years (at typical ages for cardiovascular deaths e.g. 15% of which are before age 65).

Separate research published in 2010 by the Aphekom group of scientists has shown that living near roads travelled by 10,000 or more vehicles per day on average could be responsible for some 15-30% of all new cases of asthma in children; and of COPD (chronic obstructive pulmonary disease) and CHD (coronary heart disease) in adults aged 65 years and older. The same study further estimated that, on average for all 10 cities in the study, 15-30% of exacerbations of asthma in children, acute worsening of COPD and acute CHD problems are attributable to air pollution. This burden is substantially larger than previous estimates of exacerbations of chronic diseases, since it has been ignored so far that air pollution may cause the underlying disease as well. Related research indicates that associations of asthma with traffic-related pollution from nearby sources at schools were independent of estimated effects of exposures at homes. Clean Air in London found 1,148 schools in London within 150 metres of roads carrying over 10,000 vehicles per day and a total of 2,270 within 400 metres of such roads.

The Government has said that it won’t comply with air quality laws in London until 2025. This is ridiculous: Mayor Johnson said in 2010 it could be done by 2015. London must lead the world in tackling ‘invisible’ air pollution as it did after the ‘visible’ Great Smog of 1952 including delivering the ‘greenest Games ever’.

## **Five point plan for ‘clean air in London’**

The Mayor must protect the health of Londoners and ensure full compliance with UK and European air quality laws throughout London (not least before fines become payable). The Mayor must:

- **Lead the fight to improve London's air** by championing the tightening of health and legal protections, ensuring good governance and improving public understanding of poor air quality
- **Clean up London's transport** by reducing traffic emissions, cleaning up public transport, reducing emissions from non-road mobile machinery and supporting active travel
- **Build a low emission city** by using planning powers and other opportunities to reduce emissions from buildings and improve indoor air quality
- **Protect the most vulnerable** through a focus on children, the elderly, the poor and ethnic minorities
- **Ensure a legacy from the Olympic Games** by delivering a low emission Olympics and more

This manifesto describes 45 measures in 12 key policy areas under these five themes.

## I: Lead the fight to improve London's air

1. *Leadership.* London needs strong and effective political leadership in order to clean the city's air. In the past, London's air quality strategies have often tried to place responsibility for air quality at the feet of the Government. Instead, the Mayor must:
  - Show he really does understand the impact of poor air quality on the health of Londoners
  - Commit unambiguously to full compliance with air quality laws including deadlines
  - Develop urgently an air quality strategy that will deliver on these commitments including PM<sub>2.5</sub>
2. *Good governance.* London must comply with legally binding European standards for air quality. These have been set to provide a minimum standard of health protection for everyone in Europe. The Mayor needs to comply with the spirit and letter of these rules – to protect the health of Londoners – not exploit monitoring and/or data reporting flexibilities in an attempt to avoid them. The Mayor must:
  - Work with London boroughs to ensure automatic monitoring stations are located at representative locations in every borough including London's air quality 'hotspots'. The Mayor must ensure that the worst results are reported formally by the Government to the European Commission each year and are not omitted through some legal loophole
  - Condemn the use of temporary local air quality 'fixes', such as 'dust suppressants', near official air quality monitoring stations and forbid immediately their future use at such locations
  - Engage actively with the European Commission, as it reviews European air quality legislation, to ensure continuity and the further tightening of health and legal protections for Londoners

### Briefing – Dust suppressants

Following a trial, several busy roads in London are now being treated with dust suppressants and power washing. The aim of the treatment is to prevent tiny pollutant particles that have settled on the road from being re-suspended back into the air. Instead they are stuck to the road by Calcium Magnesium Acetate (CMA) and removed by power washing. Whilst two such treatments may reduce PM<sub>10</sub> concentrations by 10% to 14% close to the roadside it is expensive to carry out and PM<sub>10</sub> concentrations will climb once again as soon as the treatments stop. 'Off-setting' is never better than reducing harmful emissions at 'source' and very local measures do little, if anything, to protect public health. Mayor Johnson has admitted applying 'dust suppressants' in the nearside lane by official monitors at the most polluted sites with the inevitable result that reported PM<sub>10</sub> concentrations have fallen

3. *Improve public understanding of poor air quality.* The Mayor must spearhead and fund a major campaign to build public understanding of the dangers of air pollution. This must be on the scale of campaigns used historically to address alcoholism, obesity and smoking. The Mayor must:
- Establish a new Clean Air Board that will promote the protection of public health through the effective and efficient reduction of air pollutants. Its remit should include advising and working with the Health and Wellbeing Boards throughout London on all air quality-related matters
  - Ensure robust and sustainable long-term funding for the excellent London Air Quality Network
  - Educate Londoners about air quality in the city and how it affects their health
  - Provide advice for people on protecting themselves from air pollution (i.e. adaptation) e.g. by walking or cycling down less polluted roads, where possible. Publish a 'Green Vehicle Guide'
  - Provide advice for people on reducing pollution for themselves and others (i.e. mitigation) e.g. walk or cycle if you can, if not use public transport and only drive diesel vehicles if essential

### **Briefing – Public understanding of air quality in South Yorkshire**

The South Yorkshire Care4Air programme has successfully raised awareness of air quality issues and highlighted developments to improve air quality in the region. Care4Air has used a number of channels to get across its message, including public relations work with celebrities, developing a public friendly website, social marketing activities and an innovative 'community monitoring' programme where individuals have monitored pollution in their local area. Care4Air has also worked with organisations, schools and businesses to help them 'do their bit' to improve air quality. The London Air Quality Network at [www.londonair.org.uk](http://www.londonair.org.uk) is the ideal platform for a similar programme in London

## **II: Clean up London's transport**

4. *Reduce traffic emissions.* The existing low emission zone (LEZ) and congestion charge have both played a part in reducing traffic emissions with the former taking a lead. However, in recent years these schemes have been watered down by delaying Phase 3 of the LEZ and reforming the Congestion Charge. In order for these schemes to have the maximum beneficial impact on air quality, the Mayor must:
- Tighten the existing London-wide LEZ (at the M25) by 2015 not least to reduce PM<sub>2.5</sub> emissions
  - Establish at least two 'Berlin-type' inner LEZs by 2015 with tighter standards to cover areas of exceptionally poor air quality including the Congestion Charging Zone and near Heathrow
  - Reform the congestion charge. Revoke exemptions for Euro 5 diesel vehicles. Offer exemptions to zero and ultra-low emission vehicles (e.g. electric and biomethane). Make the 'polluter pay' by charging vehicles more if emissions are high relative to others within a category (including CO<sub>2</sub>). Use hypothecated profits to ease the change for small businesses affected by the LEZ etc.
  - Instruct Transport for London (TfL) to study how LEZs and congestion charging policy could be reviewed and linked, with the areas and standards set to reduce most effectively congestion and traffic emissions in London. Set a clear and ambitious pathway to achieve this goal
  - Enforce robustly the new 'No Engine Idling' policy for parked vehicles across Greater London

## Briefing – Low emission zones in Germany

The German Government has established a national LEZ framework that helps cities establish their own LEZs. As a result many German cities have now set up LEZs. The Berlin LEZ is one of the longest established and most successful. It is two steps and two years tighter than London's LEZ, covers all vehicles (including cars) and uses simple colour coded windscreen stickers to allow parking enforcement staff and/or police to check compliance. Phase 1 of the Berlin LEZ, introduced in 2008, reduced traffic related particle emissions by 24% and emissions of oxides of nitrogen by 14%. Phase 2 of the Berlin LEZ (introduced in 2010) was expected to provide even greater results, driving down PM<sub>10</sub> emissions by 50% from the 2008 baseline

5. *A cleaner public transport fleet.* A large proportion of air pollution in London comes from diesel buses and taxis. Emissions can be reduced most effectively by implementing a twin track approach. This involves investment in zero and ultra-low emission infrastructure whilst fitting the best emissions abatement equipment to the existing fleet. New hybrid or conventional diesel buses should be purchased only when the existing fleet cannot be retrofitted. The Mayor must:

- Commit to the immediate upgrade of all London's pre Euro V buses with best practice emissions abatement equipment by 2015 or their replacement where upgrade is not possible
- Commit to replace or upgrade London's buses and public service vehicles so that the whole fleet uses ultra-low or zero emission technologies by 2020 (e.g. electric or Compressed Natural Gas)
- Establish a new taxi strategy that will reduce emissions from taxis whilst maintaining or enhancing the quality of service. Ensure harmful emissions from taxis are reduced substantially well before 2015 and again well before 2020. The Mayor should remove the turning circle requirement to give taxi drivers more choice and accelerate the adoption of cheaper, low emission taxis. The Mayor must ensure the development and rapid rollout of an electric or ultra- low emission taxi that meets the turning circle requirement if he refuses to drop that requirement
- Ensure the availability of scrappage grants and other financial incentives to support the removal of the oldest, most polluting taxis from the fleet

## Briefing – Gas powered vehicles

Electric and hybrid electric vehicles are increasingly common in London, but gas vehicles are still very rare. This is despite their widespread use elsewhere in the world. In Los Angeles, a city well known for its smoggy air, the city's transport authorities have responded by replacing all of their diesel buses with Compressed Natural Gas (CNG) and other alternatively fuelled buses. Closer to home the French city of Lille also runs its bus fleet entirely on CNG, with the majority of them fuelled using biomethane (i.e. renewable CNG) produced from the city's waste. Compared to even the most modern diesel buses CNG has 90% lower emissions of particulate matter and 50% lower emissions of nitrogen oxides

6. *Reduce emissions from non-road mobile machinery (NRMM).* Whilst road vehicles are the dominant source of air pollution in London, non-road transport also has an appreciable impact. Diesel railway locomotives, shipping and aviation all contribute to air pollution. The Mayor must:

- Ensure that all diesel vehicles (including railway locomotives and boats) under TfL's control are fitted with best practice emissions abatement equipment by 2015
- Place pressure on Network Rail and the Government to prioritise the electrification of the remaining diesel train lines in Greater London

- Work with operators, the Government and international bodies to reduce emissions from international shipping and aviation
- Adopt the precautionary principle for ‘tunnel dust’ on the London Underground. Adopt the latest advice from the Institute of Occupational Medicine and the Trades Union Congress; request updated guidance from COMEAP; reduce dust levels; and provide advice for the public

## Briefing – Diesel railway locomotives

New build diesel railway locomotives are subject to European regulations on their emissions to air but, historically, these have been far less strict than those for heavy vehicles on the road. Railway locomotives also have long service lives and many of the locomotives on the UK's railways are more than 20 years old. Emissions from diesel locomotives can therefore be very high. Emissions abatement equipment should be fitted to older locomotives to reduce their emissions. Financial incentives or grants should be made available where needed. All lines should be electrified as soon as possible so there are no direct emissions

7. *Support active travel.* Active travel options such as walking and cycling are emissions free and good for people's health. In London, typical journey distances are often short and the average speed of private cars and buses relatively low, making cycling and walking a more practical alternative. However, many people believe that London's streets are too dangerous to use these forms of transport. The Mayor must:
- Advise the London boroughs to set 20 mph speed limits for residential streets to smooth traffic flow and provide a safer, more encouraging environment for walking and cycling
  - Expand London's network of cycle paths with a focus on providing paths fully segregated from vehicle traffic
  - Create and publicise a network of ‘Greenways’: off-street paths for cycling and walking. Ensure financial support to build on the recent mapping of local NO<sub>2</sub> by Sustrans and Mapping4Change
  - Expand the current cycle hire scheme to further areas of London where financially viable

## Briefing – 20 mph zones

Many UK cities, such as Portsmouth, are now setting default 20 mph speed limits for residential streets. 20 mph zones can directly cut air pollutant emissions by smoothing traffic flow – the highest emissions are generally seen from stop-start traffic conditions. However, perhaps more importantly, 20 mph zones provide a safer, more welcoming environment for active travel choices such as walking and cycling, a view endorsed by a 2009 London Assembly Report. Some London boroughs are already implementing such zones

## III: Build a low emission city

8. *Plan for good air quality.* The planning system can be a powerful tool for improving poor air quality by reducing emissions from buildings and also the transport services that connect to them.

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London Plan is a good start here, but the Mayor must go further. The Mayor must:

- Ensure new developments go beyond ‘air quality neutral’ i.e. they should actively improve

- air quality when compared to the previous use of the land, especially in ‘action areas’
- Make Low Emission Strategies mandatory for new development. These strategies are designed to reduce transport emissions from the transport services that connect to new developments
  - Use the planning system to set a clear pathway for reducing emissions from construction and demolition activity in London
  - Enshrine the key requirements of air quality laws in the London Plan e.g. limit values cannot be exceeded once attained and air quality must not be worsened where breaches already exist

## **Briefing – Emissions from construction and demolition**

Construction sites can be a significant source of air pollution, particularly in areas that see concentrated development such as central London. Dust and emissions can result from the demolition of existing buildings, from machinery used on-site and from vehicles used to deliver and remove material from the site. The City of Westminster’s Draft Air Quality Action Plan in 2008 referred to an estimate by the European Union that off-road machinery contributed to about one-third of total particle emissions from mobile sources in 2000, projected to increase to about 40% by 2020. Recognising these impacts the Greater London Authority (GLA) launched guidance on ‘the control of dust and emissions from construction and demolition’ in 2006. However, the guidance has not been widely used. Revised, mandatory guidance is needed urgently in order to drive down emissions from all phases of construction activities

9. *Reduce emissions from buildings.* In London a significant proportion of pollutant emissions come from domestic and commercial boilers used for heating and hot water. New and emerging technologies such as biomass and combined heat and power (CHP) are likely to increase emissions from buildings if their deployment is not carefully managed. It is not clear the heat from CHP will be used. The Mayor must:
- Introduce a boiler scrappage scheme for older domestic and commercial boilers
  - Use the planning system to introduce a zoning approach for alternative energy technologies that have higher air pollutant emissions than gas boilers. In the most polluted zones, these technologies (including CHP, biomass and biofuel) should be prohibited, whilst elsewhere emission limits would be applied. It is important also to reduce emissions of oxides of nitrogen
  - Work with Government to enforce the Clean Air Act and reform it to provide London boroughs with the powers to regulate and control the use of modern combustion appliances and fuels

## **Briefing – Renewable energy and air quality**

Most of London's energy and space heating needs are currently provided by electricity from the national grid and natural gas boilers. However, ambitious targets for using decentralised and renewable energy across the city have now been established by the Mayor. Combustion based energy technologies such as biomass heating and combined heat and power tend to have higher air pollution emissions than natural gas boilers. Their use needs to be carefully managed to ensure air quality is not affected. Conversely non-combustion technologies such as solar power have no emissions at all and so can be used to improve air quality. However, the most effective route to reducing emissions is energy efficiency: well insulated, efficient buildings require less energy to run and can have dramatically lower emissions of both air pollutants and CO<sub>2</sub>

10. *Improving indoor air quality.* We spend most of our time indoors and so the majority of our exposure to polluted air actually takes place in buildings rather than on busy streets. The Mayor must help improve indoor air quality by:

- Committing the GLA Group to use regularly maintained low energy air filters that comply fully with British and European standard BS EN 13779:2007 in all buildings they own or operate
- Ensuring that all new buildings (other than houses) comply fully with BS EN 13779:2007
- Providing advice to London residents on simple steps to improve indoor air quality through the use of air filtration, ventilation and the correct use of indoor combustion appliances

## **Briefing – Indoor air quality**

Indoor air quality in a building is affected by the quality of the air outside, air filtration and ventilation inside and any pollution generated inside the building itself. However, most people have little knowledge about indoor air quality or how they can improve it. For example, few people realise that a building or room may have air conditioning but not air filtration or ventilation (or vice versa) since the three systems can exist or operate independently. Through an integrated approach, exposure can be reduced dramatically in new or retrofitted buildings by careful air quality assessment in the design process and the application of relevant ventilation and air filtration standards. Educating people about air filtration, ventilation and the use of combustion appliances such as gas fires and stoves is essential in order to reduce indoor exposure to pollution. By law, air conditioning systems with a rated output over 12 kw must be inspected regularly and at least every five years. That is a good opportunity to assess air filtration and ventilation systems

## **IV: Protect the most vulnerable**

11. *Focus on children, the elderly, the poor and ethnic minorities.* Parliament's Environmental Audit Committee has highlighted that poor air quality is associated with areas of low income, low employment and lower education attainment. There are also differences in exposure to air pollution between different ethnic groups. Research has shown that the poor and ethnic minorities can be exposed to up to 50% more NO<sub>2</sub> than others. Within these groups, children and the elderly are especially vulnerable to the impacts of air pollution. Recent research shows that exposure to air pollution reduces children's lung function for the rest of their lives. The Mayor must focus particularly on vulnerable groups by:

- Requiring all schools to develop an air quality action plan (incorporated into their green travel plans) in close partnership with the GLA and TfL. These would reduce emissions close to schools and also reduce school children's exposure to polluted air
- Enforcing very strictly 'No Engine Idling' zones near to school buildings and grounds
- Ensuring all schools in London use regularly maintained low energy air filters that comply fully with BS EN 13779:2007
- Engaging with the vulnerable and groups representing them to improve local air quality

## **Briefing – Air quality and children**

There is now overwhelming evidence demonstrating the devastating health impacts of air pollution on children. American studies have shown that living or going to school near roads travelled by 10,000 or more vehicles per day on average could be responsible for some 15-30 per cent of all new cases of asthma in children. Other studies have shown that children growing up close to busy roads can suffer permanently reduced lung function. A European study estimated that, on average for all 10 cities studied, 15-30 per cent of exacerbations of asthma in children are attributable to air pollution. In London 1,148 schools and educational places are close to busy, polluted roads (as defined by schools within 150 metres of roads carrying over 10,000 vehicles per day)

## **V: Ensure a legacy from the Olympic Games**

12. *A low emission Olympics.* The Olympic Games and Paralympic Games present a huge challenge to air quality in London. Exceedances of air quality limits during the Games would be an enormous embarrassment to the city, whilst Games related traffic and the impacts of the Olympic Route Network will conspire to raise emissions during the Games. The Games should be a catalyst for long-term improvement in air quality so, for the duration of the Games and with a planned legacy, the Mayor must:

- Introduce a strict LEZ or 'Clean Air Zone' that bans the most polluting heavy and light vehicles from the most polluted parts of London
- Develop a contingency strategy detailing short-term measures to be taken if air quality standards are likely to be exceeded during the Games period
- Champion the 'freedom to comment' during 2012 and thereafter of those highlighting London breaches of air quality laws such as politicians, the media, bloggers and campaigners

## **Briefing – Air quality at the Beijing Olympics**

Poor air quality was a topic of great concern prior to the Beijing 2008 Olympics. Beijing has much higher levels of airborne particles than London but London has nitrogen dioxide (NO<sub>2</sub>) levels comparable with those in Beijing before it took action to ensure the success of the 2008 Olympics and the highest levels of all 27 capital cities in Europe. In the lead up to the 2008 Olympics, action by the Chinese Government included banning more than 300,000 polluting vehicles – mainly heavy goods vehicles - from the roads. Number plate based restrictions were also used to limit the number of days drivers could use the city's roads, removing an estimated two million vehicles from the roads. Other pollutant sources were also addressed by converting industrial boilers to use natural gas and halting construction activities during the Games. In the event the city enjoyed benign weather during the Games which helped to keep air pollution lower than previously feared. London and the UK promised the 'greenest Games ever' and must deliver it including ensuring the full mitigation of any breaches of air quality laws triggered by the Olympic Transport Plan

## **About air quality, health and the law**

Ambient or outdoor air pollution comprises particles and gases. The particles, which can comprise anything from tiny droplets to diesel soot and tyre and brake wear, are called 'particulate matter' and classified by their aerodynamic diameter in microns (one-millionth of a metre which is about one-hundredth of the thickness of a human hair) e.g. PM<sub>2.5</sub> and PM<sub>10</sub>. The gases, which can coalesce and become particles, are mainly nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>) and sulphur dioxide (SO<sub>2</sub>). The WHO

says there is little evidence to suggest a threshold below which no adverse health effects would be anticipated for particulate matter. NO<sub>2</sub> is a product of combustion processes and is generally found in the atmosphere in close association with other primary pollutants, including ultrafine particles.

The WHO sets guidelines for annual mean and short-term exposure to air pollutants for the protection of human health. These are: 20 micrograms per cubic metre ( $\mu\text{g}/\text{m}^3$ ) and a daily mean of 50  $\mu\text{g}/\text{m}^3$  for PM<sub>10</sub>; 10

$\mu\text{g}/\text{m}^3$  and a daily mean of 25  $\mu\text{g}/\text{m}^3$  for PM<sub>2.5</sub>; and 40  $\mu\text{g}/\text{m}^3$  and an hourly mean of 200  $\mu\text{g}/\text{m}^3$  for NO<sub>2</sub>. The annual mean and short-term concentrations should not be exceeded.

An Air Quality Framework Directive (Council Directive 1996/62/EC), covering ambient air quality assessment and management, entered legislation in 1996. It was followed in 1999 by a so-called First Daughter Directive (Council Directive 1999/30/EC) which set limit values for various pollutants including NO<sub>2</sub> and PM<sub>10</sub> and thresholds for assessing and managing air quality for the pollutants concerned. Since

1999 therefore, limit values to be attained and not exceeded: were an annual mean of 40  $\mu\text{g}/\text{m}^3$  and not more

than 35 days over 50  $\mu\text{g}/\text{m}^3$  for PM<sub>10</sub> from 1 January 2005; and an annual mean of 40  $\mu\text{g}/\text{m}^3$  and not more than 18 hours over 200  $\mu\text{g}/\text{m}^3$  from 1 January 2010 for NO<sub>2</sub>. In other words, the legal limits for PM<sub>10</sub> are up to twice WHO guidelines whereas those for NO<sub>2</sub> are aligned with WHO guidelines.

In 2008, Directive 2008/50/EC on ambient air quality and cleaner air for Europe entered into force. Amongst other things, it set new standards for PM<sub>2.5</sub> to be achieved by 2015 and 2020 and allowed Member States to apply for a time extension to comply with limit values for PM<sub>10</sub> and NO<sub>2</sub>. Time extensions can only be obtained if a Member State meets strict conditions including demonstrating that compliance with the limit values will be achieved by the new deadline. The latest deadline possible for PM<sub>10</sub> was 11 June 2011. After two failed attempts to obtain a time extension, the UK obtained unlawfully a time extension until 11 June

2011 to comply with the PM<sub>10</sub> daily limit value in London after submitting an updated air quality plan to the European Commission without consulting the public. The good news for public health is that no further time extension or breach of the PM<sub>10</sub> annual and daily limit values is allowed in London (or elsewhere).

The latest deadline possible for NO<sub>2</sub> is 1 January 2015. The Government has said it can't (or won't) comply with the NO<sub>2</sub> limit values in London until 2025 and so is unable to meet a basic condition of a time extension i.e. to demonstrate compliance by no later than 1 January 2015. In fact, Mayor Johnson listed 14 measures in his Air Quality Strategy published in 2010 to show that the NO<sub>2</sub> limit values could be complied with by 2015 if Government action and money was forthcoming. Even if a time extension for NO<sub>2</sub> were to be obtained in future, another requirement of the 2008 Directive is that the limit value plus margin of tolerance must not be exceeded during the period of a time extension i.e. an annual mean of 60  $\mu\text{g}/\text{m}^3$  and no more than 18 hours over 300  $\mu\text{g}/\text{m}^3$ . In any event, limit values for PM<sub>10</sub> and NO<sub>2</sub> must not be exceeded once attained.

## About Clean Air in London

Clean Air in London is responsible for a cross-party campaign to achieve urgently and sustainably compliance with World Health Organisation guidelines for air quality throughout London. It works closely with other campaign groups and a wider network of supporters and volunteers to identify and build

understanding of the most important issues and encourage decisive action on them. For more details about Clean in London including its supporters and sponsors see [www.cleanairinlondon.org](http://www.cleanairinlondon.org).

Clean Air in London's immediate priority is to see that air quality laws are enforced rigorously in London in 2012 and thereafter. Clean Air in London believes that if we comply fully with relevant laws London can show the world how to tackle successfully air quality, climate change and sustainability issues.