Written submissions received for the London Assembly's Air Quality in London investigation

May 2009

Darren Johnson AM
Chair
Environment Committee
London Assembly
City Hall
The Queen's Walk
London SE1 2AA
11 January 2009

Dear Darren

Investigation by the Environment Committee of the London Assembly into air quality

I am writing on behalf of the Campaign for Clean Air in London (CCAL) to submit evidence to the Environment Committee of the London Assembly (LAEC) as part of its forthcoming investigation into air quality in London. All members of the LAEC are copied on this letter.

Summary

The LAEC's investigation is taking place in the right place at the right time. Indeed, there is a once in a lifetime opportunity to:

- improve London's air quality for the first time in 10 years;
- show those involved in long term planning for climate change what it takes, in practice, to reduce air pollution (i.e. a mixture of technology, behavioural change and political will);
- build upon a desire for a step change in road pricing (through 'tag and beacon' or its equivalent); and
- deliver a magnificent London 2012 Summer Olympics and Paralympic Games with a valuable lasting legacy.

All it would take to achieve this goal is a commitment from the Prime Minister that the government will comply fully with [health based] air quality laws that is followed by determined action. Mayor Johnson too will need to play his part since, while not having [today] a legal duty to ensure limit values are achieved, he holds the key to deliver most of the solutions. Success with leaded petrol, the ozone layer and acid rain show what can be achieved if sufficient political will exists.

Please take this opportunity to press for such a commitment from the Prime Minister (and others). Please back such a call with clear recommendations from the LAEC supporting the most obvious solutions (e.g. one or more additional inner low emission zones) and highlight key issues (e.g. the monitoring of '$PM_{2.5}$').

With impetus from the LAEC and others on air quality, London could achieve major long term environmental, social and economic benefits and establish itself firmly as the world's leading city.

Investigation focus and report content

CCAL suggests that the LAEC's report into air quality might be titled 'Air quality: the health impact and how to address it before London 2012'. That would be a wonderful legacy.

You may be aware that the government published on Thursday 8 January its report on 'Air Pollution in the UK 2007'. See:

http://www.airquality.co.uk/archive/annualreport/annualreport.php.

01 – Campaign for Clean Air in London

CCAL urges the LAEC to consider as part of its investigation and report:

1. Monitored air quality and its trends: The shocking facts (now and forecast to ensure the real problems are identified)

a) the extent of the existing and forecast breaches of standards for nitrogen dioxide (NO_2), tropospheric ozone (O_3) and particulate matter (PM_{10} and $PM_{2.5}$);
b) where will these breaches occur? The middle of London, arterial roads, airports etc.;
c) the real trends e.g. no improvements in PM_{10} and worsening ozone levels. Bear in mind that oft-repeated references to improvements since 1990 are misleading since air quality has generally deteriorated since the late 1990s; and
d) the shocking facts e.g. London has the worst annual average NO_2 of any capital city in western (or eastern Europe). See: http://www.urbanaudit.org/rank.aspx

2. Health: The shocking impact of poor air quality in London

a) the health impact – what, how many people affected (tens of thousands for PM_{10} and over 1.3 million Londoners for NO_2)?;
b) the monetary cost ('The Roger's Review' in 2006);
c) quality of life; and
d) health inequalities within boroughs caused by poor air quality.

3. Sources: Who/what pollutes most in the most polluted areas (now and forecast to ensure sustainable solutions)?

a) focus on the worst air quality by: (i) severity (e.g. where laws are most heavily breached); and (ii) the largest number of people effected i.e. deep and broad;
b) non-transport sources e.g. gas combustion;
c) transport e.g. taxis;
d) the real contribution from older diesel vehicles i.e. not just theoretical emission standards; and
e) how many people are affected?

4. The framework: World Health Organisation (WHO) recommendations, air quality laws and the Host City Contract for London 2012

a) Key WHO recommendations. Note: $PM_{2.5}$ not to be more than 10 micrograms per cubic metre;
b) highlight that laws, in place since 1999, and due to be met by 2005 are still being broken;
c) the disjunction between the responsibilities of the government and the Mayor of London;
d) the 'Greenest Games'; and
e) the opportunity for the Commission for Sustainable London 2012 to act assertively.

5. Key factors to consider including 'external' forces

a) acknowledge explicitly the gap currently in quantum and timescale;
b) climate change will adversely affect air quality – especially tropospheric ozone;
c) some others will help e.g. European Union vehicle emission standards;
d) sharing best practice from/with elsewhere e.g. http://www.lowemissionzones.eu/;
e) the importance of considering air quality and climate change holistically (using 'The London Principle' to evaluate trade-offs);
f) the necessity of cost-effectively complying with deadlines not cost-benefit analysis using arbitrary parameters and an open-ended timescale; and
g) the opportunity to create a local and international 'tipping point' of change (i.e. 'The London Matrix').

6. Primary measures

a) 'selling the carrot': a major communications exercise to build a deep public understanding of the air quality problem in London; its health and other impacts; its causes; its solutions; and the wider benefits of action e.g. on obesity and climate change;
b) non-transport measures e.g. addressing gas emissions, best practice on demolition and construction and encouraging better practice with festival bonfires;
c) one or more additional inner low emission zones (LEZs) which should be backed by a national scheme for the abatement of hazardous emissions e.g. particulate matter and oxides of nitrogen (NOx). Include a table showing indicative costs to upgrade diesel and petrol vehicles by one Euro engine emission standard. Getting rapidly to (equivalence with) Euro 4 standards for particulate matter and NOx is crucial;
d) reducing rapidly harmful emissions from taxis – the 'polluter must pay' (i.e. passengers); removing unnecessary restrictions (e.g. on turning circles); the need to get to Euro 4 standards for particulates and NOx by 2011;
e) the opportunity offered by dynamic road pricing (such as 'tag and beacon' or its equivalent);
f) accelerating currently planned initiatives e.g. modal shift, cycling etc.;
g) best practice sharing by the Greater London Authority and Transport for London and the need for 'prioritisation' and 'guidance' i.e. each borough should not have to do its own cost-benefit analysis to participate in the Mayor's cycle scheme and we must avoid (say) large gaps in the availability of electric charging points;
h) parking measures by boroughs to provide a 'modest' price signal (particularly in respect of diesel vehicles); and
i) the cost-effectiveness of behavioural change e.g. people can protect health and save money.

7. Secondary measures

a) 'advertising' in London to include details of emissions per kilometre for carbon dioxide, particulate matter and oxides of nitrogen;
b) the greater use of communications and alerts when air quality is (quite) poor; and
c) the importance of updating and publishing in full and much more quickly the London Atmospheric Emissions Inventory (LAEI) data. It is disappointing that the latest 'annual' report is for 2004.

8. Other issues

Ensuring that fine particulate matter ($PM_{2.5}$) is being monitored robustly in London.

9. Recommendations

10. The opportunity

'The London Circles'

The government has admitted that road transport is the cause of all the current breaches of air quality laws in the United Kingdom (UK), with diesel emissions being by far the biggest single component.

The solutions involve two overlapping 'circles' of measures ('The London Circles') – one for congestion and one for emissions – that target the most polluted vehicles in the most polluted areas with technology-based solutions and create a tipping point of behavioural change backed by awareness, persuasion, incentives and regulation (when necessary). Behavioural change offers the most cost-effective solutions.

In the emissions circle, we need urgently one or more additional inner low emission zones (LEZs) – at least in central, east and west London – to reduce harmful emissions. The fairest measures will involve making the 'polluter pay' and give people the choice of: not entering the most polluted area with the most polluting vehicle; choosing (longer) alternative routes; upgrading their vehicles; using other modes of transport; and/or paying (a fine) to continue polluting. At the margin, even the existing LEZ reduces congestion by deterring some vehicles from entering London.

In the congestion circle, road pricing is essential, fair and much needed to tackle congestion which is bad now and forecast to increase significantly in coming years. The best version of this is dynamic road pricing (such as 'tag and beacon' or its equivalent) which CCAL understands could be introduced rapidly initially within central, east and west London. Road pricing reduces emissions and 'makes the polluter pay' since vehicles produce less than half as much air pollution once their speed reaches 30 kilometres per hour.

In CCAL's view, with road transport the biggest single cause of breaches of air quality laws, there is a massive opportunity for London to pursue a holistic package of measures that tackle emissions and congestion that could transform its future and that of many other large cities. For example, the rapid introduction of a combination of: one of more inner low emission zones; and dynamic road pricing (such as 'tag and beacon') could ensure full compliance air quality laws and tackle the spectre of ever increasing congestion in our cities.

A vision of road transport built on 'The London Circles' offers the opportunity to carry with it the Mayor of London, the government, all the political parties, business, community groups and non-governmental organisations. Indeed, without such a vision and such a broad range of support, it seems unlikely – without action by the courts – that the legal and other challenges facing the UK in London will be met.

Key messages

CCAL urges the LAEC to highlight particularly several points in its recommendations:

i. the many benefits to be gained from building a broad and deep understanding amongst Londoners of air quality issues and challenges. Our political leaders seem to have ended up in the worst of all possible worlds: they have shied away from this approach perhaps through fear of frightening people and/or fear of being frightened by people frightened about the issue! In the best of all possible worlds, as Defra's research has shown, much can be achieved once people understand the issues. Modest action or price signals are often all that is required then to achieve widespread and rapid change. We should recognise also that (some) regulation is needed for most people some of the time and some people all of the time if 'the polluter' is to be tackled and free-riders are to be 'discouraged';

ii. the need for London to introduce one or more additional inner low emission zones by early 2010. To be fair, such a scheme must treat all polluters equally in proportion to their emissions. Some 40 cities in Germany, for example, are expected to have schemes in place by the end of 2009 to comply with the same air quality obligations. The German schemes are simple, nationally backed and cost-effective with inputs proportional to outputs. One or more inner LEZs in London might even allow the slower tightening of the existing outer-London LEZ. There is a tremendous opportunity to broaden substantially the LEZ planned for London 2012 and make it one of the most valuable legacies for London – please encourage the Commission for Sustainable London 2012 and the Olympic Delivery Authority to focus on this opportunity;

iii. the opportunity to pursue urgently dynamic road pricing (such as 'tag and beacon' or its equivalent) as a complementary measure in parallel with one or more additional inner LEZs. By tackling congestion directly, it may be possible to introduce more modest inner LEZs (and road pricing) initially and tighten it (them) as legal deadlines and London 2012 approaches e.g. the Euro 3 engine emission standards for particulates only initially rather than full Euro 4 equivalence;

iv. a plan is needed to reduce harmful emissions from gas (domestic, industrialcommercial consumption and gas leakage). Some 40% (Outer Greater London) to 63% (Central Greater London) of NOx is expected to come from gas by 2010 with an adverse trend. Note the importance also of tackling 'Part A Processes' (i.e. larger industrial-commercial installations) at 10.3% and airports at 12.1% of NOx emissions in Outer Greater London according to the LAEI 2004. London also needs to avoid problems with biomass burning;

v. the need to focus on the most effective measures and ensure that deadlines are met with clear accountability for success (or failure). The UK is littered with 'busy fool' measures that achieve little or nothing. Instead we need to identify the real problems (i.e. worst local pollution and largest number of people affected) and tackle them with meaningful solutions that focus on meeting deadlines (in particular the legal deadlines of 2010 (for NO_2) and 2011 (for PM_{10}) and London 2012 (for air quality generally);

vi. looking ahead, there is crucial need to ensure that $PM_{2.5}$ is monitored robustly. A base line is being set over 2009, 2011 and 2012 that will be used to set exposure reduction levels for the next decade. Once limit values have been met, these exposure reduction obligations will become a key driver of public health benefits. Conversely, a 'flaky' baseline would undermine a large part of future air quality regulation. There have been suggestions in the past that the UK's monitoring equipment may have accuracy 'issues'. Please therefore will the LAEC satisfy itself that the monitoring and modelling of $PM_{2.5}$ planned for London will be robust. In this regard, you may wish to see an investigative article on page 6 of the January 2009 edition of the excellent Air Quality Bulletin; and

vii. the need for our political leaders to demonstrate, with robust follow-through, the political will needed to grasp the once in a lifetime opportunity to deliver meaningful environmental, social and economic benefits for London through air quality improvements.

There is much to gain and much to do. Let us remember though that, ultimately, the risk of premature death and 'permanent' climate change caused by an inability to tackle air pollution, are even worse fates than economic problems. Please therefore set a bold vision for the future.

<u>London 2012 offers the opportunity of once in a lifetime legacy benefits</u>

London has a magnificent opportunity to enhance its reputation as the world's leading city over the next four years as it prepares for and delivers the London 2012 Summer Olympics and Paralympic Games. More importantly still, London has the opportunity to establish meaningful air quality benefits for itself that could also show the whole world how air pollution – whether air quality or climate change – can be tackled successfully. CCAL urges the LAEC to be a catalyst in triggering this opportunity in each of the next four years.

Finally, CCAL wishes to express its appreciation for all the work done by you and the LAEC to highlight London's poor air quality and propose practical solutions to improve it.

With best wishes.

Yours sincerely

Simon Birkett
Principal Contact
Campaign for Clean Air in London

Cc:

Murad Qureshi AM, Deputy Chair, Labour
Gareth Bacon AM, Conservative
James Cleverly AM, Conservative
Roger Evans AM, Conservative
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Your ref:
Our Ref:
Date: 31st March 2009

Mr Darren Johnson AM
Chair of the Environment Committee
London Assembly
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The Queen's Walk
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Dear Mr Johnson

London Assembly Environment Committee: 5 March 2009 – air quality

I appreciated the opportunity to contribute to your investigation into air quality at the meeting of the London Assembly Environment Committee on 5th March. Thank you for this and for your letter of 12th March inviting me to provide additional information, particularly about:

- The date when vehicle fleets in Westminster would be Euro 4 compliant
- The survey of environmental concerns – air quality being top
- The level of Londoners awareness of air pollution.

1. City Council vehicle fleets

Westminster City Council's existing fleet of waste and recycling collection vehicles has been operating since 2003 when the current waste contract started. The fleet includes:

- 67 refuse & recycling collection HGVs, of Euro IV standard since 2003
- 29 vehicles operated on Compressed Natural Gas (CNG)
- 18 electric-powered vehicles and street equipment.

In 1996, the City Council adopted a Fleet Vehicle Policy, which set a hierarchy of vehicle fuels and technologies to be applied by those officers commissioning vehicle and fleet replacements. This has led to use of technologies including: CNG, LPG (Liquid Petroleum Gas), electric, and hybrid petrol/electric. We also used an early prototype hydrogen fuel cell LGV for our parks service for a trial period. Where none of these technologies can provide what is needed, the Policy requires the cleanest available diesel vehicle specification. The Fleet Vehicle Policy has been revised over the years, most recently in 2008 to take fuller account of CO_2 and up-to-date standards for other emissions. Where the Policy is incorporated in tenders for service provision, it is usual for other requirements to be made, such as for reduced noise emissions. I expect the City Council's new waste & recycling contract, currently being tendered, to lead to a

vehicle fleet with lower emissions than the current one, though at this stage we cannot be certain how large that improvement will be.

We also provide training for our drivers through the SAFED (Safe & Fuel-Efficient Driver) scheme which is part-funded by DfT.

2. Residents' environmental concerns

The most recent information about Westminster residents' attitudes to air quality was provided by a survey commissioned by the City Council in 2008. As part of our work to develop a noise strategy for Westminster, we contracted GfK NOP Social Research to carry out a 'Westminster Noise Attitudes Survey'. The framework for this was modelled broadly on Defra's National Noise Incidence Surveys. The sample interviewed were asked *'Which environmental problems would you say you are personally most affected by?'*. The issues they said most affected them were: 'poor air quality' (29%), followed by 'rubbish and litter lying around' (27%), then 'noise' (26%), followed by 'dog fouling' (25%).

3. Awareness of air pollution

The information in 2 above gives some indication of the extent of awareness in Westminster of air pollution, but we have no comparable information for London more widely. It would be useful to have a comparable survey of environmental attitudes across Greater London.

In autumn 2008, we carried out a consultation to contribute towards a new air quality strategy and action plan for Westminster, which is in preparation. We made presentations on this at several of our Area Forums and at the Westminster Amenity Societies Forum. Residents engaged in these issues fully and it was clear that many are concerned about air quality. The City Council has done much to keep the issue of air quality in the minds of people over the last two decades. We sent a leaflet on air quality and climate change to all households as early as 1990 and throughout the 1990s, communicated the issues at events for residents. We also attracted publicity through a programme of roadside vehicle pollution monitoring, which was necessary before the MOT test addressed the matter more appropriately. We ran conferences at the QEII Conference Centre for fleet managers, though this kind of communication has since that time been well covered through national bodies. More recently, air quality has been covered in our quarterly 'Westminster Reporter' distributed to residents and it continues to be covered on our website.

4. Planning policy

We are currently considering how to make our planning policies, in our emerging Local Development Framework, more effective than those in our Unitary Development Plan, as air pollution from buildings in Westminster is now as significant in scale as that from transport. Our current supplementary planning guidance on 'Sustainable Buildings' (2003) addresses air quality, but this too is being updated and we expect it to contain more explicit guidance, not least on emissions from biomass combustion plant.

5. Low Emission Vehicles

The City Council has a wide-ranging set of policies to encourage transfer from polluting vehicles to other transport modes (walking, cycling, buses, and rail) or to low emission vehicles (LEV). The main ways we are doing this focus on electric vehicles, by providing:

- free on-street parking for electric vehicles

- 42 re-charging points for electric vehicles, which are in 13 of our 16 off-street car parks (with parking discounts for those holding a WCC Car Park Green Card)
- 12 on-street re-charging points for electric vehicles (accessed with free parking and free fuel for an annual fee of £75) with a long-term aim of achieving 100 of these.

6. Car fuel data

There are aspects of national policy that are counter-productive for air quality in London. We recognise the importance of vehicle fuel-efficiency and reducing CO_2, but Vehicle Excise Duty levels do not take direct account of the particulate and nitrogen dioxide pollutants that are most damaging to human health. This is reflected by the official UK source for Car Fuel Consumption and Exhaust Emissions Figures, the VCA (Vehicle Certification Agency). These factors reinforce the shift towards diesel cars that will remain a substantial air quality problem until most diesel vehicles achieve the higher Euro-vehicle standards (Euro 4/IV & 5/V) in perhaps ten to twenty years time, unless more interventions are made to speed up that process.

7. A new Air Quality Strategy and Action Plan for Westminster

We carried out public consultation on issues for our emerging Westminster Air Quality Strategy last summer, by publishing *'Developing a new Air Quality Strategy and Action Plan: Consultation on Issues, August 2008'*

http://www.westminster.gov.uk/environment/pollution/airpollution/strategy.cfm

Work on developing the Strategy & Action Plan will continue throughout 2009. You will see that our consultation document raises a number of issues of significance at a London-wide level, particularly in relation to buses, taxis and the Low Emission Zone.

8. Other matters

I am aware that Ruth Calderwood from the City of London Corporation has covered many other issues very effectively. I welcome each of the points she has made, so will not repeat the issues she has covered. We work closely with each other and with other London boroughs through our Air Quality Cluster Groups, and wish to continue to be involved closely with the work of the GLA on air quality, as each of us has distinct contributions to make that will be more effective when we develop shared solutions to problems.

I hope my contributions will be of use to you and your committee and look forward to seeing your final report. Do contact me if you need further information or comment.

Yours sincerely

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Date 27 March 2009

Dear Mr Johnson

London Assembly Environment Committee Meeting: 5th March 2009

Thank you for the opportunity to attend the London Assembly Environment Committee meeting on 5th March as a witness to discuss options to improve London's air quality. I am very pleased to be able to contribute as the City of London suffers from some of the worst air quality in the Capital and is committed to taking action to minimise emissions and improve local air quality. The City is the only local government body in the Country to place air quality as a top local priority by incorporating the National Indicator for air quality improvement (NI194) into its Local Area Agreement. The City has been very active regionally, and nationally, in its efforts to improve air quality and has been engaged in trials of innovative technologies and techniques to reduce emissions. The City already works in partnership with several organisations on air quality improvement projects across London, and is very keen to explore new ideas with the GLA and DEFRA to improve London's air quality.

In accordance with your request to submit further information in writing, I have the following points to make on behalf of the City of London Corporation:

- In order to be effective, an Air Quality Strategy for London should set out the goals for the next 5, 10 and 20 years. There are many emerging technologies and fuels that will penetrate the market at different rates and at different points in the future. The London Air Quality Strategy should reflect this and set realistic aims and targets for the uptake of such technology. There should be actions within the strategy to facilitate the uptake of new fuels and technologies across London, both for vehicles and buildings, and to support the research and development of new technologies.

- There are many policies in place aimed at tackling London's pollution. These are predominantly focused on tail pipe emissions from road transport. Any strategy for London needs to take into account non-exhaust particulate emissions associated with vehicles. The 2004 London Atmospheric Emissions Inventory produced by the GLA, details that the total amount of PM_{10} emitted within the City of London from brake and tyre wear is greater than that emitted from

vehicle exhausts. The re-suspension of PM_{10} is also significant in London. The Transport Research Laboratory has done some preliminary work for DEFRA on non-exhaust particulate matter. Given the relative amount that brake and tyre wear contributes to local concentrations of PM_{10}, it is clear that this area needs further action to assess and implement measures to minimise the impact from these sources.

- Any London Air Quality Strategy needs to ensure that measures taken to deal with one pollutant do not have a detrimental effect on other pollutants. One example is the use of Continuously Regenerative Particle Traps to reduce particulate matter from diesel vehicles. These have been shown to contribute to the increasing roadside concentrations of nitrogen dioxide. The Air Quality Expert Group detailed some of the issues in their 2007 report 'Trends in Primary Nitrogen Dioxide Concentrations in the UK'.

- The standards set in the current London Low Emission Zones should be reassessed in light of the likely non-compliance with the EU limit value for PM_{10} on certain roads within central London. The proposal to suspend Phase 3 of the LEZ may cause particular problems with achieving compliance by 2011. Consideration should be given to tighter limits in areas that will continue to exceed the PM_{10} limit value beyond 2011. Any standards set should not only address PM_{10} but should also reflect the requirement to reduce nitrogen dioxide concentrations to meet the EU limit value by 2015.

- London has very high levels of nitrogen dioxide. Annual average roadside concentrations of nitrogen dioxide in the City can be as high as $/m^3$. Background concentrations are around 55 $/m^3$. It will be impossible to meet the limit value of 40 $/m^3$ by 2015 without major national and regional intervention. Significant improvements in air quality (such as those seen with sulphur dioxide, benzene and lead) have all been the result of national or European action. Action needs to be taken to deal with emissions from buildings in addition to vehicles.

- Emissions from buildings in London are often overlooked. In the City 40% of the total PM_{10} is emitted by gas boilers and 75% of oxides of nitrogen are from commercial and domestic heating. The UK should be investigating options for mandatory NOx standards for domestic and commercial boilers.

- Air quality emission reduction targets should be incorporated into the revised London Plan to reduce emissions from all new developments relative to their current use. This would be a very effective way to initiate long-term downward trend in pollutants, particularly nitrogen dioxide. The London Borough of Croydon is developing a toolkit to assist with this process.

- There should be a greater coordination of key policy areas. As a minimum, air quality policy should be integrated into other Mayoral policies such as energy, waste, planning and climate change. This should also be undertaken at a national and local level.

- All waste policies should be assessed and priority given to measures that will reduce greenhouse gases and air pollutants, for example the production of biomethane from organic waste to provide fuel for vehicles.

- All energy policies should be assessed for their potential impact on London's air quality and priority given to measures that reduce emissions of both carbon and air quality pollutants.

- Solid biomass for on site energy generation should not be promoted in London, particularly central London. Non-combustion sources of renewable energy should be encouraged. London is obliged to reduce concentrations of $PM_{2.5}$ by up to 20% between 2010 and 2020. This will be very challenging even without the additional emissions from biomass. Particles emitted by biomass boilers are predominantly $PM_{2.5}$

- All measures to reduce carbon across London should be assessed for their impact on London's air quality. The 'Merton rule' should be more flexible in allowing London authorities to facilitate carbon reduction in new developments without the need to install on site solid biomass boilers.

- An assessment should be undertaken of the potential impact of nitrous oxide and black carbon released from burning biomass. Nitrous oxide is a very potent greenhouse gas and black particles act to warm the climate. London needs an intelligent climate change strategy that does not solely focus on carbon reduction and brings together measures from other policy areas to achieve the most optimum results for tackling climate change.

- In addition to emissions associated with burning biomass, more general research is required into the effect of air quality pollutants, such as ozone, on climate change.

I hope you find these points useful. Should you wish to discuss any further, please do not hesitate to contact me.

Yours sincerely

Ms Ruth Calderwood
Environmental Policy Officer
Pollution Team

04 - Stoke Newington School: Media Arts & Science College

Dear David

Pollution is a key issue for us. We live in a very bizarre pocket of north London. It's a mix of residential and industrial and we suffer tremendously from pollution. Many people in this area suffer heavy colds, congestion, sinusitis and respiratory problems.

We have a huge commercial waste disposal depot within yards adjacent to our local park with new housing developments being constructed here, there and everywhere. Local doctors have reported in the local papers the rise they have seen in respiratory related diseases.

Our houses are constantly filled with a really fine powder despite our efforts to keep them clean. What is going into our lungs?

We are concerned with the pollution produced from

- major arteries such as Broad Lane (effectively a 3 way motorway) where new housing developments continue to be put up
- O'Donovans, a major waste disposal site in the middle of a residential area which causes huge problems for residents in terms of pollution plus is also a major thoroughfare/deterrent for
    - secondary and primary schools - parentsand children don't walk to school because of the situation - therefore limiting the success of safer routes to school, walk to school buses etc
    - Markfield Park and the new museum and cafe which have just received over £1m of government funding (our money!)
    - Lea Valley river and walk

We've always been the forgotten corner of South Tottenham (Haringey) yet there is a strong and growing community spirit which is desparate for governmental and council support because so far, support has been negligible. Could you please help by providing:

- Survey forms - can you please send us 100 printed surveys (we are holding a public meeting on Wednesday 22 April to discuss issues such as the above - it would be great if you'd like to join us).
- Contacts - can you please tell us who you else you think we should talk to as it is serious?

Forms should go to:
Helen Wood 11 Ashby RoadLondon N15 4PF

I look forward to hearing back from you.
Yours sincerely Helen Wood

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Written response from the GLA and TfL to the London Assembly Environment Committee's review of air quality

Air pollution affects the health and quality of life of people who live in, work in and visit London. The Mayor is committed to improving air quality, and working towards national and European targets, which are designed to protect human health. Bold action has been taken in London, and more will be taken by the Mayor to improve air quality and reduce the impact it has on Londoners' health and quality of life.

On 5 March 2009, officials from Transport for London (TfL) and the Greater London Authority (GLA) gave evidence to the Environment Committee hearing on air quality in London. This joint submission from TfL and the GLA provides details of interventions already underway or confirmed and sets out the approach to be taken over the coming months as the GLA and TfL will work jointly with other stakeholders to achieve European Union limit values and improve air quality in London. It also provides further information on particular issues raised at the hearing.

Current interventions

TfL and the GLA have already put in place a number of initiatives aimed at improving air quality in London. These focus on four key areas of activity:

- Lower emissions vehicles
- Behaviour change
- Smoother traffic
- Non road-transport initiatives.

Lower emissions vehicles

- Introducing 56 hybrid buses to the London fleet by the end of February 2009, the largest fleet of hybrid buses in the UK. A further 300 new hybrid buses will join the fleet by March 2011, after which it is expected that all new buses entering service in London will be hybrids.
- Delivering eight hydrogen hybrid fuel cell buses, emitting nothing but water, in 2010.
- Adopting low emissions vehicles in the GLA fleet.
- Establishing an Electric Vehicle Partnership to support greater uptake of electric vehicles, which have zero tailpipe emissions.
- Funding of £1m to trial low carbon technology in London's taxi fleet. The aim of the programme is to reduce CO_2 emissions from taxis, although it is also likely to deliver benefits for local air quality. It is intended that prototype vehicles will be produced by the end of October 2009, with trial vehicles on the road by March 2010.
- The London Low Emissions Zone (LEZ) will continue to target the most polluting older HGV, buses and coaches.

Behaviour change

- Introducing a range of measures to increase capacity on public transport and make cycling and walking more attractive, in order to encourage people to use alternatives to the car. Schemes to increase cycling levels include a cycle hire

scheme and creation of cycling highways. In central London, the Congestion Charge continues to encourage people to use modes other than the car.
- Supporting a number of smarter travel initiatives, including school travel plans and car-free days. The Sutton 'smarter travel' pilot has been very successful and is being rolled out to other town centres in London – these types of measures typically lead to a 5-10% shift out of car.
- Running eco-driving campaigns which can deliver 5-25% reduction in emissions from smoother driving
- Through its Climate Change Fund, TfL is introducing a fuel-efficient driving campaign aimed at both taxi and private hire drivers. Eco-driving is being introduced as part of bus companies' training programmes for bus drivers.
- The Mayor has written to Lord Mandelson to propose a vehicle scrappage scheme, which would be supported by Government, industry and the Mayor. This would encourage the replacement of the oldest, most polluting vehicles with newer, cleaner ones.

Smoother traffic

- Working to rephase and co-ordinate traffic signals to reduce stop-start movements.
- Undertaking a trial which allows motorcycles to use bus lanes.
- Procedures are being put in place to ensure the Road Response Teams reduce the impacts of obstructions and incidents.
- A new London-wide permit scheme is being implemented which will allow roadworks across the capital to be properly co-ordinated for the first time.

Non road transport initiatives

- The GLA is working with stakeholders to ensure that Best Practice Guidance for construction sites is effectively implemented so that dust emissions from these locations is minimised.
- The GLA is developing a retrofit programme for homes and commercial and public sector buildings to reduce emissions from inefficient boilers.
- The Mayor continues to oppose Heathrow expansion, as it will increase emissions both from air travel and road congestion.

<u>Future work</u>

It is clear that sections of roads in London present the greatest challenge in terms of meeting the PM_{10} limit values. The Government is required to prepare an action plan for the European Commission on how it intends to ensure that PM_{10} levels will be redressed (this forms part of its request for an extension until 2011 to meet PM_{10} limit values in failing areas).

The Mayor believes that it would be counterproductive to call upon the European Commission to refuse the Government's request to extend the deadline for meeting PM_{10} limit values as this approach will not deliver actual improvements in air quality. Instead, the Mayor, the GLA and TfL intend to focus on putting in place measures to achieve genuine reductions in emissions. The Mayor and Lord Hunt have agreed that Defra and GLA officials will work together over the coming months to look at potential measures that could be taken at the local, regional and national level to further reduce PM_{10} emissions in London. This is especially important, given that around 40 per cent of PM_{10} concentrations in London can be attributed to pollution from outside London.

Since air pollution is a shared problem, it requires a joint approach to reduce it. Officials will also look at measures to reduce emissions of NOx.
The interventions that are developed as part of this joint work with Defra will feed into the process of updating the Mayor's Air Quality Strategy, which is underway. At present no policy options are being ruled out. Since road transport accounts for around 45 per cent of PM_{10} concentrations at points of greatest exceedence in Greater London, GLA officials are working particularly closely with colleagues in Transport for London (TfL) to develop effective interventions. Since planning policy, transport and air quality are so closely linked, this is also one of the reasons why the processes for revising the London Plan and the Mayor's Transport and Air Quality Strategies are being coordinated.
The GLA will also work with other stakeholders when developing the Air Quality Strategy. It is important to involve the boroughs in the decision-making process, especially since they will contribute so much to the delivery of many of the interventions. Another important stakeholder group is the health sector, and it is vital that the Air Quality Strategy focuses on improving public health in London.
GLA intends publishing a draft of the Mayor's Air Quality Strategy for consultation with the Assembly and Functional Bodies in summer 2009. This would be followed by consultation with the public and stakeholders towards the end of the year, with publication of the final Strategy by summer 2010.

Issues raised at the meeting of 5 March

Efficiency of particulate traps: Diesel particulate filters (both full flow and partial flow filters) are now fitted as standard to almost all new diesel engine vehicles. With proper maintenance (ie. cleaning out of ash periodically, component inspection/replacement) they are designed to last the life of the vehicle. When retrofitting DPFs, it is important to consider the duty cycle of the engine in order to correctly specify the DPF type to ensure that the regeneration of the trapped 'soot' takes place. Incorrectly specified filters in the early days of retrofit led to some DPF failures. Suppliers are now much more experienced at specifying the correct filter and this is much less the case now.

With regard to the efficiency of the filter deteriorating over time, the LEZ technical standard incorporates a deterioration factor of 1.2 (based on European emissions legislation). This in effect means the filters have to perform 20% better than the Euro 3 standard when certified and should more than compensate for any deterioration in performance over time.

SCRT Trials: TfL trialled 14 Euro III buses retrofitted with SCRT (Selective Catalytic Reduction Trap) technology as a means of reducing NOx, from late 2004. The original anticipated cost of SCRT was £5000 per unit, which rose to approximately £10,000 per unit by the end of the trial. The reduction in cost effectiveness, coupled with the fact that there are currently no national or European standards for the certification of retrofit SCRT systems (unlike DPFs), meant that TfL decided not to roll out the technology to the entire fleet.
TfL is intent on reducing NOx emissions from the bus fleet but intends to do this through: a) ensuring the rapid introduction of Euro IV buses (all of which are fitted with Selective Catalytic Reduction or Exhaust Gas Recirculation systems) into the fleet which have been tested over a real world London bus test cycle and proven to reduce NOx emissions in line with Euro IV requirements; and b) the introduction of a hybrid bus programme which will not only reduce emissions of NOx but also emissions of CO_2 and noise, thereby delivering a range of environmental benefits.

Biodiesel and air quality: The air quality impacts of the use of biodiesel are unclear, and this is an area where further research is required. However, whilst the CO_2 benefits of the use of biodiesel are a source of some controversy, the air quality pollutant emissions of biodiesel are likely to be similar to those from conventional fuels.
A major factor is the quality of the fuel used. Oil companies go to great lengths to ensure that their biodiesels are blended conform to standard EN 590, a European Union standard which describes the physical properties that all diesel fuel must meet. It is unlikely that the use of any fuel meeting this standard would have a significantly negative impact on air quality, though clear benefits have yet to be established.

Brussels,
DG ENV JKF Ares (2009) 42091

Dear Mr Johnson,

This note has been prepared as an input to the discussions in the Environment Committee of the London Assembly on the implementation of EU air quality legislation in UK, in particular London. It summarises the information that the Commission has already provided either to public, the European Parliament or the UK competent authorities.

The objective of the EU as set out in the Sixth Environment Action Programme[1] and the Thematic Strategy on Air Pollution[2] is to achieve levels of air quality that do not give rise to unacceptable impacts on, and risks to, human health and the environment. The Community is acting at many levels to reduce exposure to air pollution: though EC legislation, through work at the wider international level in order to reduce crossborder pollution, through working with sectors responsible for air pollution and with national, regional authorities and NGOs, and through research. The new Directive 2008/50lEC on ambient air quality and cleaner air for Europe entered into force on 11 June 2008. This new Directive merged most of the existing air quality legislation[3] into a single directive (except for the fourth daughter directive) with no change to existing air quality objectives. These include daily and annual limit values for particulate matter (PM_{10}) which are already applicable and annual limit values for nitrogen dioxide (NO_2) which will apply from 2010. The new legislation also sets new air quality objectives for $PM_{2.5}$ (fine particles).

The annual report on air quality information submitted by the UK authorities to the Commission in September 2008 shows that concentration levels in Greater London Area (air quality zone UKOOOI) were exceeding the daily and annual PM_{10} limit values in 2007. Exceedances have been reported since the PM_{10} limit values became applicable in 2005. No other regulated pollutant assessed in London exceeds the limit values. However, high concentrations of NO_2 in ambient air however indicate that the annual NO_2 limit value will be very hard to achieve once that limit value enters into force in 2010.

The Commission is also aware of the national report that include high projections of future NO_2 and PM_{10} concentration levels in London.

For NO_2 even the limit value plus maximum margin of tolerance at 60 micrograms/m^3 (which had been set to trigger abatement action already in 2001), is still widely exceeded, and is projected to be exceeded in some parts of London for a few years more. Current concentration levels are higher than those at the time the first air quality plan was required under EU legislation.

London shares the problems of high PM_{10} and NO_2 concentration levels with a number of other cities across the EU. Bar charts and links to further information

[1] Decision No 1600/2002/EC of the European Parliament and of the Council of22 July 2002 laying down the Sixth Community Environment Action Programme of 10 September 2002
[2] COM(2005)446 final
[3] Framework Directive 96/62/EC, 1-3 daughter Directives 1999130/EC, 2000/69/EC, 2002l3/EC, and Decision on Exchange of Information 97/l01/EC.

sources are provided in the Annex.

The new air quality Directive 2008/50lEC[4] provides Member States with the possibility to notify a postponement of the obligation to apply the limit values for both NO_2 and PM_{10}, if certain conditions are fulfilled. Further information about the notification process and the information required by the Member States to demonstrate that the conditions have been satisfied can be found in Commission Communication COM(2008) 403 final, available also at http://ec.europa.eu/environment/air!qualityllegislation/timeextensions.htm.

Until January 2009, l4 Member States have submitted notifications for an exemption from the limit values for PM_{10}. In the absence of a notification from the UK, the Commission launched infringement proceedings against the UK for exceeding the PM_{10} limit values. The first warning letter was sent on 29 January 2009.

As regards the likely exceedances of NO_2 in London in 2010, the latest information on the related air quality plans, submitted by the UK competent authority to the Commission in December 2008, further confirms that a number of plans have been developed at different levels of governance to address this issue. While it is unfortunately clear that the indicated plans will not achieve their principal objective which is to comply with the NO_2 limit values in 2010, the Commission understands that these plans are being further revised to shorten the projected exceedance.

The Commission expects to receive time extension notifications for PM_{10} and NO_2, as announced by the UK authorities. Notifications will have to include air quality plans with ambitious measures that are ensuring speedy reduction of concentration levels and the exposure to the population. Submission will at that time be assessed in detail to ensure the respect of the conditions set by Article 22. The authorities will have to demonstrate that all appropriate measures have been taken to achieve compliance by the original deadline (2005 for PM_{10}, 2010 for NO_2), that compliance with PM_{10} limit value will be achieved by June 2011, and that the additional time required for compliance with annual NO_2 limit value is as short as possible and in any case not longer than until 2015. The robustness of the projections will be carefully assessed and will also consider individual exceedance situations that require specific measures. Heathrow as a strong NO_2 hotspot with expansion plans that will significantly influence local emission trends is such a specific exceedance situation.

The selection of abatement measures is a matter of national competence and can not be directly compared across the EU as it strongly reflects the specific local situation. The Commission can however identify from implementation experience throughout the EU that an integrated approach and immediate action are necessary. Time will always be needed for the measures to have an impact, and any delays or lack of ambition at national or local level will result in prolonged noncompliance, excessive exposure and resulting adverse health effects. Implementation of measures and their effects should also be continuously monitored and plans be updated if necessary, ensuring throughout the territory also the appropriate public awareness and participation.

The Commission is pursuing infringement action as regards the exceedance of the PM_{10} limit values. It will also consider taking enforcement action in respect of any

[4] Directive 2008/50Æe on ambient air quality and cleaner air for Europé (OJ L i 52, i 1.62008, p. 1).

exceedance of the NO_2 limit values when they enter into force in 2010 as well as in respect of any exceedence of the limit value plus maximum margin of tolerance permitted in the case of a postponement of the obligation to apply the limit values for both NO_2 and PM_{10}, under Article 22(3) of Directive 200S/S0IEC.

The Commission is committed to further development of Community measures that facilitate compliance with the air quality limit values, and is working with the Member States to promote exchange of best practices.

Yours sincerely

Karl Falkenberg

Mr Darren Johnson
London Assembly
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The Queen 's Walk
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