Campaigning on Air Pollution in 2013, the EU Year of Air

Government is lobbying to weaken

European air pollution laws requiring 50% reductions now

Green Party Spring Conference
Nottingham: 23 February 2013

Simon Birkett, Founder and Director, Clean Air in London

www.twitter.com/CleanAirLondon
www.facebook.com/CleanAirLondon
www.cleanairinlondon.org
Introduction to air pollution

- Health impacts dwarf those known during Great Smog in 1952
- Over twice legal limits and World Health Organisation guidelines near our busiest streets. Laws in place since 1999 for 2010/2011
- Particles: PM$_{2.5}$ and PM$_{10}$. Combustion gases: nitrogen dioxide (NO$_2$)
- Health impacts from long and short-term exposure and different types of air pollution. Only smoking causes more early deaths
- Living or going to school within 150 metres of roads carrying over 10,000 vehicles per day could be responsible for 15-30% of all new cases of asthma in children and COPD in adults aged 65 and older
- Diesel causes 91% PM$_{2.5}$ and 95% NO$_2$ of vehicle exhaust in London
- London and UK have highest levels of NO$_2$ in Europe
Worst smog episode since 2006 on eve of Olympics

London Air Quality Network [www.londonair.org.uk]
London schools within 150m and 400m of busy roads

*Roads carrying over 100,000 vehicles per day*
## EU legal standards compared to WHO guidelines

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Legal standard</th>
<th>WHO guideline</th>
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</thead>
</table>
| **Fine particulate matter (PM$_{2.5}$)** | 1. 25 µg/m$^3$ annual mean to become limit value in 2015  
2. 20 µg/m$^3$ exposure concentration obligation based on 3-year average by 2015  
3. Exposure reduction target in percentage by 2020 | 25 µg/m$^3$  
24-hour mean  
10 µg/m$^3$ |
| **Particulate matter (PM$_{10}$)** | 35 days over 50 µg/m$^3$ since 2011  
40 µg/m$^3$ since 2011  
50 µg/m$^3$ 24-hour mean | 20 µg/m$^3$ |
| **Nitrogen dioxide (NO$_2$)**    | 18 hours over 200 µg/m$^3$ since 2010  
40 µg/m$^3$ since 2010  
200 µg/m$^3$ | 40 µg/m$^3$ |
Concentrations of nitrogen dioxide (NO$_2$) in micrograms per cubic metre (µg/m$^3$)

- EU limit value for NO$_2$ from 1 January 2010
- Required NO$_2$ reduction
- EU limit value plus margin of tolerance for NO$_2$ from 1 January 2010
Concentration and trends – Mayor’s Air Quality Strategy

$NO_2$ annual mean concentrations for 2008
Widespread breaches of nitrogen dioxide laws

ClientEarth in the Supreme Court on 7 March

http://cleanairinlondon.org/sources/four-of-nine-uk-zones-have-already-breached-nitrogen-dioxide-time-extension/
Sources of air pollution in London

*Mayor’s Air Quality Strategy 2010*

- Emissions (not concentrations). Based on 2008 estimates
- $\text{PM}_{10}$ (Central London)
  - Road transport 79%. Cars 23%; taxis 20%; LGVs 10%. Buses <10%
  - Tyre and brake wear 35%
- $\text{PM}_{2.5}$ (Greater London)
  - Road transport 80%; industrial and commercial gas combustion
  - LGV, cars and taxis 20% each. Buses 5%
  - Tyre and brake wear 25%
- Oxides of nitrogen
  - Road transport 46%; domestic gas 22%
  - Commercial gas, industry, airport and rail 7-8%
  - Cars 35%; HGVs 30%; buses 21%
- DfT 2009: Diesel versus petrol cars (g/mile): 21.7x $\text{PM}_{10}$; 2.1x NOx
Solutions

*Clean Air in London’s ‘manifesto’ proposes 45 measures*

Protect yourself (i.e. adapt) and reduce pollution for yourself and others (i.e. mitigate)

- Political leadership
- Massive campaign to build public understanding e.g. smog warnings
- Clean up transport
- Build low emission cities including buildings
- Technology and behavioural change
- Protect the most vulnerable

Expected increases in unlawful air pollution must be mitigated fully and limits not exceeded once attained. Also use environmental information laws
Boris’ Pollution Suppressor

Reducing pollution by monitors used to report legal breaches

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Key issues: ‘Year of Air’ in 2013

UK has highest % age of zones exceeding LV+MOT
Key issues: ‘Year of Air’ in 2013
We need continuity and the tightening of health and legal protections

**Defra, Red Tape Challenge, Environment Theme proposals (19 March 2012):**

Working in partnership with other Member States, we will also use the European Commission review of air quality legislation, expected in 2013, to seek:

- Amendments to the Air Quality Directive which **reduce the infraction risk** faced by most Member States, especially in relation to **nitrogen dioxide** provisions.
- Simplifications to the legal framework (e.g. through reducing requirements for Member States) to reduce costs and administrative burdens to local authorities and businesses whilst maintaining or improving health and ecosystem protection.
- Requirements that are strictly proportional to evidence on costs and benefits

‘Clean Air in London’ emphasis
Public health outcomes framework for 2013-2016

Health and Wellbeing Boards

• Metrics for Health and Wellbeing Boards from 2013 include Domain 3: Health protection; 3.1 Air pollution:

“The mortality effect of anthropogenic particulate air pollution (measured as fine particulate matter, PM$_{2.5}$) per 100,000 population”

• Mortality Burden: To be expressed as attributable deaths; attributable fractions; and associated years of life lost to the whole population

http://www.phoutcomes.info/public-health-outcomes-framework/domain/4
**Attributable deaths by local authority in 2010**

*Anthropogenic (i.e. man-made) air pollution*

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<tr>
<th>Indicator</th>
<th>Period</th>
<th>England</th>
<th>Derby</th>
<th>Derbyshire DC</th>
<th>Leicester</th>
<th>Leicestershire CC</th>
<th>Lincoln</th>
<th>Lincolnshire CC</th>
<th>Northamptonshire CC</th>
<th>Nottingham</th>
<th>Nottinghamshire CC</th>
<th>Rutland</th>
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<td>3.01 – Fraction of mortality attributable to particulate air pollution</td>
<td>2010</td>
<td>5.60</td>
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<td>3.02 – Chlamydia diagnoses (15–24 year olds)</td>
<td>2010</td>
<td>2258</td>
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<td>3023</td>
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<td>3.03i – Population vaccination coverage – Hepatitis B (1 year old)</td>
<td>2010/11</td>
<td>96.0</td>
<td>53.3</td>
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<td>3.03ii – Population vaccination coverage – Hepatitis B (2 years old)</td>
<td>2010/11</td>
<td>76.6</td>
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<td>3.03iii – Population vaccination coverage – DTP/IPV/Hib (1 year old)</td>
<td>2010/11</td>
<td>94.2</td>
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‘The London Matrix’: Clean air urgently and sustainably in all large cities

<table>
<thead>
<tr>
<th></th>
<th>Air quality</th>
<th>Climate change</th>
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<td>London (or any city)</td>
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<tr>
<td>Rest of world</td>
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</table>
10 steps for ‘Clean Air in Cities’

*We need to protect public health and encourage sustainable development*

1. Investigate
2. Protect yourself (i.e. adaptation)
3. Reduce pollution for yourself and others (i.e. mitigation)
4. Research
5. Lobby
6. Campaign
7. Oppose unlawful developments and situations
8. Spread the word
9. Support the Green Party and ‘Clean Air in London’
10. Feedback your ideas

http://cleanairinlondon.org/solutions/10-steps-for-clean-air-in-london/
Deadline 4 March: EU consultation on air pollution

• European Commission consultation on the future of air pollution laws
• We want continuity and the further tightening of health and legal protections. Specifically:
  – Campaign to build public understanding of air pollution
  – Enforcement of existing legal standards
  – New legislation to reduce emissions at their source
  – Continuity and the further tightening of health and legal protections

Details on ‘Healthy Air Campaign’ website including link to consultation:
http://www.healthyair.org.uk/speak-out-against-air-pollution-2/
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