London Borough of Croydon
Air Quality Action Plan
2007-2010

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Beacon Authority

2007-2008
Delivering Cleaner Air

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Foreword

In 2002 we published an air quality action plan for Croydon, containing measures to improve air quality by the end of 2005. At that time Croydon was the second local authority in the UK to publish an air quality action plan. In the four years since then we have succeeded in putting into place around two thirds of those measures, either in full or in part. We now need to look forward to the actions we can take over the next four or so years as we work towards air quality objectives that come into force in 2010.

Tackling air pollution is vital to improve the health and quality of life of people who live in or come to Croydon, especially those who are vulnerable, such as children with asthma and older people with heart and respiratory disease. The Government estimates that between 1990 and 2001, policies to improve air quality have resulted in 4,200 fewer premature deaths and 3,500 fewer hospital admissions per year. However, we cannot afford to be complacent. Up to 24,000 deaths and 24,000 hospital admissions annually are still associated with high levels of air pollution and it is estimated that the summer smogs at the peak of the 2003 heat wave caused the deaths of up to 800 people in the UK.

The proposals I am setting out in this new air quality action plan for 2007-2010 tackle emissions from road traffic, industry and homes. They also ensure we keep the community informed about air quality and the actions we can all take to reduce pollution or minimise its effects on vulnerable people. Some of the measures I am proposing, such as the pioneering airTEXT project and tackling emissions from idling vehicles, continue or build on the good initiatives developed under the first air quality action plan. Others are new areas where I feel it is now right to focus our efforts.

Consultation on the plan has been undertaken on all proposals, with both stakeholders and the public making their comments by telephone, e-mail, on-line, and in face-to-face interviews. The measures we set out in the consultation draft were supported by a majority of stakeholders and many useful additional comments were made on proposals, which will be taken into account in the implementation of measures. I am delighted, therefore, to be in a position where we can now start work on a further plan of measures to improve air quality in Croydon.

Councillor Steve O'Connell
Deputy Leader (Performance Management) and
Cabinet Member for Safety & Cohesion

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Sources and health effects of air pollution.

Air quality has improved considerably since the smogs of the 1950s. In recent decades tighter controls on emissions from industry and road transport have further improved air quality. The Government estimates that between 1990 and 2001, policies to improve air quality have resulted in more than 4,200 fewer premature deaths and 3,500 fewer hospital admissions per year. It also suggests that these policies have reduced life years lost by between 39,000 and 117,000 in 2001. These policies have generated an estimated £68 billion of benefits across the UK, set against costs of £6 billion.

However, there is still much more to be done. The European Environment Agency describes air pollution as "the environmental factor with the greatest impact on health in Europe…responsible for the largest burden of environment-related disease" and European Commission research suggests that air pollution reduces average life expectancy in the UK by eight months.

High levels of pollutants such as nitrogen dioxide, sulphur dioxide and ozone can have impacts on sensitive people including children, the elderly and those who suffer from respiratory problems like asthma and bronchitis. High levels of particles are responsible for bringing forward the deaths of people who are already ill with heart disease and increasing hospital admissions for those with pre-existing lung or heart disease. Up to 24,000 deaths and 24,000 hospital admissions annually may be associated with high levels of particles, sulphur dioxide and ozone in the UK, known as 'pollution episodes'. Research undertaken for the Department of the Environment, Food and Rural Affairs (Defra) has estimated that the summer smogs at the peak of the 2003 heat wave may have caused the deaths of up to 800 people in the UK.

Figures from the Greater London Authority's London Atmospheric Emissions Inventory show that around 9,200 tonnes of the main pollutants (oxides of nitrogen, carbon monoxide, particles (known as PM_{10}), sulphur dioxide, benzene and 1,3-butadiene and other non-methane volatile organic compounds) were emitted in Croydon in 2003. Fifty-two per cent of this was produced by road traffic. In addition, over one million tonnes of carbon dioxide (CO_2) are released each year in Croydon, 29 per cent of which comes from road transport. However, emissions from non-road sources are not insignificant: 43 per cent of all emissions of oxides of nitrogen in Croydon originate from non-road sources (mainly domestic and commercial gas boilers).

Air pollution bandings and health effects

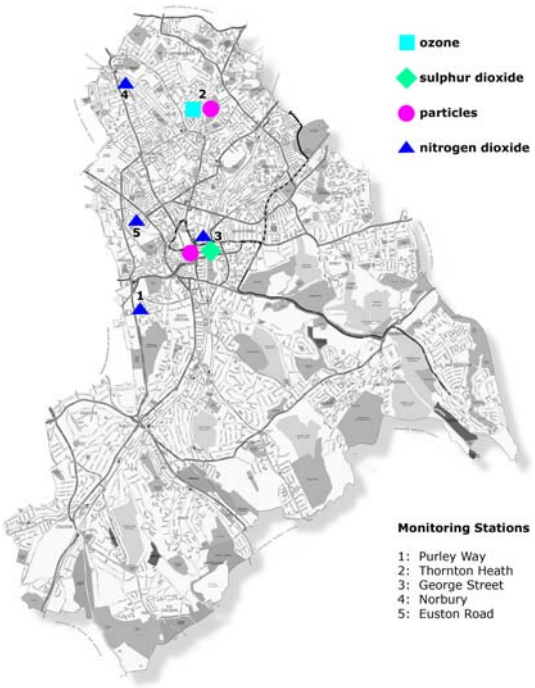
Pollution band and numerical index		Health effect
1-3	**LOW**	Effects are unlikely to be noticed, even by people who are sensitive to air pollutants.
4-6	**MODERATE**	Mild effects may be noticed by sensitive people, but are unlikely to require action.
7-9	**HIGH**	Sensitive people may notice significant effects, and may have to act to reduce or avoid them (for example, by reducing time spent outdoors). Asthmatics will find that their reliever inhaler should reverse the effects of pollution on their lungs.
10	**VERY HIGH**	The effects of high levels of pollution on sensitive people may worsen when pollution becomes very high.

Sensitive individuals are people who suffer from heart and/or lung diseases, including asthma, particularly if they are elderly.

Air pollution monitoring.

Croydon's air pollution monitoring network comprises five automatic monitoring stations, which can be seen on the map below. They are:

- Purley Way (south of Fiveways)
- Beulah Road, Thornton Heath
- Junction of George Street and Wellesley Road, central Croydon
- London Road, Norbury
- Euston Road (between Mitcham Road and Purley Way)

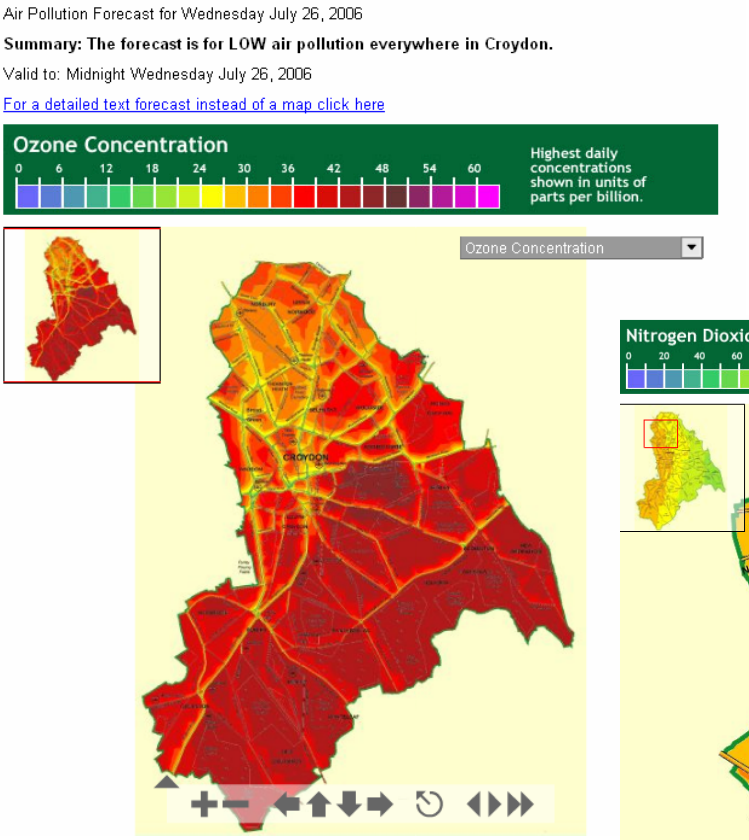


The stations measure nitrogen dioxide, ozone and PM_{10} particles. We also operate a non-automatic monitoring network of diffusion tubes which measure nitrogen dioxide at 14 sites around the borough. All data is independently ratified by the Environmental Research Group of King's College London and is then fed into the London Air Quality Network. Sulphur dioxide (SO_2) was measured at George St for five years, between 2000 and 2005 and results have shown that SO_2 levels in Croydon are well below all the air quality objectives as a result it was decided to discontinue monitoring SO_2 in April 2006.

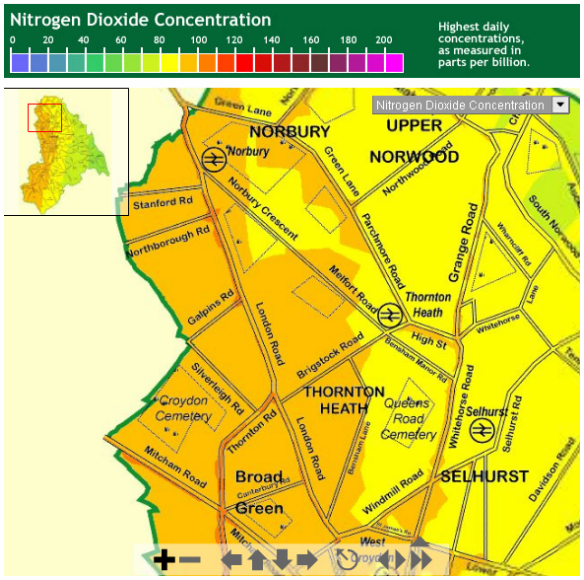
Air quality information.

All of the data gathered from the borough's air quality monitoring network can be downloaded from www.croydon.gov.uk or from the London Air Quality Network website www.londonair.org.uk, which enables comparison with other monitoring sites in London.

We provide up to date information on air quality in the borough via a FREE Air Quality Hotline: **0800 317 947**. The hotline provides information on whether pollution levels are likely to be low, moderate, high or very high over the coming 24 hours. It also includes information on the likely health effects (if any) and advice on action that people who consider themselves vulnerable to air pollution can take.



We also provide a daily air pollution forecast on a street-by-street level on the internet, like the maps on the left, which can be accessed via our website.



The Council has pioneered airTEXT, a service which sends FREE text, voice, and e-mail message air pollution alerts to mobile phones, landlines and computers of people with asthma, bronchitis, emphysema, heart disease and angina, when air pollution levels are forecast to be moderate, high or very high.

People can register for airTEXT online at www.airtext.info or by calling the Specialist Pollution Team on **020 8760 5483.** airTEXT is now available London-wide to people who suffer from asthma, bronchitis, emphysema, heart disease or angina, or who look after someone with one of these conditions (for example a child or elderly relative).

The need for an air quality action plan.

There are air quality objectives for seven of the main air pollutants. The objectives set limits to be achieved by certain dates for each pollutant. The air quality objectives represent a balance between reducing air pollution to levels at which there would be no significant risks to human health with the wider economic and social costs and technical feasibility of reducing pollution. For example, there are no safe levels of particles, but it would be impossible to eliminate them completely from the environment.

The *Environment Act 1995* requires local authorities to undertake regular reviews of current air quality in their areas and an assessment of whether the air quality objectives are likely to be met by the compliance date in areas where exposure of the public is likely over the averaging period of the objective. Where breaches of air quality objectives are predicted, local councils must declare Air Quality Management Areas and produce air quality action plans, containing measures aimed at achieving the objectives. There is no legal duty on councils to *achieve* the objectives, as a significant proportion of the air pollution in a particular area will have its source outside of that area and therefore be beyond the control of the local authority. The duty on councils is to take action to try to meet the objectives, identify who is responsible for the pollution and seek their co-operation in minimising it.

UK air quality objectives

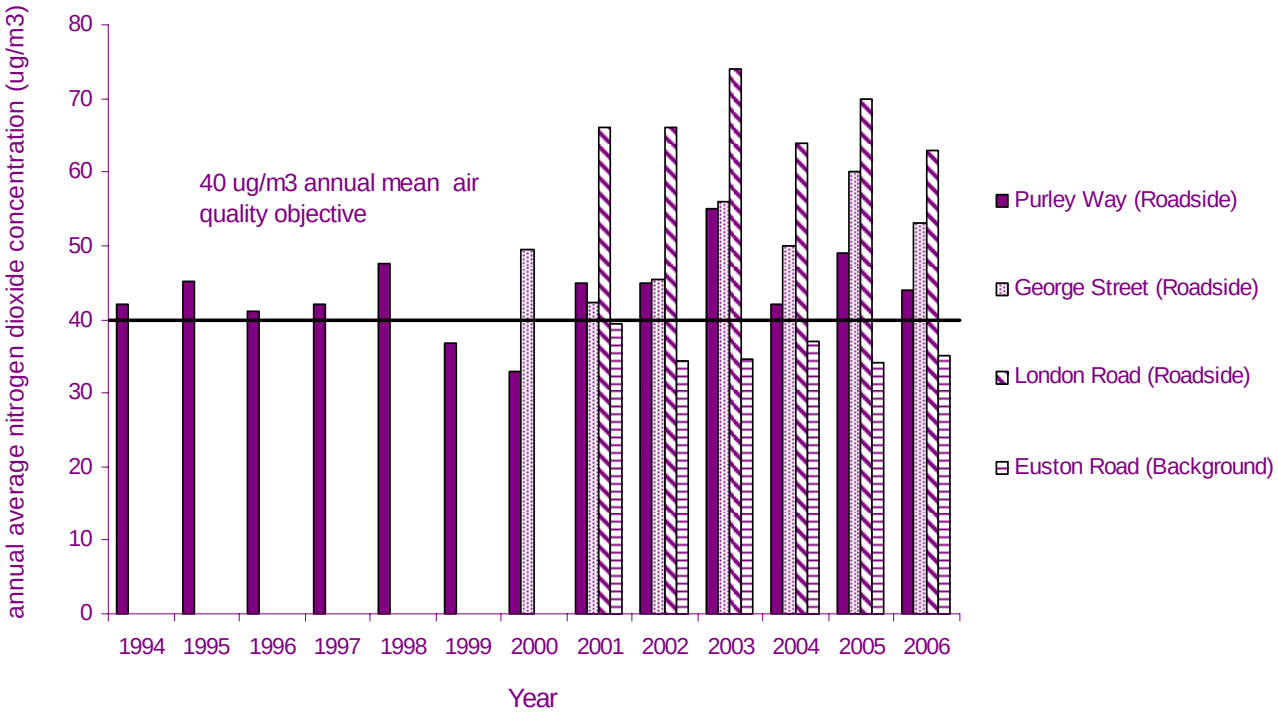
Pollutant	Air quality objective level	Compliance Date
Carbon monoxide	10 mg/m^3 or less, maximum daily eight hour running average	31.12.03
Benzene	16.25 $\mu g/m^3$ or less, running annual average	31.12.03
	5 $\mu g/m^3$ or less, annual average	31.12.10
1-3, butadiene	2.25 $\mu g/m^3$ or less, running annual average	31.12.03
Lead	0.5 $\mu g/m^3$, annual average	31.12.04
	0.25 $\mu g/m^3$, annual average	31.12.08
Nitrogen dioxide	200 $\mu g/m^3$, hourly average – not to be exceeded more than 18 times a year*	31.12.05
	40 $\mu g/m^3$, annual average*	31.12.05
PM_{10}	50 $\mu g/m^3$, 24 hour average – not to be exceeded more than 35 times a year	31.12.04
	40 $\mu g/m^3$, annual average	31.12.04
	50 $\mu g/m^3$, 24 hour average – not to be exceeded more than ten times a year*	31.12.10
	23 $\mu g/m^3$, annual average*	31.12.10
	20 $\mu g/m^3$, annual average*	31.12.15
Sulphur dioxide	125 $\mu g/m^3$, 24 hour average – not to be exceeded more than three times a year	31.12.04
	350 $\mu g/m^3$, hourly average – not to be exceeded more than 24 times a year	31.12.04
	266 $\mu g/m^3$, 15 minute average – not to be exceeded more than 35 times a year	31.12.05

**provisional objectives*
mg/m^3 = milligrammes per cubic metre *$\mu g/m^3$ = microgrammes per cubic metre*

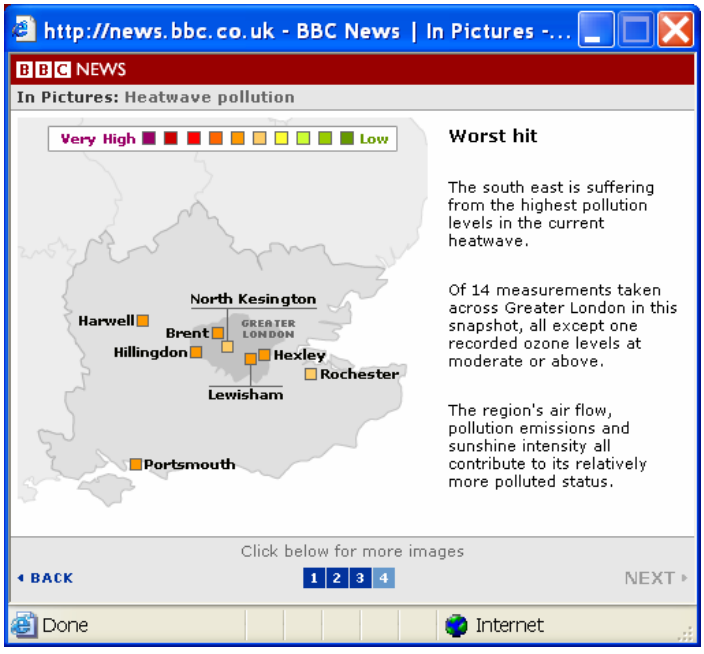
Current air quality in Croydon.

Croydon has met and will continue to meet existing statutory air quality objectives for all but one pollutant: nitrogen dioxide. Away from busy roads, annual average levels of nitrogen dioxide are well below air quality objective levels. However, the Council's monitoring of current air quality shows that the air quality objective for nitrogen dioxide is not met at roadside monitoring stations. This can be seen in the graph overleaf.

Nitrogen dioxide levels in Croydon 1995-2006 by monitoring station location



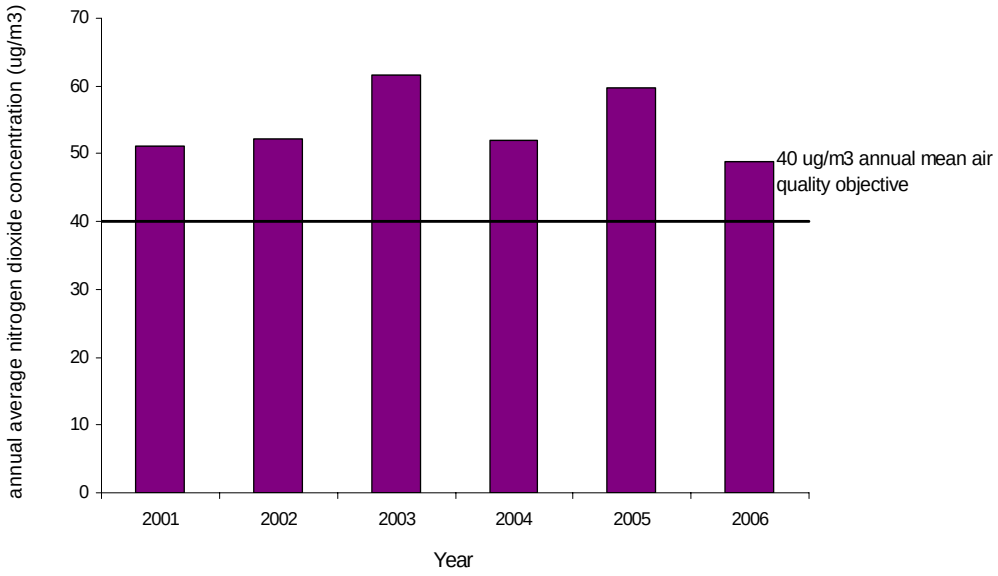
Please note: all data for 2006 has not yet been fully ratified, and may be subject to change, although this is unlikely to be significant.



Source: BBC News Interactive

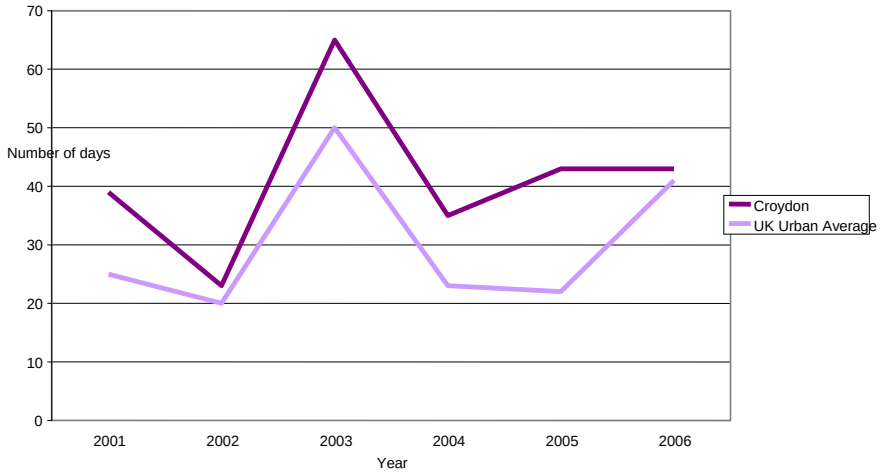
Air pollution levels vary from year to year, mainly due to weather conditions. This can be seen in the graph overleaf. Hot summers such as 2003 cause more pollution. Cold, still winters, which have not been a feature in Croydon in recent years also cause pollution, mainly because particles and nitrogen dioxide are not dispersed by the wind.

Annual average roadside nitrogen dioxide levels in Croydon 2001-2006



The data above show air pollution levels averaged out across the whole year, at all three roadside sites in Croydon. Overall there is no upward or downward trend in nitrogen dioxide concentrations since 2001. We use 2001 as the starting point in these comparisons because we have not added any new monitoring stations to our network since then. At our background site nitrogen dioxide levels have decreased slightly during the same period.

Number of days of moderate or higher air pollution levels, 2001-2006



Air quality also changes on a day to day basis, and we can look at pollution levels in terms of how often during the course of the year it becomes moderate, high, or very high. Croydon has more days of moderate or worse air pollution than the UK urban average. Over the past six years there has been an average of 41 days annually

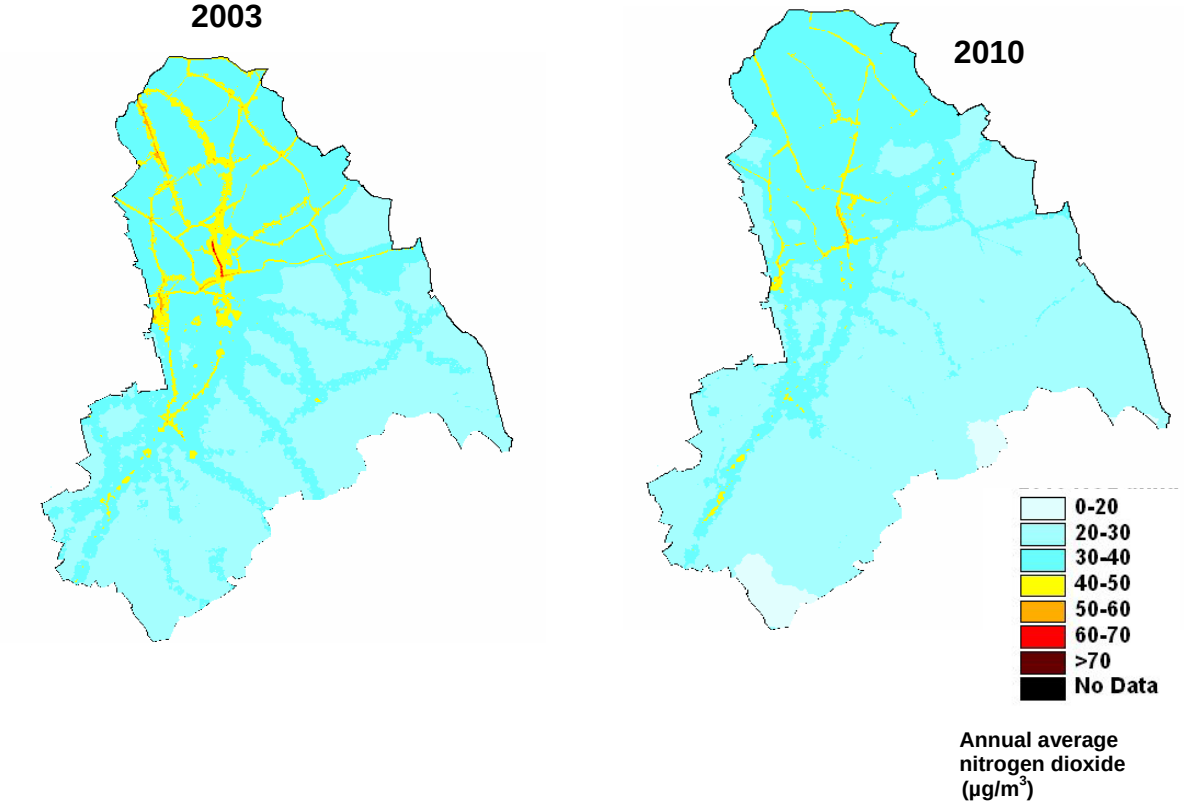
when air pollution levels in Croydon were moderate or higher, compared with 30 days nationally.

As well as monitoring air pollution levels we use computer modelling to predict current air quality in parts of Croydon where we don't have monitoring stations. Modelling is also useful because it can help predict future levels of air pollution so that we know how much action we need to take now to improve air quality in a few years' time. In 2002 we carried out modelling for the borough to show what air quality would be like in 2005. This showed widespread breaches of the nitrogen dioxide air quality objective along busy roads. As a result of this the whole borough of Croydon was declared as an air quality management area in 2002.

Future air quality in Croydon.

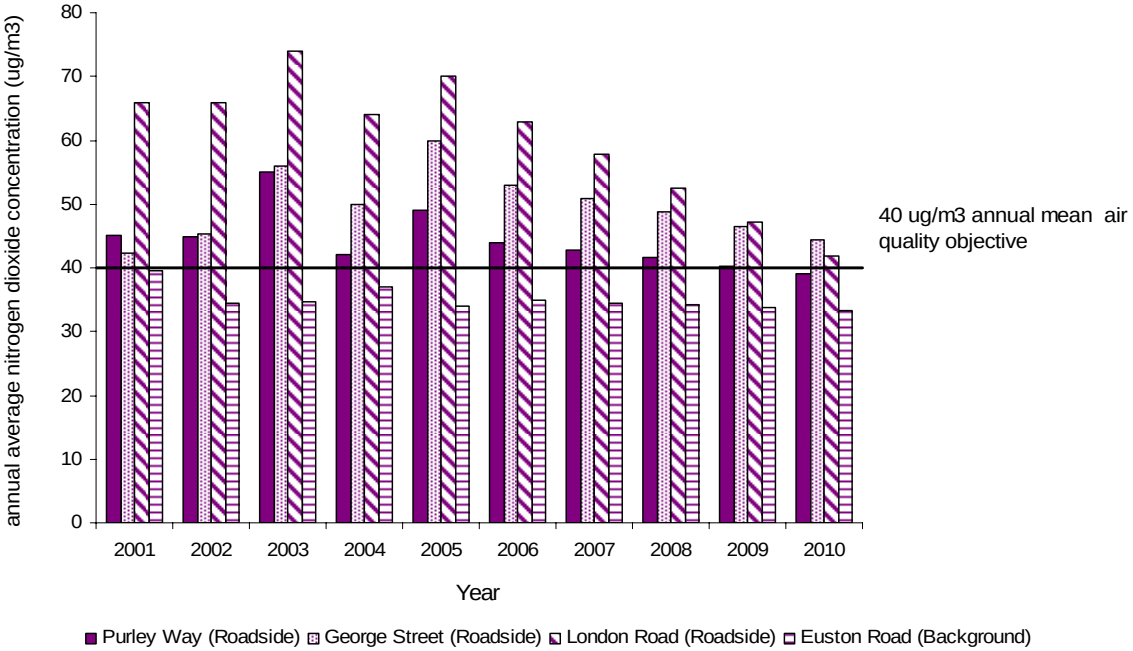
In 2006 we commissioned some new modelling of air pollution across Croydon. The maps below show our model of air quality in 2003 and 2010. Areas in light blue are predicted to comply with the air quality objective, but the areas in yellow, orange and red breach these limits. The map on the right clearly shows that the areas which breach air quality objective levels will shrink between 2003 and 2010 and maximum levels of nitrogen dioxide will be reduced. However, it can also be seen that many of the borough's main roads will still breach the air quality objective for nitrogen dioxide in 2010.

Predicted areas of Croydon breaching annual average nitrogen dioxide air quality objective (40 µg/m^3) in 2003 & 2010



The graph below shows actual measured annual average levels of air pollution between 2001 and 2006 and the Council's projections of how these levels will decrease between 2007 and 2010, according to our air pollution model. This is based on a straightforward linear reduction in concentrations between those we have measured in 2006 and those we have modelled for 2010, i.e. we have assumed that air pollution will decrease by the same amount each year until 2010. These data are useful benchmarks for the future, which will enable us to compare whether levels of pollution that we measure between now and 2010 are decreasing in line with our predictions, although it must be remembered that air pollution can vary dramatically from year to year due to factors like the weather. The only reliable way to see if air pollution levels are decreasing is to consider long term trends.

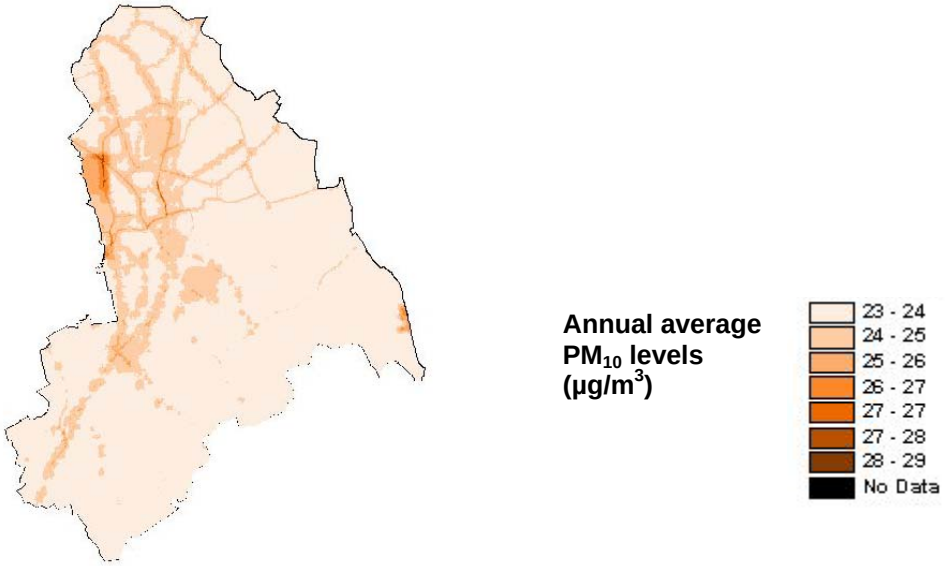
Historical and projected annual average nitrogen dioxide levels at Croydon air pollution monitoring stations, 2001-2010



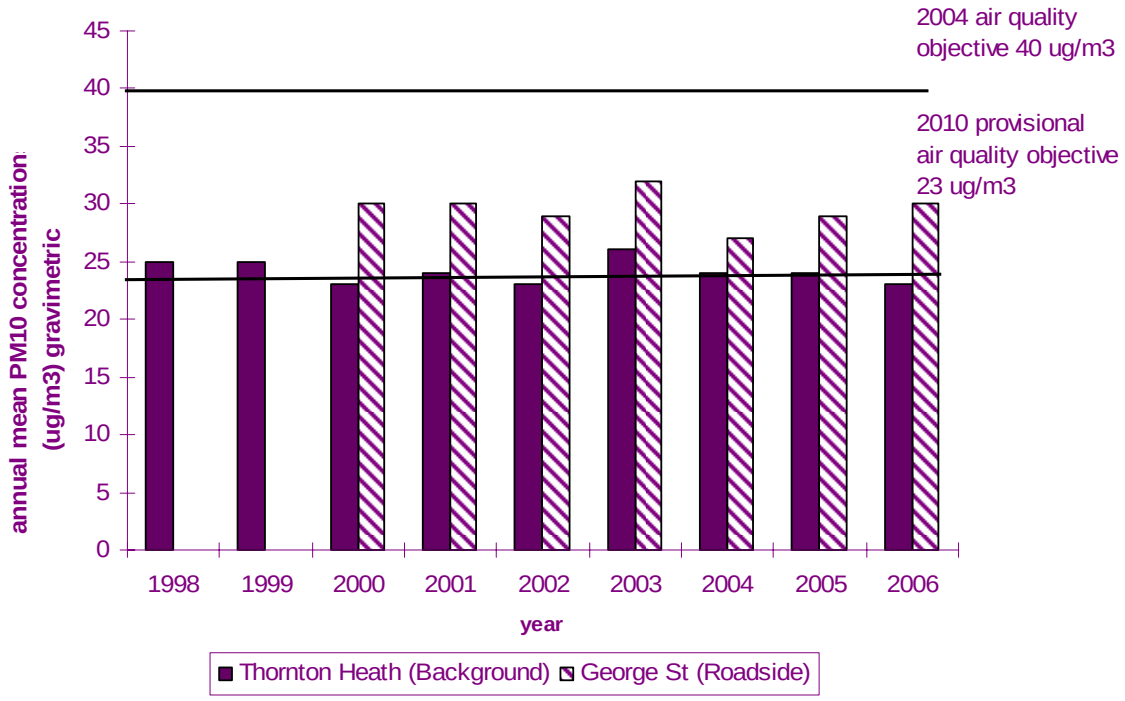
Although currently only the nitrogen dioxide air quality objective is a challenge for Croydon, the Government has issued tighter provisional air quality objectives for PM_{10} particles, which, if brought into force, would mean that Croydon would also be in breach of these objectives in 2010. The map overleaf contains our modelling results for predicted annual average levels of PM_{10} in 2010. It clearly shows that the whole of Croydon would be in breach of the provisional objective (which would reduce the permitted maximum annual average concentration from the current 40 $\mu g/m^3$ to 23 $\mu g/m^3$ in 2010), if implemented. Our modelling work shows that the whole of Croydon would also breach the provisional air quality objective for daily average PM_{10} levels. The provisional objective would reduce the number of days when PM_{10} levels are permitted to exceed 50 $\mu g/m^3$ from 35 to 10 days. The graphs

below show how Croydon would have complied with these provisional objectives if they had been in force over the past few years.

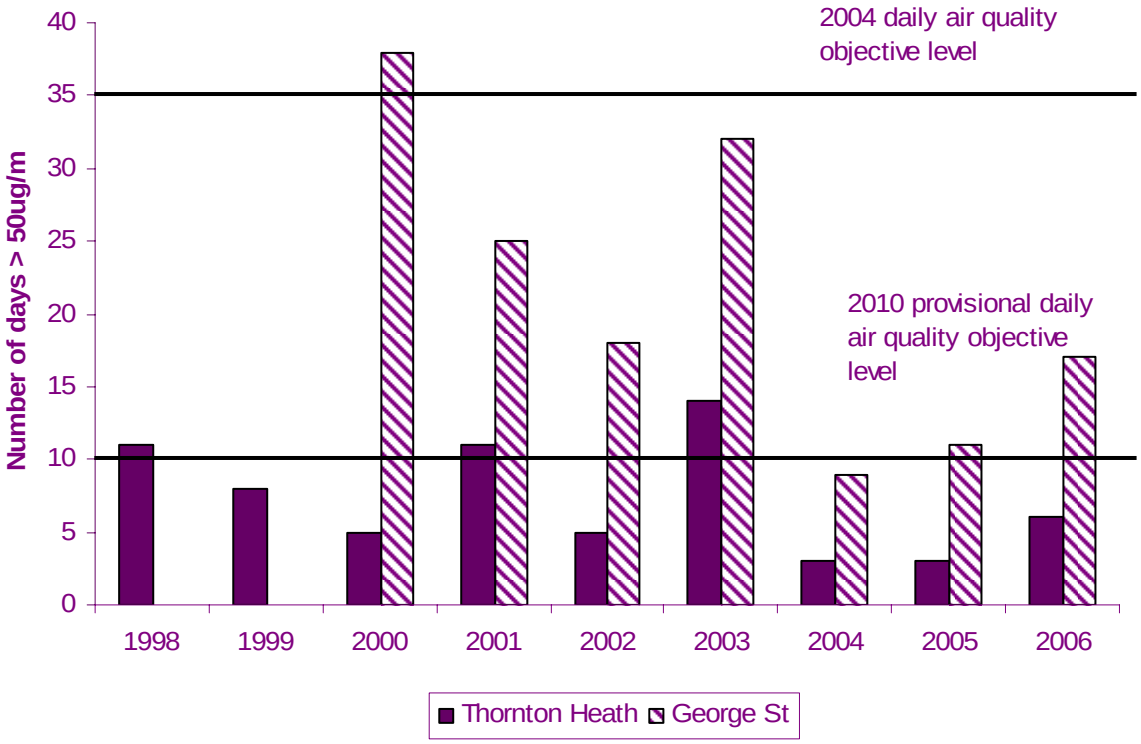
Predicted annual average levels of PM_{10} particles in Croydon in 2010



Annual average levels of particles (PM_{10}) in Croydon compared to existing air quality objective and provisional 2010 air quality objective for London



Number of days per year when average levels of particles (PM_{10}) in Croydon exceed 50 µg/m^3



Although these objectives are at present provisional and the Council has no legal duty to seek to meet them via this air quality action plan, we remain concerned that there are no safe levels of PM_{10} and that we should therefore take proportionate and cost-effective steps to reduce PM_{10} levels in Croydon.

In 2006 the Government consulted on proposed changes to the National Air Quality Strategy, seeking views on proposals for new measures to reduce air pollution and views on the Strategy's current objectives for air pollutants, in particular whether there should be a new, more cost-effective, policy framework and objectives for controlling fine particles. These fine particles are known as $PM_{2.5}$. The European Commission's 'Clean air for Europe' (CAFE) programme found that in the EU about 350,000 people died prematurely in 2000 due to the outdoor air pollution caused by $PM_{2.5}$ alone. The outcome of the Government's consultation is expected later in 2007.

Action Croydon has taken so far on air quality.

In 2002 we published the first air quality action plan for Croydon, containing 77 measures to improve air quality by the end of 2005. An annual report has been published each year, showing progress in implementing the plan. We have now fully implemented 38 of the measures in the original action plan and partly completed a further 18 actions. The achievements of the first air quality action plan include:

Vehicle emissions

- Contributing to the low emission zone reference group, in order to secure implementation of the LEZ.
- Making our fleet compliant with the proposed low emission zone standards; a further 26 Council vehicles have been fitted with particulate filters in the past three years.
- Setting minimum emissions standards for contractors' vehicles.
- Establish a South London Freight Quality Partnership, in order to pursue action plan measures on encouraging freight operators to pursue a range of measures to reduce their impact on air quality.
- Implementing the first permanent system to issue fixed penalty notices for drivers of idling vehicles in London.
- Completing the London-wide roadside vehicle emissions testing programme 'Smoking Kills' with the former Association of London Government (now called London Councils).

Transport and travel management:

- Implementation of improvements to bus services as part of the London Bus Initiative.
- Implementing measures to encourage cycling, including installing four new toucan crossings, 20 cycle parking stands, and completing four feasibility cycle route studies for Croydon town centre.
- Implementing Safer Routes to School projects and employing a School Travel Plan Co-ordinator.
- Improving crossing points and pedestrian facilities
- Setting up a cycle rickshaw service
- Providing support to Mayday Hospital and Croydon Primary Care Trust, Ikea and B&Q to develop travel plans
- Introducing the *Worksmart* flexible/home-working policy for staff

Land use planning

- Publishing Supplementary Planning Guidance on undertaking air quality assessments for development proposals.
- Publishing Supplementary Planning Guidance on planning obligations, which includes a new requirement for developers to provide off site mitigation against air quality impacts.
- Developing Unitary Development Plan policy to require 10% energy generation from renewable sources for certain new developments.
- Putting new policies aimed at reducing air pollution in the Council's revised Unitary Development Plan (UDP)
- Developing Supplementary Planning Guidance on producing Green Travel Plans

Industrial air pollution

- Implementing cost accounting and risk based inspection programmes to permitted Part B (industrial) processes, whose emissions the Council regulates.

New technologies
• Securing funding to purchase a hydrogen fuel cell for use in roadside vehicle emissions tests. • Trialling a fuel additive which reduces fuel consumption and emissions; the additive is now in use across Croydon Council and our contractor's fleet. • Completing a feasibility study into the running of the UK's first air quality monitoring station with a hydrogen fuel cell, with a proposal to secure funding to implement the scheme.

Air pollution from homes:
• Encouraging and promoting home insulation schemes through grants worth around £500,000 per year.

Information
• Implementing the Croydon airTEXT project. • Setting up a car share database for staff and external organisations • Providing a sustainable travel website

Delivering cleaner air 2007 – 2010.

Our first air quality action plan covered the period up to the end of 2005. This new air quality action plan sets out the measures we propose to take to improve air quality in Croydon until 2010, as we work towards the next target date for air quality objectives.

Government policy guidance on local air quality management (LAQM.PG(03)) requires the Council to quantify the contribution of the sources of air pollution to predicted exceedances of air quality objectives, in order to ensure that action plan measures are effectively targeted. We undertook this process as part of a further review and assessment of air quality in 2003 and we do not believe that the data on which it is based has significantly changed since then. This action plan is therefore based on that information, which is summarised in Annex B.

Some of the measures we are proposing, such as the airTEXT project and tackling emissions from idling vehicles, continue or build on the good initiatives we started under the first air quality action plan. Others, such as developing a strategy to reduce emissions of air pollution from homes, are new areas where we feel it is now right to focus our efforts. We have considered the benefits of having such a smaller, more focussed agenda, dealing with actions and issues that are within the control of the air quality remit, rather than having a less effective strategy that touches on too many local government areas to be practically managed.

We have therefore reduced the total number of actions in this new draft plan to eleven, in order to concentrate on the additional measures we are taking *specifically* to deliver cleaner air and to make this process more focussed and manageable. For example, we have not included in the plan the many things we are already doing in areas like encouraging walking and cycling and the use of public transport. These actions, and their benefits for air quality, are covered by other strategies and policies,

and we would have policies and strategies in these areas even if we did not have an Air Quality Management Area or action plan. That is not to say, of course, that such strategies do not help deliver cleaner air. Many policies have a benefit on air quality, but their impacts are small, as we have seen from the previous action plan and from the rather static concentrations of air pollution in Croydon. The action plan is designed to be practical and easy to use, rather than an unworkable reference document. Neither have we included the Council's day-to-day work which helps improve air quality, which we would be doing anyway (for example, dealing with statutory air pollution nuisances and inspecting industrial plant which emit pollutants). However, we are still putting the same level of resources into improving air quality and a key part of our strategy for the next four and a half years is to bring additional funding into Croydon to help us deliver these and other measures to reduce air pollution.

Consultation.

We undertook some stakeholder telephone, e-mail and face-to face interviews on the actions we are putting forward in this action plan in 2006 using an independent consultant. The stakeholders were from five sectors: business, transport, domestic, environment and health. Individuals rather than organisations were targeted to give a broad range of perspectives in each group. Some were representatives of national organisations and people selected were those with current active experience in their field in preference to those with coordinating roles, for example clinicians rather than primary care trust staff; construction company project managers rather than a representative from the housebuilder federation; managing directors of Croydon companies rather than a representative of Croydon Chamber of Commerce. Public transport providers did not participate.

A two-stage external consultation has been undertaken on the plan. In early 2006 some stakeholder telephone, e-mail and face-to face interviews were undertaken by an independent consultant commissioned by the Council to discuss with stakeholders proposals that could be included in a draft action plan. The stakeholders were from five sectors: business, transport, domestic, environment and health.

Stage two consisted of a full public consultation on the draft air quality action plan, which incorporated the measures for which a majority of support was obtained from stakeholders in stage one. One proposal, which was overwhelmingly rejected by stage one stakeholders, was not included in the draft plan. Over 1,000 organisations and individuals were written to and invited to send comments to the Council on the draft plan. A consultation questionnaire, which could be completed and submitted electronically, was placed on the Council's website. The stage two consultation took place between November 2006 and January 2007.

Twenty-seven responses were received and a summary of the responses is provided in Annex C of the Air Quality Action Plan 2007-2010. For all of the actions, more consultees were in favour of, than opposed to, each proposal. Many useful

additional comments were made on proposals, which will be taken into account in the implementation of measures.

Costs and benefits of the proposals.

We have undertaken a fairly straightforward cost benefit analysis of the proposals in this plan in terms of likely air quality impacts and the costs and classified each as either low, medium or high. This is set out in Annex A. Other anticipated benefits, such as impacts on climate change, noise, road safety and congestion have also been noted. For cost, low indicates estimated annual average costs to the Council of under £10,000, medium £10,000-£15,000 and high more than £15,000. The total annual cost of the proposals will be no more than £110,000, and is likely to be much less than this. For benefit, low indicates a likely improvement in either nitrogen dioxide or PM_{10} concentrations (or a combination of the two) in Croydon of less than 0.5 µg/m^3, medium an improvement of 0.5 to 1 µg/m^3, and high an improvement of more than 1 µg/m^3, following implementation of the measure.

We are satisfied that the costs to the Council of the measures in the plan are accurate within the ranges specified. However, for benefits we have in most cases been able to make only estimates. Carrying out a detailed cost benefit analysis has not been possible for various reasons. In some cases accurate official emissions factors do not exist (for example for idling vehicles). In other cases the number and scale of uncertainties we would have to factor into the analysis would make the process meaningless. For most actions, the cost to the Council of carrying out a detailed cost benefit analysis would exceed the total amount we predict we will need to spend on the action. For actions with higher costs, for example the low emission zone, detailed cost benefit analyses have already been carried out. Actions such as the Freight Quality Partnership require annual funding proposals to be submitted, for which an analysis of the costs and benefits of the project are prepared. We believe all of the proposals in this action plan are proportionate and justifiable in cost benefit terms and that they strike the right balance between environmental, economic and social concerns. Based on our cost benefit analysis we estimate an improvement (as an annual mean) in levels of PM_{10} of up to 4 µg/m^3 and in levels of nitrogen dioxide of up to 2 µg/m^3 by 2010, if all measures are satisfactorily implemented, but many factors will influence the accuracy of these estimates. These impacts are likely to be highly localised, at the roadside, and we do not anticipate the measures in the plan making any significant impact on background pollution levels.

There is a limit to the effect that the measures that we can take at a local level in Croydon can have on air pollution levels. Work we undertook in 2003 for a further review and assessment of air quality in Croydon suggested that around half of the levels of oxides of nitrogen that we measure at our monitoring stations around the borough actually originate from outside Croydon. It is unlikely, therefore, that the measures in this action plan will ensure we *meet* the air quality objectives. However, this means that it is all the more important that we take steps locally to reduce air pollution and work with others to ensure they play their part in improving air quality.

We will publish an annual progress report on measures we adopt in the final action plan by April of each year, starting in April 2008, showing what progress we have made in respect of implementing each action and providing information on air quality around the borough in the previous year.

Proposals:

A. Idling vehicles: we will reduce air pollution from vehicles idling unnecessarily.

Background:

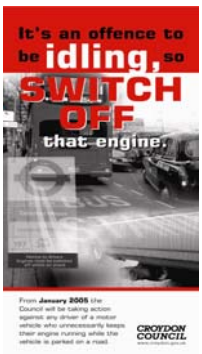
Local councils have powers to request drivers of vehicles which are idling unnecessarily to switch off their engines. If they refuse, a £20 fixed penalty notice can be issued.

We were the first borough in London to use the powers and since January 2005 we have been undertaking patrols to raise awareness of the contribution that idling vehicles can make to poor air quality. We have found that buses idling unnecessarily on stands are the biggest problem.

Since we started patrols the number of people complying with the legislation has increased, without the need to issue any fines. This suggests that the message is getting across to drivers and that this type of campaign is effective. We have been using Specialist Pollution officers to undertake idling vehicles patrols, and have recently begun trials using Parking Attendants to carry out this enforcement, the results of which will be crucial to the development of this project.

We believe that this is a very cost-effective way of targeting resources directly at the source of an air quality problem and helping raise awareness of air quality among motorists without needing to resort to punitive measures against all drivers.

We will continue carrying out awareness-raising and enforcement patrols for vehicles idling unnecessarily, using parking attendants. We will look at options for extending this role to other Council staff who patrol the borough. We do not expect the scheme to generate income through the issuing of fixed penalty notices.



B. Vehicle Emissions Testing: we will help enforce vehicle exhaust emissions standards through roadside checks.

Background:

The Vehicle and Operator Services Agency (VOSA), part of the Department of Transport, carries out roadside vehicle emissions checks on vehicles, in order to ensure they meet the relevant MOT emissions standards. If a serious defect is found a prohibition notice will be issued. The prohibition is a legally enforceable ban on driving the vehicle on the road. For very serious breaches the ban can be immediate, but where there is no immediate danger to other road users it can be delayed for up to 10 days. This gives the motorist time to rectify the fault and arrange to have the vehicle re-examined (normally this will require the vehicle to pass a new MOT test) before the prohibition can be removed.

Vehicles with high emissions are often poorly tuned or not running efficiently, costing drivers money as well causing unnecessary pollution. There is good evidence to show that a large proportion of vehicle emissions comes from a small number of gross polluters who do not maintain their vehicles properly. We are proposing to embark on a new scheme of joint emissions enforcement work with VOSA from 2008. The enforcement will be conducted fairly so that drivers have a reasonable amount of time to carry out any required work to their vehicle.

Again, we believe this is a very cost-effective way of targeting resources directly at an important source of air pollution.

We will embark on a new scheme of joint emissions enforcement work with VOSA. The enforcement will be conducted fairly so that offenders have a reasonable amount of time to carry out any required work to their vehicle, unless it is an immediate danger to other road users.

C. Low Emission Zone: we will support the implementation of a Low Emission Zone in London and ensure Council vehicles comply with requirements of the zone.

Background:

The Mayor of London announced his intention to proceed with the implementation of a low emission zone (LEZ) in Greater London from early 2008.

The LEZ will impose a substantial charge on lorries, buses, vans and coaches that do not meet specified exhaust emissions standards, with the aim of encouraging operators to fit exhaust emission clean-up technology (such as particle traps) or switch to cleaner, alternative fuels and help clean up London's air quality. Separate proposals deal with reducing emissions from taxis. **Private cars are not part of the proposals**.

Research undertaken for the London boroughs shows that the costs of implementing a LEZ across London are offset by the large health benefits that reduced air pollution would bring about, including an estimated 23 per cent reduction in total emissions of particles in London by 2010, a 19 per cent reduction in the area of London exceeding the nitrogen dioxide air quality objective in 2010 and a reduction in the area of Croydon breaching the particles objective of 55 per cent.

We believe that the LEZ is an important London-wide step to improving air quality. It targets resources where they will have greatest effect, in tackling heavy vehicles.

We will continue to support the London LEZ, work with other boroughs and industry to support its introduction, and ensure our vehicle fleet vehicles comply with requirements of the zone.

D. Freight Quality Partnership: we will seek to reduce the impact of air pollution from goods vehicles.

Background:

Transport for London (TfL) has funded the establishment and operation of a sub-regional freight quality partnership (FQP) across the boroughs of Croydon, Bromley, Wandsworth, Merton, Sutton and Lewisham. The Freight Transport Association, Road Haulage Association, and local businesses are members of the partnership.

Its aims include reducing the impact of freight journeys in South London on air pollution, whilst at the same time improving the efficiency of freight operations in the area, improving road safety and reducing noise. Specific measures proposed by the FQP are to:

- Reduce air pollution by increased use of alternatively-fuelled vehicles and emissions abatement technology
- Develop freight consolidation centres
- Reduce congestion and air pollution by trialling night-time deliveries in areas where they will not affect residents
- Prepare the freight industry locally for the London low emission zone.

The FQP is in its infancy but it has enormous scope to deliver the objectives listed above. Detailed cost benefit analyses of FQP schemes will be prepared and submitted to TfL prior to the release of funding on an annual basis.

We will reduce the impact of air pollution from goods vehicles through the South London Freight Quality Partnership.

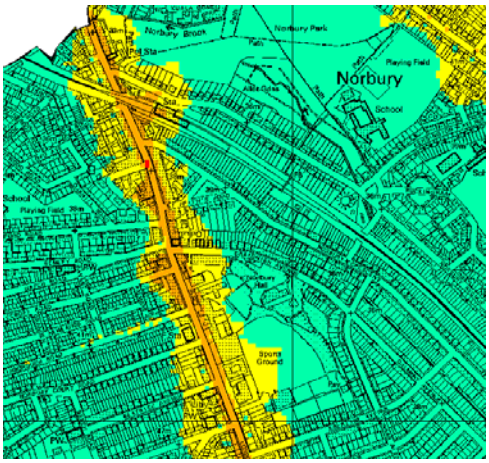
E. Air quality on the Transport for London Road Network (TLRN): we will work with Transport for London to seek to reduce air pollution on congested sections of the TLRN.

Background:

Our modelling and monitoring of air quality shows that air pollution levels in Croydon are highest along the main roads, particularly at junctions. Large stretches of these roads, including the A23, are part of the Transport for London Road Network (TLRN).

We think there is scope to reduce air pollution along the TLRN by improving traffic flows, reducing congestion and looking at issues like traffic light phasing.

We will work with Transport for London to seek to reduce air pollution on congested sections of the Transport for London Road Network.



F. Hydrogen fuels: Croydon will be a flagship London borough in the use of hydrogen as a fuel.

Background:

Hydrogen could provide a viable replacement for conventional fossil fuels like oil and gas. Hydrogen fuel creates no air pollution or greenhouse gases at the point of use (only water vapour and heat) and if generated by renewable sources like wind turbines, can really be described as zero emission technology.

Croydon Council is an active member of The London Hydrogen Partnership (LHP), which is working to make hydrogen fuel technology a reality in the capital and improve our air quality, reduce greenhouse gases and noise, improve energy security and support London's green economy. The objective is to lay the groundwork for a hydrogen economy, along with a refuelling infrastructure.

Croydon is pursuing several hydrogen fuel cell projects via the LHP, including:

- Using portable hydrogen fuel cells in place of generators
- Using a hydrogen fuel cell to power an air pollution monitoring station
- Trialling hydrogen-fuelled vehicles

Because of the high cost of trialling this type of innovative technology, the implementation of these projects will be dependent on securing external funding.

We will work with the London Hydrogen Partnership to make Croydon a flagship borough in the use of hydrogen as a fuel.

G. Construction sites: we will impose and enforce tighter standards on air pollution emissions from construction sites.

Background:

Nuisance dust emissions from construction-related activities can be a problem. Larger dust particles can cause a nuisance to neighbouring properties. The smaller particles can be carried further distances, causing health problems not just to construction workers but also to people living and working in the local neighbourhood. Emissions of urban air pollutants also have a negative impact on vegetation.

There are many simple measures that can be taken to reduce dust emissions, such as wheel washes (particularly on sites that involve excavation), damping down etc. Air quality officers from London local authorities have produced a code of practice to cover all aspects of dust and emissions from construction and demolition activities in London. Bonfires are banned on all construction sites. The construction industry should benefit from this co-ordinated and consistent approach across London and communities will benefit from a general reduction in site emissions – thus reducing health impacts and nuisance complaints.

Croydon Council has an existing code of practice covering both noise and air quality issues, which is relevant to all sizes and scales of construction sites. The new London code will be used to set tighter controls over air pollution for larger sites where the environmental impact is potentially greater.

We will impose and enforce tighter standards on air pollution emissions from construction sites.

H. Domestic Emissions: we will develop a strategy to reduce air pollution emissions from homes.

Background:

43 per cent of all emissions of oxides of nitrogen in Croydon originate from non-road sources (mainly domestic and commercial gas boilers). Tackling air pollution from these sources is therefore vital, and will become increasingly important if emissions from vehicles decline with tighter emissions standards.

68 per cent of these non-road emissions are from domestic gas use. Much can be achieved to reduce emissions of air pollution through schemes to improve home energy efficiency and cut greenhouse gas emissions. We would, however, like to develop a comprehensive strategy to integrate local air pollution control into such programmes and consider additional measures to tackle air pollution from homes.

We will develop a strategy to reduce air pollution emissions from homes in Croydon.

I. Bonfires: we will investigate the case for promoting a ban on bonfires throughout London.

Background:

Bonfires produce many forms of pollution. Emissions from bonfires can have damaging health effects and although serious harm is unlikely if exposure to bonfire smoke is brief, they can cause problems for people with asthma, bronchitis, and heart conditions.

Bonfires generate around 30,000 nuisance complaints to local authorities each year. Smoke prevents neighbours from enjoying their gardens and opening windows or hanging washing out, as well as causing health problems. It is an offence to cause a nuisance from a bonfire and we prosecute persistent offenders, who may be fined up to £5,000. However, we cannot always witness a bonfire nuisance quickly enough, as they produce most of their smoke just after being lit and may not be causing a nuisance by the time an officer arrives.

We encourage alternative, more environmentally-friendly ways of disposing of refuse, such as composting, recycling, or disposal at a tip. We also provide a green waste collection for 23,000 homes and are planning to expand this borough-wide. Once this happens, we don't think there will be a need for bonfires, with exceptions for events like Guy Fawkes' Night and other cultural and religious festivals events. Any proposals to ban bonfires would be subject to more detailed public consultation on how the ban would work and when it would apply.

We propose to investigate the case for promoting a ban or partial ban on bonfires throughout London.

J. Planning guidance: we will produce revised planning guidance to improve air quality in the borough.

Background:

Croydon Council has produced Supplementary Planning Guidance on air quality assessments. This is to ensure that the air quality impacts of new development are considered, and that measures are put in place to minimise or counteract any significant adverse impacts.

This guidance is aimed at air quality consultants who work on behalf of developers and identifies circumstances where an assessment should be taken, how it should be carried out and possible mitigation measures that could be considered through planning conditions and planning obligations. These can be used to improve air quality, for example by limiting car parking, supporting public transport and other transport infrastructure such as walking and cycling routes/paths, assisting in the purchase, installation, operation and maintenance of air quality monitoring equipment or providing other assistance or support to enable Croydon Council to implement any necessary monitoring or other actions in pursuit of the air quality action plan.

We will update our planning guidance to take into account best practice emerging from other local authorities, case law and our own experience in dealing with air quality and development.

K. *air*TEXT service: we will expand and improve the *air*TEXT service to reach more vulnerable people by text messages, voice messaging, and e-mail and help other boroughs implement *air*TEXT

Background:

Croydon Council has pioneered a unique information service called *air*TEXT in partnership with the South West London Health Protection Unit, Cambridge Environmental Research Consultants, and the European PROMOTE project.

This pilot scheme sends free text message air pollution alerts to the mobile phones of people with asthma, bronchitis, emphysema, heart disease and angina, when air pollution levels are forecast to be moderate, high or very high. The messages provide information on the steps participants can take to minimise exposure to the pollution episode and better manage the symptoms, improving quality of life and hopefully reducing the need for visits to the doctor or hospital.

This is the first time such a service has been developed anywhere in the world. The service has recently been expanded to enable people to receive recorded alerts as voice messages on their home phones and also to receive alerts by e-mail. We have received further funding from PROMOTE to recruit more users to airTEXT and it was extended to other London boroughs in March 2007. This will be in addition to the air pollution forecasts we provide to everyone via our website and our free air quality hotline.

We will expand and improve the *air*TEXT service to reach more vulnerable people by text messages, voice messaging, and e-mail and help other boroughs implement *air*TEXT.

Annex A Cost/benefit analysis

Action	Other partners/agencies involved	Start date	End date	Annual average cost to the Council Low (< £10,000) Medium (£10-£15,000) High (>£15,000)	Air quality benefit Low (< 0.5 µg/m^3) Medium (0.5 to 1 µg/m^3) High (> 1 µg/m^3) For PM10 & NO2 (either individually or combined)	Source of funding & comments
A. Idling vehicles: we will reduce air pollution from vehicles idling unnecessarily.	None	Existing scheme	2010	Low	For PM10: Low For NO2: Low	Croydon Council existing staffing budgets. Defra air quality grant for publicity materials etc. Will also have benefits for CO_2 emissions and noise.
B. Vehicle Emissions Testing: we will enforce vehicle exhaust emissions standards through roadside checks.	Vehicle Operator Services Agency (VOSA)	2008	2010	Low	For PM10: Low For NO2: Low	Croydon Council existing staffing budgets. Defra air quality grant for publicity materials etc. Will also have benefits for CO_2 emissions and noise.
C. Low Emission Zone: we will support the implementation of a Low Emission Zone (LEZ) in London and ensure Council vehicles comply with requirements of the zone.	Greater London Authority Transport for London London Councils London Boroughs	2007‡	2010	Low	For PM10: Low For NO2: Low	There is no estimated significant compliance cost to the Council. The work to support the implementation of the LEZ will be met from Croydon Council existing staffing budgets. ‡Preparatory work on the LEZ has already commenced although the scheme itself is not

Action	Other partners/agencies involved	Start date	End date	Cost to the Council Low (< £10,000) Medium (£10-£15,000) High (>£15,000)	Air quality benefit Low (< 0.5 µg/m^3) Medium (0.5 to 1 µg/m^3) High (> 1 µg/m^3) For PM10 & NO2 (either individually or combined)	Source of funding & comments
						likely to be implemented until 2008. Likely to have benefits for CO_2 emissions and noise.
D. Freight Quality Partnership: we will seek to reduce the impact of air pollution from goods vehicles.	Transport for London Other boroughs in South London Private Sector & Trade Associations	Existing Scheme	2010	Low	For PM10: High For NO2: Low	Transport for London with some private sector and trade association costs/contributions. ‡‡Air quality benefits could be medium on a localised basis, e.g. construction site or town centre location where a freight consolidation centre is in operation. Cost-benefit analyses of elements of the FQP programme are prepared annually as part of the submissions for funding. Will also have benefits for CO_2 emissions, noise, road safety and congestion.
E. Transport for London Road Network (TLRN): we will work with Transport for London to seek to reduce air pollution on congested sections of the TLRN.	Transport for London	2008	2010	Low	For PM10:High For NO2: High	Transport for London. Air quality benefits could be high on a localised basis. Cost-benefit analyses of individual proposals would be undertaken if this

Action	Other partners/agencies involved	Start date	End date	Cost to the Council Low (< £10,000) Medium (£10-£15,000) High (>£15,000)	Air quality benefit Low (< 0.5 µg/m^3) Medium (0.5 to 1 µg/m^3) High (> 1 µg/m^3) For PM10 & NO2 (either individually or combined)	Source of funding & comments
						proposal is taken forward following this consultation exercise. Will also have benefits for CO_2 emissions and possibly also noise and road safety.
F. Hydrogen fuels: Croydon will be a flagship London borough in the use of hydrogen as a fuel.	London Hydrogen Partnership London Borough of Camden Vehicle Operator Services Agency Private Sector	2007	2010	Low	For PM10: Low† For NO2: Low	Transport for London. Government and EU grant funding will also be sought. Croydon Council will contribute a small amount of officer time using existing staffing budgets. †The air quality benefits are listed as low in terms of the timescales of this plan as projects are unlikely to be implemented until 2008. Costs are high relation to benefits because these are demonstration projects. In the long term this would be a high:high cost benefit ratio. Will also have benefits for CO_2 emissions and noise.

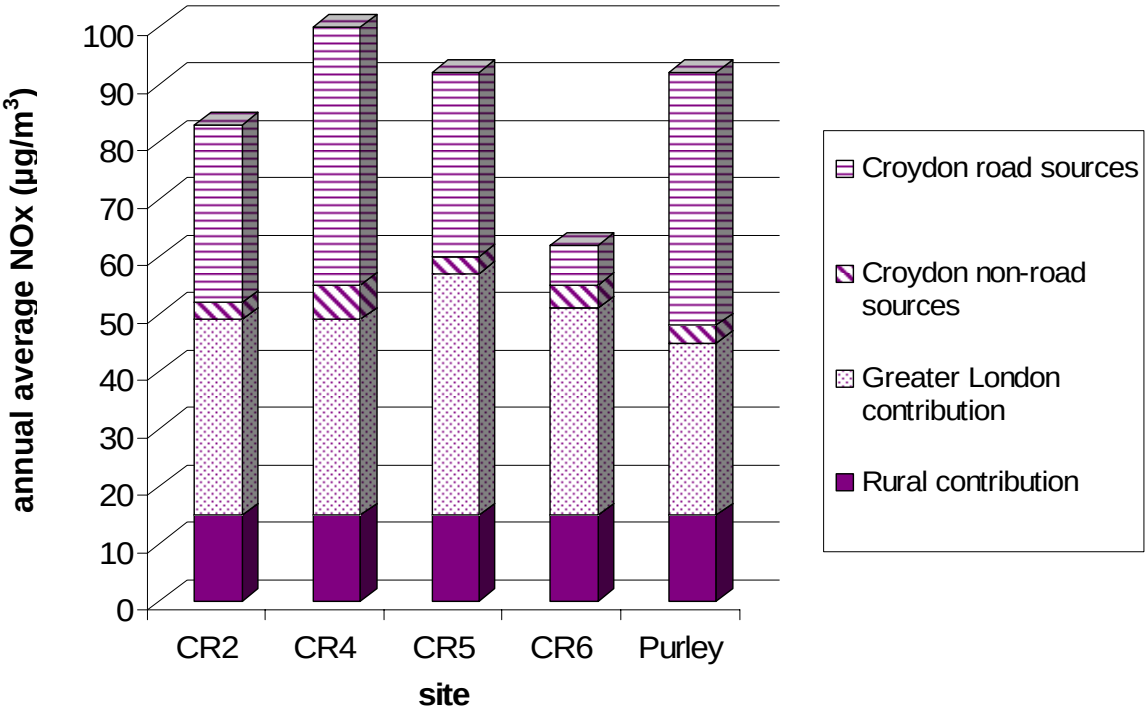
Action	Other partners/agencies involved	Start date	End date	Cost to the Council Low (< £10,000) Medium (£10-£15,000) High (>£15,000)	Air quality benefit Low (< 0.5 µg/m^3) Medium (0.5 to 1 µg/m^3) High (> 1 µg/m^3) For PM10 & NO2 (either individually or combined)	Source of funding & comments
G. Construction sites: we will impose and enforce tighter standards on air pollution emissions from construction sites.	Construction Industry Greater London Authority London Boroughs London Councils	2007	2010	Low	For PM10:High For NO2: Low	Croydon Council existing staffing budgets. Construction industry. May have some benefits for CO_2 and noise if operators switch to newer plant.
H. Domestic Emissions: we will develop and begin to implement a strategy to reduce air pollution emissions from homes.	Croydon Energy Network	2007	2010	Low	High†† For PM10:Low For NO2: Low	Defra air quality grant. Croydon Council existing staffing budgets. †† We will undertake a full cost-benefit analysis of the strategy and consult separately on it, if it is taken forward following this consultation exercise.
I. Bonfires: we will investigate the case for promoting a ban on bonfires throughout London.	Greater London Authority London Boroughs London Councils	2007	2009	Low	Medium * For PM10:Low For NO2: Low	Defra air quality grant for publicity materials etc. Croydon Council existing staffing budgets. * We will undertake a full cost-benefit analysis of this proposal if it is taken forward following this

Action	Other partners/agencies involved	Start date	End date	Cost to the Council Low (< £10,000) Medium (£10-£15,000) High (>£15,000)	Air quality benefit Low (< 0.5 µg/m^3) Medium (0.5 to 1 µg/m^3) High (> 1 µg/m^3) For PM10 & NO2 (either individually or combined)	Source of funding & comments
						consultation exercise. The proposal should have benefits for CO_2 emissions.
J. Planning guidance: we will produce revised planning guidance to improve air quality in the borough.	None	2008	2008	Low	Medium For PM10: Medium For NO2: Medium	Defra air quality grant for publicity materials etc. Croydon Council existing staffing budgets. Will also have benefits for CO_2 emissions and noise.
K. *air*TEXT service: we will expand and improve the *air*TEXT service to reach more vulnerable people by text messages, voice messaging, and e-mail and help other boroughs implement *air*TEXT	Health Protection Agency CERC PROMOTE London Boroughs Environment Agency Greater London Authority	2007	2008	Low	High** For PM10:Low For NO2: Low	Defra air quality grant and PROMOTE funding (a European Space Agency project). Croydon Council existing staffing budgets. **The high air quality benefit reflects the fact that airTEXT is capable of offering a high level of protection against the effects of air pollution rather reducing emissions.

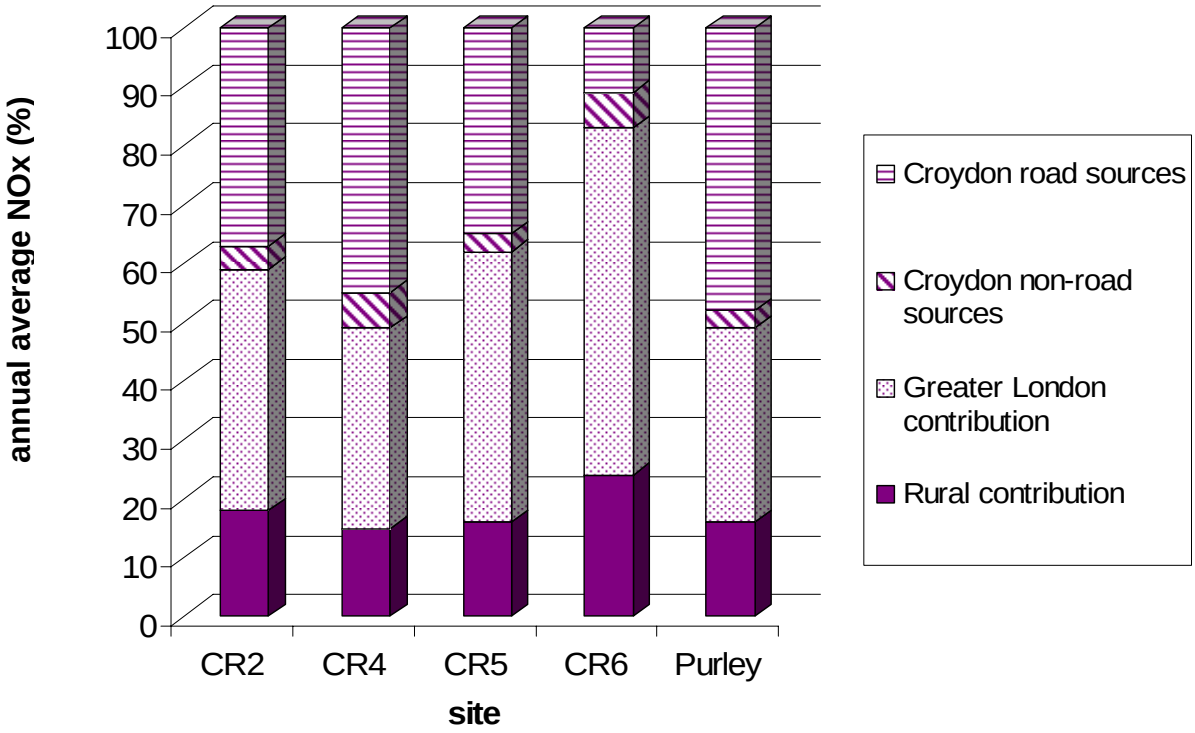
NB 2010 end dates do not necessarily imply that actions will cease in 2010, merely that 2010 is the end date for this action plan.

Annex B Source apportionment

Contribution to NOx Concentrations at Croydon Receptors



Percentage Contribution to NO_x Concentrations at Croydon Receptors



Annex C Consultation responses

The following organisations were invited to submit their comments on this action plan as part of the wider public consultation:

Breatheasy Croydon
Croydon BME Forum
Croydon Neighbourhood Partnerships
Croydon Primary Care Trust
Croydon Residents' Associations
Croydon Strategic Partnerships
Croydon Tramlink
London Borough of Bromley
London Borough of Lambeth
London Borough of Lewisham
London Borough of Merton
London Borough of Southwark
London Borough of Sutton
London Borough of Wandsworth
Reigate and Banstead District Council
South-West London Health Protection Unit
Surrey County Council
Tandridge District Council
The Environment Agency
The Mayor of London
The Secretary of State for the Environment, Food and Rural Affairs (DEFRA)
Transport for London

Report summary of the online and e-mail responses to the consultations for the Air Quality Action Plan 2007 – 2010

Question/topic	Percentage in favour/Yes	Percentage against/No	No response/ No opinion/ unsure	Comment
1. Do you agree with the idling vehicles patrols?	100%			
1a. Do you think the patrols should concentrate on specific types of vehicles?				The majority of respondents thought the patrols should concentrate on buses, lorries, and vans. Patrols should be targeted at bus stands, the town centres and the A23
1b. Are there any specific parts of the borough where you think the patrols should be concentrated (e.g. areas you know where idling vehicles cause a problem?)				Central Croydon bus stands, taxi stands, delivery bays, outside schools.
1c. Do you have any other comments about this proposal?				Signage and engine cut-out devices were proposed.
2. Do you agree with random roadside vehicle emissions tests?	49%	11%	40%	
2a. Are there any specific parts of the borough where you think roadside vehicle emissions tests should be concentrated?				The majority of respondents thought the tests should take place mainly on main roads.
2b. Do you have any other comments about this proposal?				This should be done in conjunction with Police enforcement on insurance, tax, etc.
3. Do you broadly agree with the proposals for the London low emission zone?	63%	4%	33%	
3a. Do you think that other classes of vehicles should comply with the LEZ requirements?				Respondents thought that improvement of public services, travel plans and inclusion of taxi cabs in the scheme were all relevant. The Council should ensure their fleet complied with LEZ regulations.

Question/topic	Percentage in favour/Yes	Percentage against/No	No response/ No opinion/ unsure	Comment
3b. What other steps would you like to see taken to reduce traffic emissions in Croydon?				Opinions mainly suggested car sharing, use of alternative fuels, and improved public transport.
3c. Do you have any other comments about this proposal?				Traffic free days, and robust policing of rogue vehicles were suggested.
4. Do you broadly agree with the proposals for the South London Freight Quality Partnership?	63%	0%	37%	
4a. Are there any other measures to reduce air pollution that you think the Freight Quality Partnership could take?				Proposals included enforcement of foreign lorries, carbon neutral building and demolition, and greater use of rail freight.
4b. Do you have any other comments about this proposal?				None received.
5. We propose to work with Transport for London to seek to reduce air pollution on congested sections of the Transport for London Road Network. Do you broadly agree with the proposal for this review?	40%	7%	53%	
5a. Are there any particular areas where you think the review should be focussed, or problems that it should look at, in order to improve air quality?				Main pollutants on Brighton Road and other main roads operated by TfL
5b. Do you have any other comments about this proposal?				See TfL comment separately.
6. Do you agree with the initiative to use hydrogen power?	56%	4%	40%	

Question/topic	Percentage in favour/Yes	Percentage against/No	No response/ No opinion/ unsure	Comment
6a. Are there any activities with which you would particularly like to see us using hydrogen?				School buses and other buses were suggestions, as well as portable generators.
6b. Do you have any other comments about this proposal?				More information and publicity needed.
7. Do you agree with the proposal to tighten standards on construction sites?	59%	0%	41%	
7a Are there any areas of the borough where you feel that emissions from construction sites are a particular problem?				Wellesley Road and Kenley were named but 85% of respondents did not name any area.
7b. Do you have any other comments about this proposal?				Effective enforcement and provision of information are important.
8.Do you agree that we need a strategy to reduce air pollution emissions from homes in the borough?	56%	0%	44%	
8a Do you have any views on issues that a strategy to reduce air pollution emissions should concentrate on?				As well as insulation more condensing boilers should be promoted. Strategy should be linked with public awareness campaigns on risks of CO poisoning. Solar panels, wind turbines, and grants for clean air initiatives were also suggested.
8b. Do you have any other comments about this proposal?				Tax breaks and subsidies were suggested to help those who cannot afford to maintain old equipment.
9. Do you support a ban on bonfires throughout London, except for the period around Guy Fawkes' Night and other festivals?	53%	22%	25%	Respondents replied that many householders have no access to a vehicle to remove heavy garden waste. Also it was thought not to introduce a ban on bonfires unless you first encourage the removal of green waste via the council collection service.

Question/topic	Percentage in favour/Yes	Percentage against/No	No response/ No opinion/ unsure	Comment
				While 53% supported a total ban, all of these respondents supported exemptions for organised bonfires on nominated occasions.
9a Do you support a power for local authorities to draw up byelaws on bonfires, so that they may set their own rules and control behaviour in a local context, rather than a power simply to ban or not ban?	29%	18%	53%	
9b.If you support a ban on bonfires, do you think this should be: A total ban? A ban which applies at certain time of the day (e.g. dawn to dusk)? A ban which applies during certain periods of the year (e.g. May to September)?	 29% 64% 7%			
9c. Which events do you feel should have exemptions from a ban?				Organised displays, November 5th.
9d. Do you have any other comments about this proposal?				Some had the opinion that fireworks should be banned from general sale.
10. Do you have any views on how the planning process could improve air quality in Croydon?	22%	18%	60%	60% of respondents said they had no view on this matter. Suggestions were made for mandatory green roofs and condensing boilers in new developments. The National Society for Clean Air's Development Control Guidance: Planning for Air Quality 2006 update includes details of measures being used to mitigating the impacts of new developments.

Question/topic	Percentage in favour/Yes	Percentage against/No	No response/ No opinion/ unsure	Comment
10. Are you aware of any examples of good practice which Croydon could learn from, where new developments have helped improve air quality?				Beddington Zero Energy Development (**BedZED**) (the UK's largest carbon-neutral eco-community)
10a. Do you have any other comments about this proposal?				One comment urged that the planning process must not be slowed by further constraints
11. Do you have any views on other ways in which airTEXT could help people vulnerable to the effects of air pollution?				One suggestion was that information could be more widely available (to non asthma sufferers) eg a display board at Taberner House/Fairfield Halls?
11a. Do you have any other comments about this proposal?				One comment expressed support as long as other projects do not suffer.

Report summary of the online responses by GLA to the consultations on the Air Quality Action Plan 2007 - 2010

Question/topic	Answer/Comment
1.Do you agree with the idling vehicles patrols? 1a.Do you think the patrols should concentrate on specific types of vehicles? 1b. Are there any specific parts of the borough where you think the patrols should be concentrated (e.g. areas you know where idling vehicles cause a problem?) 1c. Do you have any other comments about this proposal?	Yes. No. No. London Bus drivers are instructed by TfL to not idle their vehicles unnecessarily. If Croydon Council believe that this advice is not being adhered to, they should discuss this issue directly with London Buses.
2. Do you agree with random roadside vehicle emissions tests? 2a. Are there any specific parts of the borough where you think roadside	Yes. No.

vehicle emissions tests should be concentrated? 2b. Do you have any other comments about this proposal?	 The Mayor of London welcomes Croydon Council's proposal to embark on a new scheme of emissions enforcement with VOSA, thus tackling gross polluting vehicles in their borough.
3.Do you broadly agree with the proposals for the London low emission zone? 3a Do you think that other classes of vehicles should comply with the LEZ requirements? 3b. What other steps would you like to see taken to reduce traffic emissions in Croydon? 3c.Do you have any other comments about this proposal?	Yes. No comment. TfL and the Mayor of London urge the Council to incorporate means to reduce the use of their vehicles into the Air Quality Action Plan; such as staff and fleet travel plans. TfL notes the support for the LEZ proposal and is encouraged to see that the Council's vehicles will meet the scheme requirements. It would be helpful it the Council could provide information on the current emission standards of their fleet vehicles and how they plan to go about meeting the requirements for 2008 and further LEZ implementation dates.
4. Do you broadly agree with the proposals for the South London Freight Quality Partnership?? 4a. Are there any other measures to reduce air pollution that you think the Freight Quality Partnership could take?	Yes. TfL has commissioned the delivery of a prototype multi-modal refuse collection vehicle (MMRCV). This vehicle is essentially a refuse collection vehicle (RCV) with a detachable box that can then be switched to rail or water based transportation to a disposal site (or nearer transfer site). Where impractical to use rail or water, the MMRCV will allow for multi-loads of the boxes to flat-bed trailers (up to 3 boxes), which can then be hauled to a disposal site in one vehicle as opposed to three. Reducing road vehicular mileage will ensue from all options (subject to successful trialling) if the Councils adopt the use of the MMRCV and phase out the use of conventional RCVs; this in turn

	will contribute to effect a reduction in emissions, as well as reducing congestion and road accidents.
4b.Do you have any other comments about this proposal?	TfL support the work of the South London Freight Quality Partnership.
5. We propose to work with Transport for London to seek to reduce air pollution on congested sections of the Transport for London Road Network. Do you broadly agree with the proposal for this review?	Yes.
5a.Are there any particular areas where you think the review should be focussed, or problems that it should look at, in order to improve air quality?	No.
5b.Do you have any other comments about this proposal?	TfL welcomes Croydon Council's support in working towards reducing emissions from the TLRN. TfL aims to improve traffic flows and reduce congestion on the TLRN and expect these and associated traffic management measures to result in reduced emissions.
6.Do you agree with the initiative to use hydrogen power?	Yes.
6a. Are there any activities with which you would particularly like to see us using hydrogen?	The activities outlined within the draft action plan present a good start (Using portable hydrogen fuel cells in place of generators,using a hydrogen fuel cell to power an air pollution monitoring station and trialling hydrogen-fuelled vehicles). Croydon could also seek opportunities to incorporate fuel cells for power and heat into future major developments in the borough.
6b. Do you have any other comments about this proposal?	The Mayor of London and TfL support Croydon Council's proposal to work with the London Hydrogen Partnership to make Croydon a flagship borough in the use of hydrogen as a fuel.
7.Do you agree with the proposal to tighten standards on construction sites?	Yes.
7a Are there any areas of the borough where you feel that emissions from	No.

construction sites are a particular problem? 7b. Do you have any other comments about this proposal?	 The Mayor of London is pleased that that Croydon Council will be encouraging the adoption of the best practice guidance for the control of dust and emissions from construction and demolition, produced in partnership with the GLA and London Councils.
8.Do you agree that we need a strategy to reduce air pollution emissions from homes in the borough? 8a Do you have any views on issues that a strategy to reduce air pollution emissions should concentrate on? 8b. Do you have any other comments about this proposal?	Yes. Yes. As a significant source of local air pollutants and carbon dioxide emissions in London the GLA Air Quality Team welcome Croydon Council's proposal for a strategy for reducing domestic emissions. The GLA Air Quality Team hope that if this proposal goes ahead further details on the timescales and steps involved in drawing up the strategy will be provided in the final action plan.
9. Do you support a ban on bonfires throughout London, except for the period around Guy Fawkes' Night and other festivals? 9a Do you support a power for local authorities to draw up byelaws on bonfires, so that they may set their own rules and control behaviour in a local context, rather than a power simply to ban or not ban? 9b.If you support a ban on bonfires, do you think this should be – A total ban? A ban which applies at certain time of the day (e.g. dawn to dusk)? A ban which applies during certain periods of the year (e.g. May to September)? 9c. Which events do you feel should have exemptions from a ban?	No comment. No comment.

9d. Do you have any other comments about this proposal?	The GLA Air Quality Team will be interested in the results of Croydon Council's investigations, and in particular public consultation, into the case for banning bonfires across London aside from during festival periods. The costs, benefits and mechanisms for enforcement of this proposal require careful consideration.
10. Do you have any views on how the planning process could improve air quality in Croydon? 10a. Are you aware of any examples of good practice which Croydon could learn from, where new developments have helped improve air quality? 10b. Do you have any other comments about this proposal?	No comment. No comment. The National Society for Clean Air's Development Control Guidance: Planning for Air Quality 2006 update includes details of measures being used to mitigating the impacts of new developments.
11.Do you have any views on other ways in which airTEXT could help people vulnerable to the effects of air pollution? Do you have any other comments about this proposal?	No comment. The Greater London Authority are supporting the Airtext service.