1. SUMMARY OF PROPOSALS TO REDUCE AIR POLLUTION

There are 25 separate action points in the Council's draft Action Plan, and the detailed description of each of these begins on page 13**.** The action points are brought together in the list below. Many of the actions in the Plan are already happening; others would have been proposed even if the Council were not producing an Air Quality Action Plan, because they support other Council objectives such as reducing traffic and improving public transport.

However there are a number of initiatives that are specifically designed to address the problem of poor air quality in the Royal Borough. Of these, the Low Emission Zone (LEZ) idea is probably the most important new measure to reduce pollution. An LEZ is an area in which some categories of vehicle (but almost certainly not cars) are legally barred from entering unless they meet specified and widely recognised emissions standards. The Council has seen the initial results of a major study into the feasibility and likely impacts of an LEZ in London, and believes that there should be an LEZ across the whole of London. We will therefore push hard for the implementation, by the end of 2006, of an LEZ across London. If this proves impossible, we will investigate a smaller-scale, local LEZ.

As well as the LEZ, which would impose a higher emission standard to certain types of vehicle, the Council would like to make use of new powers to penalise owners of vehicles whose exhaust emissions are so polluting that they exceed the ordinary legal limits, and to stop the minority of drivers from habitually letting their engines idle unnecessarily. The Council is also considering making changes to the residents' parking permit scheme, whereby the pricing structure would be designed to encourage residents to use less polluting vehicles.

The Plan contains a range of other measures which are designed to encourage the use of cleaner vehicles, including proposals to improve the local refuelling infrastructure for alternative fuels such as Liquefied Petroleum Gas and electricity.

Since a great deal of our local air pollution is produced by traffic exhaust emissions, there are a number of measures in the Action Plan which are designed to encourage walking and cycling in the Royal Borough. There are also proposals to improve public transport in Kensington and Chelsea, including support for new and improved bus services, two new stations on the West London Line at Shepherd's Bush and Chelsea Harbour, and a new Underground line that would serve the south of the Borough at Sloane Square, Chelsea Old Town Hall and Chelsea Harbour.

The Action Plan also includes the Council's plans for an innovative idea called a 'City Car Club'. This is a scheme which should appeal to the many residents (and some businesses) in the Royal Borough who need occasional access to a car but who do not necessarily need to keep a car of their own. City car club members pay for cars as and when they use them, unlike conventional car owners whose motoring costs are mainly tied up in owning a car. This means that car club members enjoy the benefits of having access to a car but they have an incentive to use cars only when they need to. Similar schemes in mainland Europe have led to reductions in car mileage.

Of course, not all of our air pollution comes from traffic. The Action Plan recognises this, and contains several measures to reduce emissions of pollutants from construction sites, garden bonfires, chimneys, and industrial processes.

SUMMARY OF ACTIONS IN THE ACTION PLAN

Action 1: We will push for a Londonwide LEZ as soon as is practicable, and ideally by the end of 2006. If there is no support for a Londonwide scheme, we will investigate the possibility of introducing a local or sub-regional LEZ in the Royal Borough.

Action 2: We will work with the Association of London Government, neighbouring authorities, the Metropolitan Police and others to operate a vehicle emission-testing scheme in the Royal Borough from April 2003.

Action 3: This Council supports the use of new powers to require drivers of stationary vehicles to switch off 'idling' engines.

Action 4: From April 2004, contractors will be required to choose the Best Practicable Environmental Option for their vehicle fleet. As a minimum, their vehicles' emissions should be no worse than the previous Euro standard.

Action 5 i) The Council will work with existing and potential suppliers of alternative fuels to establish fuelling points in the Royal Borough, and ii) if it is feasible and cost-effective to do so, the Council will install public charging points for electric vehicles in the Town Hall by the end of 2003.

Action 6: The Council will help local organisations to green their fleet, primarily by identifying potential suppliers of low and zero emission fuel. We will offer support and practical assistance to local employers wishing to produce Green Travel Plans and participate in environmental management schemes.

Action 7: We will consider using the residents' parking permit scheme to encourage residents to choose less polluting vehicles.

Action 8 i) We will continue to develop our own green travel plan, paying particular attention to flexible working and homeworking, and ii) We will work with all interested schools in the Royal Borough to develop school travel plans and encourage less polluting forms of travel to school.

Action 9: The London City Car Club scheme will be operational in at least one part of the Royal Borough from Spring 2003.

Action 10: We will produce Supplementary Planning Guidance on air quality. This will explain to developers the Council's requirements and policies in relation to the impacts on air quality of new development proposals. The Council will request that all proposals for developments, if they fall within the scope of the guidance, will include an assessment of the air quality implications.

Action 11: The Council will work with TfL, Network Rail, the Strategic Rail Authority and others to ensure that the improvements to public transport in the Royal Borough will be delivered as soon as possible. The Council will help TfL to deliver improvements to bus services, for instance through targeting parking enforcement on congested areas, and reviewing loading and waiting restrictions.

Action 12: We will set and maintain the highest possible standards of urban design and street cleansing as part of an integrated approach to making walking an attractive option in the Royal Borough. In doing so, we will seek to establish a reputation as a centre of excellence for streetscape design.

Action 13: The Council will continue to encourage responsible cycling through a combination of cycle parking, high quality road surfaces, and where appropriate, traffic management.

Action 14: The Council will ensure that its charges for on-street visitor parking spaces are effective in managing demand.

Action 15: The Council will use its new powers to require that appropriate new developments are made 'permit-free', as part of the planning consent process.

Action 16: The Council will review opportunities to designate new taxi ranks in the Royal Borough and will lobby for taxis to be affected by the rules of any LEZ that is established.

Action 17:The Council will work with Transport for London to use signals to smooth traffic flow, without increasing overall traffic levels.

Action 18: The Council will review coach parking facilities in the Royal Borough.

Action 19: We will consider the recommendations from the London Sustainable Distribution Partnership and we will actively consider joining Freight Quality Partnerships promoted at sub-regional level.

Action 20: The Council will work with the Building Research Establishment, the Mayor of London, neighbouring boroughs and representatives of the construction industry to create a Green Building Site Code of Practice.

Action 21: The Council will continue to encourage residents to compost waste rather than burning it in bonfires.

Action 22: We will work towards re-designating the Smoke Control Zone by 2003.

Action 23: The Council will continue to carry out regular and rigorous statutory inspections in accordance with DEFRA guidance, to ensure that emissions from small industrial processes (Part B processes) do not exceed national air quality objectives, and are minimised as far as is practically possible.

Action 24: The Council will continue to promote energy-efficiency measures in homes in the Royal Borough, under its HECA and specifically its Affordable Warmth work. It will also consider and require efficient local energy generating schemes where practicable.

Action 25: The Council will maintain its financial commitment to air quality monitoring and modelling and will consider further types of monitoring as the need arises.

2. INTRODUCTION

This document sets out the Council's proposals for improving air quality in Kensington and Chelsea. They include actions that the Council is already taking – often for other reasons than reducing pollution – and several new initiatives that we hope will lead to improvements in our local air quality. Since so much of our air pollution is generated by road traffic, the Action Plan contains a number of initiatives to reduce traffic volumes, as well as to reduce emissions from vehicles on our roads.

The Plan follows a great deal of work to monitor actual levels of pollution and to predict the likely air quality in the years ahead. Because our predictions have shown that we are unlikely to meet national standards for two pollutants by the Government's target dates of 2004 and 2005, the Council has declared an Air Quality Management Area (AQMA) across the whole Borough. Following that declaration, the Council is now fulfilling its obligation (under Part IV of the Environment Act 1995) to produce an Action Plan, setting out how it will work towards achieving the Government targets. The Plan will be reviewed to take account of the latest knowledge about the extent and nature of our local air pollution, as well as any new technological developments that might help us improve air quality. We will review the Plan in 2005, following our next major assessment of air quality trends in the Royal Borough. However every year the Council is required to report on the progress it has made with the action plan measures. A timeline for the Council's reporting obligations can be found at Appendix 4.

Although this document brings together in one place all that the Council is trying to do to reduce pollution, it is worth stressing that air quality is recognised in a number of other Council plans and documents as being a critical issue to local people. The most closely related of these is the 'Fourth Stage Review and Assessment of Air Quality', which offers the latest assessment of air quality conditions in the Borough. A recent Residents' Panel survey found that most Royal Borough residents are concerned about local air pollution; this concern is reflected in the local Community Strategy. The Strategy contains a commitment to develop several of the actions in this Air Quality Action Plan. The Council is currently preparing a new Environmental Policy Statement; the improvement of air quality will be a major theme.

This Action Plan is the result of the efforts of many organisations and individuals. Within the Council, officers from several departments have been meeting and exchanging ideas for reducing pollution since long before the declaration of the AQMA, and this joint working has continued in various forms. Air pollution is not the preserve of one department alone, and the actions contained in this Action Plan reflect this. The Council has also drawn heavily on the advice of others from outside the organisation, most notably the Environment Round Table. This is a local residents' forum that meets Council officers throughout the year to offer comments on the practicality and desirability of the Council's plans and to suggest new ideas. Air quality, and measures to improve it, have been a staple of these meetings over many years, and this has been of invaluable help to the Council in drafting its Action Plan. Anyone interested in joining the Environment Round Table should contact Mark Bennett on 020 7341 5684 for details.

In addition to the long-running dialogue with the Round Table, the Council consulted widely on a previous draft of this Action Plan during the summer of 2002. The Council is grateful to all those organisations that offered comments and suggestions on that draft.

In September 2001 the Mayor of London published his Air Quality Strategy for public consultation. Details of the Council's response to this can be obtained from Louise Butcher on 020 7341 5636. The Council has identified those elements of the Mayor's Strategy that are most relevant to the people who live and work in the Royal Borough. The Council paid careful attention to the Mayor's draft strategy in preparing the first version of this document, and the publication (in summer 2002) of the final version of the Strategy also informed our work in producing this version. Appendix 3 shows a full list of the measures that the Mayor of London intends to take to improve air quality in London. He has also made the following statement in relation to reducing pollution in the Royal Borough:

> *"The Mayor's proposals for working in pursuit of achievement of the air quality standards and objectives in Kensington & Chelsea's air quality management area are set out in the Mayor's Air Quality Strategy. These aim to:*
>
> - *increase the number of cleaner vehicles;*
> - *support a feasibility study on one or more low emission zones for London;*
> - *reduce emissions from vehicles operated by or licensed through the functional bodies;*
> - *use traffic management infrastructure to reduce emissions;*
> - *reduce emissions for freight movements;*
> - *encourage proper vehicle maintenance and more efficient driving;*
> - *reduce emissions from industry and buildings;*
> - *reduce emissions from construction sites;*
> - *enable continued research into London's air quality;*
> - *lobby government to improve national measures to further reduce air pollution."*

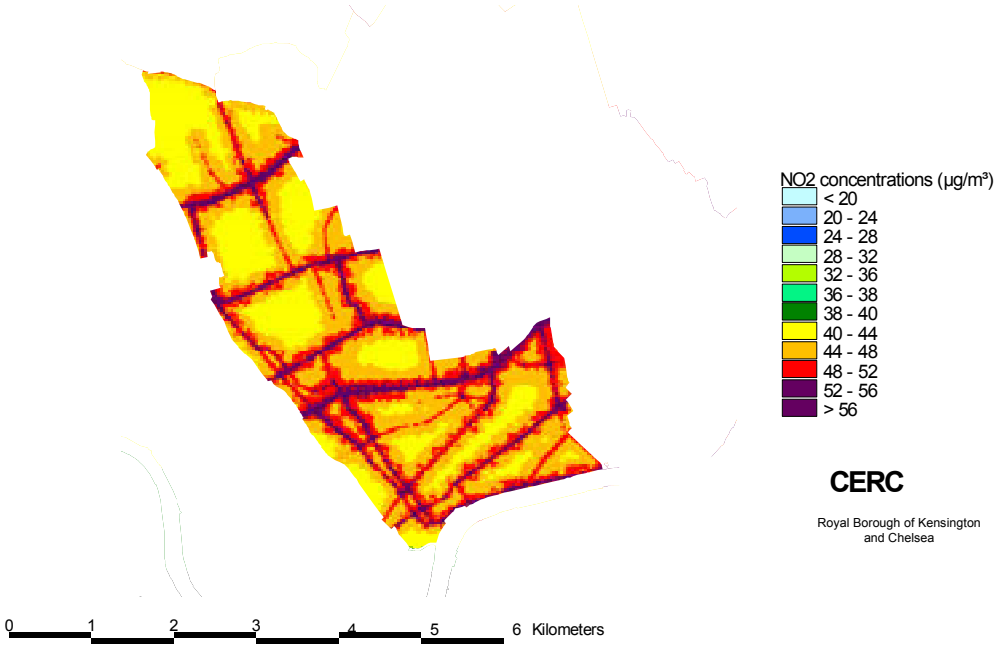
As required by Government guidance, the Council has taken into account the feasibility and cost-effectiveness of all of the actions proposed in the draft Plan. We believe, based on an initial appraisal, that the actions contained in the Plan *are* both feasible and likely to be cost-effective, and can therefore be included in the Plan. Further information is shown in Appendix 2. More detailed assessment of cost-effectiveness may still be required for some of the actions proposed for the first time in this draft Action Plan. For instance, the GLA and the ALG are already undertaking a major study into the feasibility, cost-effectiveness, and likely impact of a Low Emission Zone (see below).

3.0 AIR POLLUTION

3.1 FORECAST POLLUTION LEVELS IN 2004 AND 2005

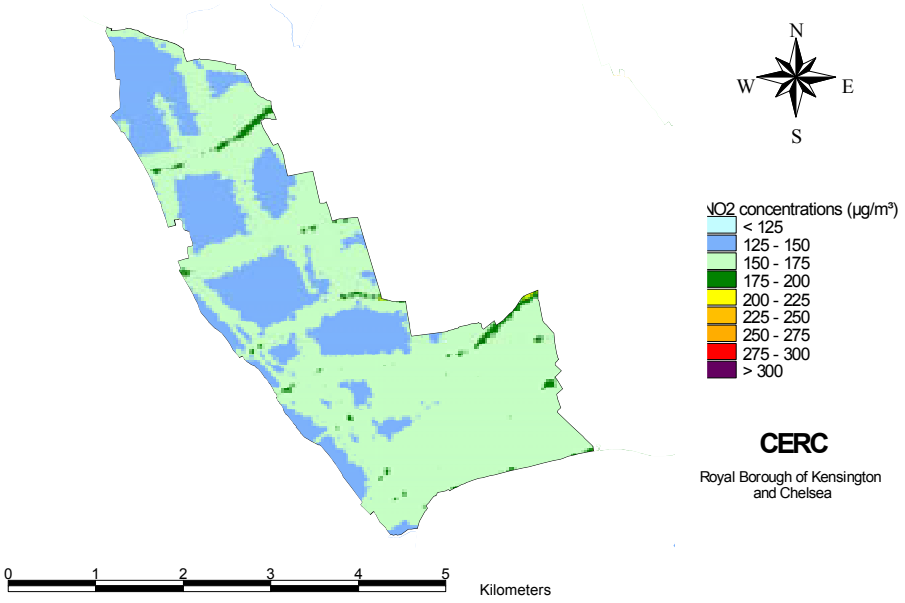
Alongside the Action Plan the Council is publishing its 4th Stage Review and Assessment of Air Quality in the Royal Borough. As its title suggests, it is the fourth report produced by the Council in relation to the Government's National Air Quality Strategy. Local authorities are required to keep checking what they think air quality will be like in the future as important new information becomes available. Our report shows that levels of two pollutants, fine particles and nitrogen dioxide, remain above Government standards and will almost certainly not be sufficiently reduced by the target years of 2004 and 2005 respectively. On balance our air quality forecasts have not changed significantly since the Council decided in December 2000 that it should declare an Air Quality Management Area for the whole Borough.

Map 1 Annual average nitrogen dioxide (NO2) concentrations using 2005 emissions and 1997 meteorological data



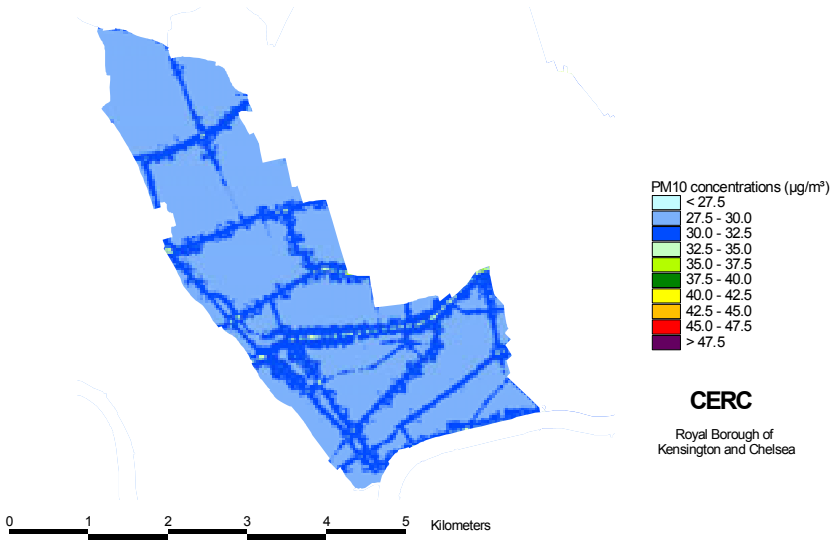
The map indicates that the whole Borough is likely to exceed the 2005 annual average objective of 40µg/m^3. It can also be seen that there is a uniform pattern of higher concentrations superimposed over the major road network with concentrations expected to exceed 52 µg/m^3 along the busiest roads.

Map 2 99.79th percentile of hourly average nitrogen dioxide (NO2) concentrations using 2005 emissions and 1997 meteorological data



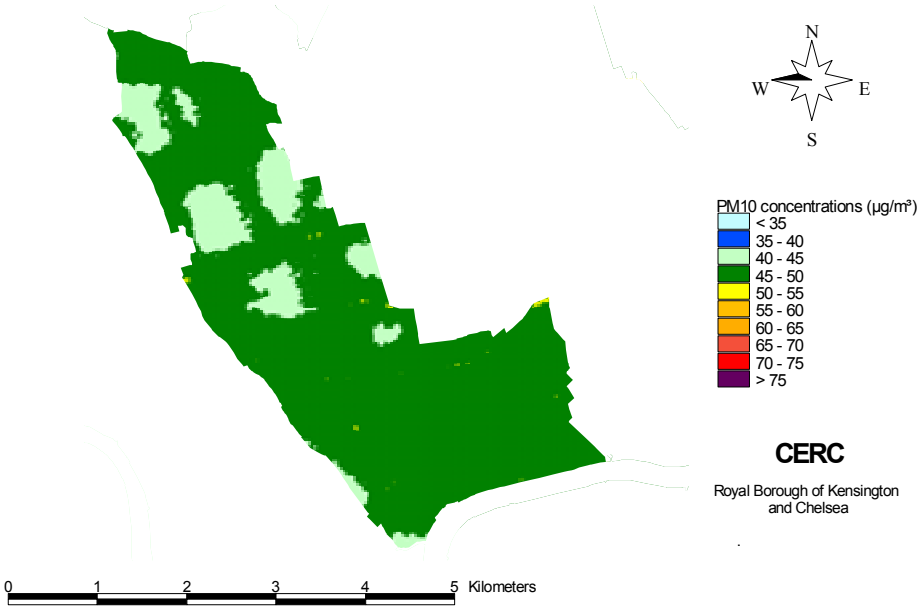
The hourly average nitrogen dioxide concentrations are generally below the 2005 objective of 200µg/m^3. However, there are likely to be two areas where the objective may be exceeded. This is shown by the yellow areas in Knightsbridge towards Hyde Park Corner and the eastern end of Kensington High Street.

Map 3 Annual average particle (PM_{10}) concentrations using 2004 emissions and 1996 meteorological data



The annual average PM_{10} concentrations are predicted to be below the 2004 objective of 40µg/m^3 across the whole Borough. Concentrations away from the roads tend to be between 27.5 and 30 µg/m^3. Along busy roads they rise to 32.5µg/m^3 and on major roads 37.5µg/m^3.

Map 4 90.41st percentile of daily average PM_{10} concentrations using 2004 emissions and and 1996 meteorological data



The 24 hour average objective (50µg/m^3, not be exceeded more than 35 times per year) is only likely to be exceeded in isolated places – towards the eastern end of Kensington High Street, Notting Hill Gate, Knightsbridge and in one or two other places.

Whilst the expected margin of failure is greater for the Nitrogen dioxide target than for the particulate target, the Council believes that it is important to try to reduce concentrations of both pollutants. As is noted below, our forecasts show that the Borough is likely to fail the tougher 2010 target for particulates. Furthermore, there is growing concern about the possible health impacts associated with particulates, such that any reduction in their concentrations would be desirable.

3.2 REDUCTION IN POLLUTANT CONCENTRATIONS

The modelling results indicate that very considerable reductions will be needed in order to achieve the annual mean objective for nitrogen dioxide. The required level of reduction will be lowest at background locations and greatest at roadside sites.

Table 1 Predicted annual mean nitrogen dioxide concentrations and approximate level of reduction necessary.

Location	Approximate distance to kerb (m)	Predicted concentration for 2005 μg/m^3	Estimated level of reduction to achieve objective μg/m^3
Background	>50	40-49	1-10
Intermediate	5-50	50-59	11-20
Roadside	<5	55-69	21-30

It is harder to determine the level of reduction required to achieve the hourly mean objective for nitrogen dioxide, since the standard is exceeded in only a few locations. The number of exceedences is also dependent on the meteorological conditions in any given year.

Our modelling indicates that annual mean levels for particles will be within the 2004 objective level by this deadline but still above the 2010 objective. This will be considered in subsequent assessments. The 24 hour mean objective is exceeded only in a few locations in the Borough.

3.3 THE HEALTH IMPACTS OF AIR QUALITY

Clean air is essential to a good quality of life and there is now growing evidence that high levels of air pollution can trigger serious health problems. There is also growing concern among health professionals that even at lower levels, long-term exposure to some pollutants may carry significant health risks. It is difficult to quantify the scale of the problem, but research carried out for the Government suggests that each year, between 14,000 and 24,000 people may be hospitalised as a result of the effects of air pollution. The same research indicated that perhaps as many as 24,000 vulnerable people may die prematurely because their conditions are aggravated by pollution. It is often thought that air pollution causes asthma. There is not yet any proof that this is the case, but it is known that episodes of high levels of pollution can trigger asthma attacks among those who suffer from this condition.

As noted above the Council has carried out its 4th Stage Review and Assessment of Air Quality in the Royal Borough. The Council believes that two pollutants, nitrogen dioxide ($NO_{2)}$ and particulates, will still exceed Government target levels for the next few years. As stated in the Review and Assessment report, the entire population of the Borough is exposed to levels of nitrogen dioxide above the Government's health based standard. For those living or working near to busy roads, conditions often result in elevated levels of the pollutant. Both of these pollutants can affect the ability to breathe. For instance it is thought that NO_2 can cause inflammation of the airways, and over the long-term can increase lungs' susceptibility to infection. Health professionals are especially concerned about particulates, which can reach

deep into the lungs and cause severe respiratory problems. Particulates have also been associated with heart disease and there is concern about possible links with some cancers.

3.4 THE SOURCES OF POLLUTION IN KENSINGTON AND CHELSEA

A large part of the pollution experienced in the Royal Borough comes from road traffic. For instance, of the emissions generated within Kensington and Chelsea, just under half of the NO_x and nearly 70% of PM_{10} are attributable to road traffic. The relative contributions of other sources are shown in Appendix 1.

Information on more detailed analysis of the sources of pollution may be found in the 'Review and Assessment of Air Quality in the Royal Borough of Kensington and Chelsea, Stage Four' Report and its accompanying Annex 2 Report. Annex 2 examines the contribution that emissions make to final concentrations found in the atmosphere at selected locations in the Borough. This indicates that at roadside locations, traffic emissions from the whole of London contribute around 70% of the final concentration of NO_x and 17%[1] of PM_{10} concentrations in Kensington and Chelsea.

Given that traffic makes such a significant contribution to pollution in the Borough, it is interesting to note the relative contributions of different types of vehicle. The tables below show how much *traffic-related* pollution is expected to be produced by each different vehicle type, and within that, between different ages. The figures are forecasts for Inner London (the area bounded by the North and South Circular Roads) for 2005, the year to which the Government's National Air Quality targets for Nitrogen Dioxide relate.

We can see from Table 2 that, for instance, HGVs are expected to produce more NOx (37.1%) than any other single vehicle type. Petrol cars will produce around a fifth of all traffic–related NOx, and of this fifth, half will come from cars that were registered before 1993.

Table 2 Estimated Transport Emissions of NOx in Inner London in 2005.

	Pre-Euro (pre1993) %	**Euro 1 from 1993 %**	**Euro 2 from 1996 %**	**Euro 3 from 2001 %**	**Euro 4 from 2005 %**	**Total**
Petrol car	9.7	2.7	4.6	2.1	1.8	**20.9**
Diesel car	0.2	1.9	2.5	6.2		**10.8**
LGV	1	1.6	3.4	5.8		**11.8**
Black cab	0.4	2.8	0.9	1.1		**5.1**
HGV	0.9	4.1	16.4	15.7		**37.1**
Buses and coaches	0.3	0.2	10.2	3.8		**14.3**

[1] Whereas road traffic accounts for almost 70% of PM_{10} *emissions*, it is the source of only 17% of PM_{10} *concentrations*. The former figure excludes the significant contribution from background sources of PM10, such as construction site dust and resuspended dusts.

All	**12.5**	**13.3**	**38**	**34.7**	**1.8**	

Source: London LEZ Study Inception report. AEA Technology. May 2002
Table 3 shows that petrol cars contribute much less to particulate emissions: only 7% of emissions of this pollutant will come from petrol cars in 2005, but diesel cars will contribute 20%. Goods vehicles will account for over a half of all particulate emissions by 2005.

Table 3. Estimated Transport Emissions of PM_{10} in Inner London in 2005.

	Pre-Euro (pre-1993) %	**Euro 1 from 1993 %**	**Euro2 from 1996 %**	**Euro 3 from 2001 %**	**Euro 4 from 2005 %**	**Total**
Petrol car	4.8	0.6	0.5	0.4	0.6	**7.0**
Diesel car	1.3	5.0	5.5	8.2		**20.2**
Light goods Vehicles	4.2	3	6.9	12.7		**26.9**
Black cab	2.3	6.0	2.2	2.0		**12.6**
Heavy goods vehicles	1.6	3.6	10.6	10.6		**26.4**
Buses and coaches	0.4	0.2	4.2	0.5		**5.3**
All	**14.5**	**18.6**	**30**	**34.6**	**0.6**	

Source: London LEZ Study Inception report. AEA Technology. May 2002

4.0 THE COUNCIL'S PROPOSALS

1. A Low Emission Zone (LEZ)

A Low Emission Zone is likely to be the most important and effective measure available to local authorities to reduce air pollution. The Council believes that a London LEZ will be crucial to our attempts to achieve the Government's National Air Quality Strategy objectives, and we are committed to working for the early implementation of an effective LEZ. The Council has been following the progress of a major study[2] into the effectiveness and feasibility of Low Emission Zones, set up by the Greater London Authority (GLA) and the Association of London Government (ALG). The study will identify how best to operate and enforce an LEZ, and it will estimate the likely effects of different LEZ scenarios on air quality and traffic as well as their socio-economic impacts (including the costs to businesses). Some findings have emerged already, and the final report is due within the next few months.

1.1 What is a Low Emission Zone?

A Low Emission Zone is an area into which vehicles may enter only if they meet certain exhaust emissions criteria (above what is required to pass an MOT). In other words, it ensures that the most polluting vehicles are denied access to the Zone. On the evidence available so far, this Council believes that an LEZ is the only measure that is likely to bring significant improvements to air quality in the Royal Borough. Legal powers to set up an LEZ exist already, although it is possible that new legislation may be needed in order to allow the most effective enforcement. This is being considered by the study mentioned in the previous paragraph.

1.2 How would a Low Emission Zone work?

The ALG/GLA feasibility study has looked at a wide range of options for an LEZ, and until it is fully completed, the Council will not make any detailed proposals about how its preferred LEZ would work. However, it is worth noting that the definition of 'clean' and 'dirty' vehicles is likely to be based on the Euro emissions standards that were introduced in 1993 and which have become stricter over time. For example, all new vehicles registered from 1993 had to meet the Euro 1 standard and after 1996 they had to meet the tougher Euro 2 standards. Euro 3 came into force in 2001. For some vehicles which do not meet a certain Euro standard, it may be possible to improve their performance by fitting new technologies to their engines or exhaust systems.

It is almost certain that the feasibility study will not suggest applying the LEZ principles to cars or motorbikes. However, as was noted in the commentary on Tables 2 and 3, it appears that pre-Euro cars, even petrol cars, are likely to contribute a significant proportion of pollution in 2005. During the Council's consultation on the draft Action Plan, one respondent suggested that a 'new for old' vehicle exchange scheme might help to reduce the number of very old, dirty vehicles (especially cars) on the roads. It is understood that the LEZ feasibility study will consider how to tackle the problem of older cars, and their disproportionate contribution to pollution; this might include looking at the feasibility and effects of exchange schemes. In any case, it is clear that if such a scheme were to be found viable and worthwhile, it would need to be operated over a wider area than just the Royal Borough.

[2] Details of the study can be found at: http://www.london-lez.org/

1.3 What difference would an LEZ make to air pollution?

The joint ALG/GLA study mentioned above will give the most accurate picture yet of the likely air quality impacts of a Low Emission Zone in London. The findings that have emerged from that study so far indicate that an LEZ may be less effective in reducing pollution than was first thought. Given new knowledge about vehicle emissions and traffic movements, it seems unlikely that an LEZ would reduce improve air quality to the extent that had been predicted by a study for Westminster Council in 2000.

Nevertheless, even under the more pessimistic scenario that appears to be emerging from the ALG/GLA study, we can expect to see that a Low Emission Zone would have the capacity to bring about worthwhile improvements in air quality in London. The final report of the feasibility study should give a clear picture of the difference that an LEZ could make to air quality in Kensington and Chelsea.

1.4 What is the Council proposing?

The Council is committed to ensuring that the Royal Borough is part of an LEZ. Ideally this would extend across the whole of London, and we hope that the Mayor of London and other London Boroughs will make a similar commitment. If such a commitment is not forthcoming, and no progress appears to be made at a regional level, we will investigate creating our own local or sub-regional LEZ, working in partnership with interested agencies.

Action 1: We will push for a Londonwide LEZ as soon as is practicable, and ideally by the end of 2006. If there is no support for a Londonwide scheme, we will investigate the possibility of introducing a local or sub-regional LEZ in the Royal Borough.

2. Vehicle emission testing

Those local authorities that have declared an AQMA in their boroughs are empowered to issue penalty charges to keepers of vehicles which fail on-the-spot exhaust emissions tests. In contrast to a LEZ, which excludes categories of vehicles that don't meet more exacting emissions standards, vehicle emission testing targets individual vehicles which are not even meeting the ordinary MOT emissions standard. Authorities must rely on the Police to stop vehicles, although in the future the law may be changed to extend this power beyond the Police. Failing the emissions test would result in a fixed penalty notice of £60, although concessions will be available if the defect is corrected within two weeks or if the vehicle has passed an approved emissions test within the previous three months.

At the time of writing this final draft of the Action Plan, the Council was closely involved in an ALG-led initiative to introduce a pan-London vehicle emission-testing scheme. This followed a successful bid to the Department for Transport to fund the scheme for one year. The scheme was expected to begin in late April 2003.

We would not expect that a programme of emission testing on its own would deliver measurable improvements in the Royal Borough's air quality; the principal purpose would be to raise drivers' awareness of their vehicle emissions, and the need to maintain their vehicles.

Action 2: We will work with the Association of London Government, neighbouring authorities, the Metropolitan Police and others to operate a vehicle emission-testing scheme in the Royal Borough from Spring 2003.

3. Idling engines

Local authorities also have powers to require drivers of stationary vehicles to switch off their engines if requested to do so by an officer of the authority. A fixed penalty notice of £20 will be issued if a driver fails to comply with this request. The Council does not have the resources to respond to every report of a driver leaving his or her engine idling but it is aware of localised problems in relation to diesel vehicles, which tend to be the most polluting, and where possible it will target its use of these new powers accordingly. Again, we would not suggest that the use of these new powers would lead to huge improvements in local air quality, but they would address a problem that we know is a great irritation to some residents and businesses.

Action 3: This Council supports the use of new powers to require drivers of stationary vehicles to switch off 'idling' engines.

4. Reducing emissions from vehicles used by the Council and its contractors

The Council has been steadily increasing the proportion of its vehicle fleet that runs on Liquid Petroleum Gas or electricity. Currently, of 66 Council vehicles, 33 are dual-fuelled (LPG and petrol), four run on electricity and one has a hybrid petrol/electric engine. 11 diesel vans have recently been 'greened' by the fitting of continuous regenerating traps (CRTs) and energy-saving tyres. When buying or leasing new vehicles, there is a strong presumption in favour of alternatively fuelled vehicles (usually LPG or electric), and requests to choose diesel vehicles must be approved in person by the Executive Director Environmental Services. Where it is not practicable to use an alternatively fuelled vehicle, every effort will be made to minimise the emissions from each vehicle. In addition, the Council only purchases and leases fleet vehicles which meet or exceed Euro 3 standards. We are currently investigating the possibility of compiling a register of the emissions performance of all Council vehicles, so that we can measure our progress over time in reducing our emissions. The Council recognises the importance of maintaining its vehicles to a high standard, and of maximising the efficiency of the vehicle trips made in the course of delivering Council services. Similarly, we appreciate the need to minimise vehicle mileage by co-ordinating trips made in the delivery of goods and services, wherever this is possible.

We want contractors' vehicles to meet the same high standards as our own. However, we also appreciate that setting a rigid standard may occasionally inhibit contractors' freedom to choose the best environmental option. For instance, where a contractor must renew a vehicle

to meet a contractual condition on vehicle age, it might be inappropriate to enforce that requirement if a much less polluting model were to be available within, say, a year. The life cycle of the particular vehicle will be an important factor to take into account. Where contractors operate a fleet of vehicles exclusively on Council business we will therefore require them to use the Best Practicable Environmental Option (BPEO) in relation to their vehicle and fuel policy. The BPEO will vary according to circumstances: in some cases it will mean using LPG or electric vehicles, and we will encourage this, but in others it may be to make the best use of more conventional fuels.

However, we will as a minimum require that the emissions from contractors' vehicles are no higher than the level of the previous Euro standard. So, while Euro 3 is the current Euro standard, we will require that emissions are no worse than the Euro 2 standard. From 2005, when Euro 4 applies, we will raise our threshold to the Euro 3 level.

This requirement will apply to all contracts entered into from April 2004 and should be reflected in evaluation criteria, specifications and conditions of contracts accordingly. The Mayor of London's Air Quality Strategy contains a proposal that in the specification of new waste collection contracts, waste authorities should insist on contractors using vehicles that comply with the current Euro standard or the previous standard with after-treatment. The Council will take this into account when drawing up its new contract specification.

It is difficult to estimate the impact on local air quality that these measures will have, though we can be confident that the Council is reducing quite significantly the emissions associated with its own operations. As such, we believe that the policy is a worthwhile one.

Action 4: From April 2004, contractors will be required to choose the Best Practicable Environmental Option for their vehicle fleet. As a minimum, their vehicles' emissions should be no worse than the previous Euro standard.

5. Developing the infrastructure of low-polluting fuels in and near the Borough

Currently there is very poor provision for refuelling or recharging gas-powered and electric vehicles in the Borough. The Council's Pembroke Road premises has an LPG tank for use by its own vehicles and, by special arrangement, vehicles belonging to Kensington and Chelsea PCT. We are currently in discussions with the local fire and police services and hope to be able to supply LPG to them too. In order to meet the growing demand for LPG, both from within and outside the Council, we are exploring the possibility of expanding capacity at the Pembroke Road site. In the future, it is possible that new low-polluting fuels, such as hydrogen fuel cells, water-diesel emulsion and bio-diesel, will also need to be considered.

Provision of LPG

Although the Council can help to encourage the take-up of LPG by a few organisations, we could not hope to meet the potential demand from fleets and private individuals in the area. There are no publicly accessible tanks in the Royal Borough, although there are some in at least two of our neighbouring boroughs. Currently, our LPG supplier, Shell, has no plans to supply LPG from any of its filling stations in or near to the Royal Borough, nor has it been able to make any progress in discussions with other potential suppliers in the Borough.

However, the reported increase in demand for LPG which has been stimulated by the exemption from the Mayor of London's congestion charge, may persuade suppliers to invest in new infrastructure. There are few remaining conventional filling stations in the Royal Borough; this is an issue which will be considered when we produce Supplementary Planning Guidance (SPG) on air quality later this year. The SPG will also cover the kinds of commercial developments, and re-developments of existing sites, where the Council would seek the provision of LPG supplies as part of the planning process.

Provision of electric charging points

The Council's electric vehicles are charged up at the Pembroke Road premises. There is no public provision of electric charging points in the Royal Borough at present, but officers are considering the practicalities of installing charging points for the public to use. Some modern electric vehicles can be fully charged in around four hours, but they can also have their power 'topped up' in much shorter periods. In the first instance this is probably best done in off-street car parks, but in the longer term it may also be possible to provide facilities at on-street parking bays.

The impact of these proposals on fuel infrastructure will depend on the extent to which individuals and businesses respond to the new opportunities that they will create. Although the Council cannot guarantee that more people will use cleaner vehicles, we recognise that we have a role to play in helping them to do so. Ultimately of course, we will rely heavily on manufacturers to make the new technologies available; currently, there are signs that some companies are moving away from electric vehicles, although again, the congestion charge exemption for electric vehicles may revive demand and supply.

Action 5

i) The Council will work with existing and potential suppliers of alternative fuels to establish fuelling points in the Royal Borough.

ii) If it is feasible and cost-effective to do so, the Council will install public charging points for electric vehicles in the Town Hall by the end of 2003.

6. Partnership working with local fleet operators

The Council is not the only local organisation with a large fleet of vehicles, and we have already begun working with Kensington and Chelsea PCT, the local fire service, and the Metropolitan Police to help them reduce the vehicle emissions associated with their operations.

The Council will work at a local level with those organisations that are based in the Royal Borough. The Local Strategic Partnership, which includes representatives of the police and the local health sector, is interested in the air quality issue, and is ideally placed to assist us in our partnership working. The thrust of our local work will be on facilitating the use of low and zero emission fuels, for instance by identifying existing or potential refuelling sites, and by bringing suppliers and potential customers together. We will also provide practical support and encouragement to businesses in cleaning their vehicle fleets and adopting policies that reduce emissions.

We recognise that many of the big fleets, in both the private and public sectors, operate over the whole of London and are managed centrally. Where this is the case, it may be more appropriate for the Council to support pan-London efforts to encourage improvements in the environmental specifications of such fleets. We note and support the Mayor of London's proposals, contained in his draft air quality strategy, to use his influence with large organisations to improve their fleets:

'The Mayor will encourage the London Fire Authority to ensure that new vehicles...have the lowest possible exhaust emissions, consistent with their operational requirements. New fire appliances should have engines that will be the equivalent to at least Euro III. New support vehicles should run on LPG or other alternative fuels.' (Proposal 16)

'The Mayor will encourage the Metropolitan Police Service to seek to reduce exhaust emissions from operational vehicles to the lowest practicable level.' (Proposal 18).

Like several of the measures in the plan, the proposals on fuel infrastructure do not have guarantees, and their results cannot be modelled. It is worth pursuing them because we know that the potential to improve the emissions profile of the local fleet is much more likely to be realised with our support than without it.

The Council recognises that partnership working with local employers need not be confined to the types of vehicles that the employers use. There may also be opportunities for the Council to support local organisations that are developing Green Travel Plans: these are a set of policies and actions designed to make it easier for staff to use environmentally-friendly transport on the journey to and from work, and on employers' business. In the Royal Borough, the Green Travel Plan concept is likely to be most effective as part of planning agreements on quite large developments.

Action 6: The Council will help local organisations to green their fleet, primarily by identifying potential suppliers of low and zero emission fuel. We will offer support and practical assistance to local employers wishing to produce Green Travel Plans and participate in environmental management schemes.

7. Residents' parking permits

The Council would like car-owning residents to choose vehicles which are the least polluting. One way that it can encourage residents to think about vehicle emissions, and provide a financial incentive to choose 'cleaner' models, is through the residents' parking permit system. We have received legal advice that the 1984 Road Traffic Regulation Act allows the Council to take air quality objectives into account when setting the price structure for residents' parking permits. At present, there is a flat rate charge of £100[3] for a resident's parking permit (for a car). The Council is considering whether there should be a number of charging bands to reflect the fact that some cars produce more pollution than others: in short, the more emissions produced by a vehicle, the more expensive the permit. Coupled with the

[3] There is a £10 discount for applications made through the post.

recent trend in national vehicle taxation towards linking charges to emissions, this will raise residents' awareness of air quality issues and give them an incentive to choose less-polluting vehicles.

How the scheme might work

At this stage, we are still considering how best to determine a vehicle's emissions performance. It is vital that the scheme should be easily understandable by residents and simple for the Council to administer. For this reason, the Council could not set charges on a case by case basis, using actual measured emissions. The best compromise between practicality and environmental performance currently appears to be to charge more for larger engines than for smaller engines, and in addition to charge more for diesel engines than for petrol engines. The reasons for this are set out below.

Engine size. Vehicles with larger engines tend over a given distance, to burn more fuel, and produce more carbon dioxide, than vehicles with smaller engines. This is recognised by the Government in the way that it sets vehicle excise duty (VED): for cars registered before March 2001, the VED rate is considerably higher for vehicles with engines over 1549cc than for those with engines of 1549cc or under. The production of carbon dioxide (CO_2) is associated with climate change, and the Government has committed itself to reducing CO_2 emissions, including those from the transport sector. However, engine size is not always closely linked to emissions of local pollutants like NOx and PM_{10}, with which the Council's Air Quality Plan is primarily concerned.

Fuel type Although diesel has some environmental benefits over petrol, primarily because it produces less CO_2 per mile, it has some significant disadvantages in relation to NOx and PM_{10}s.This is why, according to Government forecasts, in 2005 diesel cars will produce the same proportion (12%) of all traffic-generated particulates as petrol cars, despite petrol cars accounting for three times as many vehicle miles. [Source: The Mayor of London's draft Air Quality Strategy, 2001].

There is further evidence for petrol's superior performance in the Vehicle Certification Agency's website, which gives information on the emissions performance of around 2000 models of new car currently on sale in the UK. Analysis of this information shows that the 'average'[4] petrol car produces around 0.037g/km of NOx, compared with 0.408g/km by the average diesel car. The website does not give figures on particulates. [Source: Vehicle Certification Agency].

This analysis is only comparing new cars with new cars, and does not allow for the difference between older and newer models. Although vehicle age has a bearing on emissions, this is usually less important than fuel type. Figures published by the then Department of Transport, Environment and the Regions in 1999 showed that on an average urban test cycle, even old petrol vehicles performed better than more recent diesel counterparts in relation to PM_{10}s. For NOx, the picture is less clear cut, but in general, diesel cars produce more emissions than

[4] 'Average' is the median figure when each type of car is ranked from highest emissions to lowest. In simple terms, half of all the cars in that category are more polluting than the median, and half are less polluting.

petrol cars of the same or slightly greater age[5]. The report in which the figures were published noted:

> *"Diesel vehicles individually tend to have more of an impact on local air quality, for those pollutants that we are most concerned about, than petrol. On the other hand, petrol vehicles produce more CO_2, with implications for climate change…It is therefore difficult to say categorically which fuel has the least environmental impact, and there are trade-offs between the different fuel[s]. However, given that air quality problems are locally concentrated, the case for looking at alternatives to diesel is much stronger when a vehicle is predominantly used in urban areas."*
>
> [Source: The Environmental Impacts of Road Vehicles in Use: Air Quality, Climate Change and Noise Pollution DETR 1999]

The Council is therefore considering making the residents' parking permit more expensive for larger engined cars than for smaller ones, and in addition, charging more for diesel cars than for petrol. We would also expect that permits for electric, gas-powered or hybrid vehicles would be cheaper than those for either petrol or diesel cars.

The Council is very keen to receive views on the principle of using the residents' parking permit scheme to encourage residents to choose less polluting vehicles. We would also be very interested to receive comments on how this could best be achieved.

The impact of these proposals could only be realised quite slowly, in that the Council would not expect the Borough's residents to replace their vehicles with less-polluting models overnight. Moreover we recognise that the cost of a permit will not be the only factor that residents consider when they do buy a vehicle. Nevertheless, it is more than a gesture, as we believe that it will encourage motorists to think about the air quality impact of their cars, and ultimately, to take measures to reduce this impact.

Action 7: We will consider using the residents' parking permit scheme to encourage residents to choose less polluting vehicles.

8. Green travel plans (in schools and Council buildings)

The Council is trying to reduce the number and the environmental impact of the vehicle trips that it generates to and from schools in the Borough and its own buildings. To encourage its own staff to use public transport, the Council offers a free Zones 1 and 2 Travelcard allowance to employees with two or more years' service. This is being reviewed to examine the possibility of reducing the qualifying period to one year. It also provides facilities for cyclists at many of its buildings, and it is considering how to enable more staff to work from home, thereby reducing the number of journeys to work. The Council is also working with schools to develop individual school travel plans to reduce the 'school run' and increase the environmentally friendly travel choices for parents and children. This will build on a series of successful 'Walk to School' campaigns that the Council has run with local schools.

[5] Age is defined in terms of the Euro bandings; a system under which, after a certain date all new vehicles must meet a specified emissions threshold (or Euro standard). The first standard was introduced in 1993, and tougher standards have since come into force in 1998 and 2001. According to the DETR figures, Euro II diesel car engines produced more NOx emissions than Euro I and Euro II petrol cars.

The primary objective of the Council's green travel plans is to reduce traffic associated with journeys to work and to school; they are included in the air quality plan because any reductions in motor traffic should lead to a reduction in vehicle emissions.

As noted in Section 6 (Partnership working) the Council will support local organisations wishing to implement Green Travel Plans, and will look for opportunities to promote Travel Plans as part of the planning process.

Action 8
i) We will continue to develop our own green travel plan, paying particular attention to flexible working and homeworking.

ii) We will work with all interested schools in the Royal Borough to develop school travel plans and encourage less polluting forms of travel to school.

9. City car clubs (also known as community car sharing schemes)

City car clubs provide an opportunity for people to use cars when they really need to, without the cost and the parking problems that come with owning their own. By belonging to a city car club they can hire vehicles for short periods and at short notice, and collect them from reserved parking bays within walking distance of their homes. The more they use the cars, the more they pay; evidence from existing schemes indicates that they lead to reduced traffic mileage, fewer vehicle emissions and less parking stress.

Kensington and Chelsea is leading a group of seven boroughs in setting up the London City Car Club in partnership with Smart Moves Ltd. The establishment of the scheme is funded by a £490K grant from Transport for London for a period of two years. The Kensington and Chelsea branch of the London City Car Club was launched in February 2003 with the first car located in a designated bay at the Town Hall (in the car park behind the Central Library). Other possible sites for parking are being considered by the Council and Smart Moves, and residents from across the Borough have expressed an interest in joining the scheme. The Council is seeking funding from TfL and developers to continue the car club beyond March 2004.

The City Car Club will be monitored to evaluate the degree to which the objectives of the scheme are met; namely to decrease vehicle trips and parking stress in the Borough.

The vehicles used will be new, and will therefore meet Euro III emissions standards. Initially the City Car Club cars will be duel fuel (LPG and petrol) which as well as making them cleaner will allow them to be registered for exemption from the Central London Congestion Charge.

The city car club idea is designed to reduce parking stress and unnecessary vehicle trips, and is being pursued in the Royal Borough for these reasons rather than as a means of reducing air pollution. However, if the scheme becomes successful and brings the parking and traffic benefits that are expected, it will lead to a reduction in vehicle emissions too. Anyone

responding to this action plan is welcome to make suggestions for possible locations in the Royal Borough.

Action 9: The London City Car Club scheme will be operational in at least one part of the Royal Borough from Spring 2003.

10. Land use planning

Few development proposals received by this Council are large enough for us to insist on the submission of an Environmental Impact Assessment. However, we can request that applicants provide information on, for example, the air quality implications of a development proposal. Any information provided would be a material planning consideration, although the Council cannot insist on this information being provided. The Council would look for evidence that developers had taken appropriate steps to minimise the emissions associated with the development.

This would apply to proposals that would generate vehicle trips in the local area and in increases in traffic volumes of 5% or more on individual road links with more than 10,000 vehicles per day.

The proposals would also apply where congestion increases, or traffic composition alters, where parking provision is increased or at pollution hotspots, in accordance with the ALG guidance on air quality assessments.

The impacts of changes in land use planning practice tend by their nature to be felt only in the long-term. The proposals described here are designed to consolidate a trend in development and land use planning towards recognising air quality as an important consideration.

In addition to environmental impact assessments, there are a number of other ways in which the land use planning system can be used to improve air quality. To take one example, the shortage of suitable sites for new alternative fuel infrastructure is a significant barrier to the take-up of these fuels in central and inner London. This is particularly noticeable in the Royal Borough, where even conventional filling stations are slowly disappearing from our streets. The Council will examine what, if anything, can be done to retain filling stations and then to expand the supply of alternative fuels, as part of work that is being done to produce Supplementary Planning Guidance (SPG) on air quality matters. This will set out how the Council hopes to use the planning system to improve air quality.

Action 10: We will produce Supplementary Planning Guidance on air quality. This will explain to developers the Council's requirements and policies in relation to the impacts on air quality of new development proposals. The Council will request that all proposals for developments, if they fall within the scope of the guidance, will include an assessment of the air quality implications.

11. Improved public transport

An effective public transport system serving the whole Borough is an essential part of the Air Quality Management Action Plan. The Council can help to improve public transport, for instance by applying its parking enforcement powers to ensure that buses do not get stuck behind illegally parked cars and vans, and by providing attractive and comfortable bus shelters, where appropriate. As highway authority for the large majority of roads in the Borough, the Council will consider bus priority measures that are designed to achieve demonstrable improvements to bus travel, where this can be done without causing congestion and traffic diversion through residential areas, or negative impacts on frontagers or the appearance of the streetscene. For instance, where it is appropriate, we are installing Single Vehicle Detection systems, also known as 'virtual bus lanes'. These detect buses that are approaching signal-controlled junctions, and adjust the signals to allow the buses through.

However, we will rely predominantly on Transport for London and the Mayor of London to deliver the other improvements to our public transport that we know are vital. The Council is pleased that some new bus routes have already been proposed in the Royal Borough, but much remains to be done. We are pressing for:

- the early implementation of the Chelsea-Hackney Line, serving Sloane Square, Chelsea Old Town Hall, and Chelsea Harbour (this is a long-term project);
- new stations at Shepherd's Bush and Chelsea Harbour on the West London Line, as well as improved service frequencies along this line;
- maintenance on the District and Circle Lines to be a priority when TfL takes over the running of London Underground;
- the general roll-out of a reliable Countdown service at bus stops throughout the Royal Borough.
- improved North - South public transport links (we are currently exploring the possibility of a new bus service running from the Lots Road area up to North Kensington, via Earl's Court).

The measures listed above would have been pursued regardless of the state of local air quality, and have very strong justifications in terms of improving accessibility in the borough and reducing traffic. Nevertheless, they would amount to a major improvement in public transport provision and the Council is confident that they would bring a significant reduction in vehicle trips and in emissions from private vehicles.

Action 11: The Council will work with TfL, Network Rail, the Strategic Rail Authority and others to ensure that the improvements to public transport in the Royal Borough will be delivered as soon as possible. The Council will help TfL to deliver improvements to bus services, for instance through targeting parking enforcement on congested areas, and reviewing loading and waiting restrictions.

12. Encouraging walking

The Council believes that a pleasant, uncluttered and high quality street environment is crucial if we are to encourage more people to walk for short trips. The changes to Kensington High Street embody the Council's approach to the streetscene; further work is planned in demonstration projects in Courtfield and Earl's Court wards.

This work is being done because we feel that attractive street environments are desirable in their own right. They are also a vital part of our strategy to encourage walking – the least polluting form of transport. Any measures which promotes walking over more polluting forms of travel should be included in our air quality action plan. The Council is aware that the growth of the 'café society' can bring problems when tables and chairs fill the pavements, leaving pedestrians without enough space. The Council is looking for ways to address this problem as part of one of its Best Value Reviews. It will also look for opportunities to widen pavements as part of traffic management schemes.

The consultation on our draft Action Plan showed that people recognise the value of our commitment to cleaner streets, but also that even higher standards of street cleaning were needed; in March 2003, the Council signed a Local Public Service Agreement with the Government to raise standards of street cleaning along bus routes.

Action 12: We will set and maintain the highest possible standards of urban design and street cleansing as part of an integrated approach to making walking an attractive option in the Royal Borough. In doing so, we will seek to establish a reputation as a centre of excellence for streetscape design.

13. Cycling

Like walking, cycling is a very clean (and healthy) mode of transport and can make a contribution to improving air quality. The Council is therefore keen to see more people cycling safely and responsibly, on the carriageway. It encourages cycling through: a programme of installing cycle parking where there is demand and maintaining road surfaces to a very high standard. We also provide cycle lanes, advanced stop lines, and cycle crossings, in a way that is sensitive to the environment.

The Council's efforts to make cycling safe and convenient have been progressing for some time, and would no doubt have continued even if there were no air quality problems in the Borough. We cannot expect cycling to replace the heavier, more polluting vehicles (heavy goods vehicles, buses, and so on) but even a small transfer from cars to bicycles will lead to at least some reduction in emissions.

Action 13: The Council will continue to encourage responsible cycling through a combination of cycle parking, high quality road surfaces, and where appropriate, traffic management.

14. On-street parking

The Council has a policy of limiting the number of car trips into the Borough by limiting the number of on- and off-street parking spaces available to non-residents. Pressure for visitor parking spaces is very high in many parts of the Royal Borough, and the Council must set the charges for on-street parking (and spaces in its own car parks) so as to manage this demand. Guidance from the Government states that parking charges should be set for traffic management reasons, such as to ration spaces; this can have the indirect impact of discouraging some vehicle trips and thereby reducing vehicle emissions. For many years the Council has followed this guidance, and there is no doubt that without such tight parking controls, traffic levels (and emission levels) would be higher than they are.

Action 14: The Council will ensure that its charges for on-street visitor parking spaces are effective in managing demand.

15. Permit free housing

Until now, when the Council has granted planning consent to a new development, the future occupants of the development have been entitled to purchase a residents' parking permit (providing they meet the usual eligibility criteria), regardless of the existing parking stress in the immediate area. This has meant that new developments have tended to exacerbate parking difficulties, even though, in some cases, the applicants might not have insisted on the right to a residents' parking permit. One possible solution to this problem would be to grant planning consent subject to a Section 106 Agreement that the occupants would not be able to apply for a resident's parking permit. This is permit-free housing. A Key Decision taken in March 2003 gave the Council the option of requiring some developments to be designated 'permit-free'; it is now making the necessary legal and administrative arrangements to allow it to be applied in appropriate cases. It will produce Supplementary Planning Guidance on the criteria for developments that would be suitable for permit-free housing. People wishing to buy a 'permit-free' property would be informed that they could not buy a residents' parking permit when they or their solicitors undertook a local land search. The Council would keep a list of 'permit-free' properties in the Borough.

The use of permit-free agreements by the Council is unlikely to be on such a large scale that it would have a noticeable impact on air quality, (not least because residents' private vehicles account for a relatively small proportion of the local pollution). The agreements would be designed primarily to resolve a longstanding tension between the demand for new housing and the demand for parking spaces. However, insofar as it helps to slow the growth in car ownership and car use, it is a valuable element in this Air Quality Action Plan. It shows that the Council is prepared to use innovative schemes to address local environmental problems.

Action 15: The Council will use its new powers to require that appropriate new developments are made 'permit-free', as part of the planning implementation process.

16. Taxis

The Council recognises that a shortage of taxi ranks can result in licensed taxi cabs driving around empty, and so increasing pollution. The Mayor of London's draft air quality strategy noted the need to increase the number of taxi ranks where taxis can ply for trade, in order to address this problem. The Council will consider opportunities to designate new taxi ranks in the Royal Borough. It will also work to ensure that any Low Emission Zone that is established should be designed to bring about a reduction in total emissions from taxis.

Since we recognise the considerable demand for taxis in the Borough, and the role they can play in complementing public transport, the most effective way of reducing their emissions is to ensure that each one meets a reasonable emissions threshold. Thus it is through a Low Emission Zone that the Council have the greatest impact on taxi emissions.

Action 16: The Council will review opportunities to designate new taxi ranks in the Royal Borough and will lobby for taxis to be affected by the rules of any LEZ that is established.

17. Co-ordinating traffic signals to improve traffic flow

Vehicle emissions tend to increase in 'stop-start' traffic; efforts to smooth traffic flow, without increasing overall traffic volumes, can therefore help to reduce air pollution. In some situations it may be possible to co-ordinate traffic signal timings so that vehicles are not held up at each signal, thus allowing them to keep an even speed, and smoothing the overall flow. In such a dense road network, and with so many competing demands on roadspace, there will be few opportunities to use traffic signals in this way in the Royal Borough. The Council does not control the traffic signals in the Borough – they are the responsibility of the Traffic Technology Signals Unit within TfL. However, where road schemes are being reviewed, the Council will consider whether changes to the traffic signals could bring air quality benefits where these would not significantly disbenefit any road users, including pedestrians. This is something that the Council would do even if there were no Air Quality Action Plan anyway, as part of its efforts to reduce traffic congestion.

Action 17:The Council will work with Transport for London to use signals to smooth traffic flow, without increasing overall traffic levels.

18. Coaches

Large volumes of coaches use the Royal Borough's roads, either on their way in and out of central London, or to the many hotels and visitor destinations that are in Kensington and Chelsea. Like taxis, these coaches add to the local air quality problems, and like taxis, coaches sometimes have difficulty finding places to park (and turn off their engines). In line with the Mayor of London's draft air quality strategy we will review coach parking facilities with a view to minimising air pollution from coaches. The Council believes that pollution from coaches is another reason why a Low Emission Zone is needed urgently. In the meantime, the new power to require drivers to turn off their engines whilst stationary (see Action 3 above) is likely to be helpful in our attempts to reduce pollution from coaches.

The greatest impact that the Council can have on coach emissions will be through a LEZ, but if there are opportunities to improve coach parking facilities these are likely to have wider traffic management benefits, as well as air quality gains.

Action 18: The Council will review coach parking facilities in the Royal Borough.

19. Freight transport

Freight transport accounts for a significant proportion of the traffic-related pollution in the Royal Borough. The Council recognises that many freight trips are necessary and unavoidable, but it will look for opportunities to minimise their environmental impact. The Council will respond to any recommendations proposed by the London Sustainable Distribution Partnership, taking into account the interests of local residents as well as those of the freight industry and business generally.

Action 19: We will consider the recommendations from the London Sustainable Distribution Partnership and we will actively consider joining Freight Quality Partnerships promoted at sub-regional level.

20. Construction sites

We will consider forthcoming Codes of Practice for minimising building site pollution that are expected shortly from both the Mayor of London and the Building Research Establishment, and assess whether to adopt and promote either or both of these in Kensington and Chelsea.

Our understanding of the pollution associated with building work is still developing, and when we know more, it may be possible to identify more specific measures. At this stage, codes of practice appear to us to be a sensible way to promote the use of less-polluting construction plant and methods.

Action 20: The Council will work with the Building Research Establishment, the Mayor of London, neighbouring boroughs and representatives of the construction industry to create a Green Building Site Code of Practice.

21. Composting

Smoke from garden bonfires contains particulates as well as other pollutants. The Council would like more residents to compost their garden waste, instead of burning it, and it encourages them to do so by offering composting bins at subsidised prices. In addition, a new green waste recycling scheme, whereby the Council will collect and compost garden waste from homes in some parts of the Borough, should commence on a trial basis shortly. The trial aims to recycle at least 50 per cent of the green waste material available in the trial area.

The Council's composting initiatives are designed primarily to meet the very tough recycling and composting standards that have been set by the Government; the air quality benefits would be hard to measure but are nonetheless real.

Action 21: The Council will continue to encourage residents to compost waste rather than burning it in bonfires.

22. Smoke control zones

Since the Clean Air Acts of the 1960s, boundary changes, mislaid paper records, redevelopment and anomalies in the original Smoke Control Orders now make it very difficult to enforce the provisions that control the burning of solid fuel on open hearths and authorise specific fire appliances. Open hearths, wood burners and charcoal grills are becoming more popular and their wider use may be detrimental to air quality. A rationalisation and re-declaration of the Smoke Control Zone is required.

Action 22: We will work towards re-designating the Smoke Control Zone by the end of 2003.

23. Emissions from small industrial processes

There are only ten small (Part B) processes in the Borough, nine of which are petrol filling stations. However from time to time small paint spraying operations are started up and are difficult to identify. The Council will intensify its search for premises where paint spraying activity may have reached the threshold at which the pollution control regulations apply.

Action 23: The Council will continue to carry out regular and rigorous statutory inspections in accordance with DEFRA guidance, to ensure that emissions from small industrial processes (Part B processes) do not exceed national air quality objectives, and are minimised as far as is practically possible.

24. Home energy conservation work

The Council has initiated a campaign to conserve energy in residential property aiming to replace inefficient boilers and improve heat insulation under the Home Energy Conservation Act (HECA). The Council's Affordable Warmth strategy has the twin benefits of reducing fuel poverty and encouraging fuel efficiency. Reducing energy input and fuel consumption reduces emissions not only of carbon dioxide (the gas associated with climate change) but also of nitrogen dioxide, from gas-burning boilers.

Action 24: The Council will continue to promote energy-efficiency measures in homes in the Royal Borough, under its HECA and specifically its Affordable Warmth work. It will also consider and require efficient local energy generating schemes where practicable.

25. Air quality monitoring

For several years the Council has monitored air quality conditions in the borough, both in roadside situations and in background areas. A comprehensive network of automatic monitoring and more simple monitoring methods has been developed which provides information on levels of pollution from year to year. This is necessary in order for the Council to establish whether air quality is improving; it also provides residents and others with a clear idea of varying levels of pollution concentrations across the borough.

The figures produced by the monitoring instruments are of a high quality and are included in national and regional monitoring networks which indicate how close pollution levels are to the national targets set for 2004/2005. This complements the Council's air quality modelling capability which allows us to predict future local conditions.

These monitoring and modelling activities require significant resources and constant management.

Action 25: The Council will maintain its financial commitment to air quality monitoring and modelling and will consider further types of monitoring as the need arises.

APPENDIX 1: SOURCE APPORTIONMENT

The February 2002 London Atmospheric Emissions Inventory (LAEI) was used to determine the approximate contributions of different sources of nitrogen oxides and particulate emissions within the Borough. Identifying the different sources of pollution, allowed appropriate actions to be devised. Table 4 indicates the different sources of pollution within the Borough;it shows that the main contributor of both NO_x and PM_{10} emissions in the Borough is transport.

Table 4 Approximate contribution of all sources of NO_x and PM_{10} within the Borough*.
Source: determined from the London Atmospheric Emissions Inventory (Feb 2002)

	NOx+		PM10	
	Tonnes/Annum	%	Tonnes/Annum	%
Major roads	225	41%	18.3	57%
Minor roads	38	7%	4.0	12%
Rail	49	9%	4.2	13%
Shipping	0	0%	0	0%
Industrial	5	1%	5.0	15%
Domestic Gas	117	21%	0	0%
Commercial Gas	104	19%	0	0%
Building	0	0%	0.6	2%
Other	9	2%	0.2	1%
Total	547	100%	32.3	100%

Because transport was shown to be the main contributor of nitrogen oxides and particulates, it was important to breakdown the transport contributors into the different fleet categories. Table 5 shows the contributions of various vehicles sources to NO_x and PM_{10} within the Borough.

Table 5 approximate contributions of various vehicles sources to NO_x and PM_{10} within the Borough.
*Source: determined from the London Atmospheric Emissions Inventory (Feb 2002)

	NOx+		PM10	
	Tonnes/Annum	%	Tonnes/Annum	%
Cars	74.4	33	6.5	35
Taxis	20.2	9	3.5	19
Light Good vehicles	20.3	9	3.5	19
Heavy Goods vehicles	65.0	29	3.6	20
Buses	45.2	20	1.2	7

+ In these tables NOx has been quoted as 'true NO_x'. The London Atmospheric Emissions Inventory assumes that all NO_x emitted is NO_2 (i.e. NOx as NO_2). This will lead to a different estimate in the emissions of NO_x.

Total	**225.1**	**100**	**18.3**	**100**

APPENDIX 2: RESPONSIBILITIES, COSTS AND BENEFITS

DEPARTMENTAL RESPONSIBILITIES

Many of the actions in the Action Plan will be collaborative efforts involving several Council departments, not to mention outside organisations. However, for each action there will be at least a nominal 'lead' department or departments; this list below shows that all parts of the Council have a role to play in improving local air quality:

Environmental Services	1, 5i, 6, 8i,
Environmental Health	2, 3, 22-25
Corporate Services	4, 8i
Highways and Transportation	5ii, 7, 8ii, 9, 11-19
Planning and Conservation	10, 15, 20
Waste Management	12, 21

COSTS AND BENEFITS

As Government guidance requests, we have undertaken a *brief* appraisal of the cost, air quality impacts, feasibility, and cost-effectiveness of each of the twenty-five proposed actions within the Royal Borough. Necessarily, the appraisals are based on officers' best estimates of the likely cost to the Council and the air quality benefit, of each action, rather than on a highly detailed study. Both the air quality and cost estimates are best viewed in relative terms. Many of the actions included in the Plan are being delivered primarily for reasons other than the improvement of air quality, and estimates of their cost and their impact on air quality are therefore of secondary importance. Where it *is* appropriate to produce a full estimate of costs and benefits, with the Low Emission Zone proposal, for instance, this is being done as part of a major study sponsored by the ALG and the GLA. For this reason, we have not entered our own rough estimate of costs and air quality impacts, although clearly we would not include it in the Plan if we did not believe that it might be a good and cost-effective way to reduce pollution.

Nothing has been included in the Plan that officers considered unfeasible. However, we have taken into account the operational issues surrounding their implementation and for this reason have identified some as 'more than likely to be feasible' while others are only 'likely to be feasible'.

The assessment of cost effectiveness is a function of air quality benefits and the costs to the Council of delivering them.

For both feasibility and cost effectiveness, we have used a simple labelling system: one tick indicates that on balance, the action is likely to be feasible or cost-effective; two ticks indicates that it is more than likely to be feasible or cost-effective.

Finally, we also considered which key partners were likely to be involved with each action.

TABLE 6 PROPOSALS, SHOWING RELATIVE AIR QUALITY BENEFIT AND COST

No.	Action	Relative air quality benefit	Cost to the Council Low < 10K Medium 10-100K High > 100K	Feasibility	Cost effectiveness	Main partners
1	Low emission zone	awaiting results of GLA/ALG feasibility study				ALG, GLA/TfL
2	Emission testing	Medium	Low (initially)	✓✓	✓✓	ALG
3	Idling engines	Medium	Low	✓✓	✓✓	
4	Cleaner Council and contractor vehicles	Medium	High	✓✓	✓	Council contractors
5i	Improved cleaner fuel infrastructure	Medium	Low	✓	✓✓	unknown
5ii	Electric charging points in car park	Low	Medium	✓✓	✓	unknown
6	Working with local fleet operators	Medium	Low	✓✓	✓✓	Local fleet operators
7.	Graduated parking permits	Low	Low	✓✓	✓✓	
8i	Green Travel Plan within the Council	Low	Low	✓✓	✓	
8ii	School Travel Plans	Low	Medium	✓✓	✓	Schools
9	City Car Club	Low	Low	✓✓	✓	Smartmoves
10	Supplementary Planning Guidance	Medium	Low	✓✓	✓✓	
11	Public transport improvements	Medium	High	✓✓	✓✓	TfL, SRA, Railtrack,
12	Encouraging walking	Low	Medium	✓✓	✓	
13	Encouraging cycling	Low	Medium	✓✓	✓	TfL
14	Parking charges	Low	Low	✓	✓	
15	Permit free housing	Low	Low	✓✓	✓	
16	Taxi ranks	Low	Low	✓	✓	TfL
17	Traffic signals to smooth traffic flow	Low	Low	✓	✓	TfL
18	Review coach parking	Low	Low	✓	✓	
19	Freight	Low	Low	✓✓	✓	
20	Green Building Site code of practice	Low	Low	✓✓	✓✓	BRE, GLA
21	Composting	Low	Low (initially)	✓✓	✓✓	Network Recycling, SITA, Ealing Community Transport
22	Smoke control zone	Low	Low	✓✓	✓✓	
23	Regulating industrial emissions	Medium	Low	✓	✓✓	
24	Energy efficiency	Low	Medium	✓✓	✓	
25	Air quality monitoring	n/a	Medium	✓✓	✓✓	

APPENDIX 3: PROPOSALS IN THE MAYOR OF LONDON'S AIR QUALITY STRATEGY

No	Proposal	Timescale (end of year indicated) 2002 2003 2004 2005 >2005
1	The Mayor will commission a review of the adequacy of the distribution of air quality monitoring sites across Greater London and the arrangements for data collection, verification and dissemination.	■■
2	The Mayor will encourage and promote the benefits of cleaner road vehicles including by:	
	• providing full and objective information on the technologies available (by autumn 2002), tailored to different operator types (by spring 2003)	■ for information ■ tailored to operator types
	• encouraging London boroughs to promote and encourage cleaner vehicles at a borough level	■■■■■■ From publication of Strategy
	• working with technology and fuel suppliers and motor manufacturers	Ongoing
	• facilitating meetings between vehicle operators, cleaner fuel and vehicle providers and grant agencies	Ongoing
	• undertaking investigations and trials of new technologies within functional body fleets	See individual projects in TfL EAP
3	To maximise the benefit of TransportEnergy grants, the Mayor will urge the government to:	
	• make vehicle excise duty (VED) reductions for retrofitting for smaller vehicles more significant (at present the reduction is only £10)	■ for official letter
	• extend the fuel duty differential guarantee to beyond 2004	■ for official letter
	• seek to increase the retrofitting grants towards 100 per cent, to encourage more smaller operators (with generally older, dirtier vehicles) to use the grants	■ for official letter
	• increase grants for taxi conversions from 65 per cent to 75 per cent, on a par with most other CleanUp grants	■ for official letter
	• extend and additionally fund PowerShift and CleanUp beyond 2004 until the (current and proposed) national air quality objectives and EU limit values have been achieved, to assist the achievement of these objectives and limit values and to assist any low emission zones that are implemented.	■ for official letter
4	The Mayor will urge the government to provide incentives through the fuel duty system for water-diesel emulsion and other such proven cleaner fuels.	■ for official letter
5	The Mayor will encourage the use of alternative fuels through measures that will include:	

No	Proposal	Timescale (end of year indicated) 2002 2003 2004 2005 >2005
	• providing incentives for the very cleanest vehicles, for example, the 100 per cent discount for certain alternatively-fuelled vehicles from central London congestion charging (February 2003) ***• promoting TransportEnergy grants and other incentives*** ***• including the issue of quieter alternatively-fuelled vehicles in the review of the London Night and Weekend Lorry Control Scheme (first phase of review to be completed by March 2003)*** ***• replacing Transport for London Street Management's fleet of 34 vehicles with liquefied petroleum gas vehicles (when due for replacement).***	[redacted] Ongoing [redacted] [redacted]
6	The Mayor will take forward a Hydrogen Partnership in London involving those working in the industry and others who need to be involved in delivering a hydrogen economy. The Partnership was launched in April 2002 and will work together to develop and implement a Hydrogen Action Plan.	The Partnership will develop targets and timescales
7	The Mayor supports electric refuelling through the work of The London Clean Fuel Vehicle Working Group and will act on its recommendations where appropriate.	Ongoing
8	The Mayor and Transport for London will encourage the government and TransportEnergy to investigate additives and devices aimed to reduce NO_x, PM_{10} and CO_2 that are brought to their attention. Those found to give cost-effective emissions reduction benefits will be promoted through the Greater London Authority website and used within the functional body fleets where practicable.	Ongoing
9	The Mayor will provide support and the framework for a vehicle maintenance campaign through the Vehicle Emissions Testing Working Group. The Mayor will also undertake a campaign to raise awareness of the issue of idling vehicles, especially through the London Tourist Board during 2003.	[redacted] for campaign
10	The Mayor, in conjunction with the Association of London Government, the London boroughs and central government, will consider the London low emission zone feasibility study steering group's recommendations. Prior to any decision on the implementation of a low emission zone, the Mayor will first take account of the views of those who are likely to be affected.	[redacted]

No	Proposal	Timescale (end of year indicated) 2002 2003 2004 2005 >2005
11	The Mayor, through Transport for London, will seek to extend the use of water-diesel emulsion across TfL London buses, with use in eight additional garages by end March 2003. The Mayor will encourage use of this fuel by others, and its further development by fuel companies.	Ongoing [redacted] for 8 additional garages
12	The Mayor, through Transport for London, will give high priority to further reductions in bus emissions. All new buses will have Euro III engines or better, and will also be fitted with particulate traps by 2005. All existing buses, including Routemasters, will have Euro II engines and will be fitted with particulate traps by 2005.	Ongoing for new buses [redacted] for existing buses
13	The Mayor, through Transport for London, will actively review opportunities for the use of alternative fuels and other methods for reducing emissions.	
	• Two-year trials of zero emission buses operating on hydrogen fuel cells will start in 2003.	[redacted]
	• The use of water-diesel emulsion fuel will be expanded through TfL London Buses depending on successful outcomes of trials and available funding.	Ongoing [redacted] for 8 additional garages
14	The Mayor, through Transport for London, will work with bus companies to continue to improve the overall performance of buses by encouraging smoother driving and by identifying further opportunities for the implementation of bus priority measures.	Ongoing
15	The Mayor, through Transport for London, will develop a strategy during 2002/3 for improving vehicle emissions on services operated under London Local Service Agreements. As a minimum it is expected that all vehicles operating on these services will comply with Euro I emission standards. The implications of adopting a much higher standard, in line with that proposed for the main bus network, will be examined.	[redacted]
16	The Mayor, through Transport for London, will ensure that all buses and coaches operating with a London Service Permit will have to meet Euro I emission standards as a minimum by 2005. This standard will be progressively reviewed in order to reduce emissions from these vehicles.	[redacted] Ongoing review
17	The Mayor, through the Transport for London Coach Forum, will review arrangements for coach parking, facilities and terminals and look at how to manage the environmental impacts of coach travel, including air quality.	[redacted] Ongoing

No	Proposal	Timescale (end of year indicated) 2002 2003 2004 2005 >2005
18	After taking account of the views of the taxi trade, the Mayor, through Transport for London, will use regulatory powers to ensure that from set dates all taxis are first Euro I standard or better, and later Euro II standard or better. The Mayor will make information available to assist taxi owners in conforming to the set standards and obtaining grants to offset the costs of conversion or retrofitting.	Timescales to be agreed [redacted] Ongoing for providing information
19	The Mayor, through Transport for London, will work with the London Sustainable Distribution Partnership to assist in the development and implementation of proposals for effective distribution of goods in London.	Progress to be reported by TfL
20	The Mayor, through Transport for London, has set up the London Sustainable Distribution Partnership to form the basis of partnerships with business, the London boroughs and other sub-regional partners. The Mayor's proposals relating to freight from his Transport, Air Quality, Municipal Waste Management, Ambient Noise and Energy Strategies will be considered through this partnership to encourage the accelerated take-up of cleaner and quieter vehicle technologies and to promote better vehicle maintenance and considerate and economical driving.	Progress to be reported by TfL
21	The Mayor, through Transport for London, will encourage the early development of Freight Quality Partnerships, particularly at the sub-regional level, to complement similar, borough-led initiatives at the more local level.	Progress to be reported by TfL
22	The Mayor, through Transport for London, together with the London boroughs, will assess the scope for the use of priority lanes by freight vehicles and its implications for other road users, primarily cyclists. The potential air quality benefits of the smoother driving and therefore lower emissions resulting from this measure will be investigated.	Progress to be reported by TfL
23	The Mayor, through his Municipal Waste Management Strategy, will seek to ensure, when awarding new waste and recycling contracts that all waste authorities specify emissions criteria for the vehicles used. These criteria should comply with either the currently applicable Euro standard, or the previous Euro standard with suitable after-treatment as a minimum ie Euro II with Reduced Pollution Certificate until 2005, Euro III with Reduced Pollution Certificate after that date.	[redacted] From publication of Mayor's Municipal Waste Strategy

No	Proposal	Timescale (end of year indicated) 2002 2003 2004 2005 >2005
24	The Mayor, through Transport for London, has set up the London Motorcycle Working Group which will work to enhance and extend the provision of parking for motorcycles and mopeds, particularly in areas of high demand. Opportunities will be explored to improve road safety, reduce emissions and noise pollution, and provide incentives for motorcycles to use retrofit technology and for cleaner motorcycles.	Ongoing
25	The Mayor, through Transport for London, will develop and implement traffic management measures on the Transport for London Road Network to help reduce emissions and energy use as well as encouraging safe, economical and considerate driving. The Mayor, through Transport for London, together with the Department for Transport and the Highways Agency will investigate further traffic management measures and the Mayor will urge the Highways Agency and the London boroughs to adopt these measures, where practicable, to reduce emissions.	Progress to be reported by TfL
26	The Mayor will encourage implementation of Clear Zones by the London boroughs. Where traffic calming is used this should be implemented following government guidance and should be designed to minimise acceleration and deceleration.	Ongoing
27	The Mayor will encourage BAA and all other operators at Heathrow to implement measures at Heathrow Airport to reduce the overall environmental impact of surface access vehicles.	Ongoing
28	The Mayor will urge the government to work towards minimising the environmental impacts of air freight, including through international agreements, national and airport-related regulation and economic measures.	Ongoing
29	The Mayor, through Transport for London, will work with stakeholders to minimise the air quality impact of deliveries at Heathrow, including through the London Sustainable Distribution Partnership and the Heathrow Area Transport Forum.	Ongoing
30	The Mayor will urge the government, the European Union, the aviation industry, the International Civil Aviation Organisation and the Civil Aviation Authority actively to pursue the reduction of emissions at airports, particularly at Heathrow, using all available methods.	■ for official letter
31	The Mayor urges BAA/Heathrow to adopt the additional measures detailed in this Strategy into its Action Plan.	Ongoing

No	Proposal	Timescale (end of year indicated) 2002 2003 2004 2005 >2005
32	The Mayor encourages the government to include proposals in the forthcoming Aviation White Paper for levies to mitigate the environmental impacts of aviation, which should be distributed through Aviation Environment Funds for each airport.	[redacted] for official letter
33	The Mayor will work with train operators, the Strategic Rail Authority and Railtrack to promote best practice in terms of train operation at stations.	[redacted]
34	The Mayor will work with the Strategic Rail Authority to encourage passenger and freight train operating companies to investigate methods for reducing emissions from diesel trains.	[redacted]
35	The Mayor will urge the government to provide directions to the Strategic Rail Authority to include environmental clauses in train operating company contracts. The Mayor will also urge the government to implement measures to reduce emissions from diesel locomotives, such as ensuring the availability of ultra low sulphur diesel and adequate incentives for train operators to use available technologies to further reduce exhaust emissions.	Ongoing, through Mayor's SRA guidance
36	The Mayor, through Transport for London, will work with the Strategic Rail Authority to seek to implement the policies relevant to improving air quality from the Mayor's Strategies.	[redacted] From publication of Strategy
37	The Mayor will encourage the government to revise the relevant legislation in order to improve the quality of fuel oil used by river vessels ahead of European Union legislation.	[redacted] for official letter
38	The Mayor, through Transport for London, will work with relevant partners to identify options for increasing both rail and water freight.	Progress to be reported in annual TfL Environmental Action Plan
39	London Underground Limited is continuing to investigate methods of improving air quality on the system particularly by reducing dust emissions, including PM10. When the London Underground comes under the control of Transport for London, the Mayor, through Transport for London, will work with the relevant organisations to assess ways of further improving air quality on the system.	Ongoing
40	The Mayor will urge the Environment Agency to ensure that there are no breaches of process emission limits from Agency regulated processes and to take appropriate action where these occur, and to ensure that such process emissions do not lead to exceedances of the national air quality objectives or European Union air quality limit values.	GLA will review annually following EA annual report

No	Proposal	Timescale (end of year indicated) 2002 2003 2004 2005 >2005
41	The Mayor will urge the London boroughs to inspect their regulated industrial processes and to modify and update their permit conditions, as and when required, in line with appropriate DEFRA guidelines, and to act upon complaints and suspected or actual breaches of permit conditions in a timely manner.	[redacted] From publication of Strategy
42	The Mayor will urge the London boroughs to ensure that process emissions do not lead to exceedances of the national air quality objectives and to use regulatory or other measures, as appropriate, to reduce these emissions.	[redacted] From publication of Strategy and LB air quality action plans
43	The Mayor will request that the government and the European Union take measures to achieve the reduction of emissions that contribute to long range pollution affecting London – particularly for key ozone and secondary particles precursors such as NO_x, SO_2 and VOCs.	[redacted] for official letter
44	The Mayor will urge the government to seek more stringent National Emissions Ceilings for the UK in the next round of negotiations, where practicable and cost-effective.	[redacted] for official letter
45	The Mayor will seek to improve information on emissions from construction-related activities and include them in the London Atmospheric Emissions Inventory in 2003.	[redacted]
46	The Mayor will and the boroughs should expect future developments to meet the highest standards of sustainable design and construction, including measures to re-use existing building stock in preference to demolition and reconstruction where practicable.	[redacted]? From publication of the London Plan
47	The Mayor will build on the work of other organisations to develop construction best practice guidance to encourage the reduction in levels of dust, together with other environmental impacts, from construction-related activities.	[redacted]
48	Through the Mayor's Municipal Waste Management Strategy the Mayor will encourage the London waste authorities to promote composting, which should also help to reduce the number of bonfires.	[redacted] From publication of Waste Strategy
49	The Mayor will work with energy supply companies to increase the provision of renewable electricity. The GLA group will procure renewable energy for the energy supply to their buildings and services.	[redacted]
50	The Mayor will encourage efficient local energy generating schemes, particularly combined heat and power and community heating schemes through the Mayor's Energy Strategy and the Mayor's London Plan (Spatial Development Strategy). The Mayor will also encourage the use of gas condensing boilers and low NO_x burners in boilers.	[redacted]? From publication of Energy Strategy

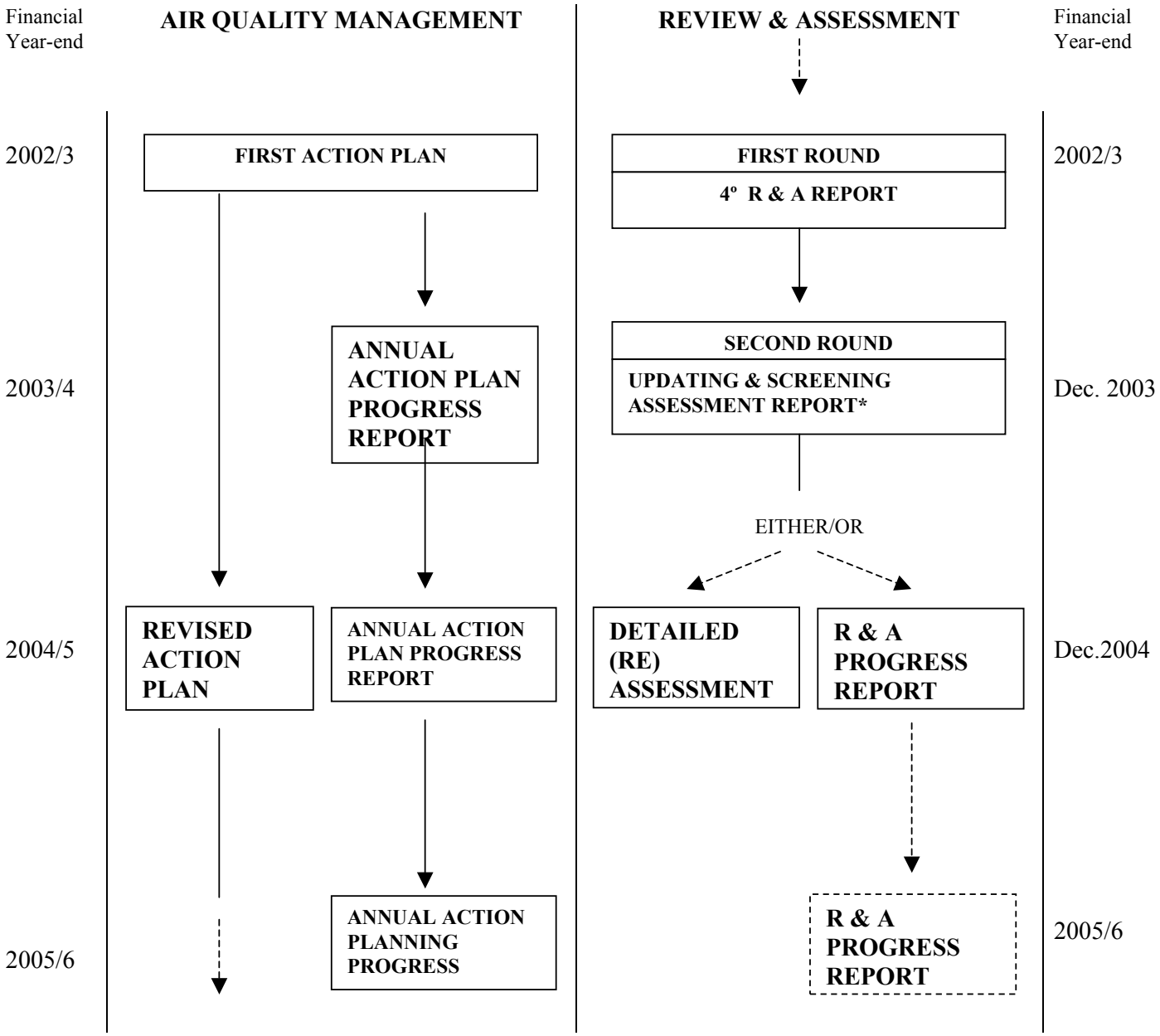
No	Proposal	Timescale (end of year indicated) 2002 2003 2004 2005 >2005
51	The Mayor will encourage boroughs to assess combined heat and power (CHP) proposals using the Customs and Excise 'Good quality CHP' index and to ensure that developers demonstrate that opportunities for utilising heat have been fully assessed.	From publication of the London Plan
52	The Mayor will encourage the conversion of those large boilers that still use heavy fuel oil in London to lighter fuel oils or gas. The Mayor will encourage, in particular, changing their use to combined heat and power.	
53	The Mayor will provide a travel plan to assist Greater London Authority staff in using sustainable modes of transport to travel to work or when carrying out duties on behalf of the Mayor or Assembly.	
54	The Mayor will use sustainability considerations, where they are relevant to the performance of the service being tendered, as one way of evaluating tenders for future contracts, and to promote best practice.	On all GLA tenders
55	The Mayor will ensure that Transport for London's green procurement strategy includes measures for procuring goods and services that seek to meet sustainability targets in line with the Mayor's environmental Strategies.	
56	The Mayor will ensure that Transport for London Street Management encourages its contractors to reduce emissions from their vehicle fleets. As a first step, information about the fleets is being sought from current contractors and they will be encouraged to ensure their vehicles meet a minimum of Euro III standards by 2004.	for Euro III Ongoing for continued reductions
57	The Mayor will work with the London Fire and Emergency Planning Authority to ensure that all vehicles (fire appliances, other operational vehicles and support vehicles) and their operational equipment have the lowest possible exhaust emissions, consistent with their operational requirements. New fire appliances should have engines that will be the equivalent to at least Euro III. New support vehicles should run on liquefied petroleum gas or other alternative fuels where practicable.	
58	The Mayor will work with the Metropolitan Police Authority to ensure that new vehicles have the lowest possible exhaust emissions, consistent with their operational requirements and government legislation. New vehicles should run on alternative fuels whenever practicable.	Ongoing
59	The Mayor will work with the Metropolitan Police Authority to seek to reduce emissions from building use whenever practicable and where it fits with operational requirements.	

No	Proposal	Timescale (end of year indicated) 2002 2003 2004 2005 >2005
60	The Mayor will seek to ensure that London-specific guidance is incorporated within new national guidance on air quality review and assessment and action plans.	[redacted]
61	The Mayor requires London boroughs to agree methodologies for air quality review and assessment with the Greater London Authority, to ensure consistency of approach across London.	[redacted] LBs, from publication of strategy
62	The Mayor requires London boroughs to take account of any relevant, new information on air pollution that becomes available. Any London borough not declaring an air quality management area should undertake a further, detailed assessment of air quality if significant new data become available.	[redacted] From publication of strategy
63	The Mayor will expect any London borough not declaring an air quality management area to produce a borough air quality strategy containing measures to assist London in achieving the national air quality objectives.	[redacted] From publication of Strategy
64	The Mayor requires London boroughs to incorporate into their air quality action plans measures to implement all relevant proposals contained in this Strategy at a borough level.	[redacted]? From publication of Strategy
65	The Mayor expects London boroughs to establish a fleet register that includes emissions information and to ensure measures to implement emissions improvements in their fleets are included within their air quality action plans and local air quality strategies.	[redacted] From publication of Strategy
66	The Mayor requires the London boroughs to include within their air quality action plans measures to identify appropriate sites for further alternative refuelling infrastructure within their boroughs.	[redacted]? From publication of LB air quality action plans
67	The Mayor will encourage the use of appropriate methods for assessing the environmental performance of buildings, both commercial and large residential blocks.	[redacted] From publication of Energy Strategy and SPG on sustainable design and construction
68	The Mayor will encourage London boroughs to ensure that Unitary Development Plan policies incorporate borough air quality action plan and local air quality strategy measures.	[redacted] UDP review from publication of LB air quality action plans
69	The Mayor will encourage London boroughs to include policies in Unitary Development Plans that set out best practice aspects of design, orientation, density and location of buildings to minimise energy demand, optimise sustainability and minimise the impact of air pollution and noise inside buildings. Guidance on these Unitary Development Plan policies will be given in the London Plan and supplementary planning guidance.	[redacted] From publication of supplementary planning guidance

No	Proposal	Timescale (end of year indicated) 2002 2003 2004 2005 >2005
70	The Mayor will encourage London planning authorities to produce supplementary planning guidance on air quality	From publication of this Strategy
71	The Mayor will expect London planning authorities to ensure air quality is taken into account along with other material considerations in making decisions on development proposals and that formal air quality assessments are undertaken where appropriate to inform the decisions, particularly where proposals may affect an air quality management area.	From publication of this Strategy
72	The Mayor will encourage the use of appropriate conditions and planning obligations to ensure the protection of local air quality and to help work towards the achievement of the national air quality objectives.	From publication of this Strategy
73	The Mayor will propose that the government consider further national and international measures and mechanisms to reduce emissions of NO_x and PM_{10} to assist in achieving the national air quality objectives in London.	Ongoing, from publication of this Strategy
74	The Mayor urges businesses to ensure that all vehicles meet at least the Euro II standard plus a Reduced Pollution Certificate or Euro III by 2005.	
75	The Mayor will encourage the maximum use of schemes to bring about a switch to alternative fuels.	
76	The Mayor encourages businesses to produce travel plans and expects them to do so as part of any planning applications with significant transport implications.	Ongoing through Transport Strategy
77	The Mayor encourages businesses to adopt initiatives, where practicable, which allow better purchasing choices to be made so that energy use and emissions are reduced.	
78	The Mayor encourages the use of renewable energy technologies and hydrogen as a fuel in London, as part of a move to establish widespread use of low and zero-emission sources of heat and power.	
79	The Mayor will work with the London Development Agency to help develop the growth of environmental industries in London, including supporting the development of fuel cells.	
80	The Mayor encourages businesses to seek to improve the indoor air quality of workplace environments, where feasible.	
81	The Mayor encourages businesses to consider applying the Mayor's Energy Hierarchy when making business decisions about building specifications, procurement and internal energy management.	

No	Proposal	Timescale (end of year indicated) 2002 2003 2004 2005 >2005
82	**The Mayor will encourage businesses to participate in environmental management schemes and to demonstrate continuing and meaningful improvements in environmental performance.**	[redacted]
83	**The Mayor encourages businesses to report on their environmental performance using established reporting guidelines.**	[redacted]
84	The Mayor will encourage individuals to play an active role in improving London's air quality.	[redacted]
85	The Mayor will collaborate with other organisations seeking to improve air quality in London, share appropriate research and information, and will work to raise awareness of research needs. This will be done on a continuous basis, through Air Pollution Research In London and by meeting with relevant organisations, publishing guidance documents, placing information on the Greater London Authority website and through organising seminars.	[redacted] **From publication of Strategy**
86	**The Mayor and Transport for London will produce an annually updated London Atmospheric Emissions Inventory for Greater London.**	**Annually, on CD ROM**
87	**The Mayor will take into account relevant research findings where they provide better understanding of the sources, transport or effects of air pollution and aid the development of policy aimed at improving air quality in London.**	**Ongoing**

APPENDIX 4 AIR QUALITY STRATEGIC PROCESSES 2003 - 2006



*Concentrating on aspects that have changed, the report is not intended to be unduly onerous.