London Borough of Newham
Air Quality Action Plan

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Summary

Under the National Air Quality Strategy (NAQS) Newham Council is required to assess the air quality within the borough. The NAQS provides objectives and target dates for various pollutants and where it is unlikely that these objectives will be met the council must declare an Air Quality Management Area (AQMA). Under section 84(2) of the Environment Act 1995, where an AQMA is declared Newham Council must agree an Action Plan to work towards the air quality objectives given.

Newham Council has been reviewing its air quality since 1998 and has just completed stage IV of this review and assessment process. Stage III identified that Newham Council will not meet the objectives for two of the pollutants listed in the NAQS; these are fine particles PM_{10} (24hr rolling mean) and nitrogen dioxide NO_2 (annual average). The council therefore declared an AQMA in March 2002. As road traffic is the primary source of pollution the AQMA covers major roads in the borough. Government guidance (2000) states that a council that designates an Air Quality Management Area should then prepare an implement an Air Quality Action Plan (AQAP).

This Action Plan will show the council's approach to meeting air quality objectives. The plan has been produced using guidance from the National Society for Clean Air and Environment (NSCA), the London Mayor's Air Quality Strategy (LMAQS) and the Action Plan Appraisal checklist developed by Casella-Stanger (acting on behalf of Department of Environment, Food and Rural Affairs). It has been developed through co-operative working with departments throughout Newham Council and other London boroughs. The Air Quality Management Area and the draft plan has been advertised in a widespread consultation exercise. Continuing consultation and participation are essential, both within the council and externally with relevant stakeholders and the public, as an effective Action Plan is one that has achieved member and corporate commitment and support.

Many of the actions are already in place or are planned, such as the information provided in Newham's Unitary Development Plan, or are requirements of the London Mayor's Air Quality Strategy. It is anticipated that this plan will be a working document, subject to regular review and that it will prompt additional ideas and transform existing policies to improve air quality across the council and beyond.

A list of the actions are given in Appendix 6, together with a summary of their priority, cost implications, timings, the responsibility for implementation and the source of the action (if derived from an existing policy or strategy). Key actions within the plan includes considering and potentially establishing a Low Emission Zone, restricting Development within Air Quality Management Areas, working with others to reduce air pollution and providing accurate information on air pollution levels.

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Introduction to Air Quality Management and Action Plans

Air Quality Management and Statement of the Problem

The National Air Quality Strategy (NAQS) has identified eight pollutants that have implications for health and outlines measures to reduce the levels of those pollutants. These pollutants are Nitrogen Dioxide, PM_{10} (particulates), Benzene, 1,3-Butadiene, Lead, Sulphur Dioxide, Carbon Monoxide and Ozone. The air quality objectives set in the Air Quality Regulations 2000 and the Environment Act 1995 (see appendix 2) places a duty on local authorities to locally '*review and assess'* the key pollutants. The council must then put into place plans that will achieve these objectives. (See Appendix 3 for a list of air quality related legislation and associated guidance).

With increased detail through all four stages of the assessment of air quality, Newham Council has looked at the seven pollutants identified by the government as having particular human health effects. Ozone was not examined as it is a secondary pollutant and is addressed at a national and European level.

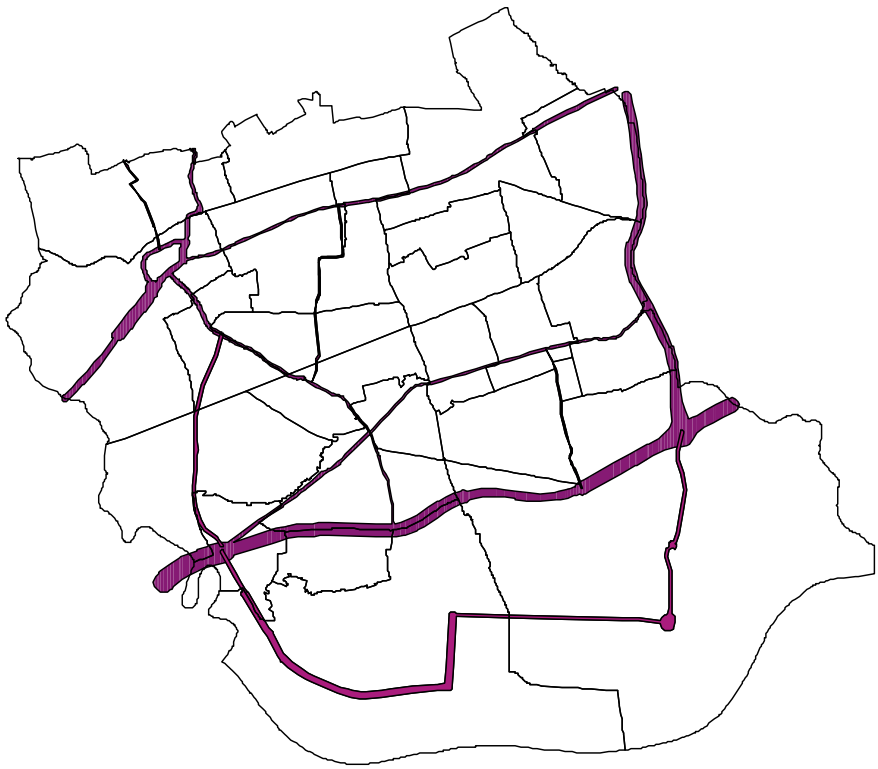
Stage I: Newham Council conducted a 'desk-based' study to identify potential sources of air pollution in the borough. As Newham has major roads that will significantly contribute to air pollution levels and industrial sources of air pollution it therefore progressed to stage II of the assessment process.

Stage II: Monitoring data was used to assess the levels of pollution in the borough. As some pollutants were predicted to exceed future targets, Newham progressed to stage III.

Stage III: At this stage, working together with other East London councils, a detailed investigation was conducted using monitoring results and computer modelling to predict future pollution levels. It was found that Newham would not meet the given objectives for nitrogen dioxide and PM_{10}. The level of predicted exceedence is given in Appendix 3 and the sources and effects of air pollutants are shown in Appendix 4.

Where, following stage III, pollutants are forecast to be above target levels, local authorities must declare an Air Quality Management Area (AQMA). Newham declared a AQMA in Newham in March 2002. As the principal source of fine particles and nitrogen dioxide is motor vehicles, the highest levels of pollution are along the busiest roads. This is reflected in the boundary of the AQMA as shown on the map below.

Figure 1: London Borough of Newham's Air Quality Management Area



Stage IV is a further air quality assessment enabling the authority to supplement information obtained in the preceding stages. The assessment provides the technical justification for the measures included in the action plan. Stage IV involved an investigation into:

- The degree of improvement necessary inside the AQMA to meet air quality objectives
- The percentage of pollution from various sources (source apportionment)
- A re-evaluation to take account of recent national and local policy developments and scientific/technical improvements, which may influence previous findings
- Further monitoring and use of monitoring data gained during earlier stages.

Stage IV has allowed Newham to re-evaluate and check the AQMA designation. Some areas currently outside the Air Quality Management Area have been predicted to exceed objectives for annual average NO2 and PM_{10} 24hr rolling mean and this may result in the area being realigned.

Road transport is the main source of pollutants that exceed the guidelines, however other sources of air pollution were also identified. Stage IV of the review and assessment process established the percentage of pollution from each source. Source apportionment was considered at 14 sites across the borough for NO_X and PM_{10} and the detailed results are in Appendix 4. The tables below summarise the source apportionment findings.

Figure 2: Annual Mean Nitrogen Dioxide (microgrammes per cubic metre, µg/m^3) for 2005 based on 1999 meteorology

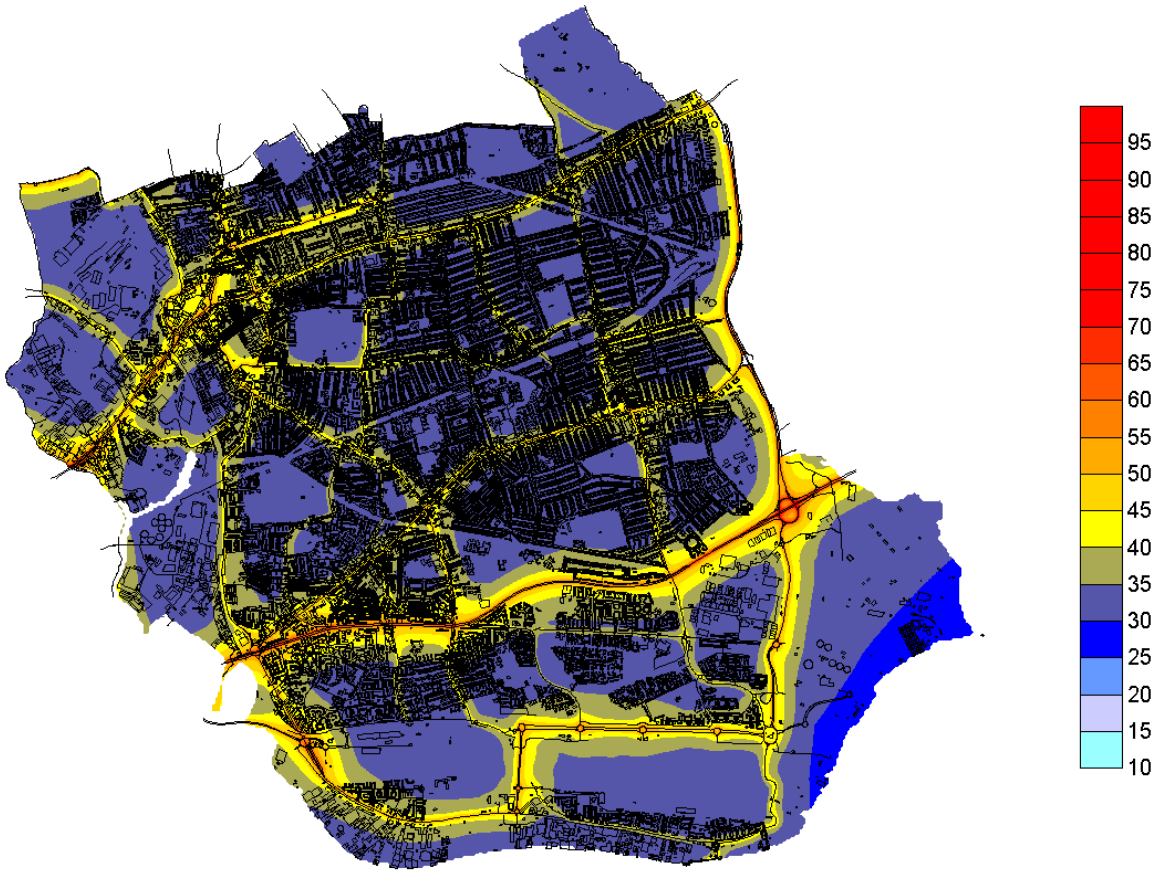


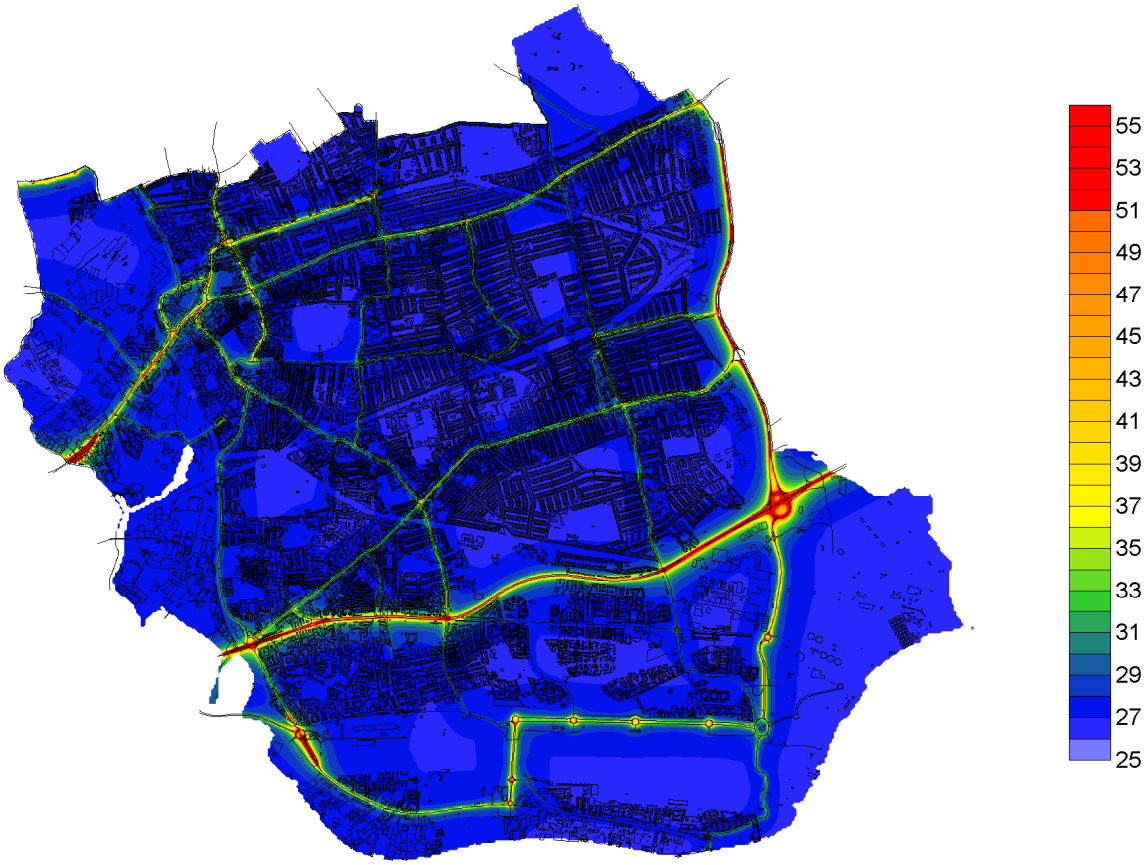
Table 1: Summary of NOx Source Apportionment

Source	NOX % contributions (average)
Road	55.49
Other transport	0.54
Industrial	2.9
domestic	2.8

Table 2: Summary of PM_{10} % Source Apportionment

Source	PM_{10} % contributions (average)
Road	17.87
Other transport	<0.05
Industrial	1.42
Domestic	<0.05

Figure 3: Number of days with daily mean PM_{10} exceeding 50 microgrammes per cubic metre (ug/m3) for 2004 based on 1996 meteorology



The predicted results for NO_2 concentration ($\mu g/m^3$) for 2005 at identified locations within the Air Quality Management Area show that for those locations exceeding the objective, the amount is between 4 and 17 $\mu g/m^3$.

Although Newham Council has a statutory requirement to produce this Action Plan, there are other reasons why this plan is important:

- The aim of the plan is to reduce emissions from road transport vehicles at source and to encourage a move to more sustainable means of transport such as public transport, low emission vehicles, walking and cycling. Many of the actions within this plan are already in place within existing council policies and strategies so this action plan pulls together a series of air quality actions. As the Air Quality Management Area is situated along the major roads, many of the actions will focus on ways to reduce pollution from this source. This will mean that transportation issues such as noise, congestion and safety will also be addressed.

- A synergistic relationship is created as a plan to improve one area (e.g. air quality), will directly improve another (e.g. noise or road safety).

- The action plan aims to reduce levels of, and exposure to, air pollution, which impacts directly on respiratory health and general well-being. This action plan intends to play an important role in addressing health inequalities and delivering health improvements. The plan is also important for flora and fauna biodiversity, which is adversely affected by poor air quality.

This Action Plan is therefore not only important for air quality, but for the associated benefits from plans or policies it supports, as well as being in accordance with the council's Vision statement.

Developing Newham's Air Quality Action Plan

In order for this action plan to be effective all relevant service areas of the council were involved in the preparation of the plan, with one service area co-ordinating its development.

Using the guidance produced by the NSCA and the government, officers across the council looked at a range of options available to improve air quality. Many are already in place or are proposed within existing policies, plans and strategies. This action plan has therefore evolved from, and integrates with, other key council documents that includes:

- The Unitary Development Plan (UDP), Local Development Framework and related Supplementary Planning Guidance. This provides the land use planning framework for guiding the borough's physical change and improvement.
- Newham's Local Implementation Plan that sets out a plan of how the borough proposes to implement the London Mayor's Transport Strategy (MTS) in its area. It gives London local authorities the opportunity to present their full range of transport initiatives and projects.
- The Corporate Procurement Strategy.

The main aim of the action plan is to reduce emissions from road vehicles. Transport plays a significant role in our daily lives, so it is essential that polices and plans regarding transport and this action plan integrate with other council initiatives in supporting the achievement of the council's 7 priorities, which are:

- Crime and Anti Social Behaviour
- Regeneration
- Street Scene
- Educational Achievement
- Social Services
- Health and Wellbeing
- HR Strategy and Business Strategy

Sub sections of these main priorities include promoting and improving health of adults and children within the borough and affordable and accessible transport, including public transport, which is vital for economic growth and social inclusion.

The London Mayor is required to produce a number of strategies upon planning, transport and air quality. The London Mayor's air quality strategy (LMAQS) was issued in September 2001 and London local authorities must have regard to this when drawing up their own Action Plans to ensure consistency in policy formulation across London. Accordingly the proposals within the LMAQS have been addressed under the

appropriate sections within this action plan. Additional guidance contained within the London Mayor's Transport Strategy, Energy Strategy and Strategy for Spatial Development has also been considered. The combined effects of these strategies are key for improving air quality both locally and across London.

As motor vehicles are the main source of pollution in London the LMAQS concentrates on reducing these emissions. The main proposals are as follows:

- Traffic Reduction. Seeks to encourage more sustainable travel and reduce unnecessary car use, including measures for reducing freight lorry movements.

- Cleaner vehicles. Will encourage retrofitting of existing vehicles and the take-up of cleaner vehicles, and promote the benefits of cleaner technologies and fuels. The London Mayor will work with the boroughs, the Association of London Government and government on proposals for a Low Emission Zone which will set minimum emission standards for heavy goods vehicles, buses and coaches. The London Mayor will work with boroughs to support and encourage both compulsory and voluntary emission testing and to enforce proposed legislation preventing vehicles from idling while stationary.

- Cleaner fuels. The London Mayor will promote the development of refuelling infrastructure for alternatively fuelled vehicles, through borough Unitary Development Plans and encourage the development of cleaner technology such as fuel cells.

- The GLA and functional body fleets. The London Mayor will set targets for cleaner vehicles in the fleets including that all London buses meet minimum of the Euro II vehicle emissions standard with a particulate trap (a particulate trap reduces emissions of PM10 from each vehicle by 95 per cent) by the end of 2005 and new buses meet Euro III. Transport for London will work with the taxi and minicab trades to improve taxi emissions. The London Fire and Emergency Planning Authority and Metropolitan Police will also have targets for cleaner vehicles.

- Traffic management. The London Mayor will develop plans to reduce emissions through a range of traffic management techniques including possible reduction of speed limits, reducing congestion and possibly allowing some Heavy Goods vehicles to use bus routes at off-peak times. The strategy also offers support to Clear Zones and other local initiatives.

- Public awareness. The London Mayor will support public awareness campaigns such as Don't Choke Britain, Car Free Day and Walk to School Week.

The London Mayor's Air Quality Strategy (LMAQS) urges London boroughs to incorporate implement relevant proposals from the strategy in the borough's action plans and implement these at a local level. These include:

a) Leading by example through:
- Ensuring that vehicle fleets are as clean as possible.
- Ensuring that vehicles are used sensibly, are well maintained and that specific routes are worked out to be as efficient as possible.
- Co-ordinating deliveries of their own goods and services.
- Adopting workplace travel plans.

b) Working with the Energy Savings Trust's CleanUp and Powershift programmes to assess what assistance can be given in reducing emissions from their own vehicles.

c) Encouragement of roadside emissions testing and enforcement of idling of stationary vehicles.

d) Working with the GLA and the ALG on the Low Emission Zone feasibility study.

e) Developing quality partnerships with coach operators, hauliers and delivery companies.

It is also vital that the council works in partnership with the community, business, other boroughs, health professionals, agencies and regional and national government in order to achieve the required improvements in air quality. Such partnerships allow the exchange of information, benchmarking, best practice and helps to address the transboundary issues involved with tackling air pollution.

To monitor air quality and co-ordinate action Newham operates within the framework of the London Air Quality Network and participates in a pollution study group and East London Air Quality and Integrated Pollution Prevention and Control (IPPC) cluster groups. The council also works with the Environmental Research Group (ERG) in the review and assessment of air quality.

Consultation.

A widespread consultation process about the draft action plan was undertaken beginning in 2003 and this informed the structure and content of the draft plan. During the consultation period the action plan was available for comment in two forms; the complete action plan and a summary version. The consultation draft was circulated to statutory consultees, the Mayor, Council Members and key stakeholders and was advertised through the local press and via letters to Community Forums. The draft plan was made available on the Newham website, at Local Service Centres and at two exhibitions that enabled members of the public to discuss the plan with Council officers. The Action Plan was also raised at a Members development presentation on air quality and at the Asthma Scrutiny Commission. Nine requests were received from residents for further information, four written responses were received from statutory consultees and stakeholders, as well as further feedback from the Mayor and Council officers. The responses have been taken into account and relevant changes incorporated into the action plan. A further draft that took into account new developments with national and London wide air quality, major regeneration issues and the 2012 Olympics was produced in October 2005. A further round of consultation within the council and with Newham's Mayor was undertaken in early 2006 with further presentations on the revised plan given to Council members and officers to enable fine-tuning and the production of the final version.

Structure of this Report

Casella-Stanger has been appointed by the Department of Environment, Food and Rural Affiars (DEFRA) as consultants to review and appraise the Air Quality Action Plans (AQAP's) produced by local authorities. Each of the options included within the

Casella-Stanger checklists have been explored within this action plan and have informed the structure of this document under the following headings:

- Road transport measures
- Other transport measures (including airport measures)
- Non transport measures, including industrial measures, domestic measures and Land Use Planning
- Implementing, Cost Effectiveness and Monitoring Outputs from Newham's Air Quality Action Plan

The actions associated with each heading are summarised at the start of every section followed by an outline of the air quality impact. Each section contains a discussion of the issues and justification associated with the proposals. Where required this will include the impact of actions on the following:

- economic implications
- social/community impact
- other environmental impacts e.g. noise
- transport impact
- practicability and integration.

The Action Plan must be cost effective and depending on the nature and scope of the action, direct funding may or may not be required. It is proposed that a full cost benefit analysis will only be considered if the cost are high and the action will be adopted specifically for air quality.

All actions are summarised within Appendix 6. For each action are classifications of:

- Air quality impact
- Cost
- Priority
- Responsibility for implementation (lead)
- Source of the action (if derived from an existing policy or strategy)
- Time-scale for implementation.

The impact on air quality for a group of actions is outlined as in table 3, whilst cost classifications for each action is given as stated in table 4. Based on the 'cost' and the 'air quality impact' assessments the priority of the actions is then derived using a simple number matrix that multiplies cost by impact. This gives an indicator of increasing effectiveness enabling a priority banding of low, medium, high and very high, see table 5. In developing this matrix, it should be realised that a lower priority action based on a 'low cost', 'low impact' proposal can still be viable as such actions combined can have an accumulative positive impact on air quality. In addition high cost, high impact, schemes may be essential if the council is to meet its air quality commitments.

Monitoring the outputs of the Action Plan

A performance review will be undertaken within twelve months from the date of the production of the plan to clarify the status of actions and their effectiveness. A list of the actions is given in Appendix 6 that will form the basis of the report that will update the status of outputs and activities and whether actions have commenced, been completed

or are in progress in relation to the milestones set. The review will be in co-operation with project partners and will include recommendations and lessons learned.

Table 3: Classifications of Air Quality Impact

Low	The impact of the action(s) on improving air quality is not considered significant, but together with the other proposals within the action plan could provide a net benefit.
Intermediate	The impact of the action(s) on improving air quality is significant although the benefits from the proposal(s) are only likely to become apparent in the long term.
High	The impact of the action(s) on improving air quality is important and benefits from the proposal(s) would be clearly seen.
Very High	The impact of the action(s) on improving air quality is significant and the action(s) are seen as the core elements of this action plan.

Table 4: Cost Classifications for Actions

Cost	Explanation of Cost
Low	• Internal cost that is accounted for by officer time e.g. Partnership meetings and lobbying • External cost outside the council e.g. polluter pays • Action will proceed in accordance with existing strategies using existing budget funding and does not directly relate to air quality • Funding required which can be obtained through existing departmental/section budgets
Medium	• Funding required which can be obtained through existing departmental/section budget, with virements as necessary, but requires tenders to comply with procurement Code of Practice
High	• Actions that require funding through Supplementary Credit Approval (SCA) with or without match funding. • Air Quality funding required which cannot be incorporated into responsible departments/sections current budgets and additional specific funding must be sought and approved.

Table 5: Priority of Actions

	Action's impact on air quality			
Cost of action	**Low**	**Intermediate**	**High**	**Very High**
Low				
Medium				
High				

Priority:

Low	
Medium	
High	

Section One
Road Transport Measures

Transport plays a significant part in our daily lives so it is essential that polices and plans regarding transport integrates with other council initiatives in supporting the achievement of the council's priorities.

The greatest level of air pollution arises from road transport emissions, particularly on major routes within the Transport for London Road Network (TLRN). The council does not control such roads and so plans to control air pollution from these sources needs to be in partnership with Transport for London (TfL). The council can, however, introduce measures on roads within their control and lobby for improvements on others.

Many actions need be introduced London-wide. The London Mayor's Transport Strategy tackles this issue and is currently implemented at a local level through the Borough Spending Plan (BSP).

This section considers the various measures that Newham Council proposes as a means to limit the impact of road transportation and work towards the air quality objectives.

1.1 Abandoned and Untaxed Vehicles.

Abandoned and Untaxed Vehicles: Actions	
1.1A	Subject to funding continue to remove abandoned vehicles from Newham's streets meeting set targets for response and removal.
1.1B	Proceed with current enforcement action in partnership with the DVLA to report untaxed vehicles to the DVLA and to use devolved powers to remove untaxed vehicles from Newham's streets.
1.1C	Continue to operate the disposal of unwanted vehicles scheme to destroy and recycle unwanted vehicles free of charge and further publicise this service to reach all sections of Newham's diverse community.

Air Quality Impact
Currently approximately 6,000 abandoned and untaxed vehicles are removed annually from Newham's streets. These vehicles tend to be older and less well maintained and therefore considerably more polluting. Abandoned vehicles are also a potential target for arson.

Newham is a leading "Beacon" council in dealing with the high profile issue of abandoned and untaxed vehicles, removing approximately 500 such vehicles per month from Newham's streets. All reported vehicles are visited and assessed within 48 hours. Those being classified as lawfully "abandoned" being removed to a car pound within 24 hours, held for 14 days and, if not claimed, destroyed in line with the End of Life Directive. Vehicles that are untaxed are immediately reported to the DVLA, who will pursue a prosecution if the car is registered. Newham also works in a partnership with the DVLA employing devolved powers to immediately remove any untaxed vehicles from the streets. Vehicles are only restored to owners after payment of the fees and a surety to ensure correct taxation. Any remaining after 14 days are destroyed.

The council also operates a vehicle Disposal of Unwanted Vehicles Scheme as part of the Association of London's 'Operation Scrap It' initiative. The council offers a free

service for the 'take back' unwanted vehicles in Newham for destruction and recycling. There is a opportunity to further publicise this service and contact some of the harder to reach sections of Newham's diverse community.

Older vehicles are significantly more polluting (see table below) so effectively removing such vehicles from Newham's streets will have a significant impact upon air quality.

Table 6. Vehicle emissions calculated for typical speeds on urban roads.

Vehicle Type		NOx	PM_{10}	CO	HC
		Kg per year based on 15,000 km			
PETROL CARS					
	non-catalyst vehicles (pre-1993)	24.53	0.35	147.56	22.09
	post 2000 (Euro III)	2.04	0.01	13.28	0.68
DIESEL CARS					
	non-catalyst vehicles (pre-1993)	9.24	2.57	9.97	2.20
	post 2000 (Euro III)	8.10	0.60	2.16	0.64
PETROL LGV's					
	non-catalyst vehicles (pre-1993)	23.03	0.44	200.29	22.01
	post 2000 (Euro III)	2.86	0.01	9.40	0.59
DIESEL LGV's					
	non-catalyst vehicles (pre-1993)	19.67	4.82	15.37	4.26
	post 2000 (Euro III)	11.00	1.08	3.90	1.47

Source: Compiled by NAEI NETCEN. Based on new speed-emission functions and average speeds typical for each class of vehicle on each type of road.

In addition abandoned vehicles are a target for anti-social behaviour and older cars and stolen cars are more likely to be set on fire. Initiatives that help reduce vehicle arson in Newham will have corresponding benefits for local air quality.

These operations run at a significant cost to the council and current expenditure exceeds the established budget by a significant amount. In order for the initiative to continue at its present rate additional funding will be required.

1.2 Physical Traffic Management: speed & flow

Physical Traffic Management: speed & flow - Actions	
1.2A	In designing future road calming schemes the council will take into account the impact upon local air quality.
1.2B	Carry out effective enforcement of 'moving traffic offences' to keep traffic flowing including action regarding the illegal use of bus lanes.
1.2C	Where resources permit, ensure that the air quality associated with traffic management schemes is monitored prior to, during and after schemes are implemented.

Air Quality Impact
Reducing congestion will help to reduce air pollution. Road calming schemes can increase localised emissions and may only displace traffic elsewhere; however, there can be potential improvements in air quality by reducing traffic volumes and congestion.

A number of factors affect the amount of vehicle pollution generated and this includes traffic congestion. Congestion will also result in slow average speeds and long journey times that can make bus travel unreliable. Newham Council has enforcement powers to enforce moving traffic offences using CCTV and parking attendants. By working in Newham's CCTV centre route controllers can alert CCTV parking operators and bus drivers to potential problems. Parking attendants can then also act on cause of congestion before buses even reach the problem area and will help to keep traffic flowing and this will help to reduce air pollution.

A vehicle travelling at 70 mph produces significantly more emissions of NO2 compared with a driving speed of 50 mph. By controlling the speed and flow of vehicles, the council hopes to limit the volume of vehicles and exhaust emissions.

It is important to remember that small increases in localised emissions (by vehicles racing between humps for example) are balanced by:

- traffic reduction and congestion;
- change in traffic type, such as fewer HGV's and LGV's;
- reduction in road accidents due to decreased speed.

The Road Traffic Regulation Act 1984 (RTRA) allows highway authorities to regulate road traffic by means of Traffic Regulation Orders (TRO's) whilst schedule 22 of the Environment Act 1995 permits TRO's for improvements in air quality. Measures are used by the council to slow traffic and deter vehicles from certain areas, given below.

20mph zones are areas of roads that have been restricted to a maximum speed of 20 mph to reduce the speed of vehicles in residential areas where road traffic crashes have occurred as a result of excessive speed and in locations identified as 'cluster sites'. There are 20 mph zones in Little Illford and Upton Lane and additional areas are planned. The impact of schemes on air quality is being monitored using nitrogen dioxide diffusion tubes.

Road Humps –In order to minimise emissions, 75 mm humps are thought to be the optimum height. Many locations within the borough have road humps not exceeding 80 mm including Lonsdale Avenue, Fourth Avenue, and Capel Road.

Raised Tables: used as entering treatment for 20mph schemes e.g. at Upton Lane.

Road narrowing – restricts access to certain vehicle widths preventing larger vehicles using sensitive areas, for example in Gainsborough Road.

Priority working: which gives one lane priority over another e.g. Church Road.

Speed cameras – well-displayed cameras have a proven effect of slowing traffic and are particularly effective in reducing accidents, for example at Victoria Dock Road and North Woolwich Road.

In terms of the traffic calming measures, approximately 35% of the residential areas in Newham are currently traffic calmed and due to various safety initiatives this is steadily increasing.

1.3 Re-routing and Road Hierarchy

Re-routing and Road Hierarchy	
1.3A	The council will carefully consider development proposals in relation to its defined road hierarchy. It will seek to ensure that traffic levels remain or become consistent with this hierarchy.
1.3B	The council will only support the construction of new primary distributor, local distributor and access roads when these will bring net economic and/or environmental benefits to the borough. Regard will be had to the likely consequences of new roads for neighbouring boroughs, and measures will be taken, where appropriate, to minimise any likely adverse effects.

Air Quality Impact
New development and new roads will have an impact upon local and area air quality. It is important that environmental considerations are properly considered and that improvements for pedestrians and cyclists are incorporated where possible.

As with most boroughs within London, Newham Council has designated the hierarchy of roads, which is supported by automatic traffic signals and the enforcement of waiting and loading restrictions in these roads.

- **Primary Distributor**, for example the A13 where traffic is fast moving, long-distance, through traffic;
- **District Distributor**, for example Barking Road where traffic is medium distance traffic to the primary network, bus services, through traffic between different parts of the area;
- **Local Distributor**; for example Green Street where vehicle movements are near the beginning or end of all journeys,
- **Access Roads** which are all other roads not classified under the above and are predominately residential and
- **Pedestrian Streets** for example partially in High Street North for walking, meeting, trading.

The purpose of designating a hierarchy of roads is to ensure that new development is located by the category of road suitable for the likely traffic generation for that development. Newham's AQMA is predominately along primary and district distributor roads. At present no roads within the borough have been highlighted for reclassification.

Limited road construction is necessary, mainly to permit either access to new development sites and thus stimulate the local economy, or to remove unnecessary traffic from residential areas and thus improve the local environment and help road safety. Where possible future road improvement schemes will incorporate improvements for pedestrians and cyclists.

All major development proposals are required to be accompanied by transport and air quality assessments. Air quality considerations are capable of being a material planning consideration and the council will have regard to national air quality strategy objectives

when assessing applications for development leading to the generation of traffic or atmospheric pollution. Where the impact of proposed development is likely to be significant in air quality terms, the development may be refused or measures to mitigate impact required by the imposition of conditions where these can feasibly address the adverse impacts of development on public amenity and human health.

1.4 Low Emission Zone, Access Control & Clear Zones

By controlling vehicular access to areas air quality can be improved. This can be achieved through by restricting the types of vehicles to exclude the more polluting vehicles or by restricting vehicular access to reduce traffic volumes. As stated in 'A new deal for Transport – Better for Everyone' (DETR 1998) the impact of traffic can be reduced while maintaining accessibility, viability and vitality and reducing emissions caused by public transport and goods distribution.

Low Emission Zone (LEZ)

Low Emission Zone	
1.4A	Support the consideration of an effective London wide LEZ and, following agreement and obtaining necessary funding, work with the GLA, ALG and other London Boroughs in implementing appropriate LEZ scheme(s).
1.4B	Keep local transport operators (including passenger operators) informed of any LEZ scheme(s) proposed that would affect Newham and provide information regarding funding opportunities for fleet improvements.

Air Quality Impact
It is accepted that, within London, current policies will not achieve the NAQS objectives for 2005. Research has shown that a London-wide LEZ would result in a significant reduction in NO2 and PM_{10} levels to below those required for 2005 (with some exceptions). Air quality research has indicated that with existing policies the NAQS targets for NO2 and PM_{10} will not be met in areas of London and along major road networks. Even a London wide congestion charging scheme would not bring about a sufficient reduction in pollution. There is therefore a need for additional action to reduce road transport emissions.

Most traffic measures are aimed at the private car, however per vehicle and due to the number of miles travelled, heavier commercial vehicles are more polluting. In addition, newer vehicles produce lower emissions due to successive requirements of European legislation (Euro standards). By targeting the more polluting, heavier, commercial vehicles and older, more polluting vehicles it is thought that a significant reduction in levels of NO2 and PM_{10} can be made.

A Low Emission Zone (LEZ) is an area in which the most polluting vehicles are restricted from entering. Vehicles would be allowed to enter based on their exhaust emission standard. LEZ's have already been successful in reducing emissions of NO2 and PM_{10} in major cities in Sweden and similar schemes have been implemented in the UK (Nottingham, Bath & Leicester). LEZ's could be introduced under the Road Traffic Regulation Act 1984 (RTRA).

A feasibility study has been undertaken by the GLA, DEFRA and the ALG, in conjunction with London boroughs. It has the objectives of:

- providing information on the impacts including benefits, costs and practicalities of various LEZ scenarios;
- developing implementation and operational proposals
- preventing duplication of effort and ensuring consistency.

The report was completed July 2003 and recommends that a LEZ starts by targeting lorries, buses and coaches as this will produce the greatest emissions reductions for the least cost. The option would remain of extending the scheme to covers vans in the future, although the study does not recommend the inclusion of cars. Automatic enforcement though cameras is advocated, although additional powers would be required to decriminalise the offence to enable administration of penalty charge notices through the civil process. A London wide LEZ could not be implemented before 2006, so this would not be early enough to help meet the air quality targets set for 2005 in the NAQS.

Due to the implications for the whole of London, the London Mayor has advised that all London boroughs should not implement LEZ's independently.

The costs of implementing and operating a LEZ are considerable. A system of automatic enforcement using existing Central London Congestion Charging Scheme infrastructure, supported by mobile and additional fixed cameras, would cost between £6 million to £10 million to set up with an annual operating cost of between £5 million and £7 million per year. This would only be partly offset by revenue generated of between £1 million and £4 million per year.

The study recommends that the emission criteria be set initially at Euro 2 for 2006/7, being tightened to Euro 3 in 2010. The study reports that fleet operators would be broadly supportive of a London LEZ, although the scheme would have considerable costs to industry as a large proportion of the national fleet journeys into London at some point each year. The greatest impact of the LEZ would be upon smaller operators who may have older vehicles and this would be further exacerbated if they have long fleet replacement programmes. It would be necessary to work closely with such operators to keep them informed of any schemes of available grant improvement funding.

A London LEZ would have health benefits by reducing air pollution impacts and the study concludes that, overall, the benefits of the scheme would be broadly similar to the costs. A London LEZ would have modest benefits in improving overall emission levels but it would make a larger contribution to reducing exceedences of air quality targets and would particularly reduce PM_{10} emissions. Further investigation was advocated in the study on a number of issues including the potential of including older cars in an LEZ and assessing the socio-economic effects of upon van owners and operators. Proposal 10 of the London Mayor's Air Quality Strategy requests that local authorities consider the recommendations of the LEZ feasibility study group. However before a London wide LEZ could be introduced the study acknowledged that a number of key tasks were required including:

- A joint decision on whether to implement the zone between the London Mayor, London boroughs, and the Government;
- Public consultation over the scheme, and agreement over any proposed modifications;
- Agreement on the approach for bus regulation and taxi licensing (TfL);

- Agreement on the format of the TRO and any associated Bill, and if relevant, regulations to decriminalise offences;
- Agreement on the national certification system
- Agreement over the funding and division of responsibilities.

Access Control, Clear Zones and Home Zones

Access Control, Clear Zones and Home Zones - Actions	
1.4C	The council will continue to create Home Zones where funding can be identified and encourage 'Home Zones' to be incorporated into appropriate new developments.
1.4D	Consider the introduction of appropriate access control within future regeneration projects.
1.4E	Explore the possibility of working with neighbouring boroughs to introduce a clear zones within the borough.

Air Quality Impact
By controlling vehicle access to certain areas, in principle less vehicles means less pollution and may encourage more sustainable modes of transport. Public Service Vehicle's allowed to enter would still contribute to the pollution levels; however, this mode of transport is more sustainable than individual car use. Any improvements would be localised as vehicles would find alternative routes.

There are schemes within the borough that exclude and limit access to certain vehicles, for example in High Street North where parts of the road are limited to buses only. By restricting certain vehicles from accessing a given road, in principle less traffic means less pollution. However, some commercial diesel vehicles produce more pollution per vehicle than cars and so the net reduction of NO2 and PM_{10} in such areas may be less then expected.

Future developments can incorporate appropriate access controls into plans. For example the Lea Valley Spine Road will be essential to connect the currently disparate parts of the Lower Lea Valley but will incorporate a bus gate to prevent this road adding to the network capacity in the area.

The overall aim of Clear Zones is to reduce pollution and traffic in towns and enhance economic opportunities by developing relevant technology and techniques through partnerships between cities, industry, academia and Government. Its polices are based upon:

- Road Traffic Reduction, providing spaces where it is clean and safe for people to go about social, work and shopping activities, reduce the dependence on the car and to break the link between economic growth and traffic growth.
- Integrated Transport, encouraging national investment in public transport improvements and new transport innovations.
- Air Quality Management, promoting new technologies, such as 'clean vehicles' and traffic reduction initiatives to improve local air quality.
- Urban Renaissance and Regeneration, the Clear Zones concept is key towards making our cities more attractive and stimulate an 'urban renaissance'.

Proposal 26 of the London Mayor's Air Quality Strategy requests that local authorities explore the possibility of working with neighbouring boroughs to introduce clear zones within the borough.

Home Zones can be established in a residential street where the priority is moved away from the car to the non-car user. The aim is to encourage the use of the streets for social, community purposes and the target speed for vehicles is 10-15 mph. Home Zones can be created in appropriate areas where there is not significant through traffic. The council will continue to introduce Home Zones in existing streets and will work with developers to introduce Home Zones in the planning stage for appropriate new developments. The council home Zones are to be included in a Residential Supplementary Planning document that the council is developing as part of the Local development Framework.

1.5 Road User Charging

Road User Charging - Actions	
1.5A	The council will follow the developments of the Central London Congestion Charging Scheme (CCS). Should significant amendments to the scheme be proposed the council will carefully examine the air quality implications for Newham and fully participate in the formal consultation process.
1.5B	Newham council will campaign for differential charging (with reduced rates for local residents) in the application of tolls at the forthcoming Thames Gateway bridge to discourage through traffic.

Air Quality Impact
The primary purpose of congestion charging is to reduce congestion and traffic volumes, these in turn will improve air quality. However the overall impact of congestion charging may not be as great as expected.

The primary aim of the London congestion charging scheme is to reduce congestion and traffic volumes in the central area. This also delivers some benefits for air quality and is an opportunity to promote low or zero emission vehicles through reduced charging. TfL has carried out modelling to assess the effects on pollution and the overall impact of the scheme on air quality is not as great as may be expected because of a number of factors including:

- The bulk of the traffic change involves cars, which are relatively less polluting.
- The scheme is only operational for approximately one-third of the "available" hours of the year
- Transboundary and complex atmospheric chemistry effects.

The council will monitor the progress of the Central London Congestion Charging Scheme (CCS) and will, as a key stakeholder, carefully consider the implications (including the impact upon air quality) for Newham from any future significant modification proposed. The council will participate in the formal consultation process and ensure its views are reported to the London Mayor.

Newham is not close enough to the Central London Congestion Charging Zone for significant road congestion from drivers trying to avoid the zone. Nevertheless drivers who live in Newham or are travelling through the borough to reach Central London and do not wish to use their vehicle to enter the Congestion Charging Zone need to be

considered. In response Newham Council has obtained funding from TfL to implement cycle parking and CPZ's outside various stations within Newham. In addition, other policies and plans provided within this Action Plan and elsewhere strive to provide a better public transport framework to support the CCS.

There are no current schemes for applying road charging in Newham although road tolls are proposed for the Thames Gateway Bridge to be constructed by TfL between Beckton and Thamesmead. This bridge will be partly financed from tolls on the bridge and from tolls at the Dartford crossings. Newham Council will campaign for differential pricing for tolls at the bridge, with lower costs for local users, to ensure that through traffic is discouraged when it opens in 2010.

1.6 Parking Management & Charging

Parking Management & Charging - Actions	
1.6A	Following public consultation and taking into account travel needs and the appropriateness of parking controls, Newham Council will continue to expand and extend the number of CPZ's within the borough.
1.6B	Newham Council will continue with parking enforcement and dealing with moving offences in bus lanes.

Air Quality Impact
Reducing or restricting parking facilities manages driving and parking in the borough and discourages drivers from outside Newham travelling into the borough to park near stations. The number of vehicles on the road and subsequently pollution levels are therefore reduced.

Managing parking can affect traffic levels and can encourage individuals to shift to more sustainable modes of transport, resulting in a reduction in vehicle emissions. The council will continue to introduce additional CPZ's around railway stations to discourage individuals who commute into Newham and park. Newham has ten controlled parking zones (CPZ's) :

- Stratford
- Upton Park
- East Ham
- West Ham
- Little Illford
- Prince Regent
- Canning Town
- Ruskin
- Forest Gate
- Manor Park

Following consultation with local residents, there are plans to extend some CPZ's and to respond to displaced traffic, which has resulted in resident parking difficulties.

1.7 Urban Traffic Control Systems (UTCS)

Urban Traffic Control Systems (UTCS) - Actions	
1.7A	Continue with the monitoring of traffic signals to ensure that the most appropriate balance is found between the motorised vehicles and other users of the road i.e. pedestrians.
1.7B	Investigate potential areas of the borough where signs may be used in traffic management to indicate points were engines should be turned off while queuing

Air Quality Impact
The direct impact on air quality of traffic signals is minimal but they do enable schemes such as walking schemes to be implemented, and can be adapted to ensure minimal disruption to bus services. Impacts on air quality are therefore indirect, but part of the larger picture of promoting modal shift.

Urban Traffic Control Systems (UTCS) includes traffic lights and are essential to ensure the smooth flow of traffic and minimise congestion at peak travel times, therefore minimising the traffic's impact on air quality. There has to be, however, a balance between private vehicle use and other more sustainable users of the highway, e.g. buses, pedestrians and cyclists.

Within London, TfL manages all permanent traffic signals although changes in the signal systems, including new signals, are borough driven. In addition, Newham Council pays for maintenance and installation.

There are various categories of UTCS and detection devices that enable identification of vehicles. Selective Vehicle Detection (SVD) is a priority objective for the London Bus Initiative where UTCS recognise buses fitted with a partner device. The signal can then be held or brought forward to minimise the bus stopping time.

Newham Council investigates traffic signal timings and can request changes. On a regular basis, minor changes are made to the traffic signals within Newham and on an annual basis bids are put forward for scheme designs (e.g. a walking scheme) or developer driven changes such as a new supermarket.

Various initiatives have been introduced throughout the country upon signs, such as requesting drivers to switch off engines at certain points within a traffic management queue. Such initiatives have resulted in reduced emissions at these sites, so the Council will investigate potential hotspots in the borough where this may be applied.

1.8 Infrastructure Development

Infrastructure Development - Action	
1.8A	Lobby, through partnerships where appropriate, for sustainable transport infrastructure developments, such as the rail link river crossings.

Air Quality Impact
Such developments contribute to a sustainable transport system within and serving Newham, which will ultimately reduce reliance on the car and therefore reduce emissions. Infrastructure development will support and facilitate encouragement for modal shift.

Newham Council is part of the Thames Gateway London Partnership that is promoting major infrastructure and London wide-action backed up by six strategic objectives:

- the promotion of regional regeneration and multi-modal access
- the improvement of environmental amenity;
- the promotion of social equality and opportunity;
- the maximisation of resource efficiency; and
- the promotion of institutional, physical and operational integration.

These objectives support the LDA's Economic Development Strategy, the Mayor's Transport Strategy, the Mayor's Air Quality Strategy and the emerging London Plan and apply both to passenger and freight movement. They are also fully consistent with the Government's five overarching transport objectives.

In promoting the largest regeneration opportunity in London, TGLP is lobbying for a range of major infrastructure improvements. It aims to develop key transport proposals further and work actively with Transport for London, the Strategic Rail Authority and Thames Gateway Strategic Executive in bringing them to fruition. Priorities for enhancing regional public transport within the Gateway include the following:

- Crossrail 1, forming the spine of the London Gateway, providing a fast, high capacity connection through the West End, City and Canary Wharf to Abbey Wood and Ebbsfleet.
- The north and south extensions to the East London Line, with onward access to the Gateway via an upgraded Jubilee Line.
- Extensions of the Docklands Light Railway to Woolwich Arsenal, and, in the longer term, into the London Riverside area.
- A Thames Gateway Transit network, with initial implementation of East London Transit and Greenwich Waterfront Transit and their connection via the Thames Gateway Bridge.
- Comprehensive and effective international and domestic services on the Channel Tunnel Rail Link serving new communities and employment centres at Stratford.
- Improvements to the sub-region's bus network in terms of priority, service coverage and vehicle quality, particularly for key development sites and town centres.
- Enhancements to regional transport interchanges, accessed by comprehensive, safe and convenient local pedestrian and cycle links.
- Selective improvements to the highway network where this is justified on environmental, access and regeneration grounds.

The partnership supports a package of four new crossings to serve the area and provide a sustainable regeneration solution to the Gateway's needs:

- a new extension of the Docklands Light Railway from London City Airport to Woolwich Arsenal,
- a shared-used Thames Gateway Bridge, comprising a local highway link and a public transport connection,
- a bridge or tunnel between Silvertown and the Greenwich Peninsula and
- a new heavy rail crossing east of the Isle of Dogs.

The construction of these crossings is consistent with the conditions laid down in the London Mayor's Transport Strategy. Whilst it is accepted that the highway crossings will have a range of traffic effects, the Partnership's view is that these can be sustainably accommodated through a programme of traffic management and environmental mitigation measures on local road networks and through the deployment of an effective tolling strategy.

The Partnership does not, in the main, advocate the addition of substantial new highway capacity to the strategic network. However, it does support selective enhancements in a number of instances where schemes either provide environmental relief to local town centres or residential communities or serve key development sites. Elsewhere, selective traffic restraint on the local highway network and in town centres is supported where

new Highway Agency/TfL schemes have provided substantial capacity for through-traffic, as in the case of the A13 enhancements.

1.9 Reallocated Road-Space

Reallocated Road-Space - Actions	
1.9A	Support the reallocation of road space from cars to buses, motorcyclists and cyclists or more sustainable transport modes.

Air Quality Impact
By reallocating road space to buses, motorcyclists and cyclists these modes of transport would be encouraged.

Because buses, motorcyclists, cyclists and pedestrians use road space more efficiently than cars, the council supports this reallocation of road space in the Newham Local Implementation Plan. The Plan also aims to give priority to pedestrians at junctions and other crossing points so that their waiting time and inconvenience is minimised. Reallocating road-space will encourage these lower polluting forms of transport. Allocating parts of the road specifically would increase the safety of these types of transport and enable them to move more efficiently through the traffic and so encourage increased use and support a shift to more sustainable transport.

1.10 Public Transport Initiatives - Bus

Public Transport Initiatives (Bus) - Actions	
1.10A	Continue working within and supporting the London Bus Priority Network, to obtain bus priority measures which include: road-space allocation and improvements, etc.
1.10B	To actively promote and facilitate emission testing conducted on buses within Newham by the Vehicle Inspectorate and to publicise these results to members of the public.

Air Quality Impact
These measures outlined can encourage modal shift, generating increased bus use and subsequently reduced car dependency and therefore emissions. The measures will not require additions to the fleet, therefore emissions are minimised.

As well as being an efficient mode of transport and user of road-space, buses provide vital links to underground railway services as well as to local shopping centres and places of entertainment. Buses also play a vital role in taking people to work, where a fast journey time is a determining factor in its use.

Although the majority of Newham is well served by buses there are some areas, where the lack of road infrastructure prevents bus penetration and the council is keen to address this problem. With the bus network being constantly reviewed and expanded the opportunity exists to provide new links and the council takes this into account when considering new developments. Where possible, funding is sought from developers to support this.

It is important that, in promoting the bus as a sustainable transport option, consideration is given to the significant emissions of NO2 and PM_{10}s, arising from the older vehicles in the bus fleet. This has been recognised and addressed in the LMAQS with an extensive programme of retrofitting particulate traps to the TfL bus fleet.

The Vehicle Inspectorate (VI) regularly check the emissions from buses within Newham and incidence of failure are rare. As dark diesel smoke from buses was found to be a concern of individuals questioned in a survey during voluntary emissions testing, the results of testing will be advertised to members of the public. The findings of the VI will challenge the view of some motorists that justified the use of their polluting car due to claims of diesel smoke seen from buses.

Newham views the integration of bus service provision with other public transport systems as essential. A programme of improving transport interchange facilities is underway, building on the successes of the Stratford Town centre interchange that has evolved into transport hub for the region, providing access to rail, Docklands Light Railway and bus facilities. Other transport interchanges include Canning Town Station, which provides integrated bus and tube services including DLR, as well as shuttle bus links to London City Airport.

London Bus Priority Network
Newham is the lead authority for the north-east sector of the London Bus Priority Network (LBPN). This network of roads complements the Priority (Red) Routes and works in partnership with all of the London local authorities and Transport for London (TfL) in order to improve bus priority measures across the network, to encourage greater reliability and faster journey times for passengers. Measures supported, that are consistent with the London Mayor's Transport Strategy, are bus lanes, queue relocation, bus advanced areas and signal control techniques.

East London Transit.
Newham support the TfL East London Transit proposals for linking Gallions Reach and Barking and eventually continuing the alignment with the Thames Gateway Bridge using dedicated lanes.

1.11 Encouragement of Walking, Cycling and Motorcycle Use

Encouragement of Walking, Cycling and Motorcycle Use - Actions	
1.11A	Continue to ensure with new developments that pedestrian routes are safe, accessible, convenient and pleasant.
1.11B	The council supports completing, promoting and maintaining the strategic walking routes in London
1.11C	The council will continue its Safer Routes to School programme.
1.11D	The council will 'Think Bike' in relation to highways and transport schemes design and continue to create cycle routes and cycle lanes where it is suitable to do so;
1.11E	Provide strategic and sufficient safe cycle and motorcycle parking
1.11F	Continue to support and facilitate the implementation and maintenance of the London Cycle Network, Newham Cycle Network and National Cycle Network within the borough.
1.11G	Continue to provide free cycle proficiency training for children and adults
1.11H	Encourage council staff use of bicycles by providing, where resources allow, cycle parking, pool bikes and extend the availability of staff changing and

	showering facilities.
1.11I	Continue to liase with local cycle groups to develop a 'Cycle Action Plan'.
1.11J	Continue to improve cycle and walking routes in the Borough.
1.11K	The council will continue to provide Motorcycle Advanced Stop Lines at junctions following a successful pilot project.
1.11L	Investigate the possibility of allowing motorcycles to use bus lanes.
1.11M	Provide secure parking for motorcycles in new developments, off street car parks and on street.

Air Quality Impact
As a low emission mode of transport, shifts from car use to walking and cycling would have a significant positive impact on air quality. Any improvements in the facilities that promote and encourage the shift from car to foot or bike would have a positive impact on air quality.

As the majority of trips made are less than 5 km, walking and cycling offer significant potential in contributing to more sustainable journey patterns as well as promoting better health. A major priority in encouraging individuals to walk and cycle is to ensure that they can do so in a safe manner. They need to be provided with suitably adapted routes to allow safe transit and protection from users of motorised vehicles.

Walking
Walking is non polluting, sustainable transport that is flexible, reliable, accessible to most people and is healthy way to exercise that can be easily incorporated into every day life. The council therefore wants to promote and encourage walking by a number of measures that include:

- Replacing and/or improving existing street-lighting with new lighting meeting the latest European standards.
- Ensuring new traffic management and highway schemes are pedestrian friendly and ensuring that the needs of pedestrians and those with disabilities are fully provided for when determining planning applications and securing planning agreements;
- Minimising pavement obstructions
- Regularly inspecting footways for trips and other defects;
- CCTV surveillance in our town centres and elsewhere with face recognition to detre crime
- Minimising litter and dog fouling
- Ensuring that footways are accessible through auditing of town centres which includes the introduction of dropped crossings as well as safe and convenient facilities for crossing roads.

The council supports the completion of Transport for London's Strategic Walking Routes across London. Within Newham these include the Capital Ring and the Lee Valley Walk, Lea Valley Path, North Thames Path and Roding Valley Way. The council will work towards improving pedestrian links and accessibility within Lower Lea Valley during regeneration by working with developers. The council will also produce a draft 'definitive Footpath Map' for Newham

Safer Routes to School
Newham Council is implementing the 'Safer Route to School' programme that combines engineering improvements with education to ensue school children have a safe journey to and from school and encourages the use of environmentally friendly transport.

The borough has been divided into 47 residential havens and, subject to funding from TfL, they will receive specifically designed engineering and educational measures to address their needs. 11 such areas have undergone such work including Plashet, Wakefield, Little Illford, Upton and Kier Hardie. By 2010 approximately 45% of havens will have received Safer Routes engineering treatment and 75% of schools a safety educational programme. The primary role of the programme is to reduce casualties, but it also encourages walking and cycling to school (including walking buses). This will reduce the 'school run' that has an impact on emissions and its effects are magnified as it coincides with commuter journeys.

Cycling

Like walking, cycling is a non-polluting, sustainable transport source that is flexible, reliable and relatively cheap. Cycling is also sometimes quicker then driving and has health benefits. Within Newham there are a number of cycle networks in Newham, the London Cycle Network + (LCN+), the Newham Cycle Network, the National Cycle Network and the Roding Valley Way. The council is committed to promoting and encouraging cycling by:

- Continuing with its programme to provide secure cycle parking at all major destinations within the borough and at new developments as required by the standards in the councils UDP;
- Providing dedicated cycle routes across the borough, which would include directional signage, coloured lanes, advanced stop lines at traffic signals etc.
- Cycle lanes to be installed on roads where there is sufficient room and where they can be effectively enforced by waiting and loading restrictions.
- Offering free cycle training for adults as well as continuing with its programme of cycling proficiency for children in schools; and
- 'Thinking Bike' during the design stages of highway schemes.

The council is currently developing a 'Cycle Action Plan' in partnership with cycling interest groups which will link with the Department for Transport's National Cycling Strategy and the cycling provisions of the London Mayor's Transport Strategy. Some of the targets of the plan could include:

- Advance stop lines at traffic junctions for cyclists
- More contra-flow cycle lanes on one way streets to provide safer 'short cuts'
- Increasing the amount of cycle parking spaces at stations etc.
- Publicising the targets and progress.

Motorcycles

Motorcycles, mopeds and scooters are flexible, generally low emitting, modes of transport that efficiently use road-space, reducing congestion. For these reasons the council wishes to promote the use of such two-wheeled vehicles but recognises the disproportionate number of accidents associated with their use and the noise impact of certain machines. Local Authorities are challenged to reduce this number of accidents and hopes to do this by working with TfL through promotion and engineering measures. The council also welcomes recent television publicity associated with motorcycle accidents and it also wishes to introduce:

- introducing advance motorcycle stop lines at junctions
- consider allowing small motorcycles, mopeds and scooters to use bus lanes

- provision of secure parking.

1.12 Partnerships & Travel Plans (Workplace & School)

Partnerships & Travel Plans (Workplace & School) - Actions	
1.12A	Continue to encourage developers to introduce Travel Plans.
1.12B	Continue to implement school travel plans via the 'Safer Routes Programme'
1.12C	Continue to work with service providers in order to encourage the transfer of passengers from one mode to another.
1.12D	Revised
1.12E	Revised
1.12G	Newham Council will work within the TGLP to implement a 'Sustainable Transport Strategy'.
1.12H	Seek to establish additional partnerships within the borough that will have a positive impact on air quality.

Air Quality Impact
Travel plans can reduce dependency upon cars and can held to improve air quality. Working in partnership can successfully implement policies for improving air quality, while taking onto account other issues e.g. socio-economic. Successful partnerships mean proposals can be carried out in a co-ordinated manner and on scale large enough to provide magnified air quality improvements.

Workplace and School Travel Plans
There is a commitment in Newham's UDP, in line with the LMAQS, to encourage developers to introduce Travel Plans. A travel plan is a general term for a package of measures tailored to the needs of individual companies and aimed at promoting greener, cleaner, travel choices and reducing reliance on the car. It involves the development of means and targets that, together, can enable an organisation to reduce the impact of travel and transport on the environment. The council is also working with schools on travel planning, which includes initiating walking buses

Partnerships
The council is involved with several partnerships and schemes that can be used to advance the aims of the Action Plan. These include:

Partnerships
- Thames Gateway London Partnership
- London Lee Valley Transport Working Group
- Regeneration and social inclusion partnerships throughout the borough
- New Deal for Communities

Schemes
- London Bus Priority Network / Initiative
- Strategic Walking Routes in London
- London Cycle Network

The council has worked with service providers to help passengers transfer from one mode to another through the provision of enhanced interchange. e.g.:

- Facilitated the replacement of Stratford station, which has lifts and cycle facilities as well as being adjacent to a bus station.
- Worked in partnership with Railtrack and other authorities to make the stations on the Gospel Oak to Barking line accessible by bicycle and have provided cycle parking at stations within Newham.
- A previous planning agreement with West Ham football club has enabled improvements at Upton Park station to take place.

Newham Council is an active member of the Thames Gateway London Partnership (TGLP). Five key policy objectives have been identified by the Partnership which are central to the attainment of sustainable transport in the TGLP area. These are as follows:

- the promotion of regional regeneration and multi-modal access
- the improvement of environmental amenity;
- the promotion of social equality and opportunity;
- the maximisation of resource efficiency; and
- the promotion of institutional, physical and operational integration.

1.13 Air Quality Promotion, Education & Awareness Raising

Air Quality Promotion, Education & Awareness Raising - Actions	
1.13A	Regularly update the air quality pages on the council's website and produce frequent information bulletins to keep members of the public informed on air quality issues.
1.13B	Continue to monitor air quality in specified areas and extend where possible, including the addition of an automated monitoring station at London City Airport and *ad hoc* monitoring, which may extend over prolonged periods
1.13C	Promote the air quality benefits associated with cycling during the schools cycling proficiency programme.
1.13D	Assist students carrying out air quality research projects.
1.13E	Continue to take part in the national campaigns subject to available funding and community support.
1.13F	Continue to promote low emission vehicles.
1.13G	Continue with two information screens at locations in East Ham and Stratford with live information upon air quality and its implications for health. Link these screens to the NEWTEXT initiative.
1.13H	Work with partners to provide an air quality information service to Newham's residents and participate in the 'Yourair' project to provide air pollution alerts to vulnerable groups.

Air Quality Impact
Awareness raising and education do not have a direct positive impact on air quality but plays a significant part in the overall approach to secure an improvement.

Education and awareness raising of the link between air pollution and car use is vital if the council is to improve air quality. Environmental issues, including air pollution are included within the National Curriculum and issues such as global warming and ozone depletion are discussed in schools from an early age and are frequently on television and in newspapers. The council needs to seize opportunities such as these to raise

awareness. However it is recognised that getting people to change their use of transport is a real challenge and that the support and incentive for a modal shift needs to be there e.g. a reliable public transport system, safe cycle routes etc.

Newham's Air quality Information

Newham Council displays information upon air quality pages on its website, which can be found at http://www.newham.gov.uk/. This site gives access to a wide range of current and archive air quality data together with health advice and other environmental pollution information. Newham's stage I to IV review and assessments are also available from the site.

Since 1998, Newham Council has been logging air quality data from two automated stations and since the late 1980's, has taken part in a number of diffusion tube monitoring regimes. Continuous diffusion tube monitoring has occurred since 1995 for Nitrogen Dioxide and 1994 for Benzene. The monitoring which is carried out in the borough is summarised in the following table.

Table 7: Air Quality Monitoring in Newham

Automated Monitoring Stations - (monitoring air quality 24hrs a day, taking a reading every 15 minutes)	
Site A (Cam Road)	Benzene, 1-3 butadiene, carbon monoxide, nitrogen oxides, ozone, particles (PM_{10}), sulphur dioxide and toluene
Site B (Tant Ave)	carbon monoxide, nitrogen oxides, ozone, particles (PM_{10}) and sulphur dioxide
Site C (under development)	Benzene, 1-3 butadiene, carbon monoxide, nitrogen oxides, ozone, particles (PM_{10}), sulphur dioxide and toluene
Diffusion Tube Monitoring (passively absorbing the pollutant and sent to the laboratory to be analysed)	
Sites 1-8, 10-19	Nitrogen Dioxide (monthly average)
Sites 18, 10-12	Benzene (fortnightly average)
Ad Hoc and Project Monitoring	
OSIRIS - Various Locations	Portable Light Scattering Particulate Monitors (x4)
DustMate - Various Locations	Hand Held dust Monitor - looking for peaks in dust levels in association with construction and development sites
Locations 1-7	Dust slides collected fortnightly - dust levels in association with construction sites
Monitoring in relation to traffic management schemes	Nitrogen Dioxide tubes used prior to and following the traffic management scheme
Supervisory and Regulatory Role for Monitoring at Industrial and Construction Sites	
Various sites throughout the borough	Checking monitoring procedures, practice and results in accordance with standard methods for stack emissions monitoring and dust detection

A pre-recorded freephone stating the air quality in the borough is also available (0800 028 3256) and the current level of air pollution in Newham can be seen on two strategically placed plasma screens within the borough (Sainsbury's Stratford Mall and LearnDirect, East Ham). These screens, displaying live air quality information, will be subsequently linked into the Local Strategic Partnership NEWTEXT information delivery system that can get key messages and news out across the borough on a series on display screens. This will enable the wider dissemination of air quality information and advice. It is hoped that by providing this information, individuals can make informed health decisions with respect to air quality and that the screens will serve as an awareness rising tool.

The data from the monitoring sites is displayed alongside the Local Air Quality Network (LAQN) data. The LAQN is managed by the Environmental Research Group (ERG), a division of Kings College, London. It forms a network of monitoring stations across Greater London that provide:

- An accurate picture of pollution levels
- Real time data for the purpose of pollution warnings
- Real time data for the purpose of pollution modelling
- Research data for health effect analysis
- Validated data used by the Government and London Mayor in preparing the NAQS and the Air Quality Strategy for London

Newham is currently developing, with a partner AEA Technology, an air quality information service for people who live or work in Newham. This will use live data from the borough's two air quality monitoring stations to trigger mobile telephone text messages and/or emails on days when air pollution is above 'normal' levels. This free service could be of benefit to anyone with a medical condition who finds that their health or breathing gets worse when air pollution increases, health care professionals who feel that this information will be useful in delivering services or those studying the environment at school or college and wish to know more about air quality.

Newham has also registered with Cambridge Environmental Research Consultants to participate in the planned roll out of the Yourair local air quality forecasting initiative across London. The forecasts use traffic data, regional pollution levels and meteorology to predict changes in air quality and to inform Newham residents that enrol through automated text messaging. The extended service will be of particular interest to people whose health if affected by air pollution.

Public Protection will liase with schools to provide local environmental information and promote pollution issues at schools. Along with wider issues of environment and responsibility the subject fits well with the national curriculum. In addition, during cycling proficiency training, air pollution and health issues will be covered in addition to health and safety. The council will therefore promote these further these as part of future training programmes.

Research

The council will continue with air quality research projects within the borough such as PM_{10} monitoring to compare two shopping streets, High Street North and Green Street, the former having restricted vehicular access. In addition, the council is currently investigating the impact of traffic management schemes on air quality at two locations within the borough.

The council will continue to provide data and assistance to students carrying out research projects. The council will then encourage students to feed their findings back to add to the general body of knowledge about Newham's environment.

National Campaigns.
Newham Council has taken part in national campaigns such as 'Don't choke Britain' and 'Don't Choke Newham' organising free voluntary vehicles emission testing and adjustment, events such as National 'Share a lift' day 'Green Transport Breakfast' during 'Bike week'. Public Protection has previously trialed for promotional purposes an electric cars and an electric van and has loaned a low emission dual fuel Honda IMA car.

As part of the, tips on how to reduce emissions and pollution were distributed via a monthly magazine, newspaper article and leaflets which were handed out as part of Public Protections' regular voluntary vehicle emission testing and adjustment campaign.

Newham Council will continue with such awareness raising promotions and seek to take part in future European wide and DfT supported 'In Town Without My Car' campaign now established annually on 22 September. The scale of participation will depend upon obtaining sufficient funding and community support, as options include closing town centre streets to vehicles to open them up for people to enjoy events and activities.

1.14 Newham Fleet Management, Travel Plan & Clean Fuels

Newham Council Fleet Operations

Fleet Management - Actions	
1.14A	The council will ensure that its fleet of 350 vehicles meets a high emissions standard (currently Euro III).
1.14B	Fleet Operations will continue to trial the use of LPG fuelled and LPG/petrol dual fuelled vehicles and investigate the potential of other low emission fuels as information comes available.
1.14C	Ensure that council vehicles are: • well maintained, this includes bi-annual emission tests as a minimum; • used on routes and tasks which are worked out to be as efficient as possible, operated by appropriately trained staff (to improve fuel economy)
1.14D	Continue with plans to ensure the retrofitting of CRT for all larger diesel vehicles.
1.14E	Establish a fleet register that includes emission information and measures to implement emissions improvements
1.14F	Promote alternative fuels and technologies through initiatives such as the use of an electric car and low emission vehicles

Air Quality Impact
Although Newham Council's fleet is small in proportion to the total number of vehicles in the borough it is the largest fleet based in the borough so can have a significant impact on air quality and promote best practice in fleet management operations.

Newham Council provides a wide range of services to the community such as school buses, waste collection and meal on wheels that require transportation. The council operates around 350 vehicles including accessible buses for the council's Passenger Transport contract, street sweeping machines, recycling and refuse collection vehicles. The remainder is made up of light vans, medium vans, medium tippers and a small number of cars. The bulk of the fleet are kept at Folkestone Road Depot with others kept at various satellite depots around the borough.

All vehicles are maintained in accordance with the conditions of the Operators Licence and service/Inspection frequencies vary from 2 per year for vans to every 8 weeks for refuse collection and other large vehicles.

In line with the LMAQS, London Boroughs should lead by example and implement measures to decrease their emissions. Since 1999 the council has embarked on a fleet acquisition programme via contract hire agreements and this has seen approximately 250 older, more polluting, vehicles replaced to date. The majority of new vehicles are diesel powered and the entire fleet now runs on ultra low sulphur diesel, supplied via the fuelling facility at Folkestone Road Depot. The authority also operates 10 dual fuel (Petrol / Liquid Petroleum Gas - LPG) vans that are used on the cleansing service and their performance and suitability are being monitored with a view to expanding their use. The council's Pest Control Service has recently taken delivery of nine new LPG fuelled vans. In addition, all diesel powered vehicles over 7.5 tonnes are fitted with Continuous Regenerating Trap (CRT) exhaust systems to reduce emissions of particulates and the As the council operates a lease replacement scheme its fleet has modern vehicles that meet the tough Euro III standards and aims to achieve the rigorous Euro IV standards by January 2006.
The council will observe the results of trials of water-diesel emulsion and will consider its use if it proves viable. Electric and other or other low emission vehicles will also be loaned or hired as resources permit. These will be loaned to council services that use vehicles to enable them to assess the viability of alternatively fuelled vehicles to replace conventionally fuelled vehicles or to provide a pool car. The use of such vehicles will also be used to raise the profile of air pollution issues and generate positive publicity for the council and this action plan.

To aid the council's fleet evaluations and in line it the London Mayor's Air Quality Strategy, the council will establish a fleet register that includes emission information and measures to implement emissions improvements. In addition, ensuring council vehicles emit the lowest possible emissions should be considered in conjunction with ensuring vehicles are:

- used sensibly and are well maintained - this includes bi-annual emission tests as a minimum;
- used on routes and tasks which are worked out to be as efficient as possible, e.g. co-ordinating deliveries of goods and services; and
- operated by appropriately trained staff (to improve fuel economy).

A Travel Plan for Newham

Newham Travel Plan - Actions	
1.14 H	Implement a Council Travel Plan that will include a range of measures to encourage staff to use public transport, cycling or motorcycles as an alternative to using cars.

Air Quality Impact
As the largest employer in Newham a Travel Plan will have a positive impact on air quality and the council cannot, with credibility, require or encourage others to produce a plan without leading the way.

The Road Traffic Reduction Act 1997 places obligations on the council to produce targets for the reduction of traffic on our roads and to implement measures to meet those targets. One means of delivering this reduction is a "travel plan". Central Government has taken the lead by introducing travel plans in all government departments and has asked local authorities to set a good example by doing the same and then encouraging other organisations in their boroughs to follow. Newham Council has already introduced the requirement into the UDP for applicants to produce travel plans as a planning condition for major developments.

In 2001 a survey by Centre for Independent Transport Research in London revealed that 24 London boroughs either have or are currently preparing a travel plan for their staff. In addition, as the largest employer in Newham, the council cannot, with credibility, require or encourage others to produce a travel plan or change the way they use motorised vehicles without doing the same.

A Travel Plan would address different types of travel associated with the council including:

- **Fleet operations**
- **Travel by staff for work**
- **Commuter journeys**
- **Visitor travel** e g. meetings and courses
- **Deliveries and contractors**

It is recognised that established travel practices would be difficult to alter. The aim should be to introduce a plan that will be effective in reducing car dependency but can also be built upon. The aim of the plan is to reduce car use by council employees by the same proportion as is determined to be appropriate for the borough as a whole by 2008.

It is not the function of this Air Quality Action Plan to determine the content of the Travel Plan that will undergo its own process of development, consultation, funding and agreement. However taken from the staff travel survey the following measures could be considered.

To encourage staff to cycle changing area and showering facilities, covered and secure cycle parking, pool bikes, free cycle training for staff (as we do for members of the public),
loans for the purchase of bicycles.

Encouraging Staff use of Public Transport by promoting improvements and distributing public transport information to staff through the Intranet and encouraging use of the on-line London Transport journey planning service.

Encouraging Staff to leave their car at home by allowing all employees to choose which mode of travel to use on a journey-by-journey basis. Subject to a funding and a robust business case the option of providing low emission pool cars could be considered. The existing car sharing initiative promoted on the Intranet, could be expanded to create a car sharing database. In addition, communication between officers concerning council business will encouraged so that one car is used for a number of visits, instead of one car per officer.

Alternative Fuels, Technologies and Funding

Clean Fuels - Actions	
1.14l	Provide encouragement and guidance for individuals and groups who wish to clean up their vehicles through campaigns such as CleanUp and Powershift
1.14M	Encourage businesses to try and achieve at least the Euro II standard plus a reduced pollution certificate or Euro III by 2005
1.14N	Identify appropriate sites for further alternative refuelling infrastructure together with TransportEnergy
1.14O	Support electric re-fuelling through the work of the London Clean Fuel Working Group

Air Quality Impact
It will take a number of years before a significant effect of cleaner vehicles and EU emission improvements is seen, so the council will encourage the use of grant and tax breaks for converting to cleaner fuels or purchasing low emission vehicles. This will not significantly impact on air quality but is an incremental step in securing improvements and will contribute to awareness raising and education.

New vehicles will continue to be cleaner as progressive EU emission improvement requirements come into force. However, given the current life cycle of vehicles it will take several years before a significant effect is seen. Over the last few years there has been developments in the availability of alternative fuels, technologies, pricing mechanisms and funding to support air quality improvements. Newham Council will promote the use of such initiatives within the borough and provide help, guidance and support for individuals and groups through:

- liasing externally; for example with the Newham Chamber of Commerce and promoting petrol stations that provide cleaner fuels
- identifying appropriate sites for further alternative refuelling infrastructure (together with TransportEnergy);
- awareness raising campaigns and vehicle emissions testing

There are a number of initiatives in place that the council will promote:

- The Cleaner Vehicle Task Force (CVTF) - aims to promote the production and use of more fuel efficient, less polluting and quieter vehicles.

- Tax incentives such as less tax upon LPG fuels and vehicle excise duty based on vehicle size and efficiency.
- TransportAction Campaign (via Energy Saving Trust).

The CleanUp Campaign encourages the fitting of emissions reduction equipment to the most polluting vehicles to reduce levels of PM_{10} and NO2 in pollution 'hotspots'. This campaign targets PSV's and HGV's and provides funding for fitting emission reduction equipment and provides help, advice and data. The PowerShift Campaign supports the funding of clean-fuel-vehicles and is aimed at a businesses, transport operators, Local Authorities and some individuals. PowerShift will fund from 40% to 75% of the cost of converting vehicles up to one year old from petrol or diesel to a cleaner fuel and 40% to 75% of the difference in cost between a clean fuel vehicle and its' petrol or diesel equivalent.

Newham council will also support the work of the London Clean Fuel Working Group, which is looking to extend the electric refuelling network within London.

1.15 Taxis, Mini-Cabs and Private Buses / Coaches

Taxis, Mini-Cabs and Private Buses / Coaches - Action	
1.15A	Continue to control where taxis, mini-cabs, and local bus operators in Newham can park as a means of regulating their use.
1.15B	Support the regulation of taxis and minicabs through the Public Carriage Office, and encourage the introduction of additional measures to ensure emission levels are minimised by 2005, such as vehicle emission checks and changes to low-emitting fuel.

Air Quality Impact
Although taxis and minicabs are an important part of the transport system they negatively contribute to Newham's air quality and the predicted levels for PM_{10} and NO_2 in 2005. As they can be on the road for the majority of the day and are often used for an extended lifetime tighter regulation of their emissions is required.

Taxis (black cabs)
Not withstanding the black cabs looking for casual fares, there are two main reasons for black cabs to be in Newham, to pass through into the centre of London and to serve London City Airport (up to 100 plus taxis wait for incoming flights).

Taxis use diesel powered engines and so contribute towards particulate levels however they should not be discouraged from the borough. Along with minicabs they play an important role in supporting other modes of transport such as trains, especially for individuals with mobility problems or luggage. They are built for a long life and consequently the majority of taxis are of a comparatively low emission standard (Euro I). However TfL is driving improvements in emissions and the council supports the move of taxis to alternative fuels, e.g. LPG.

Mini cabs
Newham has a number of minicab firms that utilise vehicles in a range of conditions, from private cars to vehicles especially for business use. They operate across the borough and are seen as a viable, cheaper alternative to 'black' taxis. Minicabs are generally no different to the average private car and have no additional road priorities (unlike taxis). As the vehicles spend large parts of the day driving around the emission

from these vehicles have a greater impact than other cars. For this reason, Newham Council welcomes stricter controls regarding registration and emission checks.

Private Buses and Coaches
There are many reasons why such modes of transport operate in Newham, including private school buses and commuter buses. In principle, due to the number of individuals they carry, they are more sustainable than individuals travelling in private vehicles, taxis or mini cabs.

1.16 Road Freight Measures – HGV and LGV

Road Freight Measures – HGV and LGV - Action	
1.16A	Encourage and support initiatives to transfer road freight to rail and water.
1.16B	Continue with Newham's strategy for traffic management by locating freight-generating developments on or near main road systems.
1.16C	Set up a Freight Quality Partnership though Newham's Transport Strategy Policy?.
1.16D	Provide help, encouragement and awareness raising to Road Freight groups within the borough, concerning funding for cleaner vehicles.
1.16E	Use roadside vehicle emissions checks for HGV's and LGV's, to encourage regular servicing, maintenance and replacement of old vehicles.
1.16F	Minimise the misuse of roads by freight from major construction sites by continuing to and expand the spot-checking of roads used and whether loaded vehicles are covered.
1.16G	Participate in the review of the London night-time lorry ban. Support linking any relaxing of the ban to ease day time congestion with the use of emission abatement and cleaner fuels.
1.16H	Newham council will assess the scope for the use of priority lanes by freight vehicles and the implications for other road users.

Air Quality Impact
Road freight contributes significant emissions to the atmosphere especially when the large number of miles travelled is taken into account.

The council recognises that freight transport is necessary for a prosperous economy and that it is more efficient and environmentally sound for freight to bring goods to town centres, rather then facilitate individuals to drive to out of town shops. Therefore the council does not wish to hinder the movement of legitimate freight.

Newham's strategy for traffic management encourages freight to use appropriate parts of the road network. By locating major freight-generating developments on or near main road systems problems such as pollution, noise and vibration associated with freight is minimised.

Through Newham's Transport Strategy, the council will set up a 'Freight Quality Partnership' with relevant organisations and particularly national trade organisations.

Some small-scale companies and private individuals use LGV's for local transportation. The extent and longevity of use by these operators, coupled with less frequent servicing can lead to such vehicles to contribute significantly to the pollution levels in the borough.

It would be difficult to include these operators in the quality partnership and so other measures such as roadside emission testing will specifically target these vehicles.

Using the planning process large-scale construction sites are required to use specific routes and officers ensure that these routes are used. In addition to the types of roads that can be used officers also 'spot-check' to ensure load bearing vehicles serving major developments are appropriately covered. This prevents the generation of windblown dust and grit, which can also settle and become re-suspended into the air.

Newham Council will also seek to provide assistance to companies that wish to use alternative modes of transporting their freight. For example a factory was encouraged to apply for Government funding to redevelop a canal adjacent to their boundary, which is less that 100m from the River Thames. They will then use this as a means of receiving and transporting its raw materials and products and so reduce the number of lorry movements to and from the site.

The London Lorry Ban was introduced by the Greater London (Restriction of Goods Vehicles) Traffic Order 1985 as an environmental control measure to stop unnecessary lorry movements disturbing the peace of Londoners at Night and Weekends. Newham will participate, with other London boroughs and Transport for London, in a review of the scheme. Consultation is due for completion in 2004/5 with implementation in 2004/5 and 05/06. The council recognises the potential for easing the access ban in order to ease day-time congestion but would support linking any relaxation to the use of cleaner fuels and technologies, which can also result in quieter vehicles.

1.17 Roadside Emissions Testing and Enforcement

Roadside Emissions Testing and Enforcement - Actions	
1.17A	Following evaluation of the one year London-Wide Vehicle Emission Testing (VET) campaign support the continuation of an effective program subject to securing government funding.
1.17B	Newham Council will initiate and support the Vehicle Inspectorate in roadside vehicle emissions testing programmes carried out in the borough
1.17C	Offer voluntary vehicle testing and adjustment on an annual basis.
1.17D	Newham Council will publicise Vehicle Emission Testing to ensure that motorists are aware of the new powers and of the voluntary testing and adjustment.
1.17E	Newham Council will also work in conjunction with the Mayor for London to raise awareness of the importance of good vehicle maintenance
1.17F	Newham Council will seek to enforce new powers to insist that motorists switch off their engines while stationary.

Air Quality Impact
Approximately 10 - 20% of vehicles will fail a random emissions check. As the main aim of emission testing is to encourage regular servicing of vehicles, periodic random emission checks and voluntary emission testing will gradually ensure that a greater proportion of vehicles will be within the limit with a significant positive impact on air quality.

A 1999 National Audit Office report into vehicle emissions testing (VET) concluded that a significant proportion of vehicles in Britain – between 10 and 20% - exceed legal emission limits. This is despite the fact that the failure rate for cars at annual MOT tests

is around 5%. This is explained by wear and tear, some motorists will only do the minimum required to maintain their vehicle and because many vehicles are serviced just before their MOT.

Newham Council carries out annual voluntary VET and emission adjustment. The free testing takes place in supermarket car parks within the borough and drivers are encouraged to have their vehicles tested and, where possible, the engines of cars that fail will be adjusted to ensure compliance with emission standards.

Recent research carried out by the RAC suggests that motorists are generally in favour of emissions testing with 85% of those surveyed agreeing that vehicles should be checked regularly.

The Government has introduced legislation that will extend the powers for roadside VET to local authorities that have designated Air Quality Management Area's. The new powers under The Road Traffic (Vehicle Emissions) (Fixed Penalty) (England) Regulations 2002 came into force in 2002. Newham Council has adopted these powers and will organise roadside VET in conjunction with the Vehicle and Operator Services Agency (VOSA).

Newham Council anticipates that these new powers will make motorists more environmentally aware and take more care to ensure that their vehicles are not producing avoidable emissions. A major comment from the questionnaire during Newham Council's past voluntary testing was that individuals with low polluting cars felt that their efforts were being undermined by the irresponsible minority of car users who did not maintain their vehicles. This will ensure that those individuals who have lower polluting cars will feel as if the 'real' polluters are being dealt with.

In 2003/2004 Newham council was part of the steering group for a London-Wide approach for vehicle emission testing co-ordinated by the ALG and publicised as 'Smoking Kills'. The ALG made a bid for Government funding on behalf of 28 London boroughs and this is the first time a co-ordinated vehicle emissions campaign has taken place in the capital. The aim was to reduce the number of gross polluting vehicles on London's streets and involved a publicity campaign, compulsory testing of vehicles and issuing penalty charge notices to those that fail. The teams tested in Newham for 11 days, checking 403 vehicles and issued 15 Fixed Penalty Notices and 5 warnings. The effectiveness of this pilot scheme is currently being evaluated. The council will support the continuation of a further, effective, co-ordinated campaign subject to securing the necessary funding from central government.

Enforcement to Switch off Engine Whilst Stationary

Under the Road Vehicles (Construction and Use) Regulation 1986 it is a requirement for drivers to switch off engines in parked vehicles. These new powers have been extended from the police to local authorities under The Road Traffic (Vehicle Emissions) (Fixed Penalty) (England) Regulations 2002.

A Fixed Penalty Notice (FPN) of £20 can be issued to drivers who refuse to turn off their engine when parked. This fine will rise to £40 if not paid within 28 days. Enforcement will encourage all drivers to consider both their own environment and the people in the immediate area, when stationary. Arrangements for enforcement by the council have not currently been finalised.

It is currently an offence to leave a vehicle engine idling unnecessarily whilst parked under the Road Vehicle (Construction and Use) Regulations, but until July 2002, only the police were able to enforce this. Now that these powers have been made available to all local authorities, authorised officers will be able to ask drivers to switch their engine if they are deemed to be letting them idle unnecessarily. If the motorist refuses to turn the engine off, a fixed penalty notice of £20 can be issued. Newham plans to authorise those officers that spend a large proportion of their time on the streets such as Parking, Street Environment Officers and will train their staff accordingly. Officers will be able to use these powers, as part of their daily work round the borough but will also be able to tackle areas where we have received complaints in the past. We will not use them to respond reactively to one-off complaints.

Section Two
Other Transport Measures – including airports

The Review and Assessment process has shown that the major contributing source of Air Pollution in Newham is motorised vehicles and hence other modes of transport are encouraged. These more sustainable modes of transport still have emission drawbacks, but are comparatively lower than the private vehicle. As such 'other transport measures' are discussed within this section with respect to actions for adopting them and problems associated with their use.

2.1 Passenger Rail and Underground Services

Passenger Rail and Underground Services - Actions	
2.1A	Establish Quality Partnerships with the rail and tube industry to promote increased levels and quality services in the borough.
2.1B	Support improvements in rail and tube infrastructure.

Air Quality Impact
Railways and the underground form part of the lower emission transport system as well as reducing traffic volume. Actions adopted should consider ways to improve and subsequently promote this service to encourage individuals to shift to this low emitting alternative.

Newham is well served by rail and tube links with the following operating within the borough:

Underground Services: Central Line, Jubilee Line, District line, Hammersmith and City Line and Docklands Light Railway

National Rail including: -SilverLink (Stratford to North Woolwich and Westbound)
-Liverpool and Fenchurch Street Lines out to Essex

In recent years Newham has benefited from the extension of the Jubilee line to include Canning Town, West Ham and Stratford. Although the extension has been welcomed, if such modes of transport are to be encouraged as a viable alternative to the car, complaints such as tube overcrowding and long queuing times for tickets at Stratford need to be addressed. The council will push for resolution of such complaints.

Infrastructure Developments for Rail and Underground
There are various rail infrastructure developments which the council supports including:

- The construction of CrossRail, which has a number of alignment proposals, including one for Stratford and another serving the Docks.
- The DLR / City Airport extension are seen as a key initiative to improve air quality and there are plans to bring the Airport extension under the river to link with the mainline network at Woolwich Arsenal Station
- Completion of Channel Tunnel Rail Link at Stratford
- A rail crossing of the River Thames to provide a commuter link through to the Barking – Gospel Oak Line
-

- Fully accessible tube and rail stations which have safer platforms and waiting areas with cameras, CCTV and passenger alarm facilities.
- general upgrading of the physical fabric/amenity
- car parking management
- improved links to transport networks i.e. bus routes/stops, footpaths and cycle paths.
- Additional and more secure cycle parking

Rail and Tube Operations
It will be difficult to encourage individuals who drive to switch to train or tube if the service provided is not comprehensive or reliable. In addition, those who already use the services may become disillusioned and switch to car use if the service is not maintained and enhanced. The council wishes to improve further frequency and reliability of rail and tube servicing and Newham and is pressing for various service improvements, including:

- Improved signalling on the Jubilee extension to increase train capacity
- Reinstatement of lines e.g. Lea Valley Line and Hall Farm Curve
- Additional Services to stop at stations in Newham e.g. Liverpool St to Norwich/Ipswich
- Increased service level at Manor Park, Forest Gate and Maryland stations.
- Liase with local train operators with regards timetabling and reliability of services
- Fully stopping CrossRail service at all relevant stations in Newham
- Introduction of a DLR through service from Bank to Beckton

2.1 Freight Rail

Freight Rail - Actions	
2.2A	Newham Council will continue to support initiatives to transfer freight from road to rail.
2.2B	The council will investigate the potential of establishing Quality partnerships within the freight rail industry to ensure best practicable means are adopted with regards air pollution and other environmental issues.
2.2C	The council will lobby for rail infrastructure improvements.

Air Quality Impact
Transferring freight that usually travels by road to rail would reduce emissions and congestion.

Transferring freight by rail is more sustainable than transferring it by road and the council will support appropriate initiatives to transfer freight from the road. However, due to emissions from diesel trains and associated noise and vibration which also occurs through the night, the council also supports initiatives to minimise these impacts.

The council is currently developing a noise map for the borough that will take freight rail into account. In order to minimise the impact of freight rail, the council could discuss with freight operators best practice and the possible introduction of lower emission trains, while taking into account noise and vibration issues.

The Strategic Rail Authority proposes an upgrading of the routes serving the container port at Felixstowe. One of the routes identified is a North London Orbital Route with an upgrade of the Gospel Oak – Barking route. This would decrease the number of freight movements on the North London Line proper, but would increase movements along the Barking route and would cause corresponding environmental disbenefits for local residents. Newham Council would rather see a passenger line, providing a service for local residents with an alternative orbital rail service around London.

2.3 Maritime, Ports and Waterways (freight and Passenger movements)

Maritime, Ports & Waterways (freight & Passenger movements)- Actions	
2.3A	Where possible continue to safeguard mooring sites along the waterways in Newham which have been earmarked for river bus, taxi and freight movements.
2.3B	Continue to encourage and facilitate river use by river side industries and freight operators
2.3C	Develop sustainable water transport services within the borough in partnership with other boroughs

Air Quality Impact
Utilising the waterways for people and freight movement would take the burden from the roads, therefore reducing emissions and congestion.

The Council sees the River Thames as an underused, sustainable transport resource. The council therefore supports the principle of increased use of the River Thames and River Lea for passenger and freight services. In relation to passenger services, five sites on the river Thames with the potential as river bus mooring points have been safeguarded within the UDP. There are also ideas for a river taxi service.

In relation to freight, all wharves safeguarded by the secretary of state have been included within the UDP as well as a further four downstream of the Thames Barrier. However, as stated in the UDP, these wharves may be redeveloped to tie in with wider regeneration objectives.

The council believes that water transport services need to be developed, but this is not a single borough project and needs to be co-ordinated by TfL in partnership with relevant boroughs.

2.4 Airport Measures

Airport Measures - Actions	
2.4A	Under a planning agreement with Newham Council London City Airport (LCA) is committed to appointing consultants to carry out a study of the impact of the airport upon air quality and Airport Traffic Generation
2.4B	London City Airport to undertake regular updates to their 'Green Transport Plan' to effectively manage the transport needs of their employees and passengers that includes targets to reduce care journeys.
2.4C	Newham Council will liase with LCA for the Vehicle Inspectorate to carry out random emission checks of queuing taxis at the Airport.
2.4D	Newham Council will require London City Airport to meet its commitments under existing S106 agreements to provide air quality monitoring at the

	site.
2.4E	Newham Council and London City Airport will continue to lobby for a CROSSRAIL proposal that includes access to LCA.

Air Quality Impact
Although the airport's activities did not cause the site to be declared an Air Quality Management Area, due to the scale and nature of the business, measures to address the impact on Air Quality are required. Especially significant is the high impact of surface traffic upon major roads around the airport that are within Newham's Air Quality Management Area.

London City Airport
Situated in the South East of the borough, London City Airport is a short take off and landing airport serving Western Europe that operates approximately 50,000 flights per year. During stage III of the review and assessment process, emissions from LCA were considered. The assessment process concluded that emissions associated directly with aircraft and ground vehicles did not breach assessment levels. However, traffic to and from the airport, including private cars, taxis and buses significantly contribute to pollution levels along the major roads adjacent to the airport site. Along with other major roads in the borough, these roads were declared as part of the AQMA. For this reason, actions to minimise London City Airport's contribution will be considered.

Air Quality Study at LCA
The section 106 planning agreement entered into by the Airport in 1998 put a new focus on the issue of air quality. The Airport is committed to appointing consultants to carry out an Air Quality Study aimed at assessing and evaluating the impact of the Airport on the quality of the air enjoyed by the local community through the potential for odours, fallout (such as smuts,) and the measurement of ambient concentrations of fine particulates (PM_{10}) and nitrogen dioxide (NO2). In conjunction with the study, LCA will be installing air quality monitoring equipment in the vicinity to measure fine particulates and nitrogen dioxide..

The report of the Air Quality Study and any recommendations will be submitted to the local planning authority and will lead to an Air Quality Management scheme. Reports on the operation of the Scheme, including recommendations for its improvement, will be submitted annually to the local planning authority and to the Airport's Consultative Committee.

Noise and Air Quality
Pending the results of London City Airport's 'Air Quality Study' actions already adopted to manage noise issues will help to minimise the air quality impact of aircraft and airport activity. Many of the features adopted in London City Airport's noise strategy will help to minimise the airport's pollution contribution. For example, the flight heights used to control noise will also enable pollution to be dispersed and for noise reasons all aircraft using the airport must be of an approved type (permitted aircraft) therefore ensuring there is a degree of emission control.

Airside vehicles
The 1997 report on air quality conducted by LCA indicated that airport management were anxious to minimise the occurrence of odours in the Terminal Building. With this in mind, the Airport is actively encouraging airlines to make maximum use of electrical ground power for aircraft at the stands. At present 70% of the total fleet is electric (16

out of 23 vehicles). By 2005 LCA aims to increase the percentage of electric vehicles to 80% of the total fleet. The LB Newham will lobby LCA to consider this potential source of pollution within its investigations and future travel plan.

Surface Access
LCA has developed an Airport Surface Access Strategy (SAS). The SAS is incorporated into the London Borough of Newham's Interim Transport Plan in line with Government Guidance. The objectives of the strategy include encouraging the use of public transport for journeys to and from the airport (staff and passengers) and offering a choice of efficient public transport.

As the airport itself has not been designated within the AQMA, surface access to the airport is one of the main areas for focus by this action plan. Nearly half of the journeys to and from the airport are by taxi, with only 29% of journeys being made by means other than taxi or private car.

Until the new station on the DLR extension is provided, airport managers believe that most people arriving at or leaving the Airport will continue to do so by road. It will be difficult to encourage individuals who use taxis to use public transport, because of the relatively short time it takes by taxi from the City/Docklands. Measures to ensure that the taxis are emitting the lowest emissions possible will be adopted, including working with the Airport to facilitate emission checks of queuing taxis.

In the short term, initiatives include the provision of 2 electric charging points in the car park and free parking for electric cars.

LCA Transport Plan
The Airport has produced a 'Green Transport Plan' to manage the transport needs of passengers and those working at the Airport. The latest version was published in July 2002. It aims are:

- to reduce reliance on the car through the reduction in the length and number of motor journeys and in particular those undertaken in single occupancy vehicles.
- to promote the use of alternative means of travel which are more suitable and environmentally acceptable.
- to reduce emissions and encourage energy efficient vehicles within the company fleet.
- encourage work practices which reduce the need to travel

Currently the Airport has adopted the following initial key targets that includes:

► 5-10% reduction in car borne commuting in the first three-year period of the plan (without DLR), thereby increasing the proportion of employee and passenger commuter trips by modes of transport other then single occupancy cars,

► rising to a 10-20% reduction with the introduction of the DLR, envisaged to be operational in late 2005. Trains will initially run every 12 minutes to and from Bank station and will stop at all stations. The route will include Canning Town Station, which is already a major multi – modal interchange with bus and National Rail connections to the north and east of London where a reasonable proportion of airport staff live;

- initially no net increase in the number of parking spaces/permits for employees, and in the future an annual reduction in parking spaces/permits. There are currently 850 spaces for public and staff (300 staff spaces and 550 for passengers) with an additional 50 spaces in the Western Car Park.

Section Three
Non Transport Measures

During the review and assessment process, road transport was identified as the primary source of air pollution. However other sources do exist and in considering actions to improve air quality these should not be overlooked as changes in non-transport measures can still provide valuable improvements in air quality. Actions relating to non-transport measures are detailed below and include environmental enforcement and planning controls.

3.1 Industrial Measures

Industrial Measures - Actions	
3.1A	In accordance with government guidance, continue to inspect processes regulated by the local authority to ensure compliance with authorisations. This will ensure that such processes are not responsible for exceedances of the National Air Quality Objectives
3.1B	Continue to liase with other industrial/commercial operators as well as other local authorities to promote good environmental practice.
3.1C	Continue to liase with the Environment Agency regarding 'part A' processes within Newham.
3.1D	Investigate industries in the borough to ensure that all appropriate processes are authorised.
3.1E	Continue to investigate complaints regarding smoke from industrial and commercial premises.
3.1F	Produce an emission inventory for local authority regulated processes in the borough and regularly update this information on the council's website.

Air Quality Impact
Newham Council enforces the emissions to air of authorised processes within the borough under specific government guidance. As effective control measures to reduce the impact of industry are already in place additional efforts will only have minimal impact on air quality.

Through the Environmental Protection Act 1990 Pollution Prevention Control Regulations 2000 (PPC) local authorities have responsibility for regulating air pollution from small to medium scale industries (Part A2 and Part B processes). The Environmental Agency has been charged with responsibility for regulating emissions from larger industrial processes (Part A1 processes). Newham currently has 36 Part B processes, 19 of which are petrol stations, two Part A2 processes and 8 part A1 processes. A list of these processes is kept on a public register and on the council's website.

Local Abatement and Emission Reduction
Abatement to minimise the impact of industries within the borough is varied and process specific. Abatement measures are monitored and controlled by the council in a number of ways:

- Process inspections are carried out as determined by a risk assessment procedure

- The council responds to smoke and emission complaints
- Annual stack emission testing is required for selected processes
- An annual solvent inventory is required for affected industries; and
- Using best practical means, compulsory upgrading of abatement technology is required.

An industrial emissions inventory is currently being compiled, which will list and detail all known and estimated emissions from Part A2 and B processes within the borough. The inventory will be updated annually and will be made available upon the council's website. The contribution of industrial processes to national air pollution may be estimated from their annual emission inventories, for example in 2001 there was a total release of 92,390 tonnes of Nitrogen Dioxide.

Public Protection liases with the Environment Agency to ensure that the part A1 processes both within Newham and those that affect Newham, meet emission constraints and are considered in the wider issue of air quality management.

Other industrial premises are controlled by Environmental Protection Act powers and the Clean Air Acts. Public Protection undertakes enforcement regarding dark smoke from burning bonfires on commercial premises. Public Protection also co-operates with the Environment Agency Waste Licensing Team in taking action against waste management sites that contravene their licence by allowing bonfires on their premises.

3.2 Smoke Control and Nuisance Policy

Smoke Control and Nuisance Policy - Action	
3.2A	The council will continue to investigate and appropriately enforce regarding smoke incidents and will provide information to members of the public concerning bonfires and smoke.

Air Quality Impact
Bonfires and other smoke incidents are generally isolated occurrences and as the council takes both proactive and reactive action additional efforts will not have a major impact on air quality.

Under The Clean Air Act 1956 Newham is a Smoke Control Area along with the rest of Greater London and all major urban areas in the UK. Public Protection will investigate incidents or complaints about smoke problems under the clean air act 1993 and will deal with bonfires under Environmental Protection Act statutory nuisance legislation.

The council regularly provides help and advice about bonfires to the public, including a 24/7 response service. In addition, Newham's Street Scene Enforcement Team takes action in respect of illegal waste deposits and abandoned vehicles. This minimises the build up of combustible material.

3.3 Fugitive Emissions

Fugitive Emissions - Actions	
3.3A	In co-operation with other London boroughs produce a construction sites code of practice for dust
3.3B	Continue and develop dust sampling in association with construction sites

3.3C	Ensure random spot checks of vehicles from major construction sites to ensure they are covered if carrying material that can become windblown.
3.3D	Continue with street cleaning to minimise the re-suspension of road dust and review the cleaning regime currently in place.
3.3E	Use planning conditions and section 106 agreements to minimise emissions of dust from development sites.
3.3F	Continue to ensure that contractors working on behalf of the council demolishing buildings or clearing sites have a contractual obligation to minimise dust production.

Air Quality Impact
Fugitive emissions such as construction site dust can create significant localised problems.

Construction Site Dust Controls
There is significant potential for particulate emissions from construction sites arising from unabated demolition, earthworks and construction activities. The Building Research Establishment (BRE) has produced (February 2003) guidance on the control of dust from construction and demolition activities.

Newham Council are looking at the influence of particulate emissions from construction sites on PM_{10} concentrations within the AQMA as part of its Stage 4 Review and Assessment. In addition to on site monitoring by contractors, the council is conducting independent and covert monitoring of dust associated with major construction sites within the borough. It is also randomly checking that vehicles pass through the wheel wash and are covered, if carrying potentially wind blown material.

Contractors working on behalf of the council demolishing council buildings or clearing council sites have a clause in their contract that ensures they minimise dust production. This is achieved by 'wetting down', ensuring that lorries carrying waste are covered and that the name of the contractor is always visible so that complaints can be traced directly to the contractor.

Newham Council controls dust from construction sites though the planning process and approved codes of construction practice. This may involve dust monitoring before and throughout major construction projects. The council agrees with the developer the sites for testing, as well as the methodology, frequency, duration, analysis method and trigger levels (where they have not been assigned). This dust level data also feeds into the council's air quality database.

The council is currently working with other London boroughs upon a code of practice for the control of dust from construction. This is intended to provide standards for evaluation of monitoring results and to facilitate more rigorous standards in Air Quality Management Areas.

The council works with developers to ensure that the Best Practical Means (BPM) is used to resolve dust problems and this may include:

- Dust mitigation using water
- Screening and enclosures
- Minimising drop height of materials
- Vehicle wheel and chassis washing
- Speed limits
- Haul road surfacing
- Sheeting lorry loads

Re-suspended road dust

Research has shown that a significant amount of respirable particulate results from the re-suspension of dirt deposited on the highway. The street cleaning service can have an impact in removing road dirt and with it the potential for re-suspension, however, research indicated that increased street cleaning had little effect on preventing road dust re-suspension. The street cleaning service sweeps and cleans all borough roads on a regular basis.

3.4 Domestic and Commercial Energy Measures

Domestic and Commercial Energy Measures - Actions	
3.4A	When purchasing fuel for use by the council to always consider 'green electricity'. All major electricity users within the council currently use 'green electricity' from a renewable source.
3.4B	Continue to encourage and promote the use of sustainable energy sources such as Solar-Voltaic cells. To apply for grant funding to install a large scale solar voltaic project in the Woodgrange regeneration area.
3.4C	Ensure that older boilers within council premises are replaced with those that meet current emission standards and strive to completely withdraw from the use of solid fuels and oil-fired burners
3.4D	Through the Environmental Sustainability Checklist for Major Development (Supplementary Planning Guidance) require for large developments energy use assessments, require buildings to have high BREEAM rating, require housing to have an EcoHomes assessment and support GLA policy to encourage the introduction of technology to generate a percentage of the energy used on site or, if this cannot be achieved, import a percentage of the energy requirements from the 'Green Grid'.
3.4E	Continue to spend the council's climate change levy rebate on energy efficiency improvements.
3.4F	Prepare an energy strategy, in line with the London Mayor's Energy Strategy, which will aim to increase energy efficiency within the council and promote energy awareness.
3.4G	To provide information on energy efficiency in the home.

Air Quality Impact

Improvements in energy efficiency will reduce emissions through lower fuel use, switching fuels and more efficient combustion, although air quality benefits will be limited. However the primary aim is reduction in CO2 emissions to reduce the councils 'energy footprint'.

Energy Conservation, Fuel improvement and Appliance Improvement.

By 2008-2012, the UK is committed under the UN Framework Convention on Climate Change and subsequent Kyoto Protocol, to reduce emissions of carbon dioxide by 12.5% from 1990 levels. There is, however, concern regarding the 23% contribution of transport related emissions (85% of which comes from road traffic).

The road traffic measures within this Action Plan will assist in a reducing carbon dioxide contribution from road traffic but additional measures are needed to increase energy efficiency and the use of renewable energy sources that will result in lower overall emissions. The Government has introduced legislation and guidance in relation to energy consumption including:

- **Home Energy Conservation Act 1996** that places a duty on local authorities to improve energy in all council housing stock by 30% by 2010.
- **Government Climate Change Levy** introduced in 2001 and is intended as a revenue neutral charge on the non-domestic use of energy offset by a reduction in the employer's National Insurance Contributions**.** Tax concessions have been introduced to encourage spending on energy efficient plant
- **The Government's Best Practice programme** now rebranded as 'Action Energy' provides a Helpline, consultancy and range of publications for industry, commerce and government in reducing energy consumption.

Newham Council owns over 20,000 dwellings which it rents to tenants and is also responsible for the energy consumption in over 2,000 other buildings. The table which follows summarises the energy consumption for the council in 2001 (figures do not include Leisure Centres, Community Centres and Sure Start Centres).

Table 8: Energy Consumption of Newham Council 2001

Consumption	kWh	Cost	CO_2 production (tonnes)
Domestic	438,622,450	£10,948,086.00	108,717
Commercial			
electricity	84,609,131	£4,744,096.00	37,228
gas	80,765,880	£932,700.00	15,345
Total	**603,997,461**	**£16,624,882**	**161,290**

In 2001, the council signed a competitively tendered Green Electricity Agreement to supply sustainable sourced power for most of the larger council offices. Subject to Best value procurement the council will continue to negotiate for competitive green electricity prices for all public buildings.

The East Ham and Atherton Leisure centres both have small combined heat and power units (CHP), capable of producing 50-100 kW. Other locations for CHP will be investigated with the assistance of the Community Energy Programme using the Customs and Excise 'Good Quality CHP' index.

In recent years, the council has installed large numbers of new boilers that meet modern emission standards. In addition, the council has almost completely withdrawn

from the use of solid fuels and very few oil-fired boilers remain. The council will continue with such initiatives.

The council has investigated utilising Central Government grants to cover 70% of the capital cost to ensure schools and public buildings use more sustainable energy. One such initiative currently being investigated is to apply for grant funding to install a large scale solar voltaic project in the Woodgrange regeneration area. The council will continue to investigate and encourage such energy saving initiates where possible.

Newham Council has recently introduced Supplementary Planning Guidance for an Environmental Sustainability Checklist for Major Development. this includes support for introducing technology on site or within the borough, which generates 10% of the development's consumption, therefore reducing the borough's contribution of CO_2. Or, if this can not be achieved, then 20% of their energy requirements should be imported from the 'Green Grid', contributing to a national reduction in CO_2 production.

Newham Council is one of the first councils to use its climate change levy rebate to finance a programme of energy conservation measures within the council building stock, such as insulation, low energy lighting and heating controls.

In line with this Declaration and the London Mayor's Energy Strategy, Newham Council will also strive to produce an Energy Strategy, which will consider the councils and residents role in energy efficiency and impact on climate change.

The council has a dedicated Energy Conservation Unit that gives specialist advice on heating and insulation in council homes to reduce emissions, carries out surveys and arranges the installation of energy improvement measures in public buildings. Advice to the public is provided through a new innovative 3D 'energy efficient house' via the Internet.

3.5 Land Use Planning

Land Use Planning: Actions	
3.5.A	When the borough's UDP is reviewed incorporate emerging government guidance and relevant principles of this Air Quality Action Plan
3.5.B	The Council will produce Supplementary Planning Guidance on Sustainable Design which will address such issues as sustainable construction, the promotion of alternative energy use and energy conservation measures, all of which will impact indirectly on air quality. A guidance note will also be produced to advise developers on the land-use implications of this Air Quality Management Action Plan and other relevant air quality-related policies.
3.5.C	All major development proposals need to be accompanied by transport and air quality assessments. If such proposals lead to an unacceptable breach of air quality objectives this may be grounds for a refusal of the application, however the Council will usually seek the inclusion of mitigation measures and, where appropriate, planning obligations will be imposed where these can feasibly address the adverse impacts of development on public amenity and human health.

3.5 D	The air quality implications of all developments will be taken into account when considering planning applications and appropriate conditions will be applied. Special consideration will be given to development that falls within the Air Quality Management Area and conditions may include a requirement to obtain a specialist report that details the measures to minimise the adverse impact on local air quality and/or minimise exposure to air pollution.
3.5E	In addition, specific planning criteria will be developed to assess proposals for development in or adjoining identified air quality management areas / areas of existing / predicted exceedences.

Air Quality Impact
The land use planning system can play a major part in reducing the impact of air pollution by supporting the use of public transport and alternatives to car use, preventing pollution generating development in areas where pollution is high and encouraging good building design to minimise the effects of pollution on people. The measures outlined will have a positive impact on air quality and exposure and will raise awareness concerning air quality issues.

Existing Policies
There is substantial planning guidance on air quality and planning implementation:

DETR Guidance Note Local Air Quality Management – Air Quality and Land Use Planning (2000). The planning system must contribute to the objectives set in the Air Quality Regulations 2000 and confirms that air quality is a material consideration that must be taken into account when processing planning applications.

PPG 23 Planning and Pollution Control (1997) establishes the planning process has an important role to play in determining the location of development which may give rise to pollution and on controlling other developments proximity to potential sources of pollution. The new PPG23, currently in draft, brings this up to date with the developments of the National Air Quality Strategy

PPG 13 Transport (2001) indicates that transport generating development should be located where public transport facilities are best, so as to discourage car usage, that parking provision should be the most minimal required and that S106 Agreements can be used to negotiate green travel plans.

PPG 6 Town Centres and Retail Developments (1996) indicates that major retail or mixed use schemes should be in town centre location where public transport provision is best.

PPG 3 Housing (2000) indicates that Brownfield land is the preferred site for new residential development that higher density, reduced parking and car free housing is appropriate in locations with good public transport provision.

By Design – Urban Design in the Planning System (2000) – encourages sustainable building design, which mitigates the effects of air pollution.

Planning Circular 1/97 agreement may be made between a developer and the planning authority to provide for community benefits. Should a development generate traffic movements this could include the developer paying for transport improvements.

The London Plan (2004) contains policies that support the Mayor of London's strategy for tackling air quality. It encourages London boroughs to implement the London Mayor's Strategy and achieve reductions in pollutant emissions by

- improving the integration of land use and transport policy and reducing the need to travel especially by car
- promote sustainable design and construction
- ensuring, at planning application stage, that air quality is taken into account along with other material considerations and that formal air quality assessments are undertaken where appropriate, particularly in designated Air Quality Management Areas.

The London Borough of Newham Unitary Development Plan (UDP) (2001) states that:

Development proposals will be assessed in terms of how they are compatible with the aims of sustainable development (S4).

The local planning authority will seek to secure, through planning obligations, community benefits in relation to transport improvements, etc (S2)

The council will have regard to national air quality strategy objectives when assessing applications for development leading to the generation of traffic or atmospheric pollution. The cumulative air pollution impact of existing uses and the proposed development of land will be a material consideration in the assessment of planning applications. Where the impact of proposed development on the use or amenity of land is likely to be significant in air quality terms, the development may be refused or measures to mitigate impact required by the imposition of conditions (EQ46).

The council will resist proposals for the development, including the extension or intensification of existing uses, that would cause environmental harm or nuisance (EMP9).

Large food stores and Retail Warehouses will be permitted outside key town centres only where the site is accessible by a choice of transport modes including public transport (SH11) (SH12).

The council is committed to minimising the environmental impact of traffic generated by new development. Accordingly, for trip-generating development applicants will be required to submit information to enable the council to assess impact and where appropriate to ensure that measures are taken to limit the environmental impact of the development. (T1).

The council will encourage major development that generates or attracts large numbers of trips to locate near good public transport facilities (T2).

The council supports the use of public transport, cycling and walking as preferred methods of transport to the motor car. The council's policies will normally be designed to minimise car trips and encourage the use of alternatives. Applicants will be encouraged to produce a green travel plan in order to achieve these objectives (T5).

The council is due to produce Supplementary Planning Guidance on good design in relation to major schemes a residential development. These guides will ensure new developments are sustainable and address local environmental conditions.

The designation of an AQMA means we need to highlight the importance of the planning principles above. The key principle is that air quality is a material consideration and general and area-based recommendations within the UDP and supporting polices, such as the forthcoming SPG on Sustainable Design and this action plan, are the best way the material consideration can be tackled. However it is important to avoid mechanisms which have the effect of hindering the task of regenerating the borough or tackling social exclusion via area renewal.

Borough wide principles

In Newham most main roads are within the AQMA. Whilst recognising the link between land use planning, transportation and air quality, it is believed that a balanced approach sensitive to local circumstances is needed to avoid AQMA's being used as an unnecessary constraint to future development.

The cause of the pollution in the Newham AQMA relates almost totally to road traffic, so the main focus to deal with the problem is to tackle the level of traffic travelling within and passing through the borough. The land use planning system can help reduce pollution by discouraging car use, preventing pollution generating development locating in areas where pollution is high and encouraging good building design to minimise the effect of pollution on people.

All planning applications will be assessed for air quality implications and appropriate conditions will be applied. Particular consideration will be given to development that falls within the Air Quality Management Area. Conditions may include a requirement to obtain a specialist report that reviews local pollution levels and details the measures to minimise the adverse impact on local air quality and/or the steps to minimise exposure to air pollution.

All major development applications will be required to carry out transport impact and air quality impact assessments. Major developments are as defined in the Sustainability Checklist SPG that is, unless otherwise indicated, if the proposal:

i) is for 50 dwellings or more, or
ii) involves a development site of 5000m_2 (1/2 hectare) or above, or
iii) involves a development of gross floor area 3000m_2 or above.

Should these assessments indicate the development will have a negative impact on air quality through industrial process or transport generation they may be refused or require adaptation to mitigate the effects. Where a negative air quality impact has been ascertained approved development applicants will be encouraged to reduce the harm to air quality, if possible, via planning conditions or S106 Agreements, by one of the following means: -

- Green Travel Plans to be required to encourage reduced car use. It will be expected that minimal car parking will be provided, with the amount of car parking reducing over time.

- Industrial processes with the potential to generate air pollution will be required to invest in research to improve processes to reduce future air pollution.

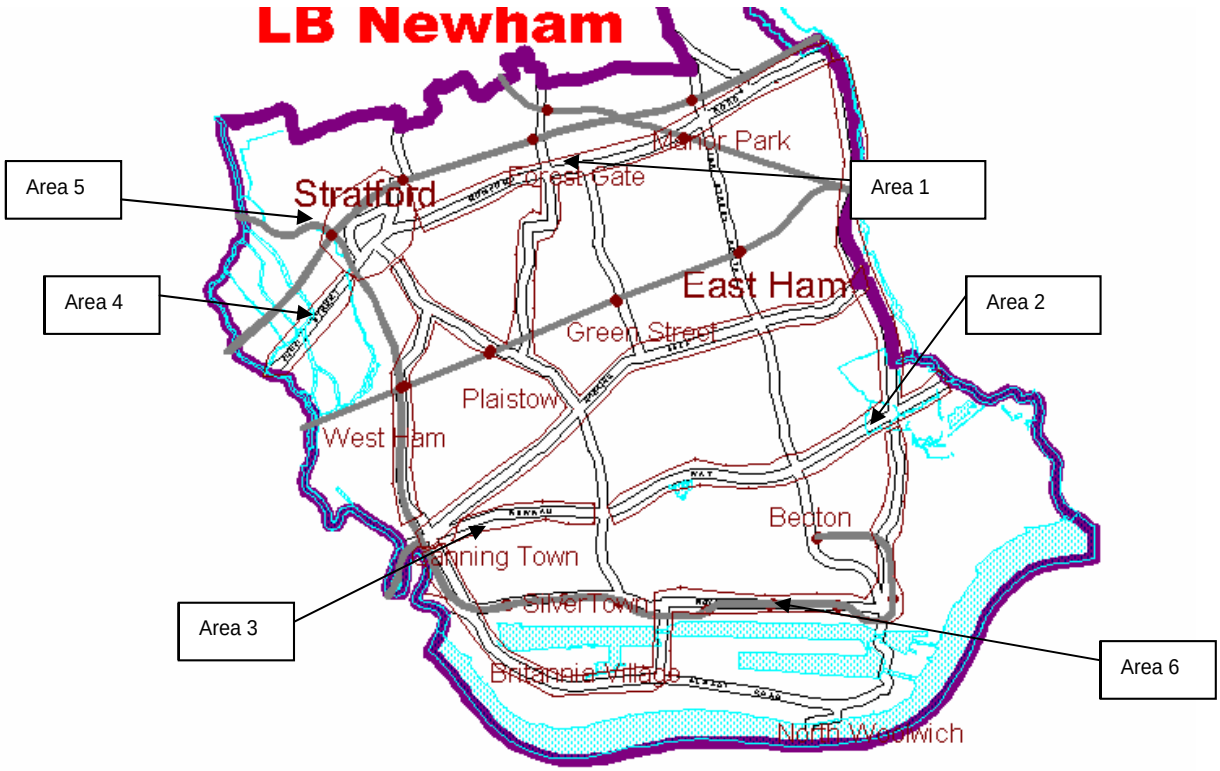
- Developments with the potential to generate air pollution will be required to provide community benefits. These could include funding:

- Research into improving air quality
- Air quality monitoring
- Public transport improvement
- Traffic calming initiatives or controlled parking schemes
- Provide new green space or improved bio-mass in existing open space.

- To ensure good building design that takes on board sustainable building principles and which mitigates the effect of air pollution. For example at major transport nodes encouraging residential on upper floors where air pollution from traffic is lower.

Area Based Recommendations
The following recommendations are linked to areas that that we consider to be sensitive to local factors. Areas are identified on the map below.

Figure 4: Areas identified for Area based recommendations.



Area 1: Romford Road, Barking Road, West Ham Lane, New Plaistow Road, High Street Plaistow, Broadway, Greengate Street, Manor Road, Woodgrange Road, Upton Lane, Stanford Road (part), Pelly Road (part) and Clegg Street.
In the area adjacent to these roads there is near constant development with few development opportunities. Where new development is planned we will:

a) Insist on uses which do not significantly contribute to pollution by generating high traffic flows by road.

b) Where appropriate consider reduced car parking or car free developments so as to encourage reduced dependency on the car. All these roads have good transport provision either in terms of bus provision or proximity to rail or tube stations.

c) Encourage traffic generating developments to locate at transport hubs such as Stratford, Forest Gate, Manor Park, Plaistow, East Ham or Canning Town – so as to encourage journeys to them by means other than by car.

d) Encourage good building design that reduces the receipt of pollution by those living, working or visiting the site. Good building design in this context could mean residential on upper floors of buildings, double glazing and air conditioning, careful positioning of windows and building so as to effect wind flows - and extension landscaping such as green buffers.

Area 2: A106, A13 Newham Way (eastern end from Prince Regents Lane junction).
In the area adjacent to these roads there is substantial green space and a number of potential development sites. As such we might want to consider a possible safeguarded zone in these areas. Where new development is planned we will

a) Ensure new residential development is not built adjacent to the roads but is set back a certain distance unless measures are included to mitigate the pollution that would be received by those living there.

b) Encourage good building design for all developments that reduces the receipt of pollution by those living, working or visiting the site. Good building design in this context could mean residential on upper floors of buildings, double glazing and air conditioning, careful positioning of windows and building so as to effect wind flows - and extension landscaping such as green buffers.

Area 3: A13 Newham Way (western end to Prince Regents Lane junction).
In the area adjacent to this stretch of road there is substantial residential development, particularly at the western end where the road goes through Canning Town centre. In the Canning Town area a major residential redevelopment is taking place and many of the sites being redeveloped are adjacent to the A13. Where new development is planned we will

a) Insist on uses which do not contribute to pollution.

b) Encourage traffic generating developments to locate at transport hubs such as Canning Town – so as to encourage journeys to them by means other than by car.

c) Encourage good building design for all developments that reduces the receipt of pollution by those living, working or visiting the site. Good building design in this context could mean residential on upper floors of buildings, double glazing and air conditioning, careful positioning of windows and building so as to effect wind flows - and extension landscaping such as green buffers.

Area 4: High Street Stratford
In the area adjacent to this stretch of road there is mainly industrial development, much of the area is identified as a major opportunity zone to promote its regeneration. There is a draft Planning Framework for the Lower Lea Valley which recommend that this

stretch of road is 'Boulavarded' – widened with trees planted along its length. Where new development is planned we will

a) Encourage good building design that reduces the receipt of pollution by those living, working or visiting the site. Good building design in this context could mean residential on upper floors of buildings, double glazing and air conditioning, careful positioning of windows and building so as to effect wind flows - and landscaping such as green buffers.

Area 5: Stratford Town Centre
This area is the key centre for the borough and a major regeneration zone, as a transport hub mixed use and higher density residential development/ reduced parking is to be encouraged. Where new development is planned we will:

a) Approve reduced car parking or car free developments so as to encourage reduced dependency on the car. This area has good transport provision both in terms of bus provision or proximity to rail or tube stations.

b) Encourage traffic generating developments to locate at here so as to encourage journeys to them by means other than by car.

c) Encourage good building design that reduces the receipt of pollution by those living, working or visiting the site. Good building design in this context could mean residential on upper floors of buildings, double glazing and air conditioning, careful positioning of windows and building so as to effect wind flows - and landscaping such as green buffers.

Area 6: Silvertown Way, North Woolwich Road, Connaught Bridge, Royal Albert Way and Royal Docks Road.
In the area adjacent to this stretch of roads there is mostly industrial and commercial development and previously developed land. The area consists of a series of major opportunity zones where regeneration is being encouraged – including new residential developments. Some of the traffic on these roads will reduce when the A13 improvements are complete. Where new development is planned we will

a) Review local pollution levels and see if action is required to mitigate them.

b) Encourage good building design for all developments that reduces the receipt of pollution by those living, working or visiting the site. Good building design in this context could mean residential on upper floors of buildings, double glazing and air conditioning, careful positioning of windows and building so as to effect wind flows - and extension landscaping such as green buffers.

3.6 Other Measures

Corporate Procurement

Corporate Procurement: Actions	
3.6A	The council's Procurement Strategy will integrate sustainability and environmental issues into procurement processes.

Air Quality Impact
The Council possesses significant purchasing power and can send out a powerful message that its procurement can generate environmental gains both locally and nationally.

The Council acknowledges that the goods and services it procures will have an impact on the environment both locally and globally and recognises that by integrating environmental issues into procurement processes the council can help to generate environmental gains both locally and nationally by:-.

- minimising the consumption of non-renewable resources;
- procuring goods and services which are least harmful to the environment;
- promoting best practice with regard to procurement and sustainable development.

In order to achieve this the Council will:-

- consider value for money in terms of durability, economy of operation and disposal costs and not just initial purchase price;
- specify products: which are made from recycled materials, can themselves be recycled or re-used, operate in an energy efficient manner and cause minimal damage to the environment in their production, distribution, use and disposal provided that quality and value for money are not compromised;
- ban the use, by both the Council and it's contractors, of certain specified environmentally damaging products where an alternative product or method is available. These products are:-
    - ozone depleting chemicals
    - timber which is not independently certified as originating in responsibly managed forests
    - pesticides on the UK "Red List" and EU " Warned List"
    - peat and peat based products
- establish and maintain policies and guidelines for products with a significant environmental impact
- include environmental considerations in all contract documentation and work with suppliers, service providers and contractors to improve environmental performance
- share experiences with others and promote good environmental procurement practice.

Abbreviations

ALG	Association of London Government
AQAP	Air Quality Action Plan
AQMA	Air quality management area
BAT	Best Available Techniques
BPM	Best Practical Means
BPP	Bus Priority Partnership
CHP	Combined heat and power
CNG	Compressed natural gas
CO	Carbon monoxide
CO_2	Carbon dioxide
CoCP	Code of Construction Practice
COMAH	Control of Major Accident Hazard
COMEAP	Committee on the Medical Effects of Air Pollutants
COSSH	Control of Substances Hazardous to Health
CTF	Cleaner Transport Forum
DEFRA	Department for Environment, Food & Rural Affairs
DETR	(former) Department for the Environment, Transport and the Regions, replaced by DTLR and DEFRA
DfT	Department for Transport
DLR	Docklands Light Railway
DTLR	(former) Department for Transport, Local Government and the Regions
EC	European Commission
EIA	Environmental impact assessment
EMS	Environmental Management System
EPAQS	Expert Panel on Air Quality Standards
EST	Energy Saving Trust
EU	European Union
FPN	Fixed Penalty Notice
FQP	Freight Quality Partnerships
GLA	Greater London Authority
GOL	Government Office for London
HEAVY GOODS VEHICLE	Heavy goods vehicle
IC	Internal combustion
IPC	Integrated Pollution Control
IPPC	Integrated Pollution Prevention and Control
LAPC	Local (Authority) Air Pollution Control
LAQM	Local Air Quality Management
LAQN	Local Air Quality Network
LBI	London Bus Initiative
LBPN	London Bus Priority Network
LCA	London City Airport
LCN	London Cycle Network
LEZ	Low emission zone
LIGHT GOODS VEHICLE	Light Good Vehicle
LIP	Local Implementation Plans
LNG	Liquefied natural gas
LPG	Liquefied petroleum gas
LTO	Landing and take-off
LMAQS	London Mayor's Air Quality Strategy
mg/ m^3	Milligrammes per cubic metre of air

□g/m^3	Micrograms per cubic centimetre of air
□m	Micrometre, also referred to as a micron
mph	Miles per hour
MtC	Million tonnes carbon equivalent
NAQS	The 'National' Air Quality Strategy or proper title of The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, January 2000.
NCN	Newham Cycle Network
NH_3	Ammonia
NO	Nitrogen monoxide, also termed nitric oxide
NO_2	Nitrogen dioxide
NO_x	Oxides of nitrogen
NSCA	National Society for Clean Air and Environmental Protection
O_2	Oxygen
O_3	Ozone
PAH	Polycyclic aromatic hydrocarbons
PM_{10}	Particulate matter with an (equivalent aerodynamic) diameter of ten microns (10 □m) or less
$PM_{2.5}$	Particulate matter with an (equivalent aerodynamic) diameter of 2.5 microns (2.5 □m) or less
POP	Persistent organic pollutant
PPB	Parts per billion
PPC	Pollution Prevention and Control, see IPPC
PPG	Planning Policy Guidance (and also Pollution Prevention Guidelines)
PPM	Parts per million
PSV	Public Service Vehicle
SO_2	Sulphur dioxide
SVD	Selective Vehicle Detection
TEOM	Tapered element oscillating microbalance
TfL	Transport for London
TGLP	Thames Gateway London Partnership
TLRN	Transport for London Road Network
TSP	Total suspended particulates
UDP	Unitary development plan
ULSD	Ultra-low sulphur diesel
UTCS	Urban Traffic Control Systems
VOC	Volatile organic compound

Appendix 1. Consultation for the Air Quality Action Plan.

Date	Type	Details
End March	Statutory Consultees	Copy of main draft document sent
May	Internal Consultation	Article in Environment Times
16th June	Internal Consultation	Members development presentation on air quality included introduction to Air Quality Action Plan
1st July	Public Consultation	Public display at Health Improvement Manager - Partnerships Forum on Heath Promotion
17th July	Public Consultation	Public display at Energy Road Show (Stratford)
17th July	Public Consultation	Presentation on air quality issues included introduction to Air Quality Action Plan at Beckton Community Forum
30th September 2003	Public Consultation	Community Forums - letters to Chairs
3rd October 2003	Public Consultation	Adverts in Newham Recorder
3rd October 2003	Public Consultation	Adverts in Newham News
7th October 2003	Public Consultation	Asthma Scrutiny Commission presentation on asthma and air quality - introduced the Air Quality Action Plan
Week commencing 3rd November 2003	Public Consultation	Copies of plans sent to all Local Service Centres
20th November 2003	Public Consultation	Email of draft plan to Councillor Leitch Cabinet member for Environment and Transport check
27th November 2003	Public/internal Consultation	E-mail of draft plan to the Mayor and all Council members
27th November 2003	Internal Consultation	Email of draft plan to all officers that participated in the production of the plan.
August 2003	Public Consultation	Copy of the draft plan and executive summary placed on Newham website
2004	Public/ Internal Consultation	Presentation of the revised version of the plan to Council Members and officers.

Summary of Responses.

Date	Type of response	Individual/ organisation	Summary of response
22 May 2003	Letter and schedule	Department for Environment, Food and Rural Affairs	Further information on consultation process requested, consider wider impacts of proposed measures, view need as to whether the plan will meet the air quality objectives and a statement pollutant levels to highlight improvements in air quality needed.
17 April 2003	Letter	Greater London Authority	Minor comments upon technical issues in Stage 4 Review and Assessment report
18 June 2003	Letter	Greater London Authority	Generally supportive as being in line with the London Mayor's strategies, request assist TfL in promotion of bus network, range of specific comments and request for inclusion of additional measures regarding sustainable distribution and waste.
5 June 2003	Letter	London Borough of Waltham Forest	No specific comments.
18 June 2003	Letter	Environment Agency	No immediate specific comments.
Late 2003	N/A	Councillor Marie Collier and 9 Newham residents	Requests for further information on the draft plan.
28 November 2002	Email/phone message	London Borough of Newham Mayor	Requirement for clearer costings and priorities, no mention of abandoned vehicles initiative, specific comments upon traffic calming, road charging cycle routes, travel plan and energy measures.

Appendix 2

Air Quality Objectives.

Substance	Objective Levels	Objective Dates
Benzene	16.25 micrograms per cubic metre or less (running annual mean)	31st December 2003
1,3-Butadiene	2.25 micrograms per cubic metre or less (running annual mean)	31st December 2003
Carbon monoxide	10.0 milligrams per cubic metre or less (maximum daily running 8 hour mean)	31st December 2003
Lead	0.5 micrograms per cubic metre or less (annual mean)	31st December 2004
	0.25 micrograms per cubic metre or less (annual mean)	31st December 2008
Nitrogen dioxide	200 micrograms per cubic metre or less (hourly mean), not to be exceeded more than 18 times a year	31st December 2005
	40 micrograms per cubic metre or less (annual mean)	31st December 2005
PM_{10}	50 micrograms per cubic metre or less (24 hour mean), not to be exceeded more than 35 times a year	31st December 2004
	40 micrograms per cubic metre or less (annual mean)	31st December 2004
Sulphur dioxide	125 micrograms per cubic metre or less (24 hour mean), not to be exceeded more than 3 times a year	31st December 2004
	350 micrograms per cubic metre or less (hourly mean), not to be exceeded more than 24 times a year	31st December 2004
	266 micrograms per cubic metre or less (15 minute mean), not to be exceeded more than 35 times a year	31st December 2005

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Appendix 3

Air Quality Roles, Legislation and Guidance for Local Authorities

Local Air Quality Management Enforcement and Guidance Under

Clean Air Act 1993
(consolidates 1956/1968 Clean Air Acts and Control of Smoke Pollution Act 1989)

Environmental Protection Act 1990:

Part I: Industrial Regulation

Pollution Prevention & Control (England and Wales) Regulations 2000 (formally Pollution Control Regulations)

Part III: Statutory Nuisance

Environment Act 1995 Part IV:

The Air Quality (England) Regulations 2000 - (Air Quality Objectives)

Section 80: SoS to produce National Air Quality Strategy 2000

Section 82: LA must do Review and Assessment

LA Output: Air Quality Monitoring within the borough

LA Output: Air Quality Management Areas (AQMAs)

LA Output: Air Quality Action Plans

Greater London Authority Act 1999
(GLA Introduced)

London's Air Quality Strategy 2002
(one of eight strategies which the GLA must produce, including one for transport)

Road Vehicles (Construction and Use) Regulation 1986
(drivers to switch off engines in parked vehicles - police enforced).

The Road Traffic (Vehicle Emissions) (Fixed Penalty) (England) Regulations 2002.

LA Output: Roadside Vehicle Emission Testing by local authorities in AQMAs.

LA Output: Drivers to switch off engines in parked vehicles - local authority enforced

Action Plan Guidance

- The National Society for Clean Air and Environment (NSCA) in association with the government produced guidance on the Development of Air Quality Action Plans and Local Air Quality Strategies.

  Part 1: 'Air Quality Action Plan: Interim Guidance for Local Authorities' (pub' Nov 2000).
  Part 2: 'Air Quality: Planning for Action (pub' June 2001).

- This updates the general guidance – **Developing Local Air Quality Action Plans and Strategies- The Principal Consideration – LAQM.G2 (00)** produced by the government.

  Also in this series are: **LAQM.G3(00) – Air Quality and Transport**,
  LAQM.G4(00) – Air Quality and Land Use Planning.

- Casella-Stanger's Checklist for Action Plans (produced on behalf of DEFRA)

Appendix 4

Extent of Predicted Exceedences

The following information upon air quality measurement, modelling and source apportionment is taken from the Stage IV report. The Stage IV report may be downloaded from the Newham Council website http://www.newham.gov.uk and is available on request from Public Protection, Pollution Control Unit. To prevent confusion the table and figure numbers remain the same as in the Stage IV report.

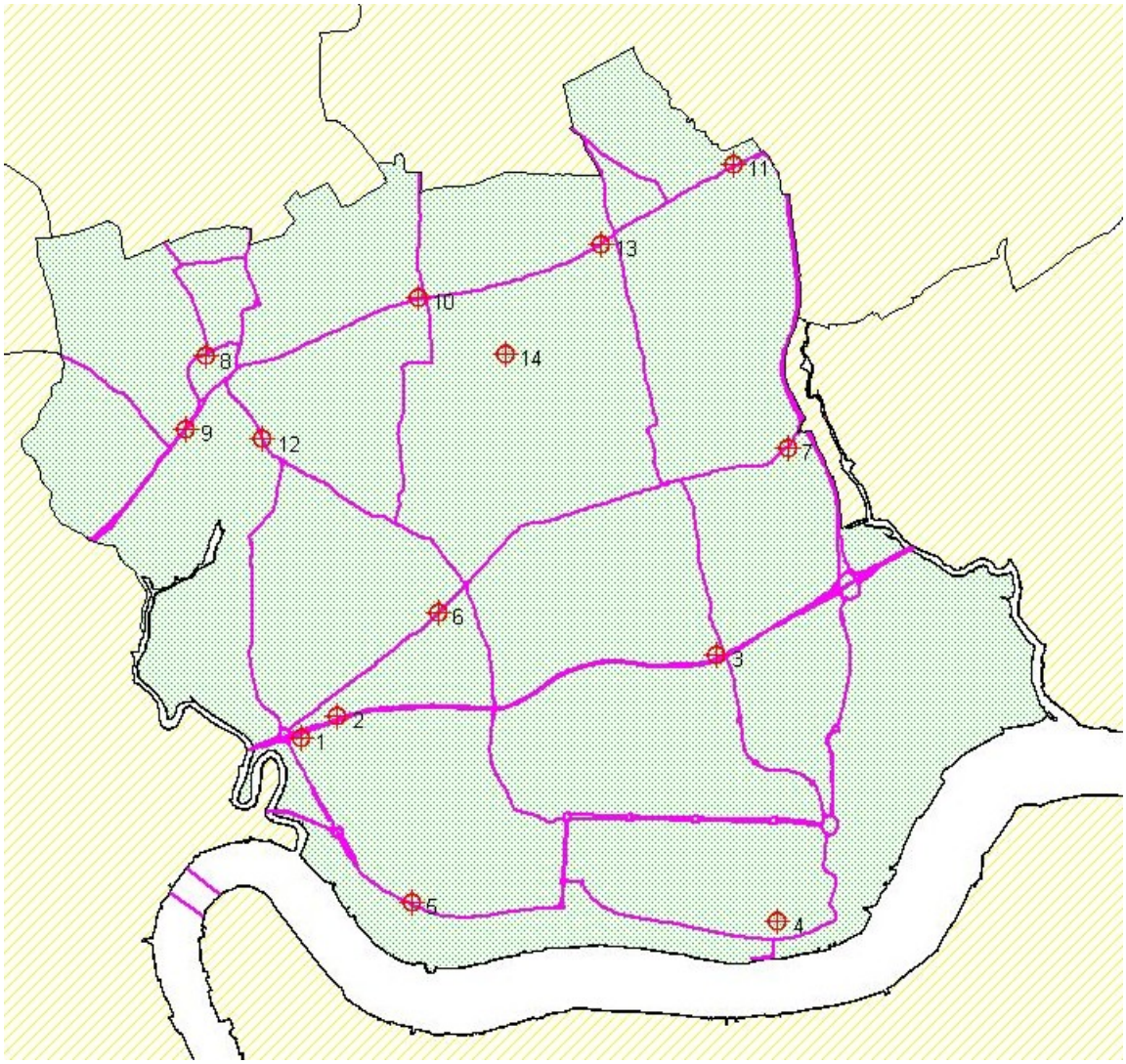

Figure 3: The location of facades identified across the London Borough of Newham's area.

Table 3 Predicted NO_2 concentration ($\mu g/m^3$) at identified locations within the AQMA

Location	Concentration
1	51.0
2	57.0
3	48.2
4	32.4
5	47.4
6	45.0
7	47.0
8	46.7
9	53.3
10	44.0
11	44.3
12	50.1
13	45.0
14	32.0

The predicted results for the 2005 base year (from above) show that for those locations exceeding the objective, the amount is between 4 and 17 $\mu g/m^3$.

Table 14 Predicted (2004) number of days exceeding the AQS daily PM10 mean of $50\mu g/m^3$ at the identified locations

Location	Base case	Lower emissions	Improvement (days)	Improvement (%)
1	7	5	2	23.4
2	14	9	4	32.2
3	7	5	2	24.6
4	4	4	0	2.4
5	6	5	1	19.7
6	5	4	1	18.1
7	6	5	1	23.8
8	6	5	1	21.0
9	13	8	5	36.3
10	5	4	1	17.3
11	6	5	1	22.6
12	8	6	3	31.6
13	6	5	2	24.8
14	4	4	0	2.3

Appendix 5

Sources and Health Effects of Pollutants including NO_2 and PM_{10}.

Sources and description

Nitrogen Dioxide is a colourless and odourless gas produced mainly as a bi-product of combustion. Emissions arise in the form of NOx, a mixture of Nitric Oxide (NO) and Nitrogen Dioxide (NO2). It is thought that as a rough guide, emissions from vehicles comprise 50% NO2. NO2 is also formed in the atmosphere as a result of chemical reactions, influenced by sunlight. NO2, along with VOCs (volatile organic compounds), also influence the increase in ozone formation at ground level. NO2 is also emitted from domestic gas boilers and cookers.

PM_{10}s are particulates less than 10 microns in size (a micron is one 1000th millimetre). They originate naturally e.g.. volcanic ash, fine sand and soil, or result from human activity e.g.. emissions from transport, power stations and burning. PM10s can form in the atmosphere due to chemical reactions e.g. sulphates. There is still considerable debate as to whether it is the number of particles or mass that is significant to health, however, it is known that these particles are ingested deep into the lungs, where, over time, they will reduce lung capacity and function. Other chemicals, such as carcinogens, may attach to PM_{10}s allowing them to be ingested as well.

Health Effect Of Pollutants

Pollutant	Main Source	Health Effect
Lead	Vehicle emissions Industrial	Toxic effect on human organs. Impairs the normal intellectual development and learning ability of children
Carbon Monoxide	Vehicle emissions Industrial	Reduces the amount of oxygen in the blood, low doses can impair concentration, increases the likelihood of exercise related heart pain, may present a risk to the foetus
Nitrogen Dioxide	**Vehicle emissions Industrial Aircraft**	**Affects respiratory and cardiovascular systems, asthma and mortality**
PM_{10}	**Vehicle emissions Industrial Natural**	**Affects respiratory and cardiovascular systems, asthma and mortality**
Sulphur Dioxide	Power stations Vehicle emissions	Irritation to the respiratory system, may provoke wheezing, exacerbate asthma and is associated with chronic bronchitis
Benzene	Vehicle emissions	Can cause cancer
1,3-Butadiene	Vehicle emissions	Can cause cancer

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Appendix 6. Actions, Impacts, Costings, Priorities and Responsibilities

Reference	Section/ Actions	Priority	Impact	Resource Implications	Source (if from existing strategy orpolicy)	Lead	Time-scale
1.1	**Abandoned and Untaxed Vehicles: Actions**						
1.1A	Subject to securing funding, continue with the existing initiative to remove abandoned vehicles from Newham's streets meeting set targets for response and removal.	High	High	Medium		Street Scene Enforcement	Ongoing
1.1B	Proceed with current enforcement action in partnership with the DVLA to report untaxed vehicles to the DVLA and to use devolved powers to remove untaxed vehicles from Newham's streets.	High	High	Medium		Street Scene Enforcement	Ongoing
1.1C	Continue to operate a vehicle "Surrender" scheme to destroy and recycle unwanted vehicles free of charge and further publicise this service to reach all sections of Newham's diverse community.	High	High	Medium		Street Scene Enforcement	Ongoing
1.2	**Physical Traffic Management: speed & flow**						
1.2A	In designing future road calming schemes the council will take into account the impact upon local air quality.	Medium	Low/ Medium	Medium		Forward Planning (Transport Policy)	Ongoing
1.2B	Carry out effective enforcement of 'moving traffic offences' to keep traffic flowing including action regarding the illegal use of bus lanes.	Low	Low	Low	Transport Policy/ Interim Local Implementation Plan	Forward Planning (Transport Policy)	Commences 14 June 2005. Trial continues to end of 2005.
1.2C	Where resources permit ensure that the air quality associated with traffic management schemes is monitored prior to, during and after schemes are implemented.	Medium	Low/ Medium	Low		Pollution Control Unit	Started in 2002 and ongoing
1.3	**Re-routing and Road Hierarchy**						
1.3A	The council will carefully consider development proposals in relation to its defined road hierarchy. It will seek to ensure that traffic levels remain or become consistent with this hierarchy.	High	High	Low	Unitary Development Plan	Forward Planning (Transport Policy)	Ongoing
1.3B	The council will only support the construction of new primary distributor, local distributor and access roads	High	High	Low	Unitary Development	Forward Planning	Ongoing

	when these will bring net economic and/or environmental benefits to the borough. Regard will be had to the likely consequences of new roads for neighbouring boroughs, and measures will be taken, where appropriate, to minimise any likely adverse effects.				Plan	(Transport Policy)	
1.4	**Low Emission Zone, Access Control & Clear Zones**						
1.4A	Support the consideration of an effective London wide LEZ and, following agreement and obtaining necessary funding, work with the GLA, ALG and other London Boroughs in implementing appropriate LEZ scheme(s).	High	High	Low Initial costs 'Low' but subsequent implementation costs may be 'High'	London Mayor's Air Quality Strategy Proposal 10	Pollution Control Unit	Ongoing
1.4B	Keep local transport operators (including passenger operators) informed of any LEZ scheme(s) proposed that would affect Newham and provide information regarding funding opportunities for fleet improvements.	Medium	Low/ Medium	Low		Forward Planning (Transport Policy) Pollution Control Unit	Ongoing
1.4C	The council will continue to create Home Zones where funding can be identified and encourage 'Home Zones' to be incorporated into appropriate new developments.	High	Medium/ High	Low	Transport Policy/ Interim Local Implementation Plan	Forward Planning (Transport Policy)	Ongoing
1.4D	Consider the introduction of access control within appropriate future regeneration projects.	High	Medium/ High	Low		Forward Planning (Transport Policy)	Ongoing
1.4E	Explore the possibility of working with neighbouring boroughs to introduce Clear Zones within the borough.	Medium	Low/ Medium	Low	London Mayor's Air Quality Strategy Proposal 26	Forward Planning (Transport Policy)	Ongoing
1.5	**Road User Charging**						
1.5A	The council will follow the developments of the Central London Congestion Charging Scheme (CCS). Should significant amendments to the scheme be proposed the council will carefully examine the air quality implications for Newham and fully participate in the formal consultation process.	Medium	Low/ Medium	Medium		Pollution Control Unit Forward Planning (Transport Policy)	Ongoing
1.5B	Newham council will campaign for differential charging	Medium	Low/	Low		Forward	Ongoing

	(with reduced rates for local residents) in the application of tolls at the forthcoming Thames Gateway bridge to discourage through traffic.		Medium			Planning (Transport Policy)	
1.6	**Parking Management & Charging**						
1.6A	Following public consultation and taking into account travel needs and the appropriateness of parking controls, Newham Council will continue to expand and extend the number of CPZ's within the borough.	High	Medium/ High	Low	Transport Policy/ Interim Local Implementation Plan	Forward Planning (Transport Policy)	2004
1.6B	Newham Council will continue with parking enforcement and dealing with moving offences in bus lanes.	Medium	Low/ Medium	Low	Transport Policy/ Interim Local Implementation Plan	Forward Planning (Transport Policy)	Ongoing
1.7	**Urban Traffic Control Systems (UTCS)**						
1.7A	Continue with the monitoring of traffic signals to ensure that the most appropriate balance is found between the motorised vehicles and other users of the road i.e. pedestrians.	Low	Low	Low		Environmental Engineering Services	Ongoing
1.7B	Investigate potential areas of the borough where signs may be used in traffic management to indicate points were engines should be turned off while queuing	Medium	Low/ Medium	Medium			Ongoing
1.8	**Infrastructure Development**						
1.8A	Lobby, through partnerships where appropriate, for sustainable transport infrastructure developments such as the rail link river crossings.	High	High	Low			Ongoing
1.9	**Reallocated Road-Space**						
1.9A	Continue to ensure that road space is reallocated to buses, coaches and cyclists or more sustainable transport modes.	Medium	Low/ Medium	Low	Transport Policy/ Interim Local Implementation Plan	Forward Planning (Transport Policy)	Ongoing
1.10	**Public Transport Initiatives - Bus**						
1. 10A	Continue working within and supporting the policies of London Bus Priority Network, London Bus Initiative and Bus Priority Partnership, which include: road-space allocation and improvements, camera enforcement, modification of traffic signals for bus priority, countdown facilities etc.	Medium	Low/ Medium	Low	Transport Policy/ Interim Local Implementation Plan	Forward Planning (Transport Policy)	Ongoing

1. 10B	To actively promote and facilitate emission testing conducted on buses within Newham by the Vehicle Inspectorate and to publicise these results to members of the public.	Medium	Low/ Medium	Low		Pollution Control Unit	Started 2002 and ongoing
1.11	**Encouragement of Walking, Cycling and Motorcycle Use**						
1.11A	Continue to ensure with new developments that pedestrian routes are safe, accessible, convenient and pleasant.	Low	Low	Low	Unitary Development Plan	Forward Planning (Transport Policy) Development Control	Ongoing
1.11B	The council supports completing, promoting and maintaining the strategic walking routes in London	Low	Low	Low		Forward Planning (Transport Policy)	Ongoing
1.11C	The council will continue its Safer Routes to School programme.	Low	Low	Low		Forward Planning (Transport Policy)	Ongoing
1.11D	'Think Bike' in relation to highways and transport schemes and continue to retrofit and create with new developments cycle routes that are safe, accessible, and with cyclist prioritisation;	Low	Low	Low		Environmental Engineering Services	Ongoing
1.11E	Provide strategic and sufficient safe cycle and motorcycle parking	Low	Low	Low	Unitary Development Plan		Ongoing
1.11F	Continue to work towards and facilitate the implementation and maintenance of the London Cycle Network, Newham Cycle Network and National Cycle Network within the borough.	Medium	Low/ Medium	Low	Unitary Development Plan	Environmental Engineering Services	Ongoing
1.11G	Continue to provide free cycle proficiency training for children and adults	Medium	Low/ Medium	Low			Ongoing
1.11H	Encourage staff use of bicycles by providing, where resources allow, additional parking spaces where required, pool bikes, and extend the availability of staff changing and showering facilities.	Medium	Low/ Medium	Low		Forward Planning (Transport Policy)	Ongoing
1.11I	Continue to liase with local cycle groups regarding cycle networks within the borough and publicise and encourage the use of cycle routes.	Medium	Low/ Medium	Low		Forward Planning (Transport	Ongoing

						Policy)	
1.11J	Continue to improve cycle and walking routes in the Borough.	Medium	Low/ Medium	Low		Environmental Engineering Services	Ongoing
1.11K	The council will continue with a pilot study to providing Motorcycle Advanced Stop Lines within the borough and consider its implementation on a wider scale.	Low	Low	Low		Environmental Engineering Services	Ongoing
1.12	**Partnerships & Travel Plans (Workplace & School)**						
1.12A	Continue to encourage developers to introduce Travel Plans.	High	High	Low	Unitary Development Plan London Mayor's Air Quality Strategy Proposal 76	Development Control	Ongoing
1.12B	Continue to implement school travel plans via the 'Safer Routes Programme'	High	Medium/ High	Low		Forward Planning (Transport Policy)	Ongoing
1.12C	Continue to work with service providers in order to encourage the transfer of passengers from one mode to another.	Medium	Low/ Medium	Low			Ongoing
1.12D	Establish regular contact with Newham's Business Forum to discuss air quality issues. Research group member's with regards Travel Plan status; if required, provide guidance and assistance in adopting a Travel Plan.	Medium	Low/ Medium	Low			Ongoing
1.12E	Try to encourage businesses to participate in environmental management schemes that can improve indoor air quality of the work place and use purchasing to minimise energy use and emissions.	Medium	Low/ Medium	Low	London Mayor's Air Quality Strategy Proposals 77, 80, 82		Ongoing
1.12F	Continue to support the vision of London's Lee Valley Transport Working Group	High	High	Low		Forward Planning (Transport Policy)	Ongoing
1.12G	Newham Council will work within the TGLP to implement a	High	High	Low			Ongoing

	'Sustainable Transport Strategy'.						
1.12H	Seek to establish additional partnerships within the borough that will have a positive impact on air quality.	Medium	Low/ Medium	Low			Ongoing
1.13	**Air Quality Promotion, Education & Awareness Raising**						
1.13A	Regularly update the air quality pages on the council's website and produce frequent information bulletins to keep members of the public informed on air quality issues.	Medium	Low/ Medium	Low		Pollution Control Unit	Started 2003 and ongoing
1.13B	Continue to monitor air quality in specified areas and extend where possible, including the addition of an automated monitoring station at London City Airport and *ad hoc* monitoring, which may extend over prolonged periods	Medium	Medium/ High	Medium		Pollution Control Unit	Ongoing
1.13C	Promote the air quality benefits associated with cycling during the schools cycling proficiency programme.	Low	Low	Low		Environmental Engineering Services	Ongoing
1.13D	Assist students carrying out air quality research projects.	Low	Low	Low		Pollution Control Unit	2003/04 and ongoing
1.13E	Continue to take part in the national campaigns subject to available funding and community support.	Medium	Medium/ High	Medium	London Mayor's Air Quality Strategy Proposal 2	Pollution Control Unit Forward Planning (Transport Policy)	Ongoing
1.13F	Continue to promote low emission vehicles.	Medium	Medium/ High	Low	London Mayor's Air Quality Strategy Proposal 2	Pollution Control Unit	Ongoing
1.13G	Continue with two information screens at locations in East Ham and Stratford with live information upon air quality and its implications for health. Link these screens to the NEWTEXT initiative.	High	High	Low		Pollution Control Unit/ Communications Team	April 2004
1.13H	Work with partners to provide an air quality information service to Newham's residents and participate in the 'Yourair' project to provide air pollution alerts to vulnerable groups.	Medium	Medium/ High	Medium		Pollution Control Unit	2006
1.14	**Newham Fleet Management, Travel Plan & Clean Fuels**						
1.14A	The council will ensure that its fleet of 350 vehicles meets high emissions standard (currently Euro III).	High	Medium/ High	Medium		Fleet Managemen	2004

						t	
1.14B	Fleet Operations will continue to trial the use of LPG fuelled and LPG/petrol dual fuelled vehicles and investigate the potential of other low emission fuels such as water/diesel emulsion as information comes available.	Medium	Low/ Medium	Low	London Mayor's Air Quality Strategy Proposal 11	Fleet Management	Ongoing
1.14C	Ensure that council vehicles are: • well maintained, this includes bi-annual emission tests as a minimum; • used on routes and tasks which are worked out to be as efficient as possible, operated by appropriately trained staff (to improve fuel economy)	Medium	Low/ Medium	Low		Fleet Management	Ongoing
1.14D	Continue with plans to ensure the retrofitting of CRT for all larger diesel vehicles.	Medium	Low/ Medium	Low		Fleet Management	Ongoing
1.14E	Establish a fleet register that includes emission information and measures to implement emissions improvements	Medium	Low/ Medium	Low	London Mayor's Air Quality Strategy Proposal 65	Fleet Management	2004
1.14F	Promote alternative fuels and technologies through initiatives such as the use of an electric car and low emission vehicles	Medium	Low/ Medium	Low		Fleet Management Pollution Control Unit	Ongoing
1.14 G	Implement a Council Travel Plan that will include a range of measures to encourage staff to use public transport, cycling or motorcycles as an alternative to using cars.	High	High	Medium		Forward Planning (Transport Policy)	2004
1.14H	Provide encouragement and guidance for individuals and groups who wish to clean up their vehicles through campaigns such as CleanUp and Powershift	Low	Low	Low	London Mayor's Air Quality Strategy Proposal 75	Forward Planning (Transport Policy)	Ongoing
1.14I	Encourage businesses to try and achieve at least the Euro II standard plus a reduced pollution certificate or Euro III by 2005	Low	Low	Low	London Mayor's Air Quality Strategy Proposal 74	Forward Planning (Transport Policy) Development Control	2005
1.14J	Identify appropriate sites for further alternative refuelling infrastructure together with TransportEnergy	Low	Low	Low	London Mayor's Air Quality Strategy	Forward Planning (Transport	Ongoing

					Proposal 66	Policy)	
1.14K	Support electric re-fuelling through the work of the London Clean Fuel Working Group	Low	Low	Low	London Mayor's Air Quality Strategy Proposal 7	Forward Planning (Transport Policy)	Ongoing
1.15	**Taxis, Mini-Cabs and Private Buses / Coaches**						
1.15A	Continue to control where taxis, mini-cabs, and local bus operators in Newham can park as a means of regulating their use.	Low	Low	Low			Start 2003 and ongoing
1.15B	Support the regulation of taxis and minicabs through the Public Carriage Office, and encourage the introduction of additional measures to ensure emission levels are minimised by 2005, such as vehicle emission checks and changes to low-emitting fuel.	Low	Low	Low			Ongoing
1.16	**Road Freight Measures – Heavy Goods and Light Goods Vehicles**						
1.16A	Encourage and support initiatives to transfer road freight to rail and water.	Low	Low	Low			Ongoing
1.16B	Continue with Newham's strategy for traffic management by locating freight-generating developments on or near main road systems.	Medium	Low/ Medium	Low		Development Control Forward Planning	Ongoing
1.16C	Set up a Freight Quality Partnership though Newham's Transport Strategy/Policy	Low	Low	Low	London Mayor's Air Quality Strategy Proposal 27	Forward Planning (Transport Policy)	2004 and ongoing
1.16D	Provide help, encouragement and awareness raising to Road Freight groups within the borough, concerning funding for cleaner vehicles.	Low	Low	Low	London Mayor's Air Quality Strategy Proposal 75	Forward Planning (Transport Policy)	Ongoing
1.16E	Use roadside vehicle emissions checks for HGV's and LGV's, to encourage regular servicing, maintenance and replacement of old vehicles.	Low	Low	Low			Started 2003 and ongoing
1.16F	Minimise the misuse of roads by freight from major construction sites by continuing to and expand the spot-checking of roads used and whether loaded vehicles are covered.	Low	Low	Low			Ongoing
1.16G	Participate in the review of the London night-time lorry ban. Support linking any relaxing of the ban to ease day time congestion with the use of emission abatement and	Low	Low	Low		Forward Planning (Transport	Ongoing

	cleaner fuels.					Policy)	
1.16H	Newham council will assess the scope for the use of priority lanes by freight vehicles and the implications for other road users.	Low	Low	Low	London Mayor's Air Quality Strategy Proposal 22	Forward Planning (Transport Policy)	Ongoing
1.17	**Roadside Emissions Testing and Enforcement**						
1.17A	Following evaluation of the one year London -Wide Vehicle Emission Testing (VET) campaign support the continuation of an effective program subject to securing government funding.	High	High	Low	London Mayor's Air Quality Strategy Proposal 9	Pollution Control Unit	Started 2003 and ongoing
1.17B	Newham Council will initiate and support the Vehicle Inspectorate in roadside vehicle emissions testing programmes carried out in the borough	High	High	Low		Pollution Control Unit	Ongoing
1.17C	Offer voluntary vehicle testing and engine adjustment on an annual basis.	High	High	Medium		Pollution Control Unit	Started 2002 and ongoing
1.17D	Newham Council will publicise Vehicle Emission Testing to ensure that motorists are aware of the new powers and of the voluntary testing and adjustment.	High	High	Low		Pollution Control Unit	Ongoing
1.17E	Newham Council will also work in conjunction with the Mayor for London to raise awareness of the importance of good vehicle maintenance	Low	Low	Low	London Mayor's Air Quality Strategy Proposal 9		Ongoing
1.17F	Newham Council will seek to enforce new powers to insist that motorists switch off their engines while stationary.	Medium	Low/ Medium	Low			Ongoing
2.1	**Passenger Rail and Underground Services**						
2.1A	Establish Quality Partnerships with the rail and tube industry to promote increased levels and quality services in the Borough.	Medium	Low/ Medium	Low		Forward Planning (Transport Policy)	Ongoing
2.1B	Support improvements in rail / tube infrastructure.	High	High	Low	Unitary Development Plan Transport Policy/ Interim Local Implementation		Ongoing

					Plan		
2.2	**Freight Rail**						
2.2A	Newham Council will continue to support initiatives to transfer freight from road to rail.	Medium	Low/ Medium	Low			Ongoing
2.2B	The council will investigate the potential of establishing Quality partnerships within the freight rail industry to ensure best practicable means are adopted with regards air pollution and other environmental issues.	Medium	Low/ Medium	Low		Forward Planning (Transport Policy)	2204 and ongoing
2.2C	The council will lobby for rail infrastructure improvements.	Medium	Low/ Medium	Low		Forward Planning (Transport Policy)	Ongoing
2.3	**Maritime, Ports and Waterways freight and Passenger movements)**						
2.3A	Where possible continue to safeguard mooring sites along the waterways in Newham, which have been earmarked for river bus, taxi and freight movements.	Medium	Low/ Medium	Low	Unitary Development Plan GLA Safeguarded Wharves in the R Thames Consultation Draft 2003	Development Control	Ongoing
2.3B	Continue to encourage and facilitate river use by river side industries and freight operators	Medium	Low/ Medium	Low	Transport Policy/ Interim Local Implementation Plan	Forward Planning (Transport Policy)	Ongoing
2.3C	Develop sustainable water transport services within the borough in partnership with other boroughs	Medium	Low/ Medium	Low		Forward Planning (Transport Policy)	Ongoing
2.4	**Airport Measures**						
2.4A	Under a planning agreement with Newham Council London City Airport (LCA) is committed to appointing consultants to carry out a study of the impact of the airport upon air quality.	High	Medium/ High	Low		Development Control	Start 2004
2.4B	Regular updates to the LCA 'Green Transport Plan' to effectively manage the transport needs of their employees and passengers that includes targets to reduce care	High	Medium/ High	Low			Ongoing

	journeys.						
2.4C	Newham Council will liase with LCA for the Vehicle Inspectorate to carry out random emission checks of queuing taxis at the Airport.	High	Medium/ High	Low		Pollution Control Unit	Start 2003 and ongoing
2.4D	Newham Council will require London City Airport to meet its commitments under existing S106 agreements to provide air quality monitoring at the site	Medium	Low/ Medium	Low		Development Control Pollution Control Unit	Ongoing
2.4E	Newham Council and London city airport will continue to lobby for a CROSSRAIL proposal that includes access to LCA.	High	High	Low		?????	Ongoing
3.1	**Industrial Measures**						
3.1A	In accordance with government guidance, continue to inspect processes regulated by the local authority to ensure compliance with authorisations. This will ensure that such processes are not responsible for exceedances of the National Air Quality Objectives.	High	High	Low	London Mayor's Air Quality Strategy Proposals 41, 42	Pollution Control Unit	Ongoing
3.1B	Continue to liase with other industrial/commercial operators as well as other local authorities to promote good environmental practice.	Medium	Low/ Medium	Low		Pollution Control Unit	Ongoing
3.1C	Continue to liase with the Environment Agency regarding 'part A' processes in Newham.	Medium	Low/ Medium	Low		Pollution Control Unit	Ongoing
3.1D	Investigate industries in the borough to ensure that all appropriate processes are authorised.	Medium	Low/ Medium	Low		Pollution Control Unit	Ongoing
3.1E	Continue to investigate complaints regarding smoke from industrial and commercial premises.	Medium	Low/ Medium	Low		Pollution Control Unit	Ongoing
3.1F	Produce an emission Inventory for part B processes in the borough and regularly update this on the 'Pollution Control Unit' website.	Medium	Low/ Medium	Low		Pollution Control Unit	Start 2004 and ongoing
3.2	**Smoke Control and Nuisance Policy**						
3.2A	The council will continue to investigate and appropriately enforce regarding smoke incidents and will provide information to members of the public concerning bonfires and smoke.	High	Medium/ High	Low		Pollution Control Unit	Ongoing
3.3	**Fugitive Emissions**						
3.3A	Produce dust guidance for construction sites	High	Medium/	Low		Pollution	2004

			High			Control Unit	
3.3B	Continue and develop additional dust sampling in association with construction sites	Medium	Low/ Medium	Low		Pollution Control Unit	Ongoing
3.3C	Continue with and extend random spot checks of vehicles from major construction sites to ensure they are covered if carrying material that can become windblown.	Medium	Low/ Medium	Low		Pollution Control Unit	Ongoing
3.3D	Continue with street cleaning to minimise the re-suspension of road dust and review the cleaning regime currently in place.	Medium	Low/ Medium	Low		Environmental Management Services	Ongoing
3.3E	Use planning conditions and section 106 agreements to minimise emissions of dust from development sites.	High	Medium/ High	Low	Unitary Development Plan	Development Control	Ongoing
3.3F	Continue to ensure that contractors working on behalf of the council demolishing council buildings or clearing council sites have a clause in their contract that ensures they minimise dust production.	High	Medium/ High	Low		Contracts and Purchasing	Ongoing
3.4	**Domestic and Commercial Energy Measures**						
3.4A	When purchasing fuel for use by the council to always consider 'green electricity'. All major electricity users within the council currently use 'green electricity' from a renewable source..	Low	Low	Low		Energy Conservation	Ongoing
3.4B	Continue to encourage and promote the use of sustainable energy sources such as Solar-Voltaic cells. To apply for grant funding to install a large scale solar voltaic project in the Woodgrange regeneration area.	Low	Low	Low	London Mayor's Air Quality Strategy Proposal 51	Energy Conservation	Ongoing
3.4C	Ensure that older boilers within council premises are replaced with those that meet current emission standards and strive to completely withdraw from the use of solid fuels and oil-fired burners	Low	Low	Low	London Mayor's Air Quality Strategy Proposal 52	Energy Conservation	Ongoing
3.4D	Through the Environmental Sustainability Checklist for Major Development (Supplementary Planning Guidance) require for energy use assessments, require buildings to have high BREEAM rating, require housing to have an EcoHomes assessment and support GLA policy to encourage the introduction of technology to generate a percentage of the energy used on site or, if this cannot be achieved, import a percentage of the energy requirements from the 'Green Grid'.	Medium	Low/ Medium	Low	London Mayor's Air Quality Strategy Proposal 50 London Mayor's Energy Strategy	Energy Conservation	Ongoing

3.4E	Continue to spend the council's climate change levy rebate on energy efficiency improvements.	Low	Low	Low		Energy Conservation	Ongoing
3.4F	Prepare an energy strategy, in line with the London Mayor's Energy Strategy, which will aim to increase energy efficiency within the council and promote energy awareness.	Low	Low	Low	London Mayor's Energy Strategy	Energy Conservation	2006
3.4G	To provide information on energy efficiency in the home.	Low	Low	Low			
3.5	**Land Use Planning**						
3.5.A	When the borough's Unitary Development Plan is reviewed incorporate emerging government guidance and relevant principles of this Air Quality Action Plan	High	High	Low	London Mayor's Air Quality Strategy Proposal 68	Forward Planning	Ongoing for 2011 review
3.5.B	The Council will produce Supplementary Planning Guidance on Sustainable Design which will address such issues as sustainable construction, the promotion of alternative energy use and energy conservation measures, all of which will impact indirectly on air quality. A guidance note will also be produced to advise developers on the land-use implications of this Air Quality Management Action Plan and other relevant air quality-related policies.	High	High	Low	London Mayor's Air Quality Strategy Proposals 46, 67, 69, 70	Development Control	Undergoing consultation
3.5.C	All traffic trip generating development major development proposals need to be accompanied by transport and air quality assessments. If such proposals lead to an unacceptable breach of air quality objectives this may be grounds for a refusal of the application, however the Council will usually seek the inclusion of mitigation measures and, where appropriate, planning obligations will be imposed where these can feasibly address the adverse impacts of development on public amenity and human health.	High	High	Low	Unitary Development Plan London Mayor's Air Quality Strategy Proposals 69, 71, 72	Development Control	Introduced 2001 and ongoing
3.5 D	The air quality implications of all developments will be taken into account when considering planning applications and appropriate conditions will be applied. Special consideration will be given to development that falls within the Air Quality Management Area and conditions may include a requirement to obtain a specialist report that details the measures to minimise the adverse impact on local air quality and/or minimise exposure to air pollution.	High	High	Low	Unitary Development Plan	Development Control	Introduced 2001 and ongoing
3.6	**Corporate Procurement**						

3.6A	The council's Procurement Strategy will integrate environmental issues into procurement processes.	Medium	Low/ Medium	Low	LBN Procurement Strategy December 2005 Mayor of London's Green Procurement Code	Contracts and Purchasing	2006