



**MANCHESTER**  
CITY COUNCIL

## **Air Quality Action Plan Progress Report 2009**



**Neighbourhood Services  
Environmental Protection Group  
Hammerstone Road  
Gorton  
Manchester  
M18 8EQ**

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**Author(s)** Ben Rose

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## 1. Introduction

In addition to the Greater Manchester Air Quality Action Plan (GMAQAP) that was published in 2004, Manchester City Council has also produced a local Air Quality Action Plan, which is contained within the GMAQAP document as a local annex. The Manchester Air Quality Action Plan includes measures to deal with specific 'hot-spots' of pollution within the City that require extra pollution control measures above and beyond those set out in the GMAQAP. The Action Plan also includes additional measures that seek to reduce the background levels of pollution across the City in order to benefit all residents and people who visit or work in the City.

The policies and programmes in the Manchester AQAP were developed in partnership with stakeholders and are fully integrated with the Manchester Community Strategy. The City Council recognises that it must work in partnership with businesses and other interested parties across the City if it is to meet the air quality objectives. This builds upon the existing relationship with the other Greater Manchester authorities, related organisations such as the GM Passenger Transport Executive and external agencies such as the city centre businesses, and Manchester Airport which is implementing its environmental actions through its recently published Environment Plan.

The Manchester AQAP recognises that the solutions to the air quality issues need a coordinated response across the wider Manchester conurbation, and was launched at the same time as the GMAQAP in April of 2004. The proposals and actions detailed in this report summarise the substantial progress made since that time, but also show that the Action Plan is an active document designed as a rolling programme that will run for several years and as such, is seeing updated actions and initiatives as well as a number of individual measures that are still in their development and implementation stages. This applies especially to some of the larger projects, such as Metrolink, which are a vital part of the integrated transport infrastructure for the region, that offer a permanent solution to the air quality issues.

Transport, as the primary source of nitrogen dioxide and most of the other key air pollutants, is the focus of much of the Manchester AQAP actions with a suite of transport related policies and schemes to tackle this source of emissions. For this reason the AQAP has also been fully integrated into the Greater Manchester Local Transport Plan 2 (LTP2), which outlines the delivery of a five-year programme being taken by Greater Manchester authorities to develop the transport infrastructure across the Manchester area.

However, a number of other non-transport related schemes have also been included, all of which have an equally important and positive benefit for air quality. The Manchester AQAP policies to achieve the necessary improvements in air quality have therefore been separated into the following categories:

- Transport and Traffic Management
- Energy Strategies
- Effective Use of Enforcement Powers

## **2. Actions to Improve Air Quality**

Manchester City Council first declared an Air Quality Management Area for nitrogen dioxide in July 2001, based on the area predicted to exceed the annual average NO<sub>2</sub> objective in 2005. Following a detailed review and assessment of pollutant levels in 2004, the AQMA was amended in 2007. Again this was based on predicted exceedences of the annual NO<sub>2</sub> air quality objective only. However, there is some evidence that has been highlighted recently to suggest that the hourly NO<sub>2</sub> air quality objective may be exceeded in certain locations. All current and future air quality objectives are met in Manchester for other pollutants specified in the Air Quality (England) Regulations 2000 and the Air Quality (England) (Amendment) Regulations 2002 (lead, PM<sub>10</sub> particulate matter, sulphur dioxide, 1,3-butadiene, benzene and carbon monoxide). Progress to date on air pollution monitoring in Manchester is outlined in a separate report, entitled 'Air Quality Monitoring Progress Report 2008'.

The map in the Figure 1 below shows the 2007 Manchester AQMA. It has reduced by over a third and covers a significantly smaller area than that from 2001, showing a decrease in the area of Manchester that would fail to meet the health based objectives for NO<sub>2</sub>. The 2007 AQMA shows the areas that may exceed this target and indicates that the priority air quality issue for Manchester are primarily in the city centre and along the main arterial routes out of the city. A bid has been submitted for further emission inventory work including source apportionment and dispersion modelling because of the evidence of the changing distribution of the key pollutants across the conurbation. This includes several Local Authorities in Greater Manchester with 'new' predicted exceedences for some air quality objectives, such as the hourly NO<sub>2</sub> objective and elevated levels of PM<sub>10</sub>.

Figure 1: The 2005 Manchester AQMA

Manchester Air Quality Management Area



Since the first Air Quality Management Area was declared in Manchester the City Council has taken action to improve air quality. The programmes have been implemented through a combination of methods including technological improvements, awareness raising campaigns, enforcement action and public transport improvements. Details of the current Action Plan measure / target, original timescale for completion, progress with measure and outcome to date for the Manchester AQAP policies can be found after section 7 of this report. Tables 1 to 3 summarise local transport actions, energy efficiency programmes and regulatory and enforcement measures respectively.

A summary list of new, substantial development schemes that have been granted Planning Permission and were under construction in the financial year of 2008/9 which may have the potential to impact on local air quality is included in Appendix A.

Planning permission has been granted for 1 significant new industrial process in Manchester. The details of the installation are as follows:

Name of installation operator:	W. Howarth Metals Limited
Installation address:	Rondin Road, Ardwick, Manchester, M12 6BF
Type of installation:	Non-ferrous metal foundry - melting and recycling of scrap aluminium
Sector Guidance Note:	Sector Guidance Note IPPC SG4 - ' Secretary of State's Guidance for A2 Activities in the Non-ferrous Metals Sector'.

The emissions to air from this installation have been subject to review and assessment and are detailed in Manchester City Councils 2009 Air Quality Updating and Screening Assessment report. No exceedences of any air quality objectives are anticipated that are caused by the installation.

The following summarises some of the key, recent initiatives and the context for these actions in relation to an integrated approach with other areas of environmental action by the Council.

### **3. Local Transport Measures**

The transport element of the GMAQAP has always been seen as an integral part of the programme of action within the Greater Manchester Local Transport Plan (GMLTP). The most recent guidance for more formal integration of air quality (as one of the key indicators) within LTP2 is seen as an opportunity by the other Greater Manchester authorities and the City Council to develop closer partnership working on air quality and transport issues; a task that has already begun and is progressing. Action is being taken both within the Council and at a Greater Manchester level through the existing Local Transport Plan (LTP2) Group to progress this approach and establish effective implementation mechanisms.

Transport has been identified as the major source of air pollution in Manchester and so air quality improvements will be heavily dependent on the delivery of GMLTP objectives. Nevertheless, there are additional measures set out in the Manchester AQAP that will have an impact on air quality at a more local level. Manchester City Council has developed a Local Public Service Agreement (LPSA) target for mode shift. This target is to increase the percentage of person trips to the regional centre made by means other than the private car. There is a clear linkage to improvements in air quality associated with this LPSA target.

Some notable successes have been achieved already, examples being the establishment of Quality Bus Corridors, the continuation of the Cleaner Vehicles Campaign and the considerable progress that has been made with implementing workplace and school travel plans through the City Council's Travel Change Team and Environmental Campaigns Team. An example of implementation of school travel plans has been through the Eco Schools scheme. Currently 142 schools are taking part in this scheme, which represents over 70% of Manchester's schools. This level of participation shows that the target for all Manchester's schools to be Eco Schools by 2010 will be challenging but achievable.

The Metrolink light rail system is the cornerstone of the Manchester public transport system. The Metrolink provides a high speed, high quality service, with no emissions at the point of operation. The speed, frequency, journey time and reliability offered by the Metrolink makes it a very attractive alternative to commuting by car. The existing Metrolink network has proved an outstanding success, with the network saving 3.8 million car journeys a year. The extension to the network is predicted to reduce traffic by an additional 5.5 million car journeys a year. It is agreed that the implementation of the Phase 3 Metrolink extensions will have a significant beneficial impact on improving air quality in Manchester, and is therefore one of the most effective mechanisms for improving air quality in the city.

#### **4. Energy Strategies**

Actions have been prioritised that support both improvements in air quality and reductions in greenhouse gas emissions (primarily carbon dioxide emissions).

The City Council's Executive Committee approved the Climate Change Call to Action in January 2009, which is to be facilitated through the newly formed Greater Manchester Environment Commission. The Call to Action describes a new way of thinking about climate change, which fits in the context of Manchester's Community Strategy and describes how taking early action on climate change can deliver an even better city in which to live and work. It is recognised that tackling climate change can have a significant contribution to improving air quality. The Council are therefore pursuing a "twin-track" approach to tackling air quality and climate change.

The Call to Action describes the need to make deep cuts in Manchester's emissions, by at least one-third of current emissions, by 2020. In doing so this will strengthen the economy of the city, promote regeneration and improve the quality of life for local residents.

Nine 'catalytic' actions have been identified in order to start mainstream climate change action, including:

- Retrofitting of Manchester Town Hall to improve its energy efficiency
- Promoting a low carbon energy infrastructure through working with the Association of Greater Manchester Authorities (AGMA) and the Climate Change Agency.
- Creating 'Low Carbon Communities' within each existing regeneration area, that will enable residents to cut energy costs.
- Creating a business alliance for climate change action.
- Creating a climate-change ready Local Development Framework.

The Council's work in improving the housing stock has already improved energy efficiency to date by around 26% which translates into an estimated saving of CO<sub>2</sub> emissions in excess of 300,000 tonnes. Progress with this measure also includes the creation of the Manchester Eco House, which is a working model demonstrating the wide range of improvements householders can make to increase energy efficiency, with information on grants and schemes that can help enable them to carry works out.

Energy Efficiency Advice Centres have been operational in Manchester since 2001, through funding from the Energy Saving Trust. The provision of free and impartial advice to householders in Greater Manchester area has resulted in assumed CO<sub>2</sub> savings of 31,428 tonnes. Further expansion of the service has led to the formation of a larger Energy Saving Trust Advice Centre.

The Council has developed and adopted policies and supplementary guidance on reducing environmental impact for new developments to reduce emissions under the Unitary Development Plan objective 'To Foster a Cleaner and Less Polluted City'. The Environmental Standards section of the guidance sets out design principles to assist developers in achieving energy efficiency targets and measures to increase the use of renewable energy in new developments.

The Environmental Business Pledge promotes both transport and energy actions by working with businesses located in the city centre to reduce the impact of their activities on local air quality. The scheme aims to provide a 'one stop shop' for green action across the Council in partnership with businesses in the city. The companies are encouraged to look at their current policies and ways of working with a view to identifying areas where they could improve their environmental performance. There are currently 1213 companies registered with the scheme to improve their environmental performance and make reductions in energy use. This has resulted in a reduction of CO<sub>2</sub> emissions by 1914 tonnes and water savings of 68,085 m<sup>3</sup>.

## **5. Effective Use of Enforcement Powers**

The Cleaner Vehicles Campaign continues to concentrate on a regulatory approach with Fixed Penalty Notices for drivers of vehicles that do not comply with legal emission standards. The campaign continues to focus on a regulated approach



through formal roadside emission test days, with 1387 vehicles tested in 2008/09. There is clear evidence of a year on year trend in improvements in vehicle emissions since the campaign began, with reductions in the number of diesel vehicle failures and (now) very high levels of compliance for petrol engined vehicles. The Greater Manchester Transportation Unit (GMTU) completed a report on the analysis of the results in April 2009. Results from the campaign from 2003 to 2008 indicated that average hydrocarbon and carbon monoxide emissions had fallen, but there was a marginal increase in average CO<sub>2</sub> emissions. The campaign continues with a regulatory approach, but now also encompasses targeting fuel savings and CO<sub>2</sub> emission reductions through educational events for the general public and local authority staff.

The Idling Vehicles Campaign continues to enforce against drivers who idle their vehicles unnecessarily when parked at the side of the road. In general there is felt to be a good level of awareness in the city centre. Street Wardens in Manchester serve fixed penalty notices when drivers fail to comply with the immediate switch off request. To date over 325 fixed penalty notices have been served since the start of the campaign in May 2005. Observations have shown that there is generally a high level of compliance though further joint working with the Greater Manchester Passenger Transport Executive (GMPTE) is currently being undertaken because buses are still recognised as a significant source of complaint and pollution. Partnership working with the Council's Enforcement Team has also enabled us to work pro-actively towards improving local air quality. Wardens now prioritise idling vehicles on days when pollution levels are identified as moderate or high. In addition, the Council's Street Management Team removed 1339 untaxed vehicles and 33 abandoned vehicles in the financial year of 2008/09. These figures show a decrease of 33% and 60% respectively from last year's results and indicate an increased level of compliance, and awareness amongst vehicle owners about their responsibilities. It has been found that these vehicles tend to be older than average, are more likely to have an out of date MOT and therefore more polluting.

Both residents and commuters to Manchester are still using both the hotline and website to report dirty / smoky diesel vehicles. Partnership working continues with the relevant enforcing authorities including the Vehicle and Operator Services Agency (VOSA) and the Council's Licensing Unit for taxis. Contact has also been made with key fleet operators such as the bus companies to highlight the campaign. Further promotion of the work continues, with Manchester as the lead for the continued partnership working across the whole of Greater Manchester.

The campaign against the burning of domestic waste has continued throughout Greater Manchester. This has progressed by working in partnership with other campaigns, by encouraging the greener alternatives such as recycling and composting of waste, by Manchester residents, through education and publicity. The campaign is also backed up by regulatory action for repeat offenders, who do not dispose of their waste in a responsible matter. To date, 45 businesses have been prosecuted. However, there has been an increasing level of compliance over time. Parallel action is being progressed against commercial waste disposal by burning, through regulation under the Clean Air Act 1993 and the Environmental Protection Act 1990. In 2008/09, 8 statutory notices were issued against offenders. A

commercial bonfire / trade waste leaflet has also now been produced and is widely used in Manchester.

Manchester City Council permits over 100 processes in accordance with the Environmental Permitting Programme, including 1 Part A2 installation, 34 Part B industrial processes, 50 petrol filling stations and 24 dry cleaners that are permitted under the regime in response to the Solvent Emissions Directive.

The Council continues to comply with the Best Value Performance Indicator (BVPI) 217 for industrial processes, which is a measure of the percentage of pollution control improvements to existing installations that have been completed to timescales specified in guidance. The target has been set at 90%, which has consistently been achieved in Manchester.

## **6. The Way Forward**

Despite some improvements in air quality over the last decade, it is recognised that there is a need to implement further measures to reduce the level of nitrogen dioxide in Manchester, particularly in the city centre. The single most significant improvement will be Metrolink, which upon completion of the current proposed network is estimated to lead to a 4% reduction in emissions.

The Council will need to continue to take a series of actions to improve air quality and make everyone aware of their responsibilities. This will require an integrated approach involving a range of different partners. These improvements can be achieved through a combination of:

- Technological improvements in vehicle efficiency
- Increased domestic and industrial energy efficiency
- Improved public transport infrastructure and complementary policy measures
- Enforcement measures
- Campaigns

There are several options available to the Council to improve the fleet of vehicles and have a positive impact on air quality, for example:

**Updating the Council fleet:** Currently, the majority of the Council fleet of vehicles currently meets the Euro 4 emission standard. Significant reductions in emissions have been achieved with the retirement of older, more polluting vehicles. Consideration is being given for a timescale for moving to a Euro 5 fleet.

**Use of biodiesel:** Biodiesel is a renewable vehicle fuel with CO<sub>2</sub> emissions said to be zero (although there is some CO<sub>2</sub> impact). The reduction in CO<sub>2</sub> will assist in meeting the 'Greening Manchester' targets and within Greening Manchester there is a commitment to innovative projects with reference to the promotion of biodiesel. The whole Council fleet now runs on 5% biodiesel, however a lack of vehicle manufacturer support is holding back a wider trial of fuel comprising a greater percentage of biodiesel.

Manchester City Council is also piloting an environmentally sustainable transport project, whereby an electric vehicle is used to replace Council officer journeys by car in the city. The vehicle's power charging requirements will be provided by solar cells that will generate the equivalent amount of electricity. Effectively the vehicle is powered entirely by renewable energy, making it "emissions free". The vehicle is currently being used for business journeys within Regulatory Services, which are predominantly over short local distances. To date, the solar cells have generated over 1765 kWh of electricity, resulting in CO<sub>2</sub> emissions savings of 0.95 tonnes. Even taking into account emissions from power station electricity generation, the Manchester City Council Smart has resulted in a CO<sub>2</sub> emission saving of 0.21 tonnes. The project aims to increase public awareness of environmentally sustainable methods of transport and microgeneration of renewable energy and will indicate where this type of vehicle would be suitable for wider use across the Council.

The WhizzGo car-sharing scheme, supported by the Council, was launched in Manchester in November 2006 and is the fastest expanding of any of the WhizzGo cities. Membership of the scheme enables users to hire a car by the hour, resulting in lower car ownership and reduced miles and vehicle usage. There are currently over 900 members in Manchester.

The Council is also investigating other means of making a positive contribution to air quality such as the licensing of taxis. There are 3,000 taxis licensed in Manchester, which represents 11% of all the vehicle kilometres travelled in the City Centre. The vehicles are tested twice a year for roadworthiness and this involves an emissions test. The Council can require hackney carriages and private hire vehicles to comply with emission levels that are stricter than the current MOT test standards. However, stricter standards can only be required if they are necessary and reasonable, which can be argued as Manchester has elevated levels of NO<sub>2</sub> in the city centre and major radial routes. The reasonableness test would depend on the cost of the means required to reduce the emissions. Any emissions standards would need to be set for NO<sub>x</sub> and PM<sub>10</sub>. The City Council has therefore implemented a 12-year age limit on all hackney carriages in addition to the 8-year age limit on all private hire vehicles. There is an additional requirement that the engines of the vehicles must meet the Euro 3 emission standard.

Several taxis in Manchester have been fitted with a new type of particulate trap, which is estimated to have around 99% efficiency at reducing particulate matter. This trap also appears to be very efficient at reducing very fine particles and is European Type approved. It does not, however, reduce oxides of nitrogen.

The bus fleet and delivery vehicles also represent a significant proportion of the vehicle distance travelled in City Centre. Reductions to bus fleet emissions are being targeted through the creation of Quality Bus Corridors. Only low emission buses will be permitted to use these corridors.

The planned increase in energy efficiency in Manchester will provide an estimated improvement in air quality of approximately 2%. Further improvements can be secured by campaigns and awareness raising to encourage everyone in Manchester to save energy and improve air quality. As part of the Energy Strategy Action Plan

the Council has commenced an energy conservation area with support at community level to help people understand how they can improve energy efficiency.

Improvements and upgrading of the Emissions Inventory for Greater Manchester Area (EMIGMA) database 2005 will be used as a tool to inform the air quality action plan and targeting of priority emission sources through improved source apportionment. This 'best practice' enhanced emissions database for Manchester includes CO<sub>2</sub>, and electricity and renewable energy use. A more sophisticated web based data collection system is now in operation and collection of 2007 and 2008 emission inventory data is in progress.

EMIGMA is being seen a key tool for monitoring both current and future emission levels in relation to work programmes such as the AQAP and LTP2, providing an indicator not only for the levels of emissions but the relative importance of the relevant sources from commercial and domestic to the various classifications of road vehicles. In addition, recent forecasting work on emissions in Manchester, carried out by GMTU indicates that from 2005 to 2010 the levels of NO<sub>x</sub> are predicted to reduce by 17.2% and the levels of PM<sub>10</sub> by 8.4%. A similar forecast for the whole of the GM conurbation showed comparable reductions for NO<sub>x</sub> and PM<sub>10</sub> of 18.9% and 8.1% respectively. It is recognised that this facility now needs to be developed as a tool to quantify the emission changes for specific projects, to inform the Air Quality Action Plan. This is part of the future work programme for the GM Air Quality Working Group.

## **7. Conclusions**

Good progress has been made with the Manchester AQAP to date. Action has begun on all of the policies and measures set out in the plan. Subsequently the Air Quality Management Area declared in July 2001, which indicated potential exceedences of the annual nitrogen dioxide objective across much of the north of the city, the city centre and along the radial routes in the south was replaced by a new area from the more recent modelling work carried out as part of the Round 2 Detailed Review and Assessment in 2004. The new AQMA approved by Executive Committee on 27 July 2005 is much reduced in size and is concentrated on the business centre of the city and along the main arterial routes out of the city centre.

The actions set out in Tables 1 to 3 and their effective implementations are estimated to enable Manchester to meet the national air quality objectives. However, it is recognised by the Council that the pace of improvement needs to quicken and more work needs to be concentrated on the city centre. The achievement of the plans within the Energy Strategy will also assist in reducing emissions.

Both the Manchester and Greater Manchester AQAP are under constant review and are being developed further with increased links to climate change. In summary, the Council will need to use a combination of regulatory controls, influence and awareness raising to ensure that effective action is taken to improve air quality for residents and visitors to Manchester.

**Table 1. Manchester’s Air Quality Actions – Local Transport Measures**

GM LTP AQ REF	Action plan measure / target	Original timescale for completion	Progress with measure	Outcome to date
D7	<p>Public Transport:</p> <p>Metrolink including the full completion of Phase 3 is a cornerstone of Manchester’s transport and air quality programmes encouraging modal shift away from the car.</p> <p>It is estimated that Metrolink 3a will save 5 million car journeys each year.</p>	<p>Full Phase 3 funding was agreed in 2002, withdrawn by Government in 2004 and reinstated in 2005.</p> <p>£102m funding package for upgrading existing (Phases 1 and 2) system approved July 2006.</p> <p>Phase 3 will be delivered through the following stages:</p> <p>Phase 3a extensions to Droylsden, Chorlton-cum-Hardy, and conversion of the existing Oldham –Rochdale line; planned for completion by summer 2012</p> <p>Phase 3b ‘Accelerated Elements’:</p> <p>Chorlton to East Didsbury and Droylsden to Ashton. Target completion date of 2014.</p>	<p>Delivery of £102m investment programme commenced July 2007.</p> <p>Renewal of large sections of worn-out track on Bury and Altrincham lines was completed on time and to budget in September 2007.</p> <p>Remaining upgrade work on Phases 1 and 2 well underway. This includes procurement of 8 new trams to relieve peak congestion and meet suppressed demand, expected to be operational by Winter 2009/10.</p> <p>Metrolink 3a construction contract awarded in summer 2008 and works are underway.</p>	<p>1 percentage point increase on journeys to the Regional Centre on 2005 base year</p> <p>Too early for data on Metrolink expansion</p>

GM LTP AQ REF	Action plan measure / target	Original timescale for completion	Progress with measure	Outcome to date
	<p>Continued improvement in local rail performance complemented by public/private sector in minor station improvement schemes</p> <p>GMLTP investment in quality bus corridors and supporting marketing with bus operators</p>	<p>A funding agreement is in place for the remaining line to Manchester Airport and spurs into Oldham and Rochdale Town Centres – timescales to be confirmed.</p> <p>Ongoing improvements to rail infrastructure</p> <p>Ongoing improvements</p>	<p>Progress on delivery of rail station improvements including: investments to improve the safety and comfort of waiting facilities, installation of CCTV, improved passenger information and more park and ride spaces</p> <p>Contributed to completion of £88m Quality Bus Corridor programme</p>	<p>Substantial 13% rise in rail passengers travelling to the Regional Centre since the base year 2005</p> <p>Reversal of historical decline in bus patronage, with a 3.7% increase in bus patronage since 2005/06.</p> <p>18% increase in patronage on QBC network and improved punctuality.</p>

<b>GM LTP AQ REF</b>	<b>Action plan measure / target</b>	<b>Original timescale for completion</b>	<b>Progress with measure</b>	<b>Outcome to date</b>
E15	<p>City Council Transport Policies:</p> <p>Delivering a highway network that is safe, sustainable and accessible for all.</p> <p>Promoting Smarter Choice travel options to encourage more sustainable journeys and reduce car dependency.</p>	<p>Ongoing delivery of transport policies that contributes to promoting sustainable transport modes, placing Public Transport at the heart of the transport network whilst encouraging more cycling and walking.</p> <p>Seeking better links to the health policy agenda to promote active travel and environmental activities around Climate Change.</p> <p>Influencing the Local Development Framework to ensure land-use strategies gives full regard to reducing the need to travel and recognise air policy objectives.</p>	<p>Traffic Management interventions to discourage Regional Centre through traffic by more use of ring roads.</p> <p>Progress on implementing a zonal parking strategy to reduce the impact of cars, whilst meeting demand and improving accessibility.</p> <p>Delivered a city centre signing and Variable Messaging System to reduce the levels of circulating vehicles searching for parking relieving congestion and improving air quality.</p>	<p>5.4% percentage point increase in non-car modal share of journeys to the Regional Centre.</p> <p>Survey data has measured an annual increase in most non-car modes of travel since the base year of 2005.</p>
E3	<p>Activities by Manchester City Council Travel Change Team to increase journeys made by sustainable modes.</p>	<p>Travel Change Team in place consisting of 6 full time officers. Developing links with schools, businesses and communities in Manchester. All schools to have a travel plan by March 2010 and ongoing.</p>	<p>Travel Change Team working on promotion of sustainable travel in Manchester with particular emphasis on Smarter Choices.</p>	<p>151 Schools with developed travel plans 80 workplaces progressing travel planning, with a focus on 30-40 high quality travel plans with potential for modal shift away from single vehicle occupancy levels.</p>
E8	<p>Manchester City Council Travel Plan 'Get on Board'</p>	<p>Pilot scheme in operation since 1998.</p> <p>City Council Travel Plan 'Get on</p>	<p>Get On Board provides employees with sustainable travel choices to reduce single</p>	<p>City Council Travel Plan was established in September 2005. Baseline set 2007 - 42% staff travelling to work by single vehicle occupancy.</p>

GM LTP AQ REF	Action plan measure / target	Original timescale for completion	Progress with measure	Outcome to date
		<p>Board' launched in September 05 offering sustainable travel choices to approx 23,000 staff.</p> <p>Ongoing work to monitor the effectiveness of the Travel Plan and measure the impact on mode shift.</p>	<p>vehicle occupancy levels.</p> <p>First full staff survey (excluding teachers) was undertaken in October 2007 and baseline set. Full staff survey to be undertaken in November 2009 to measure progress and report.</p> <p>Launch and promotion of walkit.com/Manchester, pedestrian journey planner, March 2009</p> <p>Get on Board re-branded in April 2009 to refresh profile</p> <p>Staff Business Travel policies currently under review</p> <p>Launch of 'Bike to Work' salary sacrifice scheme May 2009</p> <p>Car Sharing scheme planned for 2010</p>	<p>Targets set across departments to achieve 7% reduction (35% Single Vehicle Occupancy).</p> <p>Some measures / actions include:</p> <ul style="list-style-type: none"> <li>• Discounted public transport tickets</li> <li>• Interest free public transport loans</li> <li>• Salary sacrifice 'bike to work' scheme</li> <li>• Emergency ride home scheme</li> <li>• Improvement of cycle facilities (showers, lockers and cycle stands, etc.)</li> <li>• Salary sacrifice 'Green Travel to Work' scheme is developed and planned for launch in September 2009</li> <li>• Staff 'Pool Bike' scheme developed for launch in 2009</li> <li>• Promotion of walkit.com, online pedestrian journey planner and 'Bike to Work' campaign</li> <li>• WhizzGo car club</li> <li>• Annual Bus Ticket scheme being considered and could launch September 2009</li> </ul>



GM LTP AQ REF	Action plan measure / target	Original timescale for completion	Progress with measure	Outcome to date
E9	<p>School Travel Plans:</p> <p>Every Manchester school to have a Travel Plan by March 2010.</p> <p>School travel plans intend to reduce the number of car trips to and from schools, improve road safety, thereby indirectly improving local air quality.</p> <p>.</p>	<p>Target is for all Manchester schools to have a SchoolTravel Plans by March 312010.</p>	<p>School Travel Plans:</p> <ul style="list-style-type: none"> <li>• 151 written DfT/DfES approved school travel plans (plans which meet a specified standard and level of achievement)</li> <li>• Continuation of the successful Green Miles Competition (sustainable transport competition for schools with travel plans)</li> </ul> <p>The following engineering measures implemented to make sustainable transport more attractive:</p> <ul style="list-style-type: none"> <li>• 118 schools with 20 mph zones</li> <li>• 61 schools with Safer Routes to School schemes</li> <li>• 21 schools linked to the National Cycle network</li> <li>• A database is being developed of school travel plans, safety schemes and</li> </ul>	<p>76 schools took part in the Green Miles competition, which awards prizes to the schools that are most successful in encouraging pupils to travel to school by cycling or walking.</p> <p>The winning school [St Catherines R C Primary] achieved a figure of 93%% of pupils arriving by sustainable modes.</p> <p>The most improved school [St Edmunds R C Primary] saw an increase of 49% arriving by cycle or walking during the competition period.</p> <p>43 schools have successfully applied for a walking bus grant / initiative, and participated in Walk to School month over a 3 year rolling programme 2006/07 – 2009/10.</p> <p>13 Walking Bus schemes operating in 9 schools in Manchester.</p> <p>A total of 151 schools will be monitored and reviewed during 2009/10. This will provide more robust modal shift data.</p> <p>Parking campaign launched in 5 schools to manage parents parking behaviour and highlight parking issues.</p> <p>Promotion of walkit.com and national Bike Week.</p>

GM LTP AQ REF	Action plan measure / target	Original timescale for completion	Progress with measure	Outcome to date
			highway infrastructure to provide robust evidence base.	
E8	Workplace travel plans: The team will continue to engage workplaces in travel planning and encourage mode shift to more sustainable forms of transport thus improving local air quality.	Ongoing work with Manchester businesses to implement Travel Plans through the Planning process and voluntary arrangements.	Currently engaged with 80 organisations to develop workplace travel plans with a focus on 30-40 quality plans with most potential for modal switch to sustainable modes.  Corporate usage of the City Car Club a major part of this work programme.  Membership currently standing at 909 members both corporate and residential.	Quality travel plans in some major employers including:  Higher Education Precinct Travel Plan The Co-Operative Soon to commence work on an Area Wide Travel Plan in partnership with the Highways Agency. Sharston Industrial Estate in Wythenshawe earmarked for this programme. Also important to note work currently ongoing with residential travel plans
E1	Bus Lane Enforcement Strategy  To undertake the civil enforcement of bus lanes in Manchester to provide more reliable bus journeys thus encouraging modal shift.	Enforcement commenced in September 2006.	Measures introduced in September 2006 and supported by associated publicity.  Currently undertaking a rolling programme of enforcement at 30 locations using 13 fixed cameras, 5 mobile cameras and 2 camera	Since 1st April 2008-today, over 36000 Penalty Charge Notices (PCNs) have been issued. <ul style="list-style-type: none"> <li>• Currently issuing 190 PCNs per day</li> <li>• Improvement in driver compliance is an average of 83% (not including Victoria Station Approach)</li> <li>• Victoria Station Approach (enforced since 15 December following 3 weeks of warning notices, so far 50% improvement in compliance)</li> </ul>

GM LTP AQ REF	Action plan measure / target	Original timescale for completion	Progress with measure	Outcome to date
			enabled smart cars. The 2 smart cars operate on a daily basis on a random rolling rota covering 17 locations	<ul style="list-style-type: none"> <li>High recovery rate for fines around 80%</li> </ul>
E16	Street lighting	Responsibility for street lighting taken over by contractor Amey Ltd in 2004. Work ongoing to implement policy to encourage walking and public transport use by increasing confidence in the security of using footpaths and bus stops.	In January 2009 Amey completed their 'Initial Asset Replacement Programme'.	Amey continue to carry out planned and reactive maintenance on all the street lighting stock.
E7	<p>Deliver a Wythenshawe Community Travel - Plan Demonstration Pilot with Workwise</p> <p>1. Identification of local issues that act as a barrier to the community using sustainable modes of travel (Public Transport, Cycling and Walking)</p> <p>2. Developing a range of transport solutions to tackle issues</p>	March 2010 for first phase, estimate a minimum of 12 months through to September 2010 with a view to roll-out to other areas if proven successful	<p>Pilot has been developed in partnership with key agencies (Job Centre Plus, Wythenshawe Regeneration, Manchester Airport)</p> <p>Formed stakeholder steering group</p> <p>Project plan being developed</p> <p>Appointment of company to undertake household survey to identify travel issues.</p>	Too early for outcomes; expected within 6-12 months

GM LTP AQ REF	Action plan measure / target	Original timescale for completion	Progress with measure	Outcome to date
	3. Improving residents access to employment and training opportunities to tackle worklessness.			
E7	<p>Cycling Strategy:</p> <p>The Greater Manchester (GM) Cycling Strategy and proposed Cycling Vision for Manchester will contribute to encouraging modal shift away from the car, reducing emissions.</p>	<p>The production of a revised GM Cycling Strategy was required to respond to changes within GMLTP2 2006/07.</p>	<p>The GM Cycling Strategy policies and principles are currently being introduced across the city.</p> <p>GM Cycling Strategy was updated in 2006 to reflect the LTP2 objectives.</p> <p>The GM Cycling Strategy includes the provision of cycleways and installation of secure cycle storage facilities, enhancing the opportunities for cycle use across utility, leisure and sport cycle activity and journeys.</p> <p>Implementation of automatic cycle monitoring of cycling routes in Manchester, especially on key commuter routes into the regional centre and</p>	<p>Cycling journeys into the Regional Centre have increased by 59 percentage points over the 2005 base year</p>

GM LTP AQ REF	Action plan measure / target	Original timescale for completion	Progress with measure	Outcome to date
			<p>leisure routes are showing steady growth in usage.</p> <p>Cyclegm website redesigned and re-launched, including online cycle maps</p> <p>Further distribution of popular free cycle maps</p> <p>Greater Manchester Cycle Journey Planner developed and beta version available on Transport Direct</p> <p>Cycle route leaflets and 'On Yer Bike' Greater Manchester Magazine produced to encourage cycling in the city.</p> <p>Promotion of national bike week</p>	
E7	Walking – Delivery of Greater Manchester Walking Strategy and the Public Rights of Way Improvement Plan (PROWIP)	<p>Ongoing work to deliver the Greater Manchester Pedestrian Action Plan</p> <p>PROWIP was completed in November 2007 a programme of priorities was developed in 2008</p>	In line with the GM Walking Strategy and the recently updated GM Action Plan, Manchester continues to identify and where appropriate enhance pedestrian	<p>Reversal in declining walking levels.</p> <p>Walking journeys into the Regional Centre have increased 10 percentage points over the 2005 base year</p> <p>Launched walkit.com/Manchester an online</p>

GM LTP AQ REF	Action plan measure / target	Original timescale for completion	Progress with measure	Outcome to date
		following interrogation of the definitive rights of way map for the PROWIP to identify existing and potentially additional pedestrian networks and access for walking activity.	<p>accessibility to local services and centres.</p> <p>Some district centres have already been targeted: Northenden, Withington, Longsight, Rusholme, Cheetham, Wythenshawe and Gorton.</p> <p>A further improvement programme of access to district centres has been developed and will be delivered by the end of 2009.</p>	walking journey planner.
E15	<p>Congestion Target Delivery Action Plan</p> <p>To out-perform the LTP2 congestion target.</p>	<p>Delivery during LTP2 period 2005/06 – 2010/11</p> <p>Improve network journey times and reduce unnecessary standing traffic, which impacts on local air quality.</p>	A programme of interventions has been agreed for the 2009/10 including funding for 9 new congestion schemes.	Most recent survey indicates that Manchester has improved journey times on 5 out of 6 of its congestion routes.
E16	<p>Public Transport</p> <p>Development of Metroshuttle network</p>	<p>Launched in 2002, the network has expanded to 3 routes.</p> <p>Ongoing promotion of Metroshuttle services and ensuring reliable service.</p> <p>Delivering 'cleaner' vehicles through improved engine</p>	A review of the service was carried out and re-tendering of contracts has been progressed, part of which is procurement of new vehicles to a minimum of Euro 5 or 6 compliant engines.	<p>Metroshuttle patronage has increased to from 2.3million to 2.6 million trips for the year ending February 2009, a 14% increase over the year.</p> <p>New vehicle procurement in September 2009 will deliver even 'cleaner' Metroshuttle operations.</p>

GM LTP AQ REF	Action plan measure / target	Original timescale for completion	Progress with measure	Outcome to date
		technology or alternative power.	<p>Investigation of new vehicle types, including those using alternative fuels, hybrid technology or Electric Vehicles.</p> <p>Metroshuttle currently operates with low-floor, easy access Optare Solos that use Euro 3 complaint engines.</p>	
E13	<p>Promotion of Car Club</p> <p>WhizzGo Manchester</p>	<p>Launched in November 2006.</p> <p>Manchester City Council supports WhizzGo with policy advice and on-street parking bays. The City Council is a corporate member. Work is in progress to include car club within the planning framework.</p> <p>WhizzGo is contributing to an integrated transport system and improving air quality in the city.</p>	<p>Fastest expanding of any of the WhizzGo cities.</p> <p>Average car usage of over 6 hours a day.</p> <p>Over 900 members, 55% corporate members.</p> <p>Increase in number of locations and cars across the city, growth according to demand.</p>	<p>Fleet of 24 low-emission vehicles, at 14 dedicated parking locations, with more planned, including expansion into areas outside of the city centre.</p> <p>Membership results in lower car ownership – every car club car replaces up to 23 private vehicles – equivalent to over 550 cars across Manchester.</p> <p>Members typically drive fewer miles over time, and significant behaviour change has been affectively demonstrated. Public transport usage is significantly higher among car club members than national average.</p> <p>Car club cars are typically 30% more efficient than the national average, and are well maintained, so emissions are lower.</p> <p>Residential members, companies etc</p>

GM LTP AQ REF	Action plan measure / target	Original timescale for completion	Progress with measure	Outcome to date
				<p>reporting significant cost savings. One MCC department saving approx £5,000 per year.</p> <p>Recent emissions comparison completed for MCC mileage in direct comparison with taxi mileage. Estimated savings 198kg CO<sub>2</sub>, 0.04 kg NO<sub>x</sub>, 0.01 kg PM<sub>10</sub>. Very conservative estimate, with savings growing over time.</p>
E5	<p>Council fleet procurement policy The City Council will move towards operating a 'green' fleet of vehicles, by ensuring City Council vehicles are Euro 4 or better.</p>	<p>Vehicle emissions are now part of the vehicle purchasing programme. All vehicles purchased by the Council must meet the latest European emission standards.</p> <p>Targets are under regular review to consider a timescale for moving to a Euro 5 fleet.</p>	<p>Currently the majority of Council vehicles are Euro 4 or better. The whole Council fleet now also runs on 5% bio diesel. Significant reductions in emissions have been achieved with the retirement of older, more polluting vehicles.</p>	<p>A number of Euro 5 vehicles are now in use and it is the intention to increase numbers of these at every opportunity. The Council fleet also includes a fully electric car, producing zero emissions, which is used in the city centre and other ward locations. We will continue to follow the development of electric vehicles until the cost of purchase and maintenance becomes realistic on a working scale.</p> <p>The Council is currently trialling several "secondary devices", fitted to existing vehicles within the fleet. The manufacturers claim that exhaust emissions are reduced and miles per gallon increased. The council continually researches developments in alternative fuel / vehicle technology and is keen to embrace those which show potential environmental advantages.</p>



GM LTP AQ REF	Action plan measure / target	Original timescale for completion	Progress with measure	Outcome to date
E5	Diesel fuel additive emission trial	October 2009	A diesel fuel additive trial has commenced to investigate any differences in exhaust emissions and fuel economy using several Manchester City Council staff vehicles.	Several weeks of monitoring has been completed before the use of the additive. Eight weeks of monitoring will be completed when the additive is being used in the vehicles.
E5 and A8	Electric vehicle trial:  Pilot project to trial an electric vehicle and make the vehicle 'emission free' by offsetting emissions produced from the charging of the vehicle using solar power.	Pilot project to be operational by April 2008	Solar cells were installed in August 2008.  The Smart electric vehicle was delivered in July 2008, and is being used by Environmental Health staff to travel around the city in the course of their duties.	The project aims to increase awareness of alternative methods of transport and electricity generation from renewable sources.  To date, the solar cells have generated over 1765 kWh of electricity, resulting in CO2 emissions savings of 0.95 tonnes.  Even taking into account emissions from power station electricity generation, the Manchester City Council Smart has resulted in a CO <sub>2</sub> emission saving of 0.21 tonnes.
E15 and E8	Airport ground travel emissions reduction schemes:  <ul style="list-style-type: none"> <li>• Construction of a ground transport interchange</li> <li>• Ongoing implementation and promotion of staff travel plan</li> <li>• Construction of a</li> </ul>	The airport introduced a Ground Transport Strategy in 1997 and a travel plan in 1998 to reduce ground vehicle movements per air passenger to 1.35 by 2005, and increase staff bus usage to 10% by 2015.  Construction of the third rail platform to be completed by December 2008.	A Revised Ground Travel Plan was published in 2004. The new plan was part of Manchester Airport's Master Plan published in 2007.  The Manchester Airport Master Plan was written and a public consultation was undertaken in 2006. The Master Plan was	Outcomes: <ul style="list-style-type: none"> <li>• Ground Transport Interchange now open.</li> <li>• 3<sup>rd</sup> rail platform opened in December 2008 - rail modal share has increased from 7% to 8%</li> <li>• Work has been undertaken by the airport with train operators to adjust rail timetable to match air travel movements</li> <li>• Introduced new direct train service to Glasgow and Edinburgh</li> <li>• £220K was invested in bus services in 2008 to support off peak and weekend</li> </ul>

GM LTP AQ REF	Action plan measure / target	Original timescale for completion	Progress with measure	Outcome to date
	third rail platform		<p>published in 2007 along with 4 supporting policy documents: Environment Plan, Ground Transport Plan, Community Plan and Land Use Plan. The Environment Plan makes a commitment for Manchester Airport to be carbon neutral for energy use and vehicle fuel use by 2015.</p> <p>The third rail platform opened on time in December 2008.</p>	<p>travel to encourage employee use of public transport.</p> <ul style="list-style-type: none"> <li>• Implemented forecourt management plan to direct private car and taxi pick up into the short stay car parks to cut down on congestion.</li> </ul> <p>2008 monitoring results:</p> <ul style="list-style-type: none"> <li>• The vehicle trip per air passenger ratio 1.32 at end 2008</li> <li>• 9% local bus and 4% rail use by staff walk &amp; cycle 4% at end 2007</li> <li>• Car usage was down to 80%, drive alone 70% at end 2007</li> </ul>
E4	Low emission taxi scheme by implementing age limits on vehicles through the Council's Licensing Unit.	<p>To introduce a scheme to lower emissions from taxis by the end of 2007.</p> <p>Report produced in August 2005 on behalf of the GM Authorities and Warrington on the potential effectiveness of introducing an age limit vehicle licensing policy on controlling exhaust emissions from taxis.</p> <p>A report was also produced by the City Council in June 2007 'Hackney carriage fares increase and age policy' that went to the licensing appeals committee for</p>	<p>Implementation of a 12-year maximum age limit policy on all hackney carriages, and 7-year age limit on all private hire vehicles.</p> <p>The policy was updated in February 2009 to close a loophole of vehicle proprietors purchasing Euro 3 compliant vehicles and then replacing the engine with one that was not Euro 3 compliant.</p>	<p>Hackney carriages: With effect from 1st January 2008 no hackney carriage vehicle license will be issued or renewed for a vehicle:</p> <ol style="list-style-type: none"> <li>1. more than 12 years since the date of its first registration in this or any other country.</li> <li>2. more than 10 years since the date of its first registration in this or any other country, unless the vehicle has been manufactured to Euro 3 or higher specification or has fitted either a PCO/Energy Saving Trust approved emissions reduction scheme, installed in a garage approved by the Council, or a conversion approved by the Council to run on alternative fuels such that the vehicle meets Euro 3 emission standards, such approval not to be unreasonably withheld.</li> </ol>

GM LTP AQ REF	Action plan measure / target	Original timescale for completion	Progress with measure	Outcome to date
		agreement on a 12 year maximum age limit.		<p>With effect from 16 February 2009, any vehicle that has been manufactured with an engine that is Euro 3 or higher specification (manufactured after 1 January 2001) that has been replaced with an engine that is not Euro 3 compliant will be required to have an approved emission reduction kit fitted. Any reduction kit must be fitted by the next routine scheduled vehicle inspection.</p> <p>With effect from 16 February 2009, any vehicle which has been manufactured with an engine that is Euro 1 or Euro 2 specification (manufactured before 1 January 2001) which has been replaced with a re-conditioned engine, will not be required to have an approved emission reduction kit to achieve Euro 3 fitted until the vehicle has reached the age of 10 years since the date of its first registration in this or any other country.</p> <p>Private hire: With effect from 1st November 2006 the Council shall not renew the license of any vehicle if it is more than 7 years since the date of its first registration in this or any other country. This provision became fully implemented on 1st November 2007 so after this date there would be no private hire vehicle older than 7 years 11 months licensed by the Council.</p>

GM LTP AQ REF	Action plan measure / target	Original timescale for completion	Progress with measure	Outcome to date
				With effect from 16 February 2009, any vehicle that has been manufactured with a diesel engine that is Euro 3 or higher specification (manufactured after 1 January 2001) that has been fitted with a replacement engine will be required to have an approved emission reduction kit fitted. Any reduction kit must be fitted by the next routine scheduled vehicle inspection.
E3	Tree Planting:  Tree planting will help to ameliorate air quality issues	The project started in 1995 when feasibility work was carried out to encourage planting and establish more woodland in Manchester.	The Manchester Tree and Woodland Strategy was produced in July 2006.  The City Council aim to plant 3600 trees per annum and 1000 hedgerow species.  It is hoped that woodland management plans will be completed for all Manchester Woodland by 2010.	In 2008/9 highlights included: <ul style="list-style-type: none"> <li>• 5596 trees have been planted</li> <li>• 2000 Hedge trees planted</li> <li>• 7 Community orchard/fruit tree groves planted</li> <li>• Manchester has over 60 registered voluntary tree wardens</li> <li>• Manchester designated its 7<sup>th</sup> Local nature reserve at Stenner Woods and Millgate Fields</li> <li>• To raise awareness of the importance of trees, working with the BBC and Trees for Cities, Manchester hosted its first tree Party and Tree Athlon with over 3000 people attending.</li> <li>• The second phase of Manchester's Tree Audit has been completed. This is the most detailed appraisal of the extent of tree cover in the city ever undertaken. 15.2% of Manchester has tree cover. This is nearly double the national average of 8.2 %. A full report will be available in August 2009.</li> <li>•</li> </ul>

GM LTP AQ REF	Action plan measure / target	Original timescale for completion	Progress with measure	Outcome to date
A9	Improvement and upgrading of Emissions Inventory for Greater Manchester Area (EMIGMA) database to be used as a tool to inform the air quality action plan, target priority emission sources and quantify action plan emission reductions.	Development of best practice emissions database including CO <sub>2</sub> and energy use (electricity) by June 2007.  Annual updates of EMIGMA. Data for 2007 and 2008 is currently being collected to input into the database for dispersion modelling.	A bid has been submitted to Defra to support modelling work across Greater Manchester to enable comparison with the Air Quality objectives for NO <sub>2</sub> and PM <sub>10</sub> .  The Greater Manchester Transportation Unit (GMTU) has developed web-based access for industrial processes and large point source information.	EMIGMA 2005 with upgraded pollution information and emissions has been completed. Upgrades for improved source apportionment have been included in the database by the GMTU. The database now provides a measure of carbon dioxide including electricity consumption at point of use, to be used as a comparison with UK Kyoto targets. Collection of 2007 and 2008 emission inventory data is currently in progress.
E9	Sustainable Schools / Eco-Schools  The Government wants every school in England to be a sustainable school by 2020. The Department for Children, Schools and Families (DCSF) launched their Sustainable Schools Framework in 2006 when the Secretary of State for Education, the Rt Hon Alan Johnson	Target for all Manchester schools to be Sustainable Schools by 2010	<ul style="list-style-type: none"> <li>• Sustainable Schools Working Group set up with membership of lead councillors and departmental representatives.</li> <li>• Greater Manchester Sustainable Schools Event held.</li> <li>• Encourage schools to complete School Travel Plans (Travel and Traffic doorway – Sustainable Schools / Eco Schools Transport theme.)</li> <li>• Encourage schools to take part in Walk to</li> </ul>	142 schools and children's centres taking part in Eco-Schools (70% of Manchester Schools)  68 schools and children's centres have achieved Bronze award  32 schools and children's centres have achieved Silver award  5 schools have achieved the highest level of award – the Eco Schools Green Flag

GM LTP AQ REF	Action plan measure / target	Original timescale for completion	Progress with measure	Outcome to date
	<p>MP set out challenging long-term aspirations for schools to mainstream learning about sustainable development issues and sustainable practices into everyday school life. Eco-Schools is an international award programme that guides schools on their sustainable journey, providing a framework to help embed these principles into the heart of school life.</p>		<p>School Week</p> <ul style="list-style-type: none"> <li>• Tree planting with schools, awareness raising on benefits of trees to contribute to (Buildings and Grounds doorway – Sustainable Schools / Eco-Schools Biodiversity theme)</li> </ul>	

**Table 2. Manchester's Air Quality Actions - Energy Efficiency Measures**

<b>GM LTP AQ REF</b>	<b>Action plan measure / target</b>	<b>Original timescale for completion</b>	<b>Progress with measure</b>	<b>Outcome to date</b>
NTA4	<p>City Council 'Green' energy policy:</p> <p>The City Council is moving towards the use of electricity generated by renewable resources.</p>	<p>The switch to renewable electricity generation to take place by end of 2004.</p>	<p>Renewable energy contracts have been secured from certified renewable sources for 100% of all operational building electricity and 50% of all street lighting electricity. This gives an aggregated total in the region of 85% of the Council's electricity consumption coming from renewable sources. This has resulted in savings of 32,382 tonnes of CO<sub>2</sub>. An additional saving of 3,010 tonnes has been made by including the AGMA wide Traffic Signals electricity use into the City Council's existing un-metered supply contract that is 50% supplied by renewables.</p>	<p>Green energy tariffs have been renewed for council contracts and have been extended to include GMUTC Traffic Signals load. These un-metered contracts have been extended on a 50% Climate Change Levy (CCL) exempt renewable basis until Apr 2011.</p> <p>Other operational building electricity contracts have been extended on the basis of 100% CCL exempt renewables until October 2010.</p> <p>A new tariff for green energy is now offered to GM residents and a number of local businesses have switched to 100% renewable energy purchase.</p>
NTA2	<p>Home Energy Conservation Act (HECA) 1995 energy efficiency programme</p>	<p>In line with HECA 1995, the Housing Services Energy Team aims to improve the energy efficiency of housing stock across the city and collate information about improvements</p>	<p>Initiatives to promote energy efficiency:</p> <p>Delivering the Warm Homes Project that offers free and discounted</p>	<p>Since HECA reporting began in 1996, Manchester has reported the following:</p> <ul style="list-style-type: none"> <li>• a percentage improvement of 25.75% up to 31st March 2008</li> <li>• Total tonnes of CO<sub>2</sub> saved = 331,684</li> </ul>

GM LTP AQ REF	Action plan measure / target	Original timescale for completion	Progress with measure	Outcome to date
		<p>carried out by other housing providers. The target set by the Government was a 30% improvement by 2010.</p> <p>The HECA Act is due to be repealed by Parliament as the new suite of National Indicators has been introduced and 2 of these are intended to take the place of HECA, they are:</p> <ul style="list-style-type: none"> <li>• NI 186 Per capita CO<sub>2</sub> emissions in the Local Authority area (this includes domestic properties as well as the business and public sector and road transport)</li> <li>• NI 187 Tackling fuel poverty - the % of people receiving income based benefits living in homes with a low and a high energy efficiency rating</li> </ul>	<p>insulation measures to residents. In 2008/09, outputs were:</p> <ul style="list-style-type: none"> <li>• 3,060 properties were improved. The lifetime saving of CO<sub>2</sub> as a result of these measures being installed is 63,583 tonnes.</li> <li>• Match funding from Scottish Power was £650,579; funding from the Joint Health Unit was £100,000 and £26,000 POPPS funding</li> <li>• Attending energy saving events with partner organisations at various locations to promote saving energy and to publicise schemes that assist residents.</li> <li>• Providing an interest free loan to help residents pay for energy saving measures. In 2008/09, 103 new loans were set up;</li> </ul>	<p>(Figures for 2008/09 have yet to be compiled as the annual HECA Report is not due to be submitted until Autumn 2009 if it isn't repealed by Parliament before this date.)</p>



GM LTP AQ REF	Action plan measure / target	Original timescale for completion	Progress with measure	Outcome to date
			<p>this exceeded the target figure of 80 new loans per year.</p> <p>The Manchester ECO house, which is a working model demonstrating the improvements householders can make to increase energy efficiency, with information on grants and schemes that can help enable them to carry works out. So far 586 different organisations, agencies and individuals have visited the Eco house</p>	
NTA2	Energy Saving Trust Advice Centre (ESTac).	The ESTAC has been operational since April 2008. It is funded by the Energy Saving Trust and provides free and impartial information and advice to householders in Manchester and across the other 9 Greater Manchester Local Authorities. The advice service expanded into Energy Saving Trust Advice Centre from the old EEAC.	<p>The following services were delivered by the Energy Saving Trust advice centre to Manchester residents in 2008/09:</p> <ul style="list-style-type: none"> <li>• 4,000 households received advice in the form of a Home Energy Report</li> <li>• 5,700 households received telephone advice on a range of</li> </ul>	The assumed CO <sub>2</sub> savings as a result of this ESTac activity is 31,428 tonnes.

GM LTP AQ REF	Action plan measure / target	Original timescale for completion	Progress with measure	Outcome to date
			energy issues	
NTA3	<p>Environmental Business Pledge (now incorporating the City Centre Campaign):</p> <p>A joint venture between the City Council and Manchester businesses to develop and adopt best practice for green travel, fleet management, and energy efficiency to reduce emissions and improve air quality.</p>	<p>Pilot scheme of volunteer companies in 2004. Campaign rolled out to businesses across the city centre since mid 2005. The scheme is now incorporated into the Manchester City Council Environmental Business Pledge (EBP) to provide a 'one stop shop' for green action across businesses in the city, in partnership with the Council.</p>	<p>Within the past 12 months the Environmental Business Pledge has seen an overhaul that included a significant change to the criteria required to be attained by companies in order to achieve awards. Those companies already with awards have until March 31<sup>st</sup> 2010 to meet the new criteria in order to maintain their award level. It is anticipated these changes will bring a significant increase to the environmental benefits and economic benefits of the scheme. Coupled with this, changes have been made to monitoring with the transfer of the schemes database onto the FLARE system. This enables a more joined up approach from the council. At the point of transfer, the number of businesses registered on</p>	<p>Businesses of all sectors and sizes across the city are working on environmental improvements through structured criteria with a focus on measuring and reducing their Carbon Footprint by identifying and reducing areas of energy consumption throughout their business.</p>

GM LTP AQ REF	Action plan measure / target	Original timescale for completion	Progress with measure	Outcome to date
			the scheme currently trading has fallen slightly to 1213. Recorded achieved environmental savings are: CO <sub>2</sub> : 1914 tonnes, Water: 68,085 m <sup>3</sup> .	
NAT4	<p>Planning Policies:</p> <p>Development of policies and supplementary guidance on reducing environmental impact for new developments to reduce emissions.</p>	<p>Manchester City Council will continue to use Unitary Development Plan (UDP) policies and develop Core Strategy Local Development Framework policies to ensure air quality issues are considered in the planning process. The Core Strategy is timetabled to be adopted in September 2011.</p>	<p>Ongoing implementation of UDP policy E1.1 under the objective 'To Foster a Cleaner and Less Polluted City'.</p>	<p>The Council adopted the updated Guide to Development in Manchester Supplementary Planning Document and Planning Guidance in April 2007. The Environmental Standards section of the guide sets out design principles to assist developers in achieving energy efficiency targets for new development and measures to increase the use of renewable energy in new developments.</p>

**Table 3. Manchester’s Air Quality Actions – Regulatory and Enforcement Measures**

<b>GM LTP AQ REF</b>	<b>Action plan measure / target</b>	<b>Original timescale for completion</b>	<b>Progress with measure</b>	<b>Outcome to date</b>
NTA4	<p>Cleaner Vehicles Campaign:</p> <p>A campaign of voluntary and formal regulatory emissions testing of vehicles.</p> <p>Enforcement action taken against vehicles that fail to meet MOT test emission limits.</p> <p>Phase 2 of the CVC also includes educating drivers on fuel saving measures, leading to CO<sub>2</sub> reduction from transport.</p>	<p>Phase 1 of the campaign began in 2003 and was completed in March 2009.</p> <p>Phase 2 of the campaign commenced this year and is ongoing.</p>	<p>As part of Phase 1, 1387 vehicles were tested over 41 test days in 2008/9. A report was produced by GMTU in March 2009, which analysed the results of the roadside tests of vehicle emissions in Greater Manchester and Warrington from 2003-2009.</p> <p>No enforcement (fixed penalty notices) action was required during 2008-09.</p> <p>Phase 2 of the campaign continues to include a regulated approach with formal roadside emission test days, but also encompasses targeting fuel saving and CO<sub>2</sub> reduction through informal educational events for the general public and local authority staff.</p>	<p>Annual vehicle pass / fail results have shown an overall decline in vehicles failing the test over the 6 years that Phase 1 of the campaign has been running. Nevertheless, it has identified that there is still a significant number of vehicles on the road that have polluting potential, particularly diesel engines.</p> <p>The progress of Phase 2 of the campaign will be reviewed at the end of 2009.</p>

GM LTP AQ REF	Action plan measure / target	Original timescale for completion	Progress with measure	Outcome to date
NTA4	<p>Dirty Diesel Campaign:</p> <p>Encouraging the public to report smoky, grossly polluting vehicles.</p> <p>Targeted to reduce PM<sub>10</sub> but also reflecting badly tuned vehicles that have higher emissions of a range of pollutants.</p>	Implemented in 2004/5 and ongoing.	<p>Campaign began in November 2004 and is still publicised via the hotline and website: <a href="http://www.cleanervehicles.org.uk">www.cleanervehicles.org.uk</a></p> <p>Leaflets are also handed out to drivers during the Cleaner Vehicles Campaign days to increase awareness.</p>	<p>Smoky vehicles are reported to City Council's Licensing Unit or VOSA for commercial vehicle operators for enforcement action.</p> <p>Partnership working with GMPTe is also enabling us to deal with individual buses / companies that have excessive emissions.</p>
NTA4	<p>Idling Vehicles Campaign:</p> <p>Advice and enforcement (Fixed Penalty Notices) against drivers idling their vehicles unnecessarily.</p>	Enforcement procedures developed and agreed with Council. The Campaign was launched in May 2005 as part of '100 Days to a Clean Manchester' Campaign.	<p>Raising awareness of emissions and energy issues of idling vehicles.</p> <p>325 Fixed Penalty Notices (FPN's) have been served since the launch of the campaign up to end of March 2009 (130 FPN's in 2008/9).</p> <p>Partnership working with the Street Crime Wardens has also enabled pro-active work to focus on idling vehicles during periods when air quality is moderate or worse.</p>	<p>Initial indications showed a high level of compliance from commercial operators following publicity as part of the implementation of the scheme.</p> <p>In addition, Manchester City Council Street Management Team removed 1339 untaxed vehicles and 33 abandoned vehicles in the financial year 2008/09. This is a decrease of 33% and 60% respectively from last year's figures. The enforcement regime has not changed and so a greater level of compliance can be assumed.</p>

GM LTP AQ REF	Action plan measure / target	Original timescale for completion	Progress with measure	Outcome to date
NTA4	<p>Campaign against the Burning of Waste:</p> <p>Proactive policy to stop the burning of waste at domestic and commercial premises and resulting emissions to air.</p>	<p>Updated commercial and domestic bonfire leaflets were produced in February 2006 in partnership with the other 9 Greater Manchester Authorities. The leaflets are now used widely across Greater Manchester.</p>	<p>Domestic bonfire campaign operational throughout Greater Manchester.</p> <p>Commercial bonfire / trade waste leaflet produced and widely used in Manchester.</p>	<p>In 2008/09 there were 113 reported incidents of commercial bonfires and 133 domestic bonfires. There were also 5 reported incidents of commercial chimney smoke and 11 from domestic chimneys. In relation to this, 8 statutory notices were served in 2008/09.</p>
	<p>Campaign against the Burning of Waste: (continued)</p>		<p>The Council is taking a proactive approach to encourage proper disposal of waste to reduce instances of burning. Street Environment Managers aim to educate local businesses of their responsibilities regarding waste disposal by informal means, providing literature and ongoing advice.</p>	<p>In accordance with the sections 34 and 47 of the Environmental Protection Act 1990, since March 2007:</p> <ul style="list-style-type: none"> <li>• 345 notices have been issued to businesses requiring them to provide written evidence of how they dispose of their waste</li> <li>• 262 notices have been issued to businesses instructing them on how to correctly store and dispose of their waste</li> <li>• 45 businesses have been prosecuted receiving approximately £120k in fines and costs</li> </ul> <p>Fewer notices were issued in 2008/9 than 2007/8, indicating a greater level of compliance over time.</p>
NTA1	<p>Regulation of industrial processes under the Environmental Permitting Programme to control</p>	<p>Timescale and emission standards prescribed in, and enforced through legislation and procedures set out by DEFRA.</p>	<p>All targets for regulatory inspections in 2008/09 have been met.</p> <p>Although there have been some excursions</p>	<p>Minimising industrial pollution by ensuring emission limits are met.</p> <p>Manchester City Council have currently permitted:</p> <ul style="list-style-type: none"> <li>• 1 Part A2 industrial process</li> </ul>

GM LTP AQ REF	Action plan measure / target	Original timescale for completion	Progress with measure	Outcome to date
	emissions to air including particulates, heavy metals and hydrocarbons.		from compliance, these have been dealt with effectively with assistance from the process operators. No formal action has been necessary except for a single 'Information Notice' served upon a potential permitted process. All reduced fee activities were risk assessed as required.	<ul style="list-style-type: none"> <li>• 34 Part B industrial processes</li> <li>• 50 petrol filling stations</li> <li>• 24 dry cleaning premises</li> </ul> <p>A bid has been submitted to DEFRA to engage with regulated industrial process to develop phase 1 of the BS 8555:2003 environmental management system guidance, with the aim of raising awareness of their wider impact on air quality and begin to address changes in their operations that reduce emissions of key pollutants such as NO<sub>x</sub> and PM<sub>10</sub>.</p>
A8 and A9	Improvements to air quality information on Manchester City Council's website	<p>Staged approach of annual programme of updates and improvements to the Council's website and Manchester Green City website:  <a href="http://www.manchester.gov.uk/manchestergreencity">www.manchester.gov.uk/manchestergreencity</a></p> <p>Air quality work is also highlighted on several other websites such as  <a href="http://www.greatairmanchester.org.uk">www.greatairmanchester.org.uk</a>  and <a href="http://www.cleanervehicles.org.uk">www.cleanervehicles.org.uk</a></p>	Air quality sites have been updated with key reports and information. The focus for the future is on a more interactive site providing improved facilities and self-service for customers.	The Manchester City Council's website was updated in August 2007 to facilitate greater interactivity with customers and ease of use. Air quality work in Manchester, including both LAQM and action plan work, is now well documented on this site and will be further augmented subject to funding.

## Appendix A: New Local Developments

Manchester City Council Planning Department have provided a list of development schemes that have been given Planning Permission and were under construction in the financial year of 2008/9. Each scheme may have the potential to change traffic flows and therefore may have an impact on local air quality. The list has been divided into two sections: Schemes in the city centre and Schemes outside of the city centre.

### Schemes in the City Centre (1)

<b>Address / location of the scheme</b>	<b>Description of the scheme</b>	<b>Manchester City Council planning reference number</b>	<b>Date planning permission granted</b>
Chancery Place, Brown Street /Chancery Lane, City Centre	Development of a 15-storey office building with 3 levels of basement car parking and 360 sq m of uses at ground floor (Use Classes A1, A2, A3 and B1). Upper floors comprise 11,989 sq m office uses.	081104/2509	December 21 2006
Chester Road/Deansgate	Development of a mixed-use scheme comprising residential apartments, 6,867 sq m B1 space and a multi-deck car park, with apartments on the upper floors.	077114/4496	March 27 2007
Ducie Street/Store Street	Mixed-use scheme with a multi-storey tower and podium comprising a 220 bedroom hotel, fitness and conference facilities and 430 residential apartments; a medium rise element with 267 residential apartments and associated car parking; a public multi storey car park; A1, A2, A3, B1, D1 and D2 space totalling around 3,660 sq m; open spaces and a bridge link to Piccadilly railway station.	074143/221a	March 17 2005



## Schemes in the City Centre (2)

<b>Address / location of the scheme</b>	<b>Description of the scheme</b>	<b>Manchester City Council planning reference number</b>	<b>Date planning permission granted</b>
Queens Road, Cheetham Hill	Mixed use multi-phase development. Phase 1 comprises an employment park incorporating 17,130 sq m of B1c, B2 and B8 uses in 34 units and associated car parking. Subsequent phases cover B1c, B2 and B8 units with a maximum floorspace of 8,140 sq. m, a new Irish World Heritage Centre with associated shop, exhibition hall, function room, restaurant and outdoor leisure, a new 140 bed hotel with associated car parking a new A1 retail unit, use class A1, with a maximum floor area of 1161sq.m.	083788/42a/b/c	February 7 2008

## Schemes outside the City Centre

Address / location of the scheme	Description of the scheme	Manchester City Council planning reference number	Date planning permission granted
Rondin Close	W Howarth Metals have commenced work on the erection of two industrial buildings and associated site works to create an aluminium smelting operation and scrap metal dealership. Total floorspace involved is 3,866 sq m. Minor amendments to the scheme were approved in March 2009 under reference 088558.	082462/343	October 25 2007
Bury Old Road/Thomas Street, Cheetham	Redevelopment of Cheetham Hill District Centre to provide A1 retail (shops), Class A2 (offices), Class A3 (food and drink uses) Class B1, (offices) Class D1 (dentist), a memorial garden and associated parking, landscaping, recycling facilities and a public transport link. The scheme includes a 6,735 sq m Tesco store, together with up to A1/A2 units totalling 4,645 sq m. Office floorspace is set at 1,304 sq m.	072818/4310	December 8 2004
Pollard Street/Carruthers Street/Ashton Canal, Bradford	Development of a mixed-use scheme comprising 420 apartments, office space and retail space with associated car parking and landscaping following the demolition of the Carruthers Street Mill. Office floorspace for the scheme is set at 1,808 sq m and retail space at 587 sq m.	075171/3270	August 8 2006