

Chapter 8: Better Air Quality and Environment



Chapter 8: Better Air Quality and Environment

This chapter sets out the Greater Nottingham approach to tackling transport related environmental issues including the response to the Government's Shared Priority for achieving better air quality. It also includes how the authorities are addressing climate change and how environmental issues are being considered through the process of Strategic Environmental Assessment (SEA).

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8.1 Better Air Quality

This section sets out the Greater Nottingham response to addressing the Government's Shared Priority on Better Air Quality. It highlights the general issues concerning air quality and looks at the key areas of intervention and actions through which the air quality targets are to be reached.

8.1.1 Overview

The National Air Quality Strategy¹ sets health objectives for nine air pollutants and two for the protection of ecosystems. The objectives are the same or similar to mandatory values set in European Directives. Local authorities have a duty to review and assess local air quality against seven of the pollutants subject to the Strategy. Where it is found the objectives are unlikely to be met by the due date, they must declare Air Quality Management Areas (AQMAs) and prepare Actions Plans setting out proposals to tackle the problems.

One of the main sources of air pollution is road transport, particularly in urban areas. The majority of the AQMAs are primarily transport related and reducing road transport's contribution to emissions is therefore a key part of local authorities' responsibilities. This section constitutes the Air Quality Action Plan for the LTP area. It builds on local air quality review and assessment work, and the Nottinghamshire Air Quality Strategy².

The Nottinghamshire Air Quality Strategy identifies the need to reduce air pollution by encouraging alternative travel modes and promoting sustainable development through the Local Transport Plan and development plan processes. The Strategy is under review by the Nottinghamshire Environmental Protection Working Group and Nottinghamshire Air Quality Steering Group. The strategy is available from:

 www.nottinghamcity.gov.uk/airstrategy.doc

Detailed local air quality review and assessment work is undertaken by the City Council within its boundary and is the responsibility of the borough and district councils within the remainder of the Plan area. This work has identified possible breaches of air quality standards both within the City of Nottingham and within Broxtowe and Rushcliffe Boroughs. Within the remainder of the Plan area (Gedling Borough and part of Ashfield) air quality is expected to remain within national objectives but is subject to continued assessment and monitoring.

8.1.2 Nottingham Air Quality Issues

Within the City of Nottingham two traffic related AQMAs have been declared both being a result of predicted exceedences of the national objectives relating to nitrogen dioxide. The first of these is in the City Centre (see Figure 8.1) and second on the A52 Ring Road in the vicinity of the QMC (see Figure 8.2).

¹ 'The Air Quality (England) Regulations', 2000

² 'The Nottinghamshire Air Quality Strategy – A Framework for Action'.

Figure 8.1: City Centre AQMA



Figure 8.2: Ring Road (QMC) AQMA



The detailed reviews and assessments undertaken over the last five years relating to air quality within the City of Nottingham have been published and are available at:

➔ www.nottinghamcity.gov.uk/sitemap/environment/pollution/air_pollution

Initial modelling undertaken concluded that the air quality objectives would be met by the due dates mainly because of measures included in the existing LTP to manage traffic volumes and congestion. Preparation of specific Air Quality Action Plans was therefore not considered to be necessary. It was however considered necessary to continue with monitoring.

Table 8.1: City Baseline NO2 Air Quality Monitoring

Monitoring site	Annual mean nitrogen dioxide concentration (objective is 40 µgm ⁻³)
City Centre (Clinton Street, AURN)	35
City Centre (Carter Gate)	43
Ring Road (QMC)	42

For the City Centre AQMA the analysis of baseline monitoring data concludes that the annual mean objective of 40 µgm⁻³ for nitrogen dioxide is being met in some parts of the AQMA but not in other parts. The air quality objectives for all other pollutants were met.

Over the past twelve months the City Centre has undergone some substantial changes following the commencement of NET Line One services, construction of the Turning Point scheme and other developments. This has resulted in alterations to traffic movements and some disruption. This is likely to have contributed to temporary increases in nitrogen dioxide concentrations in parts of the area. The impact on air quality of the transport changes and developments can only be measured and more fully assessed following their completion. It has been concluded necessary to maintain the AQMA and continue the current level of monitoring within and adjacent to it.

For the Ring Road AQMA the analysis of baseline monitoring data again shows that the nitrogen dioxide objectives are being met in some parts of the AQMA but not in other parts. This is because although monitoring data from the continuous analyser located in this area showed that the nitrogen dioxide annual mean and one hour objectives are being achieved, as were the air quality objectives for all other pollutants, initial results from three diffusion tubes located elsewhere within the AQMA recorded average nitrogen dioxide concentrations greater than the annual mean objective level of $40 \mu\text{gm}^{-3}$.

It is not possible to come to any firm conclusions at this stage because this supplementary monitoring was only carried out for part of the year through a period when pollutant concentrations would be expected to be higher than average. It has been recommended therefore that the AQMA be maintained and continue the current level of monitoring within and adjacent to it.

Elsewhere within the City area the Detailed Air Quality Assessment in 2004 identified a further seven sites as potential 'hot spots' due to changes in traffic flow or road layout. Average nitrogen dioxide concentrations greater than $40 \mu\text{gm}^{-3}$ were measured at six of the seven locations, although again this monitoring was for part of the year when high pollutant concentrations were expected. Monitoring will therefore continue at these locations.

8.1.3 Broxtowe Air Quality Issues

Following the basic screening process, further screening of pollutants was carried out in areas which the basic review and assessment had suggested may be at risk of exceeding the air quality objectives. This was carried out in July 2003 and suggested that a third stage of review and assessment was required for nitrogen dioxide and particulates within the borough.

The third stage included a detailed review and assessment of current and future air quality to identify those areas at risk of exceeding an objective for a particular pollutant. Broxtowe Borough Council employed external consultants to undertake twelve months real-time monitoring for nitrogen dioxide and particulates following which a Detailed Review and Assessment of Air Quality for these two pollutants was published in May 2005.

This identified a likelihood of narrow exceedence of the standards for nitrogen dioxide at four locations along the M1 corridor where there are residents subject to exposure, and therefore recommended the declaration of appropriate AQMAs.

Consequently four AQMAs were declared on 1 February 2006. It is intended therefore that

the County Council will work with Broxtowe Borough Council to help in the development of their Air Quality Action Plan and it is anticipated that the strategies (particularly those related to encouraging alternatives to the car) detailed within this LTP will help shape the action plan.

The detailed reviews and assessments undertaken relating to air quality within Broxtowe have been published and are available at:

 www.broxtowe.gov.uk

8.1.4 Gedling Air Quality Issues

Gedling Borough Council's first two stage assessments concluded that there would be no exceedences within the Borough. DEFRA accepted the conclusions with the exception of nitrogen dioxide where it was identified that further work was needed to validate the predictions made.

In order to confirm the findings of the modelling and diffusion tube monitoring that was used in the earlier assessments, the Council installed a real time monitoring station for nitrogen dioxide to validate the findings.

A Consultation Report focusing on nitrogen dioxide in the Borough was produced to meet the concerns of DEFRA. Whilst the report concluded that there would be no exceedences of the nitrogen dioxide objectives, DEFRA asked for a more detailed assessment of the A60 Mansfield Road through Daybrook.

Accordingly the Council commissioned AEA Technology's National Environmental Technology Centre (NETCEN) to conduct detailed modelling of the area and report on their findings. The NETCEN report concluded that it was likely that the air quality objectives for nitrogen dioxide will be met at all locations assessed in Gedling where members of the public might be exposed for relevant periods.

The detailed reviews and assessments undertaken relating to air quality within Gedling have been published and are available at:

 www.gedling.gov.uk

8.1.5 Rushcliffe Air Quality Issues

Rushcliffe Borough Council completed its first review and assessment of air quality in December 2000. It was concluded that all air quality objectives were likely to be met and there was no need to declare any AQMAs which was accepted by DEFRA.

On completion of the Borough's updating and screening assessment in May 2003 it was concluded that a detailed assessment for nitrogen dioxide in West Bridgford would be required due to potential exceedences of the air quality objective in the vicinity of busy roads and junctions. Previous predictions made in the first assessment also supported this action as changes in emissions factors meant that predictions made at the time were likely to have underestimated the predicted nitrogen dioxide concentrations.

A second round detailed review and assessment was completed in February 2005. This concluded that whilst the one hour objective for nitrogen dioxide would be met across the whole of West Bridgford and the annual mean across most of the area, exceedences of the latter were predicted adjacent to the approaches to the Trent and Lady Bay Bridges and on the A52 Ring Road (trunk road) from the Nottingham Knight roundabout to the Borough boundary. This resulted in the declaration of two traffic related AQMAs for nitrogen dioxide in September 2005. Maps showing the boundaries of the two AQMAs are shown below in Figures 8.3 and 8.4.

The County Council are now working with Rushcliffe Borough Council to develop an Air Quality Action Plan and targets will be developed as part of this plan, which is due to be completed by the end of December 2006. It is likely that the Action Plan will include many of the actions detailed within this second LTP, including the development of travel plans and bus priority routes. The development of the planned park and ride site at nearby Gamston will also help to alleviate congestion at the Trent and Lady Bay Bridge 'pinch points'.

At the time of preparation of this plan, further work is being carried out to assess the cost benefit analysis of various actions to determine which actions will be included in the Action Plan. It will be necessary to identify the specific measures to tackle the air quality problems with stakeholders by December 2006.

Table 8.2 shows the predicted 2005 annual average nitrogen dioxide concentrations based on the 2002 monitoring data for the relevant monitoring sites within the two identified AQMA areas.

Table 8.2: Rushcliffe Annual Average Nitrogen Dioxide Concentrations

Monitoring site	Predicted 2005(1) Annual mean nitrogen dioxide concentration (Objective is 40 $\mu\text{g}\text{m}^{-3}$)
Trent Bridge	48
Trent Bridge (Wilford Lane)	44
Trent Bridge (Lady Bay)	42
Ring Road (Botany Close)	43
Junctions	
Trent Bridge (Wilford Lane)	47
Trent Bridge (Radcliffe Road)	43
Ring Road (Nottingham Knight)	45
(1) Based on 2002 monitoring	

Figure 8.3: Rushcliffe AQMA 1

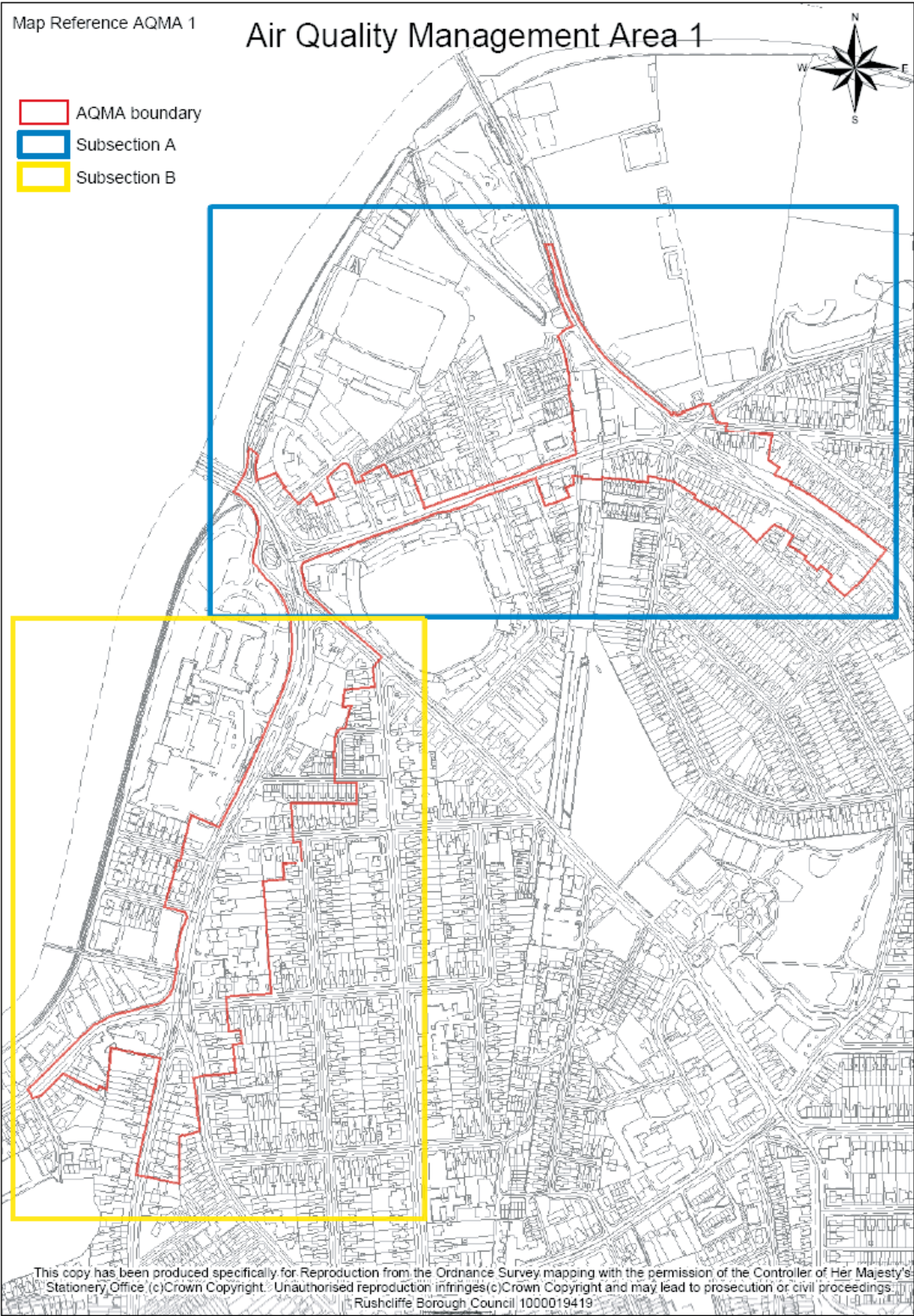
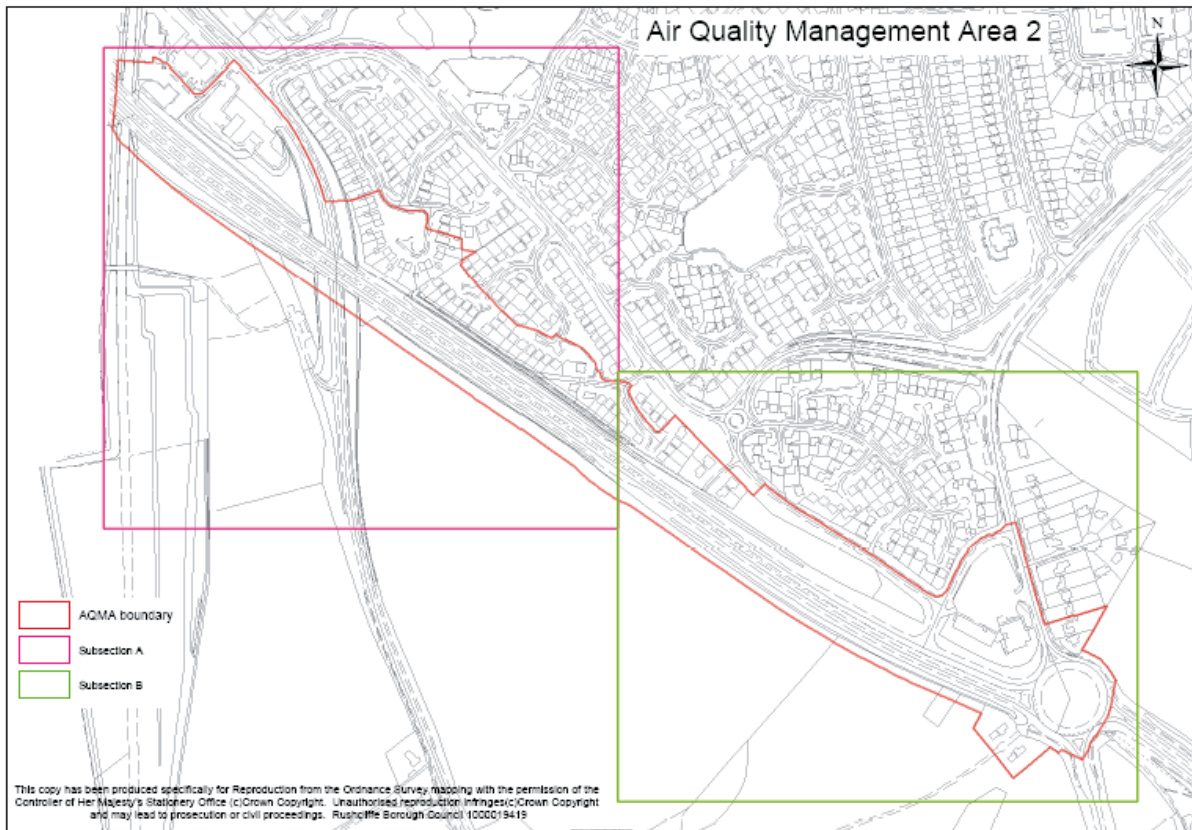


Figure 8.4: Rushcliffe AQMA 2

The detailed reviews and assessments undertaken relating to air quality within Rushcliffe have been published and are available at:

www.rushcliffe.gov.uk

8.1.6 Plan Area Interventions

Cleaner Vehicles

Due to technological improvements and stricter emission control standards new vehicles are generally much cleaner than the vehicles they replace. Over time the quantity of emissions for a given number of vehicles can therefore be expected to reduce.

Through working in partnership with transport operators the authorities will encourage the take up of cleaner vehicles. In terms of public transport the Plan area is already in the fortunate position of benefiting from the fact that the tram system is electrically powered and therefore emission free at point of use. Due to sustained high investment levels by the two main bus operators the average age of the bus fleet in Greater Nottingham is also already less than 6 years old. By the end of 2005/06, around 84% of the conurbation's bus fleet were low-emission Euro 2 or Euro 3 standard.

The Councils, through the TransAct local grants scheme for Travel Plans and Travel Plans advice to employers, are promoting the preference for cleaner vehicles wherever possible in the case of pool cars and fleet vehicles. The Councils also act as promoters and signposts for national advice and grants schemes. The designation of the City's central core area as a Clear Zone is also helping to encourage the take up of electrically powered and low emission local delivery vehicles.

Links with Congestion Reduction Strategy

The emission reduction benefits from cleaner vehicles will however only be realised if the growth in the total volume of traffic and the levels of congestion are contained. The air quality shared priority has close linkages, therefore, with the congestion shared priority. Consequently, introducing measures to tackle the problems of congestion will contribute towards achieving local air quality objectives, both directly and indirectly.

Measures and schemes to tackle congestion will greatly contribute to improving local air quality, as road traffic is identified to be a primary source of pollution within the Plan area. The strategy for tackling congestion focuses principally upon influencing travel demand, the provision of quality alternatives attractive to the motorist and better managing the flow of traffic within the Plan area. The key policies and measures to be introduced to modify transport supply and demand and form the basis of the Plan strategy to tackle congestion are set out in Chapter 5.

Elements identified within Chapter 6: Delivering Accessibility, will also contribute to reducing congestion and thus also better air quality. Of particular relevance are Bus Strategy interventions relating to the coverage and access to public transport services and the development of walking and cycling networks and Rights of Way Improvement Plans.

The specific measures contained within the plan to be delivered over the next five years that will contribute to achieving the Air Quality objectives across the Plan area as a whole are identified within Table 12.4 and Table 12.9 included in Chapter 12: Implementation Programme.

8.1.7 Air Quality Management Area Interventions

This section specifically assesses measures to be implemented within the designated Air Quality Management Areas.

Within Nottingham, Atmospheric Dispersion Modelling is used to model emissions from a variety of sources and to predict pollutant concentrations for future years. The model is used for predicting concentrations of pollutants for comparison with the Air Quality Objectives using data on road traffic volume, composition, flows and speeds, industrial and domestic sources, background pollutant data and meteorology.

Detailed modelling of the impact on air quality of LTP measures is required for the Updating and Screening Assessment needed by the end of April 2007. It has also been used to assess the impacts of the different transport measures contained within this plan.

City Centre AQMA

Within the City Centre AQMA, Carter Gate is the main residential location that has been identified where members of the public are likely to be regularly present and are likely to be exposed to exceedences of the nitrogen dioxide annual mean air quality objective.

Carter Gate's location between the A60's north and south bound carriageways means that it is significantly affected because of both traffic volumes and by emissions from road traffic for the vast majority of wind directions/meteorological conditions.

It is recognised that the A60 is a significant north/south arterial route through Nottingham. However its configuration around Carter Gate is contributing significantly to the current measured exceedences of the air quality objective there.

The location falls within the Eastside Regeneration Zone, as identified in Chapter 9: Regeneration and Neighbourhood Renewal, which is an area identified for significant office, residential and other commercial redevelopment over the next 10-15 years. A number of large-scale developments are already under construction. Significant alterations to traffic routing are being developed as a part of a supporting Eastside Transport Strategy along with complementary demand management, bus, pedestrian and cycle measures which are also proposed. The potential impact on air quality will be an important contributor to the development of the scheme proposals.

Other significant developments in the City Centre likely to impact on the area include:

- Trinity Square redevelopment (retail, leisure and residential),
- Broad Marsh expansion (retail, transport interchange),
- Former Hicking Pentecost, Queens Road (residential),
- Former Boots H Block, Station Street (hotel, office & residential),
- Nottingham Station Masterplan (transport, office & retail), and
- Meadows Gateway (office & retail).

Table 8.3 sets out potential measures which could contribute to tackling the identified air quality problem within the City Centre AQMA.

Table 8.3: City Centre AQMA Summary of Potential Measures

Measure	Description	Lead Organisation	Air Quality Impact	Timescale	Cost	Non Air Quality Impact	Rank
A60 two-way traffic route	Huntingdon St/ Lower Parliament St to become strategic two-way route	City Council	High	Medium	££££	Development of North - South legible strategic traffic route. Allows central core area to expand eastwards	1
Two-way bus priority route	Cranbrook St/ Bellar Gate bus priority route and local access.	City Council	Medium	Medium	£££	Supports improved public transport accessibility and reliability	2
Primary Pedestrian Routes	Key junctions reconfigured to increase pedestrian priority and quality of routes upgraded.	City Council	Low	Short / Medium	££	Promotes walking, health and improved safety. Helps establish a framework for development	4=
Cycle links	Junction facilities and routes through redevelopment areas	City Council/ developers	Low	Medium	££	Promotes cycling, health and improved safety	4=
Travel Plans	Travel Plans required for major development proposals	Developers	Low	Short / Medium	£	Encourages modal change	4=
Station Masterplan	Rail capacity improvements and transport interchange	Rail industry partners/ City/ County Councils	Low	Medium/ Long	££££	Encourages modal change, will reduce congestion and support economic development	4=
Park and Ride	New site at Gamston	County Council	Low	Short	££££	Reduces congestion through less vehicle movements to the City Centre	4=

Measure	Description	Lead Organisation	Air Quality Impact	Timescale	Cost	Non Air Quality Impact	Rank
NET Phase 2	Network extensions to Clifton and Chilwell via Beeston	NET promoters	Low	Medium	££££	Encourages modal change, will reduce congestion & support economic development	4=
NET Future Phases	Other network extensions including Gedling/ West Bridgford	NET promoters	Low	Long	££££	Encourages modal change, will reduce congestion and support economic development	4=
A52 Ring Road upgrading	Upgrading of Ring Road Radcliffe to Clifton Bridge as recommended in the A52 MMS	Highways Agency	Medium	Long	££££	Reduced congestion by increasing capacity of alternative cross-city route around the south of the conurbation	3
New River Crossing	New Trent road crossing at Radcliffe	County Council	Medium	Long	££££	Reduced congestion through provision of an alternative route for cross-city traffic movements to the east of the conurbation	5
<p>Timescale: Long = 5-10 years, Medium = 2 to 5 years, Short = Less than 5 years Cost: ££££ > £1 million, £££ = £500k - £1 million, ££ = £100k - £500k, £ = < £100k Air Quality Impact: High = >2 μgm^{-3}, Medium = 1 - 2 μgm^{-3}, Low = < 1 μgm^{-3} Rank: 1 = highest</p>							

A52 Ring Road (QMC) AQMA

The A52 Ring Road is the key orbital route taking traffic around the western and southern quadrants of the City and provides an alternative route for through traffic that would otherwise have to cross the City Centre. The section of the Ring Road running through the AQMA is trunk road and thus the responsibility of the Highways Agency. To the north of the AQMA the Ring Road becomes the A6514 and responsibility for this section was handed over to the City Council through the national detrunking process in January 2006. The AQMA is crossed by two main east-west radial routes (the A6200/A52 and the A6005) which both intersect with the ring road via grade-separated junctions.

Major development proposals likely to impact on the AQMA are:

- QMC expansion proposals (health facilities), and
- University related expansion proposals (education & commercial).

The following table sets out potential measures which could contribute to tackling the identified air quality problem associated with the Ring Road AQMA. The proposed measures are subject to consultation, which as the A52 is a trunk road will include the Highways Agency.

Broxtowe and Rushcliffe AQMAs

As the Broxtowe AQMAs have only very recently been declared, the identification of potential remedial measures is yet to take place.

At the time of preparation of this plan further work is being carried out to assess the cost benefit analysis of various actions to determine which actions will be included in the Rushcliffe Action Plan. The measures identified for addressing the Ring Road (Nottingham Knight) AQMA will also be subject to consultation with the Highways Agency, as the relevant section of the A52 is a trunk road.

Future Monitoring

Air quality monitoring data is reported on a periodic basis (typically annually) to encompass seasonal variations in meteorological conditions. The information is then used to inform annual Local Air Quality Monitoring reports to DEFRA and is made available on the relevant authority's web site.

Consultation with stakeholders will be undertaken following approval of the reports by DEFRA where further action with respect to declaration or revocation of an AQMA is required. The data covers calendar years and relevant data will also be reported in LTP2 Annual Progress Reports.

The timetable for reporting future air quality reviews and assessments is set out in Table 8.5.

Table 8.4: Ring Road (QMC) AQMA Summary of Potential Measures

Measure	Description	Lead Organisation	Air Quality Impact	Timescale	Cost	Non Air Quality Impact	Rank
NET Phase 2	Network extensions to Clifton and Chilwell via Beeston (Including Park and Ride)	NET promoters	Medium	Medium	££££	Encourages modal change, will reduce congestion and support economic development	1
Ring Road Major	Junction capacity improvements, bus stop/small scale interchange facilities, cycle and footway upgrading, parking provision for residents	City Council	Medium	Medium	££££	Will reduce congestion, encourage modal change and improve safety	2=
Medi-Link Ring Road service	High frequency Ring Road orbital bus service	City Council/ bus operators / Hospitals	Medium	Medium	£££	Improves accessibility and encourages modal change.	2=
QMC interchange	Development of bus interchange and in the future tram within hospital site	City Council/ NHS Trust	Low	Medium / Long	£££	Supports public transport integration	2=
Bus priority	Introduction of bus lanes through roadspace reallocation and other bus priority measures on A6200/A52 and A6005 corridors	City Council/ County Council / Highways Agency	Low	Medium	££	Will support modal change but may have adverse congestion impacts	4
Cycle links	Cycle network development	City Council	Low	Medium	££	Promotes cycling, health and improved safety	3=
Travel Plans	Updating of hospital and University plans	NHS trust/ University	Low	Short	£	Encourages modal change	3=
<p>Timescale: Long = 5-10 years, Medium = 2 to 5 years, Short = Less than 5 years Cost: ££££ > £1 million, £££ = £500k - £1 million, ££ = £100k - £500k, £ = < £100k Air Quality Impact: High = >2 μgm^{-3}, Medium = 1 - 2 μgm^{-3}, Low = < 1 μgm^{-3} Rank: 1 = highest</p>							

Table 8.5: Timetable for Air Quality Reviews

Report	When required	Which authorities
Updating and Screening Assessment (USA)	End of April 2006	All authorities
Detailed Assessment (DA) or Progress Report	End of April 2007	DA if identified in 2006 USA report
Progress Report	End of April 2008	All authorities
Updating and Screening Assessment (USA)	End of April 2009	All authorities
Detailed Assessment (DA) or Progress Report	End of April 2010	DA if identified in 2009 USA report

8.2 Climate Change

Climate change is one of the most important issues facing the world today, and reducing emissions of greenhouse gases is a global challenge for every developed country. Over the coming decades the need to tackle climate change is likely to become even more urgent. The Government, in the 2003 Energy White Paper, has adopted a UK target of achieving a 20% reduction in carbon dioxide emissions by 2010 from 1990 levels, and a longer term goal of reducing emissions by 60% by 2050.

Road transport is a major and growing contributor to UK carbon dioxide emissions, making up around one quarter of total emissions. Nitrogen dioxide, which also results from vehicle use, is another potent greenhouse gas. To reduce these emissions to levels sufficient to meet the stated national targets a combination of making vehicles more fuel efficient, development of alternative fuel technology and reducing congestion to reduce overall traffic volumes will all be required.

The authorities will contribute to achieving the target through the policies and strategies contained in this LTP. The measures set out to tackle congestion (see Chapter 5), Bus Strategy elements, walking, cycling and Rights of Way measures that reduce car use along with complementary education and awareness measures through the Big Wheel will all contribute to reducing road traffic and consequently reducing carbon dioxide emissions within the Plan area.

In addition, both authorities participate in the Local Authority Carbon Management Programme, run by the Carbon Trust. The programme requires the Councils to set meaningful targets for carbon dioxide emission reduction from both internal activities, plus those where it can influence emissions from the wider community. This also contributes to meeting obligations under the Nottingham Declaration on Climate Change ³.

³ Nottingham Declaration on Climate Change, Revised in 2005

8.3 Strategic Environmental Assessment

It is now a legal requirement for Local Authorities to undertake a Strategic Environmental Assessment (SEA) of a wide range of plans and programmes, including LTPs.

The SEA of LTP2 has been carried out in accordance with DEFRA and DfT guidance, which integrates the SEA with the New Approach To Appraisal (NATA) framework. Local air quality, climatic factors and other environmental impacts of the Plan's measures are all considered and appraised in the SEA.

The SEA is a process for appraising the environmental impacts of the Plan and the resulting Environmental Report must be taken into consideration before the Plan is approved. A Scoping Report was produced for consultation and approval by key statutory consultees and the Government Office, alongside the provisional LTP2 in July 2005. The resulting comments were taken into consideration when producing the Consultative Draft Environmental Report, which with the provisional LTP2 was the subject of public consultation for 6 weeks in October 2005. Opinions expressed by consultees have been taken into account in the Final Environmental Report.

The monitoring framework and the mechanisms to trigger the proposed mitigation measures, form part of the recommendations to ensure the conclusions of the Report are an integral part of the LTP process and include:

- Details of relevant International, European or member state environmental protection objectives and how these will be taken into account in LTP2,
- Baseline data describing the relevant aspect of the current state of the environment, and an analysis of the problems and opportunities offered to improve the environment,
- SEA objectives and indicators,
- Identification of strategic alternatives and the potential significant effects of the alternative strategies of the LTP2, and
- A detailed assessment of the significant environmental impacts arising from the measures and schemes of the selected strategic option, for each SEA objective.

The SEA assessment of the chosen strategic option concludes that, overall, the Plan would have a significant positive impact on the environment in the Plan area. For example:

- In particular the LTP may help achieve targets to locate new development on brownfield sites by improving access. This will contribute to cleaning contaminated land, and bringing derelict land back into use,
- Air quality problems are addressed where these are linked to vehicles emissions,
- The Plan will contribute to stemming the increase in carbon dioxide emissions,
- Targets contained in the LTP and indicators in the accompanying walking and cycling strategies reflect the desire to increase walking and cycling as a means of improving health, improving accessibility and contributing to the vitality of areas,
- Through the actions set out within the Accessibility Strategy, the LTP will improve accessibility within Greater Nottingham amongst disadvantaged groups,
- Community severance will be reduced through the installation and upgrading of road crossing points and closure of subways,

- Upgrading the quality of the public realm and improving the quality of building settings,
- Exploiting opportunities to enhance landscape character and quality, and
- Improving community safety and reducing fear of crime through the Respect for Transport initiative.

As set out in DfT guidance and the SEA Directive 4, the final Environmental Report includes an Environmental Statement stating how the SEA findings and resulting opinions expressed during the consultation process have been taken into account during the preparation of the evolving Plan.

An electronic version of the full SEA Environmental Report is available on the City and County Council websites:

 www.nottinghamcity.gov.uk

 www.nottinghamshire.gov.uk

8.4 Landscape and Biodiversity

As a specific topic within the SEA the impact of Plan measures on landscape and biodiversity have been assessed. Within Greater Nottingham the impact of the LTP on landscape was assessed to be low but differentiated between urban and rural areas. In urban areas there are likely to be positive benefits associated with neighbourhood renewal and regeneration schemes. In rural areas the impact of safety schemes, cycleways and other measures may increase suburbanisation of the countryside. It is proposed to mitigate these impacts through careful design. This is particularly important within conservation areas.

Evidence suggests that negative trends in biodiversity are of concern within the Plan area. Most of the decline relates to agricultural practice, physical development and lack of sensitive land management although transport projects have also contributed to this decline. Transport projects can contribute to addressing the decline through management of highway verges, watercourses and trees, provision for wildlife corridors and in the implementation of new landscaped areas.