



## Air Quality Action Plan

### Broad Street/Military Road Air Quality Management Area



August 2009

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## **EXECUTIVE SUMMARY**

This Air Quality Action Plan is the culmination of the second round of local air quality review and assessment for Canterbury City Council (CCC). The process of Local Air Quality Management (LAQM) review and assessment has been set down in Part IV of the Environment Act 1995, which forms part of the Government's response to European Directives on Air Quality to which the UK Air Quality Strategy responds.

Between 1998 and 2002, Canterbury City Council undertook its first round of review and assessment of air quality. The first round assessments concluded that UK Air Quality Objectives would be achieved for all pollutants and no further action was required. It was therefore deemed unnecessary to declare an Air Quality Management Area (AQMA) in Canterbury at that time.

The first phase of the second round of review and assessment, the Updating and Screening Assessment (USA), was completed in May 2003 and this provided an update with respect to air quality issues within Canterbury. The USA concluded that there were no exceedences of the Air Quality Objectives identified within the local authority area. The Annual Progress Report (APR) for 2004 considered monitoring data for 2003, which showed significant increases in monitored results due to unusually stable meteorological conditions. The conclusions of the APR were that the annual mean nitrogen dioxide objective might not be met at two pollution hotspots: Broad Street and Sturry Road. A Detailed Assessment was undertaken for these locations in 2005 with the conclusion that there were predicted exceedences of the annual mean NO<sub>2</sub> Objective of 40µg/m<sup>3</sup> at relevant receptor locations along the A28 Broad Street and Military Road in Canterbury. The Council declared an Air Quality Management Area (AQMA) in April 2006.

The first phase of the third round of review and assessment, the USA, was completed in July 2006. This concluded that there were no exceedences of the Air Quality Objectives identified within the local authority area outside the AQMA. The Annual Progress Report (APR) for 2007 considered monitoring data for 2006. The conclusions of the APR were that the annual mean nitrogen dioxide objective might not be met at two pollution hotspots where new monitoring sites have been installed: North Lane and Rheims Way. A Detailed Assessment of air quality is currently being undertaken at these two locations.

The A28 through Canterbury City centre is heavily congested in the morning and evening peak periods and maintains above average hourly traffic flows throughout the day. The A28 is an important strategic link in the city's road network, and will remain so for the foreseeable future. Achieving the necessary reductions in traffic on this route to achieve the NO<sub>2</sub> annual mean objective/EU Limit value by 2010 is therefore considered challenging. The Further Assessment indicates that in 2010, without local intervention, exceedences are still likely to occur along the A28 Broad Street.

In compiling this Action Plan, Government guidance LAQM.PG (03), LAQM.PG (09) and guidance from Environmental Protection UK has been referred to, alongside guidance provided by the Department for Environment, Food and Rural Affairs through its Air Quality Action Plan Help Desk.

The aim of this Action Plan is to identify how CCC will use its existing powers and work together with other organisations in pursuit of the annual mean Air Quality Objective for nitrogen dioxide. Measures are proposed to improve air quality both within the AQMA and throughout the district as a whole.

Kent County Council (KCC) is responsible for the traffic management along Broad Street and Military Road and plans and implements local transport improvements to reduce road traffic emissions through its Local Transport Plan (LTP). Therefore, the direct actions proposed in this Plan are integrated with those in the LTP for Kent 2006-11 and CCC and KCC will work together with other relevant stakeholders to improve air quality within the AQMA and throughout the district.

The direct measures proposed for the Broad Street/Military Road AQMA include:

1. CCC will work in partnership with KCC and freight operators to implement the Freight Quality Partnership Action Plan
2. CCC will work in partnership with KCC to implement traffic management improvements in the city centre, particularly within the Broad Street/Military Road AQMA
3. CCC will work in partnership with the Highways Agency and KCC to deliver the new A2 Slip Roads Schemes
4. CCC will continue to work with partners to implement measures within the Canterbury Parking Strategy, including enhancement of Park and Ride
5. CCC will work in partnership with KCC to implement the Canterbury Bus Strategy and support the Quality Bus Partnership with Stagecoach East Kent in Canterbury
6. CCC will work in partnership with KCC to continue with the Kent Freedom Pass scheme in Canterbury
7. CCC will investigate the potential for Roadside Emissions Testing in Canterbury, in particular within the Broad Street/Military Road AQMA
8. CCC will request S106 contributions for developments likely to have a direct impact on the air quality in the AQMA
9. CCC will investigate the potential for use of NO<sub>x</sub> reducing paving and paints within the AQMA
10. CCC will consider investing in and making more use of LPG or electric cars and vehicles
11. CCC will work in partnership with KCC to investigate a route for a new A28/A257 link road.

The general measures to improve air quality across the whole District include:

1. CCC will work in partnership with KCC to increase uptake and implementation of School and Workplace Travel Plans, particularly where likely to impact on the AQMA
2. CCC will continue to develop and implement the Council Travel Plan
3. CCC will continue to work with KCC and other partners to deliver improvements in emissions standards, where practicable
4. CCC will continue to work with partners to actively support and promote the Kent-wide car share scheme, to encourage greater uptake
5. CCC will explore, with KCC and other partners, the potential for operation of Car Club Schemes in Canterbury
6. CCC will work in partnership with KCC to implement improvements to the Canterbury local cycle network
7. All relevant CCC Departments including Environmental Protection, Planning Policy and Development Control will continue working closely together, to ensure that air quality is taken into account in the planning process when considering future land uses particularly with sites in or close to AQMAs or in areas marginally below air quality objectives
8. CCC will develop through the Kent & Medway Air Quality Partnership a planning guidance document to assist with air quality assessments of development proposals

9. CCC will continue their commitment to undertake local air quality monitoring within the district to ensure a high standard of data is achieved to assess against air quality objectives
10. CCC will make details of the Action Plan measures and annual progress reports available on its website to ensure accessibility to the consultation and implementation process
11. CCC will investigate the potential for setting up an airTEXT service in Canterbury
12. CCC will continue to support and be a member of the Kent and Medway Air Quality Partnership and Monitoring Network Group. Canterbury will also work together with the Kent & Medway Air Quality Partnership on air quality studies within the county to raise the profile of air quality in Canterbury and county-wide
13. CCC will continue to proactively enforce industrial pollution control and nuisance legislation to minimise pollutant emissions from these sources in the Canterbury area
14. CCC will continue to work together with the Kent Energy Centre and other partners to promote and implement energy efficiency measures in Canterbury

## **1 INTRODUCTION AND AIMS OF THE ACTION PLAN**

### **1.1 Project Background**

CCC has drawn up, with the assistance of Bureau Veritas, a Local Air Quality Management Action Plan for the Broad Street/Military Road AQMA within Canterbury City centre, identified through the second round of review and assessment of air quality. The Action Plan is required to be undertaken as part of the local authority's statutory duties as defined within Part IV of the Environment Act, 1995.

Bureau Veritas has undertaken previous review and assessment reports for CCC, which includes the Further Assessment (2007).

### **1.2 Legislative Background**

The latest Air Quality Strategy (AQS) released in July 2007 provides the over-arching strategic framework for air quality management in the UK and contains national air quality standards and objectives established by the Government to protect human health. The objectives for eight pollutants (benzene, 1,3-butadiene, carbon monoxide, lead, nitrogen dioxide, sulphur dioxide and particulates - PM<sub>10</sub> and PM<sub>2.5</sub>) have been prescribed within the Air Quality Strategy based on The Air Quality Standards (England) Regulations 2007. The Objectives set out in the AQS for the protection of human health are presented in Table 1.1.

The Air Quality Standards (England) Regulations 2007 came into force on 15<sup>th</sup> February 2007. This brings together in one statutory instrument the Governments requirements to fulfil separate EU Daughter Directives through a single consolidated statutory instrument, which is fully aligned with proposed new EU Air Quality Directive (CAFE – Clean Air For Europe). The Regulations 2007 include objectives for Arsenic, Cadmium and Nickel. These are required to be assessed by member states in response to the proposed new EU Air Quality Daughter Directive (CAFE), however, the AQS does not contain objectives for these pollutants and local authorities are not currently required to assess against these. The Environment Act 1995 gives local authorities duties and responsibilities that are designed to secure improvements in air quality, particularly at the local level. Part IV of the Act requires each local authority within the UK to periodically review and assess air quality in its area, and determine whether the prescribed objectives are likely to be achieved by the relevant future year.

The AQS objectives take into account EU Directives that set limit values which member states are legally required to achieve by their target dates. The UK's AQS objectives are equal to, or more stringent than, the EU limit values (no Member State may promulgate air quality standards that are weaker than the EU Limit Values).

The locations where the AQS objectives apply are defined in the AQS as locations outside buildings or other natural or manufactured structures above or below ground where members of the public are regularly present and might reasonably be expected to be exposed to pollutant concentrations over the relevant averaging period of the AQS objective. Typically these include residential properties and schools/care homes for longer period (i.e. annual mean) pollutant objectives and high streets for short-term (i.e. 1-hour) pollutant objectives.

**Table 1: UK Air Quality Standards and Objectives**

<b>Pollutant</b>	<b>Objective</b>	<b>Concentration measured as</b>	<b>Date to be achieved by and maintained thereafter</b>
Benzene	16.25 µg/m <sup>3</sup>	running annual mean	31st December 2003
	5 µg/m <sup>3</sup>	running annual mean	1 <sup>st</sup> January 2010
1,3-Butadiene	2.25 µg/m <sup>3</sup>	running annual mean	31st December 2003
Carbon monoxide	10 mg/m <sup>3</sup>	maximum daily running 8 hour mean	31st December 2003
Lead	0.5 µg/m <sup>3</sup>	annual mean	31st December 2004
	0.25 µg/m <sup>3</sup>	annual mean	31st December 2008
Nitrogen dioxide	200 µg/m <sup>3</sup> , not to be exceeded more than 18 times a year	hourly mean	1 <sup>st</sup> January 2010
	40 µg/m <sup>3</sup>	annual mean	1 <sup>st</sup> January 2010
Particles (PM <sub>10</sub> )	50 µg/m <sup>3</sup> , not to be exceeded more than 35 times a year	24 hour mean	31st December 2004
	40 µg/m <sup>3</sup>	annual mean	31st December 2004
Particles (PM <sub>2.5</sub> )	25 µg/m <sup>3</sup>	Annual mean	2020
	Target of 15% reduction in concentrations at urban background <sup>1</sup>	annual mean	In urban areas between 2010 and 2020
Sulphur dioxide	266 µg/m <sup>3</sup> , not to be exceeded more than 35 times a year	15 minute mean	31st December 2005
	350 µg/m <sup>3</sup> , not to be exceeded more than 24 times a year	hourly mean	31st December 2004
	125 µg/m <sup>3</sup> , not to be exceeded more than 3 times a year	24 hour mean	31st December 2004

<sup>1</sup> 25 µg/m<sup>3</sup> is a concentration cap combined with 15% reduction

### **1.3 Scope of the Action Plan**

The purpose of the Action Plan is to provide the means through which a local authority through joint working with relevant stakeholders, such as KCC and other relevant organisations, can deliver viable measures that will work towards achieving the Air Quality Objectives within an AQMA. The aim is also to encourage active participation in the achievement of action plan measures by consulting the local community and raising awareness of air pollution issues.

Local authorities are required to prepare a written Action Plan for an AQMA, setting out the action plan measures they intend to take forward and the potential costs and benefits of these measures. The Further Assessment provides the technical backup for the measures to be included within the Action Plan. The Action Plan should refer to the findings of the Further Assessment in terms of source apportionment (i.e. where emissions are coming from) so that action plan measures may be targeted appropriately.

The Action Plan should contain simple estimates of the costs and benefits and timescales for implementing the proposed action plan measures, so that measures can be prioritised for implementation and subsequently monitored. The Action Plan should also indicate how far the measures will work towards achieving the Objectives.

### **1.4 Reporting of Action Plan**

The Broad Street/Military Road AQMA has been declared due to road traffic emissions of nitrogen oxides.

KCC is the relevant transport authority for Broad Street and Military Road (AQMA) and will work jointly with CCC on transport and other measures within the district. County Councils have a duty under section 86 (3) of the Environment Act 1995 to put forward proposed actions which they themselves can implement to work towards meeting the air quality objectives in AQMAs. KCC should include these measures within the air quality section of the Local Transport Plan (LTP).

The Action Plan reflects the relevant organisational responsibilities for actions within the AQMA and proposed measures (Section 6) are reported as:

- Direct actions proposed for the Broad Street/Military Road AQMA (responsibility of KCC, in partnership with CCC);
- Indirect district-wide measures to improve air quality throughout the Canterbury area, including the AQMA (responsibility of CCC and KCC).

## 2 OVERVIEW OF AIR QUALITY IN CANTERBURY

The main source of air pollution in the district is road traffic emissions from major roads, notably the A2, A28 and A290. An Air Quality Management Area (AQMA) was declared in April 2006 along the A28 Broad Street/Military Road in Canterbury City centre where exceedences of the annual mean Objective for nitrogen dioxide (NO<sub>2</sub>) were predicted. Other pollution sources, including commercial, industrial and domestic sources, also make a contribution to background pollution concentrations.

A summary of CCC's second round of review and assessment of air quality, which commenced in 2003, is shown in Table 3. The individual stages are summarised briefly with respect to outcome below:

- *Annual Progress Report*

The Annual Progress Report (APR) for 2004 considered monitoring data for 2003, which showed significant increases in monitored results due to unusually stable meteorological conditions. The conclusions of the APR were that the annual mean nitrogen dioxide objective might not be met at two pollution hotspots: Broad Street and Sturry Road. A Detailed Assessment was subsequently required.

- *Detailed Assessment*

The Detailed Assessment (2005) concluded that there were predicted exceedences of the annual mean NO<sub>2</sub> Objective of 40µg/m<sup>3</sup> at relevant receptor locations along Broad Street and Military Road in Canterbury City centre. The Council declared an Air Quality Management Area (AQMA) in April 2006.

- *Further Assessment*

The results of the source apportionment indicate that road traffic emissions are the dominant source of NO<sub>x</sub> concentrations in the AQMA (86%). The HDV class vehicles are contributing disproportionately to NO<sub>x</sub> concentrations in the AQMA area - contributing almost half of the NO<sub>x</sub> concentrations, but being only a small proportion (4.6%) of the vehicle fleet within the Broad Street AQMA.

**Table 2 Source apportionment of NO<sub>x</sub> concentrations at the worst case building façade within the Broad Street/Military Road AQMA**

Receptor	NO <sub>x</sub> concentrations 2006	%	µg/m <sup>3</sup>
92 Broad Street (x=615286, y=158025)	<b>Background</b>	13.7	27.4
	<b>Road traffic</b>	86.3	173.0
	<b>HDV*</b>	41.2	82.6
	<b>LDV*</b>	45.1	90.4

*\*As proportion of road traffic emissions contribution*

The maximum NO<sub>x</sub> reduction required within the Broad Street/Military Road AQMA at the façade is 109µg/m<sup>3</sup> (equivalent to a 54% improvement in NO<sub>x</sub>) and NO<sub>2</sub> reduction is 23.8µg/m<sup>3</sup> (equivalent to a 37% improvement in NO<sub>2</sub>) in 2006.

**Table 3: Summary of the second round review and assessment process for CCC**

Source	Annual Progress Report (2004)		Detailed Assessment (2005)	Further Assessment (2007)
Road Traffic	SO <sub>2</sub>		Exceedence of the annual mean NO <sub>2</sub> Objective resulted in declaration of the A28 Broad Street/Military Road AQMA in Canterbury City centre in April 2006, due to road traffic emissions.	Further assessment of NO <sub>2</sub> in the AQMA.  Support for continuance of the AQMA – Action Plan required.
	NO <sub>2</sub>	→		
	PM <sub>10</sub>			
	Carbon monoxide			
	Benzene			
	1,3 Butadiene			
	Lead			

By 2010 (the EU Limit target date), through the implementation of national policies, the NO<sub>x</sub>/NO<sub>2</sub> concentrations are predicted to reduce. In 2010, the maximum NO<sub>x</sub> reduction required within the Broad Street/Military Road AQMA at the façade is 70µg/m<sup>3</sup> (equivalent to a 44% improvement in NO<sub>x</sub>) and NO<sub>2</sub> reduction is 19.0µg/m<sup>3</sup> (equivalent to a 32% improvement in NO<sub>2</sub>).

Consequently, the formulation of an Action Plan should aim to reduce the levels of NO<sub>x</sub>/NO<sub>2</sub> within the AQMA by this amount.

### *Scenario Testing*

Three scenarios have been undertaken to provide information on the impact of action plan measures, through LTP proposals, which are expected to have a direct impact on the AQMA. The scenarios have been run for the year 2010, the EU Limit year, when the LTP proposals are expected to be implemented. A fourth scenario considers the reduction in traffic flows that would be required to meet the objective/EU Limit in 2010.

#### 1) Provision of new A2 slip roads (LTP year 4/5)

Kent County Council has provided traffic data via their consultants Jacobs, from the Saturn traffic model, which has predicted the cumulative changes in traffic predicted with the proposed changes to the A2 slips. The Saturn model area includes Broad Street/Military Road AQMA and the predicted changes on these roads have been modelled in ADMS-Roads and compared with the baseline model.

The outputs are taken from the latest version of the Saturn model for Canterbury, which includes all the slip roads. The slip roads modelled may change slightly in the future, however this is unlikely to have a significant impact on the flows in the Broad Street/Military Road area.

The ADMS-Roads model results show that the proposal will have an overall positive impact on the AQMA, but this is predicted to be small. The maximum predicted change at the receptors in Broad Street/Military Road is 0.08µg/m<sup>3</sup> (a 0.2% improvement in NO<sub>2</sub> annual mean concentrations).

#### 2) Provision of a Park and Ride site to intercept A2 traffic from the north-west

There are currently three Park & Ride sites in Canterbury at Wincheap, Sturry Road and New Dover Road. By 2010, the aim is to have further Park and Ride provision to serve traffic approaching Canterbury from the northwest of the city. The total number of vehicles using Park and Ride in 2006 was 610757 vehicles, with an average of 16965 vehicles per site per month. Traffic prediction figures and expected modal shift for the proposed Park & Ride scheme are not available. The ADMS-Roads model has therefore been run to assess the impact of a similar (average) level of activity being generated at an additional Park and Ride site, with an assumption that this would (optimistically) result in an equivalent reduction in traffic through Canterbury.

The ADMS-Roads model results show that the proposal will have an overall positive impact on the AQMA, but this is predicted to be small. The maximum predicted change at the receptors in Broad Street/Military Road is 0.25µg/m<sup>3</sup> (a 0.6% improvement in NO<sub>2</sub> annual mean concentrations).

### 3) Broad Street/ Military Road Traffic Management (LTP year 5)

The precise nature of the traffic management improvements proposed for Broad Street/Military Road are unknown at this stage, but this will be a consideration towards the end of the 2<sup>nd</sup> LTP period to improve air quality in the AQMA. Proposals would be aimed at improving flows and reducing congestion and queuing of traffic.

To model this scenario, a prediction of potential improvements has been made by increasing the average speed of traffic by 5kph.

The ADMS-Roads model results show that the proposal will have an overall positive impact on the AQMA. The maximum predicted change at the receptors in Broad Street/Military Road is  $1\mu\text{g}/\text{m}^3$  (a 2% improvement in  $\text{NO}_2$  annual mean concentrations).

The cumulative impacts on air quality in the AQMA of scenarios 1), 2) and 3) have also been modelled. The ADMS-Roads model results show that the proposal will have an overall positive impact on the AQMA. The maximum predicted change at the receptors in Broad Street/Military Road is  $1.3\mu\text{g}/\text{m}^3$  (a 3% improvement in  $\text{NO}_2$  annual mean concentrations).

### 4) Overall reduction in traffic required to meet the objective/EU Limit

Three proposals within the 2<sup>nd</sup> LTP expected to have a positive impact on air quality have been modelled above. These are unlikely to lead to the required reduction to achieve the annual mean air quality objective/EU Limit on their own.

The ADMS-Roads model has therefore been run to assess what level of reduction in traffic would be required to achieve the objective/EU Limit, assuming the above proposals are already in place in 2010. The results show a significant level of traffic reduction (>50%) is required to achieve the annual mean objective at all receptor locations. This is due to the nature of the pollutant build up in Broad Street (street canyon), which is a major contributing factor to the exceedences of the objective.

Traffic reduction scenarios	$\text{NO}_2$ Annual Mean in $\mu\text{g}/\text{m}^3$ at the worst case receptor in Broad Street
2010 baseline (with scenarios 1), 2) and 3))	57.7
2010 (10% traffic reduction)	55.1
2010 (20% traffic reduction)	52.1
2010 (30% traffic reduction)	48.7
2010 (50% traffic reduction)	40.6
2010 (55% traffic reduction)	38.2

### 3 EXISTING POLICIES AND STRATEGIES TO IMPROVE AIR QUALITY

There are a number of related policies and strategies at the local and regional level that can be tied in directly with the aims of the Air Quality Action Plan, and will help contribute to overall improvements in air quality across the district.

#### 3.1 South East Plan (Regional Spatial Strategy) (2009)

The South East Plan is the Regional Spatial Strategy for South East England, which will cover the period up to 2026. It provides the statutory regional framework that forms the context within which Local Development Documents and Local Transport Plans need to be prepared, as well as other regional and sub-regional strategies and programmes that have a bearing on land use activities. These include the regional economic and housing strategies as well as strategies and programmes that address air quality, biodiversity, climate change, education, energy, environment, health and sustainable development.

The Integrated Regional Framework (IRF) provides an essential part of the context for the plan, establishing a shared regional vision and set of objectives, which all organisations in the region should use to try and achieve more sustainable development. It reflects overall Government policy on sustainable development. One of the IRF objectives is *“To reduce air pollution and ensure air quality continues to improve.”*

The South East Plan sets out the housing provision for the period 2006–2026 to be made in Local Development Frameworks for the completion in the sub-region of 10,200 dwellings. In the Canterbury district, the number of dwellings proposed during this period up to 2026 is 7200. The growth at each location will be supported by the phased and co-ordinated provision of infrastructure, employment, environmental improvement and community services.

Town centres and inner urban areas will be given greater emphasis as locations for regeneration and employment growth in services and cultural activity. Ashford and Canterbury are identified in the plan as Regional Hubs for employment. Canterbury is also identified as a major location for the expansion of higher and further education. Improvement of the A2 junctions at Canterbury is expected to assist with the economic contribution of the city and reduce pressure on the World Heritage site.

The plan contains a number of relevant policies, which will work towards improving air quality and reducing transport emissions:

#### *“Policy NRM9: Air Quality*

*Strategies, plans, programmes and planning proposals should contribute to sustaining the current downward trend in air pollution in the region. This will include seeking improvements in air quality so that there is a significant reduction in the number of days of medium and high air pollution by 2026. Local development documents and development control can help to achieve improvements in local air quality through:*

- i Ensuring consistency with Air Quality Management Plans*
- ii Reducing the environmental impacts of transport and congestion management, and support the use of cleaner transport fuels*
- iii Mitigating the impact of development and reduce exposure to poor air quality through design, particularly for residential development in areas which already, or are likely to, exceed national air quality objectives*
- iv Encouraging the use of best practice during construction activities to reduce the levels of dust and other pollutants.*

*v Assessing the potential impacts of new development and increased traffic levels on internationally designated nature conservation sites, and adopt avoidance and mitigation measures to address these impacts.”*

**“Policy T1: Manage and Invest**

*Relevant regional strategies, Local Development Documents and Local Transport Plans will ensure that their management policies and proposals:*

- i Are consistent with, and supported by, appropriate mobility management measures*
- ii Achieve a rebalancing of the transport system in favour of sustainable modes as a means of access to services and facilities*
- iii Foster and promote an improved and integrated network of public transport services in and between both urban and rural areas*
- iv Encourage development that is located and designed to reduce average journey lengths*
- v Improve the maintenance of the existing transport system*
- vi Include measures that reduce the overall number of road casualties*
- vii Include measures to minimise negative environmental impacts of transport and, where possible, to enhance the environment and communities through such interventions.*
- viii Investment in upgrading the transport system should be prioritised to support delivery of spatial strategy by:*

- a. supporting the function of the regions international gateways and inter-regional movement corridors*
- b. developing the network of regional hubs and spoke (Canterbury is identified as a Regional Hub)*
- c. facilitating urban renewal and urban renaissance as a means of achieving a more sustainable pattern of development*
- d. improving overall levels of accessibility.*

**“Policy T4: Parking**

*Local Development Documents and Local Transport Plans should, in combination:*

- i Adopt restraint-based maximum levels of parking provision for non-residential developments, linked to an integrated programme of public transport and accessibility improvements*
- ii Set maximum parking standards for B1 land uses within the range 1:30 m2 and 1:100m2*
- iii Set maximum parking standards for other non-residential land uses in line with PPG13, reducing provision below this in locations with good public transport*
- iv Include policies and proposals for the management of the total parking stock within regional hubs that are consistent with these limits*
- v Apply guidance set out in PPG3 on residential parking standards, reflecting local circumstances*
- vi Support an increase in the provision in parking at rail stations where appropriate*
- vii Ensure the provision of sufficient cycle parking at new developments including secure cycle storage for new flats and houses which lack garages.”*

**“Policy T5: Travel Plans and Advice**

*Local authorities should ensure that their Local Development Documents and Local Transport Plans identify those categories of major travel generating developments, both existing and proposed, for which travel plans should be developed. Local Transport Authorities should also consider piloting the concept of transport planning advice centres for regional hubs in their Local Transport Plans.”*

### **3.2 Local Transport Plan for Kent (2006 – 2011)**

In 1998, the Government published a Transport White Paper "A New Deal for Transport" which outlined their commitment to a more integrated and sustainable transport system with greater emphasis on alternative forms of transport to the private car. The Government also introduced a system of Local Transport Plans (LTPs) which each highway authority had to prepare every five years which would outline their aims to improve local transport and the funding they required to do this. In the second round of LTPs 2006-11, the Government outlined four shared priorities for local transport, one of which was air quality and required LTPs to consider improvements to the transport network which would reduce air pollution in all declared Air Quality Management Areas.

The Local Transport Plan for Kent 2006-11, which was submitted in March 2006, aims to "stabilise and, where possible, reverse the adverse effect of transport and its infrastructure on the natural and built environment and on local communities". Specifically, the LTP contains an air quality policy EHC1 "to seek a reduction in traffic pollution on the local road network".

Since Kent lacks one large urban area with a population above 250,000, KCC is not currently required to set an LTP target for reducing congestion, but congestion and its impact on Kent's economy and communities is a priority for KCC. Canterbury has been highlighted as one of the urban areas which suffers from the worst congestion issues. The road network in Canterbury City centre is heavily congested in the morning and evening peak periods and maintains above average hourly traffic flows throughout the day, especially on the inner ring road and inner radial routes.

In Canterbury, a number of measures are proposed to help alleviate congestion. These include:

- Use of Intelligent Transport Systems to manage road traffic and other modes of transport;
- A sustained TravelWise Canterbury campaign, phased over a number of years;
- Marketing car sharing schemes in Canterbury;
- Investigation of the potential of establishing Car Club schemes in Canterbury;
- Continued investment in the existing QBP in Canterbury, with implementation of the Punctuality Improvement Plan.
- Extension of the cycle route network in Canterbury.

Relevant proposed LTP schemes likely to have direct and indirect impacts on local air quality within the AQMA are referred to where relevant within this Action Plan.

### **3.3 Kent Environment Strategy (2003)**

The Kent Environment Strategy was drawn up by Kent County Council in partnership with Kent Local Authorities. The objectives of the Strategy relevant to air quality are shown in Table 3.

The Kent Environment Strategy Progress Report (2007) provides an update with respect to progress with actions relating to air quality, as shown below:

- Despite reductions in some air pollutants, overall air quality in Kent is showing no clear improvement;
- Long-standing problems have been exacerbated by traffic growth, increased ozone pollution from distant sources and extreme weather such as heat waves which are becoming more likely as a result of global warming;
- The identification of new Air Quality Management Areas (AQMAs) is an indication of the problem – but only a first step in solving it;

- The effort going into 'monitoring and action planning' is still not being matched by 'implementation' of actual measures to improve air quality;
- Reducing emissions from HGV and car traffic remains the key challenge to improve air quality.

The Kent Environment Strategy is now under review. The review should be available late 2009.

**Table 3: Kent Environment Strategy Objectives for Air Quality**

<b>What?</b>	<b>Why?</b>	<b>Who?</b>	<b>When?</b>
<b>Meeting National Air Quality Objectives</b>			
Develop and implement strategies and action plans to work towards achieving the National Air Quality Objectives.	To reduce the risks on health and the environment from high levels of pollution.	Districts & Medway Council assisted by KMAQP	Prepare, implement and revise AQMA Action Plans from 2002; designation of further AQMAs as necessary
<b>Reducing the impact on environmental health</b>			
Establish and disseminate information about Nitrogen Dioxide, Sulphur Dioxide, Carbon Monoxide, Particulates (PM <sub>10</sub> and PM <sub>2.5</sub> ) and Ozone levels.	To provide a better understanding of air pollution, determine trends, inform the future action required and raise the awareness of those susceptible to high levels of pollution.	Kent and Medway Air Quality Monitoring Network (District Councils & Medway Council)	- Monthly and annual monitoring reports - Daily bulletins via the internet (www.kentair.org.uk)
<b>Planning new development appropriately</b>			
Incorporate air quality policies in the Kent and Medway Structure Plan and District Council Local Plans informed by the Kent and Medway Air Quality Model's predictions of the air quality impacts associated with cumulative effects of proposed new development.	To minimise the impact on air quality from future development across Kent, particularly in areas identified as having poor air quality.	KCC, District Councils & Medway Council	Draft on deposit 2003 Local Plan Review – ongoing - Ongoing use of the KMAQMN to inform planning application decisions
Raise awareness and encourage greater interaction amongst the relevant decision-makers including environmental health, transport and land use planning officers.	To ensure that the impact of development on air quality is appropriately assessed.	K&MAQP	Ongoing
Regulate industrial processes through Integrated Pollution & Prevention Control (IPPC) and Local Authority Air Pollution Control (LAAPC) and raise environmental standards through the use of environmentally friendly technology.	To minimise the impact of current and proposed industrial processes and associated emissions such as volatile organic compounds.	Environment Agency, District Councils & Medway Council	- Ongoing IPPC and LAPC regulation - Raised environmental standards as part of 4 year review of IPPC and LAPC authorisations - Ongoing through planning application decisions
Incorporate more sustainable forms of transport, incentives and traffic management measures into the Local Transport Plan (LTP).	To move towards methods of transport which cause less pollution and promote walking, cycling and public transport.	KCC in consultation with District Councils & Medway Council	Strengthen policies in Local Transport Plan by 2004
<b>Tackling transboundary pollution</b>			
Tackle transboundary pollutants (i.e. ozone and particles) at a regional level by sharing information and working together with neighbouring authorities in the UK and northern France.	To address pollution at a regional level as airborne pollution does not recognise local authority boundaries.	KCC on behalf of the K&MAQP	Ongoing through transnational projects

### 3.4 Canterbury District Strategy (2009)

The Canterbury District Strategy has been developed through the Canterbury Partnership. The Canterbury Partnership was established in September 2008 to strengthen the connection between public sector agencies, local government, the voluntary and community sectors, businesses and local residents in the Canterbury district. It acts as an overarching partnership providing a strategic vision to other partnerships in the district. The Partnership leads on issues that impact on the future well being of the district.

The Partnership's vision is "Through focused and environmentally sustainable growth by 2030 the Canterbury district will be defined by a dynamic strong economy and a distinctive cultural and visitor experience from which our communities will prosper."

There are seven theme groups that directly help to deliver the aims and objectives of the Canterbury District Strategy. These groups are:

Canterbury District Community Alliance  
Canterbury4Business  
Community Health and Wellbeing  
Safer Canterbury District Partnership  
Culture@canterbury  
Environment Group  
Canterbury District Transport Steering Group

The Canterbury District Strategy sets out the long-term vision for the district and sets out actions for the medium term to achieve this vision. This vision is also shared with Canterbury City Council's Corporate Plan and the Local Development Framework for the district. Other important policies such as the Economic Strategy and Cultural Policy also aim to meet the aspirations of this vision. The seven theme groups of the Canterbury Partnership have an important role in delivering actions to realise our shared vision. The structure of the Canterbury District Strategy action plan is therefore based around each of the seven theme groups of the Canterbury Partnership. Each group (and the partnership itself) have developed an action plan around the following four outcomes:

- 1 Delivering the Knowledge Economy
- 2 Delivering the Experience Economy
- 3 Delivering the Green Economy
- 4 Creating Sustainable Communities

An annual monitoring report will be produced setting out progress against the following action plans and the strategy itself will be annually reviewed.

A number of the actions considered by the Environment Group and in particular the Canterbury District Transport Steering Group include improving travel choices and reducing traffic congestion, which will lead to air quality improvements. These are listed below:

#### **Outcome 1: Growing the Knowledge Economy**

*Objective 4: Site and Infrastructure improvement to support the delivery of the Knowledge Economy*

Action: A2 slip roads to be all- movement

Target: Wincheap London bound on-slip road by 2010; Wincheap off-slip by 2012; In principle agreement from Highways Agency for Harbledown slip roads and Bridge interchange by 2010.

## **Outcome 2: Delivering the Experience Economy**

*Objective 1: Improve the infrastructure needed to support the Experience Economy*

Action: Implement an effective Car Parking Strategy to provide sufficient high quality car parking Facilities.

Target: Implement Actions identified in Canterbury Parking Strategy 2006 to 2016.

## **Outcome 3: Delivering the Green Economy**

*Objective 1: Minimise contribution to and adapt to the consequences of climate change*

Action: Improve Travel Choice by investing in alternative methods of transport to the car to encourage more journeys to be made by bus, train, walking and cycling.

Target: Increase the percentage share of cycling as a mode of transport to 5% by 2012 (currently 2%); Increase patronage of bus travel by 3% per annum; Improve punctuality of buses on QBP routes to 95%.

Action: Investigate the feasibility and implications of road charging and a workplace parking levy as a means to reduce congestion and improve air quality.

Target: Complete a city wide multi-modal transport model by 2010.

Action: Encourage large employers in Canterbury to develop and monitor green travel plans as part of the Travel Plan Forum.

Target: Reduce the percentage of employees and students travelling into the city by car.

## **Outcome 4: Sustainable Communities**

*Objective 2: A well connected district with well connected communities*

Action: Reduce Travel Demand by locating development close to good transport links and local facilities.

Target: Use appropriate transport modeling techniques to inform the LDF to be adopted in 2010.

Action: Provide more rural transport services.

Target: Increase number of people using 'Dial a Ride' by 10% per annum.

*Objective 5: Regeneration of coastal communities*

Action: Improve pedestrian and cycle linkages between Herne Bay seafront and town centre.

Target: Delivered as part of Herne Bay Action Plan; Phase one Oyster Bay Trail (Reculver to Swalecliffe by 2009); Phase two (Swalecliffe to Seasalter by 2011).

*Objective 9: An inclusive district*

Action: Improve transport facilities for disabled people.

Target: Increase number of people using 'Dial a Ride' by 10% per annum; Deliver bus stop infrastructure improvements through the Quality Bus Partnership.

## **3.5 Canterbury City Council Corporate Plan (2008 - 2012)**

The Council has produced a Corporate Plan for 2008 - 2012, which sets out the Council's approach to delivering against its corporate priorities.

The Corporate Plan has 7 themes or aims. These are not stand alone and overlap in different ways in practice.

1. Reputation
2. Focusing on people
3. Creating a quality district
4. Encouraging innovation and enterprise

5. Promoting participation in culture, leisure and play by all
6. Promoting and providing environmental leadership;
7. Improving accessibility, links and connectivity.

Under each theme, the Council has set a number of corporate objectives, which the Council will work towards, by setting a number of actions.

Air quality is considered under Objective 35 'Protect communities from flooding, erosion and pollution', with a proposed action to implement the Air Quality Management Plan.

Objective 36 is to Develop better transport infrastructure to help reduce traffic congestion.

The proposals are to:

Implement measures to reduce traffic congestion,

Work with Kent County Council and the Highways Agency to deliver all movement junctions on the A2 at Wincheap, Harbledown and Bridge.

To lobby rail authorities to ensure existing rail capacity is kept and the frequency of normal commuter services is maintained.

Improve the links from Canterbury West station to the High Street

Objective 37 is to expand opportunities to travel other than by car, particularly journeys to School by:

Extending the Park & Ride service

Working with Kent County Council to improve the cycle and pedestrian network

Encouraging development and implementation of company and school travel plans

Work with Stagecoach and Kent Highways to increase patronage of public transport, including the provision of dedicated bus lanes

Objective 38 is to Improve accessibility for all by Continue to support the Dial A Bus scheme provided jointly with the Kent County Council to ensure that elderly and disabled people and anyone living in rural areas has good access to the three urban centres in the district and to ensure the take-up of the concessionary travel scheme by disabled users.

### **3.6 Canterbury City Council Local Development Framework**

The Local Development Framework (LDF) together with the Regional Spatial Strategy (South East Plan) provides the framework for development in the Canterbury district and as such will be the basis upon which planning applications are determined. The LDF is a collection of planning documents that will eventually take over from the current Local Plan and the Kent and Medway Structure Plan.

Canterbury City Council has produced a Local Development Scheme (LDS), which sets out the timetable for the review of the current draft Local Plan, and the preparation of a Local Development Framework for Canterbury district. The planning policy documents that will be produced are Development Plan Documents (DPDs) and Supplementary Planning Documents (SPDs).

One of the first documents to be prepared by the Council is the Core Strategy. To inform the development of the Core Strategy, the Council has, with other public bodies and local stakeholders (including members of the Local Strategic Partnership [www.canterburyfuture.co.uk/about\\_futures\\_foundation.aspx](http://www.canterburyfuture.co.uk/about_futures_foundation.aspx)) been involved in developing a Futures Study. This looks at how the district might change over the next 25 years, and develops some realistic scenarios for the future. The Council is intending to prepare the Core Strategy and a Development Land allocations DPD (following preparation of the South East Plan). The Core Strategy should be adopted by mid 2011. Most of the adopted Local Plan

(see below) is proposed to be saved and will be progressively reviewed through the LDF process.

In order to assess the transport implications of future development, Canterbury City Council and KCC are jointly funding a strategic multi-modal VISUM model for the district. The model will be used to test various development scenarios and the results in terms of traffic and air quality impact will be used as part of the evidence based decision process.

### **3.7 Canterbury District Local Plan First Review (July 2006)**

The adopted Local Plan, which forms part of the overall development plan for Canterbury up to 2011, details the land use planning policies and proposals for the District.

The Plan has several functions:

- To set out a strategy for fulfilling the Government's policy towards land use planning at a district level, including its objective of securing sustainable development;
- To give an opportunity and invitation to participate in the planning process, through giving people the chance to express their views on local planning issues;
- To set out objectives to ensure the district is an excellent location in which to live, invest, work, learn and visit;
- To take into account the principal social, economic and environmental influences on the district in the plan against which planning applications for development will be assessed; by identifying sites for particular purposes, by defining areas to which policies apply and by setting out details of these policies in terms of standards and criteria; and
- To conform with the Kent and Medway Structure Plan (2006). (The Kent and Medway Structure Plan has now been superseded by the South East Plan)

It is fundamental to the achievement of the aims of the Air Quality Action Plan to have a Local Plan that recognises the importance of air quality in terms of the environmental impact of development and the need for sustainable transport measures. Canterbury District Local Plan incorporates a policy with respect to air quality, as outlined below.

#### ***"POLICY C39***

*Development that could directly or indirectly result in additional air pollutants and worsening levels of air quality within the area surrounding the development site will not be permitted unless mitigation measures are agreed and fully implemented as part of the proposal."*

### **3.8 Draft Wincheap Development Brief (2008)**

The draft Wincheap Development Brief outlined proposals for changes to Wincheap as part of a major regeneration project. It had been planned to adopt the Brief in April 2008 following amendments made as a result of a formal consultation. However, the Council decided not to do so pending further consultation on the proposal that there was no scope to locate further Park and Ride provision inside the estate boundaries.

The possibility of further Park and Ride provision being located in the Wincheap estate has arisen as a result of the Minister's decision in principle to allow new slip roads to be built at Wincheap on the A2/A28 crossing.

The Local Plan requires the council to investigate sites on the A2 corridor for further Park and Ride provision. Wincheap, amongst other sites, was assessed as a potential park and ride site. The regeneration zone was identified as the preferred location within Wincheap and Thannington. However, further work is required to test this outcome against the Council's current preferred site in Harbledown. As the outcome of the investigations and consultations

will have potential implications for the Wincheap Development Brief, a decision has been made to defer the Brief at present.

### **3.9 Canterbury District Transport Action Plan (2004)**

Canterbury City Council and Kent County Council worked in partnership to produce the Canterbury District Transport Action Plan. This was adopted in March 2004 and provides a framework for the provision of transport services and facilities in the district.

The action plan focuses on what can be done to improve alternatives to the car for journeys to and from Canterbury City centre, in particular where traffic congestion is at its worst during school term times.

The main objectives for Canterbury City are:

- To extend Park and Ride provision by constructing or extending a site to serve the north-west approach.
- To extend operating times and increase flexibility and integration including letting the sites become transport terminals for the urban minibus network, some rural bus services and set down and pick up points for some school buses and health transport provision.
- To improve access to the A2 Canterbury bypass, by building extra slip roads at all 3 junctions around Canterbury. This will reduce the need for some cross-city trips to be made using the existing inner routes and ring road allowing reallocation of road space to bus priorities, cycle routes and pedestrian crossings.
- To give priority to buses, walking and cycling routes, and to maintain essential vehicle access to and from the city centre, by introducing phased traffic management schemes in key areas.

The main district-wide objectives are:

- To work in partnership with bus and train operators to improve public transport reliability, integration, facilities and information;
- To continue improving the network of safer walking and cycling routes concentrating on improving routes for commuting;
- To offer more 'Safer Routes to School' and walking buses and seek other ways in which journeys to school by car can be reduced;
- To introduce more road safety initiatives, including extra 20mph traffic calmed zones in residential areas, and improved speed enforcement;
- To continue to monitor air quality and work towards reducing the effects of traffic emissions in sensitive areas due to traffic congestion;
- To extend Travel Wise initiatives and to encourage more individual travel plans by offering targeted discounts at park and ride for commuters and students, and for those who car share;
- To continue implementing the Freight Quality Partnership Action plan to reduce the impact of HGVs on the local environment.

### **3.10 Canterbury District Bus Strategy (2002)**

The aim of the Canterbury Bus Strategy is to review and promote improvements to all aspects of bus service provision in the District, in particular through Bus Quality Partnership initiatives.

The Bus Quality Partnership core consists of: -

- Stagecoach East Kent – providing new vehicles; and
- Kent County Council / Canterbury City Council – providing bus priorities, new roadside infrastructure and better information (including Real Time Information)

The Strategy proposes a two phase Bus Quality Partnership:

- Phase 1 – Coastal Route – Canterbury, Whitstable, Herne Bay (services 4 & 6).  
Canterbury – Thanet Corridor.
- Phase 2 - Canterbury city centre minibus network.

The first phase is already underway. Phase 2 has been partially implemented.

In addition, more priority recently has been given to improving the bus stock and the bus infrastructure. The improvements have included low floor buses, Real Time timetabling and bus stop upgrades.

### **3.11 Canterbury Parking Strategy (2006 – 2016)**

The Canterbury Parking Strategy was published by CCC in April 2008. The aim of the strategy is to reduce the need for car travel to and from the City Centre, while providing parking to meet a sustainable demand. The Parking Strategy is vital in controlling vehicles entering the city.

The most relevant principles and actions with respect to potential improvements in local air quality in the city centre are:

#### **Principles**

- P4: To continue a gradual redistribution in parking provision from the city centre car parks to Park and Ride sites, provided that there is sufficient overall capacity;
- P6: To continue to support the introduction of new bus lanes that improve journey times for Park and Ride and service buses;
- P8: To continue the local planning policy of low car parking provision in sustainable developments, to reduce car usage and dependency in line with PPS3;
- P9: To allow residents of low car parking provision developments the ability to purchase on or off-street parking permits only where there is clear evidence of spare capacity.

#### **Actions**

- A8: To provide a Park and Ride site that intercepts vehicles from the north-western approach to the city;
- A9: To implement a 150 to 200 space expansion at New Dover Road Park and Ride;
- A10: To investigate a limited expansion at the current Wincheap Park and Ride site and a more significant expansion as part of the Wincheap Industrial Estate redevelopment, which would also cater for traffic from the north-west;
- A11: To implement measures to make Sturry Road Park and Ride more attractive to motorists and increase usage;
- A13: To investigate ways of increasing passenger capacity on Park and Ride buses at peak times;
- A15: To investigate through the Travel Plan Forum the potential of using Park and Ride sites as transport interchanges;
- A16: To replace the current limited car park management system with a UTMC compatible one, extend coverage to all main car parks and provide variable message signs capable of displaying real-time traffic and parking information;
- A18: To set up a Travel Plan Forum for the major employers and higher academic establishments in Canterbury to promote and develop travel plans and investigate partnership working with stakeholders and transport providers;
- A19: To produce a residential parking standard matrix for the Canterbury District in line with PPS3 which considers the availability of alternative modes of transport.
- A27: To investigate the introduction of a reduced annual permit charge for low polluting vehicles.

### **3.12 Nottingham Declaration**

Canterbury City Council signed the Nottingham Declaration in December 2007 acknowledging the increasing impact that climate change will have on the community and the Council's commitment to tackling the causes and effects of a changing climate on the district.

The Council, through this Declaration, is committed to tackling climate change issues in a systematic and appropriate way. An Environmental Policy Working Group which includes both officers and members has been set up to prepare and take forward the climate change strategy. The Council has participated in the Local Authority Carbon Management Programme with the Carbon Trust, which has provided a baseline for CO<sub>2</sub> emissions from council services. A series of actions have been proposed as a result of this to improve the energy efficiency of the Council.

The Council has now approved an Environment Policy.

## 4 FINANCING

The Kent 2<sup>nd</sup> Local Transport Plan has allocated funding to a number of schemes in the district that tie in with Action Plan measures to improve air quality in the area, such as Park and Ride, traffic management measures and encouraging the uptake of travel plans.

Annual funding for development of Quality Partnerships, Safer Routes to School, Cycle and Walking Strategies are being made available through the LTP. CCC will work together with KCC to review current schemes for the area in the light of the declaration of the AQMA. Additional schemes will be implemented where possible to secure further improvements in air quality.

2<sup>nd</sup> LTP Schemes for the Canterbury district which will help towards improving air quality:

<b>Scheme</b>	<b>LTP Year (s)</b>	<b>Location</b>	<b>Cost (Approx)</b>
Implementation of Canterbury Bus Strategy	Years 1 - 5 (2006 - 11)	District-wide	£1,100,000
Travelwise	Years 1 - 5 (2006 - 11)	District-wide	£40,000
Improved Cycle Parking Provision	Years 1 - 3 (2006 - 2009)	District-wide	£45,000
Cycle Route - Canterbury West Station to St Stephen's Pathway	Year 3 (2008/9)	Canterbury West Station to St Stephen's Pathway	£10,000
Provision of new A2 Slip Roads	Years 3 - 5 (2008/9 - 2010/11)	A2 Canterbury	£1,300,000 (Wincheap on slip only)
Contribution to additional Park and Ride provision Phase 1	Post 2011	A2 Harbledown, Canterbury	Not known
Canterbury Urban Traffic Management and Control Project (UTMC)	Years 4 - 5 (2009/10 - 2010/11)	Canterbury City	£350,000
Broad Street/ Military Road Traffic Management Phase 1	Post 2011	Broad Street / Military Road, Canterbury	£50,000

Other measures to improve air quality in the AQMA and district-wide, such as air quality monitoring and promotional activities, will be funded by CCC, or by developers e.g. through the use of S106 contributions from developments in the area.

## 5 CONSULTATION

Under Schedule 11 of the Environment Act 1995, Local Authorities are required to consult on their draft LAQM Action Plan. It is important for the success of the Action Plan to have involvement by all local stakeholders including local residents, community groups and local businesses in drawing up the Action Plan, in addition to their active participation in achieving the action plan measures. The Action Plan has been drawn up for consultation with relevant representatives from CCC and KCC, through the AQMA Air Quality Steering Group.

The following is a list of statutory and non-statutory consultees to which the draft Plan was sent:

- The Secretary of State/Defra
- The Highways Agency
- The Environment Agency
- Primary Care Trusts
- Kent County Council
- CCC Councillors and Officers
- Neighbouring local authorities
- Local residents within and bordering the AQMA
- Relevant local businesses, community groups and forums
- Other relevant local stakeholders

All comments from both statutory and non-statutory consultees received on the draft Action Plan have been considered and incorporated where appropriate into the final Action Plan.

The consultation period lasted for over 8 weeks. Information was placed on the Canterbury City Council website from 02/02/09 until 30/03/09. The information comprised of a document detailing the background and purpose of the consultation, a summary of the Action Plan, Direct and Indirect Measures, and also a questionnaire. Full paper copies of the draft Action Plan, the information pack and questionnaires were available on request.

The week prior to the information going online, over 100 information packs and questionnaires were hand delivered to residential and business premises in and around the AQMA.

In addition, a display of the information and copies of the information packs and questionnaires were available in the main Council Offices throughout the consultation period.

The information remained online and in the offices for at least a month after the deadline of the 30/03/09. Any responses made after this time were, of course, received and included within the final Action Plan.

## 6 PROPOSED MEASURES

The following section outlines a number of proposed measures; those directly related to the AQMA and those more indirect, general measures, which aim to improve air quality throughout the district.

**Direct measures (DM)** aim to reduce NO<sub>2</sub> concentrations within the AQMA, concentrating on the dominant sources of emissions – road traffic and are considered within the context of the longer term transport strategy for the area.

**General measures (GM)** target those emissions within a more general area, and aim to further reduce background levels of pollution above and beyond that likely to be achieved by existing national and international agreements and policy.

The ranking of options has been based on professional judgement through the assessment of a number of considerations; including the costs and benefits of all the options, feasibility and acceptability, and whether they will achieve the Air Quality Objective. It is likely that the NO<sub>2</sub> annual mean Objective will only be achieved through a combination of measures.

Quantitative air quality impact assessment of the principal 2<sup>nd</sup> LTP measures has been undertaken as part of the Further Assessment and is reported in this section. The assessment of impacts for other measures is qualitative.

The costs are provided as:

- 'Low' (up to £100,000);
- 'Moderate' (between £100,000 – £1 million); and,
- 'High' (greater than £1 million).

The benefits are provided as:

- 'Low' (<0.2µg/m<sup>3</sup>);
- 'Moderate' (between 0.2 – 1 µg/m<sup>3</sup>); and,
- 'High' (greater than 1 µg/m<sup>3</sup>).

## **6.1 Proposed Direct Measures for the Broad Street/Military Road AQMA**

The following provides the outcome of discussions with CCC and KCC with respect to a number of direct action plan measures that have been proposed which will help reduce NO<sub>x</sub> emissions in the AQMA in pursuit of the annual mean Air Quality Objective and EU Limit Value.

The A28 Broad Street/Military Road is a key strategic route through Canterbury City centre for traffic and therefore achieving the necessary reductions in traffic on this road to achieve the NO<sub>2</sub> annual mean objective/EU Limit value by 2010 is considered challenging. The Further Assessment modelling has predicted that in 2010 exceedences of the air quality objective would still occur along the A28 Broad Street, without the introduction of local intervention measures.

The solution to the air quality problem in the AQMA is likely to be through the implementation of a package of measures, with individual measures being insufficient on their own to achieve the NO<sub>2</sub> annual mean Air Quality Objective and EU Limit Value.

### **6.1.1 Freight Emission Measures**

One of the objectives of the Canterbury District Transport Action Plan is to continue implementing the Freight Quality Partnership Action Plan in order to reduce the impact of HGVs on the local environment. The Freight Quality Partnership has led to the development of signposting of HGV routes and the Kent Lorry Map.

Possible HGV time restrictions through the AQMA could be investigated as part of the Freight Quality Partnership and review of HGV routes e.g. large waste and recycling vehicles route to the waste management site. Consideration will be required to a city centre freight transport strategy to investigate freight transport movements, notably with respect to the largest operators.

**DM 1: CCC will work in partnership with KCC and freight operators to implement the Freight Quality Partnership Action Plan**

### **6.1.2 Traffic Management Measures**

Traffic Management measures are proposed for implementation in Canterbury City centre within the Kent Local Transport Plan 2006 -2011. The Canterbury Urban Traffic Management and Control Project (UTMC) is part of the Kent UTMC Programme. This involves collection of data from all currently available sources via a common database, allowing good quality information to be broadcast via the Internet, radio and TV stations as well as on Variable Message Signage (VMS). This could include up to date air quality information, advice and alerts

Specific consideration to traffic management on Broad Street/Military Road is proposed in year 5 of the 2<sup>nd</sup> Local Transport Plan. This would involve traffic management improvements on the ring road to reduce congestion and pollution and improve capacity north-east bound in the AQMA. The precise nature of this scheme is still under investigation by KCC.

**DM 2: CCC will work in partnership with KCC to implement traffic management improvements in the city centre, particularly within the Broad Street/Military Road AQMA**

### 6.1.3 Provision of New A2 Slip Roads

There are proposals to improve access to the A2 Canterbury bypass, by building extra slip roads at all 3 junctions around Canterbury. This will reduce the need for some cross-city trips to be made using the existing inner routes and ring road allowing reallocation of road space to bus priorities, cycle routes and pedestrian crossings. KCC, through the Local Transport Plan, propose contributing to the Highways Agency Scheme by funding initiatives which will allow reallocation of city centre road space for demand management schemes and increase bus and cycle usage.

**DM 3: CCC will work in partnership with the Highways Agency and KCC to deliver the New A2 Slip Roads Schemes**

### 6.1.4 Parking Strategy Measures

The Canterbury Parking Strategy (2006 -2016) aims to reduce the need for car travel to and from the City Centre, while providing parking to meet a sustainable demand. The most relevant principals and actions with respect to potential improvements in local air quality in the city centre are set out in section 3.12 and include measures to improve uptake of Park and Ride and continue the local planning policy of low car parking provision in sustainable developments.

There are currently three Park & Ride sites in Canterbury at Wincheap, Sturry Road and New Dover Road. A Park and Ride for Canterbury has been proposed to serve traffic approaching Canterbury from the northwest of the city within the District Transport Action Plan and Kent Local Transport Plan 2006 -2011.

Proposals to provide additional Park and Ride provision for the north west approach aims to further reduce car trips into the city centre. This is expected to lead to reductions in traffic emissions within the AQMA, although the Further Assessment scenario testing indicated the benefits would be small.

**DM 4: CCC will continue to work with partners to implement measures within the Canterbury Parking Strategy, including enhancement of Park and Ride**

### 6.1.5 Public Transport Improvement Measures

There are proposals within the Kent Local Transport Plan to deliver the Canterbury Bus Strategy. This will include bus priority measures, infrastructure improvements and real time information. Additional bus priority schemes will be implemented as part of the Quality Bus Partnership with Stagecoach East Kent which will improve bus reliability and reduce journey times on key corridors.

CCC will work in partnership with KCC to support the Quality Bus Partnership in Canterbury with Stagecoach East Kent. The aim is to continue to improve bus usage and reliability on selected corridors through partnership working with the local bus operator. The 2<sup>nd</sup> LTP target KLTP4 with respect to Bus Patronage in Quality Bus Partnership (QBP) Areas is to increase bus patronage in Kent's QBP areas by 3% per annum throughout the period of the LTP (2006/07 to 2010/11).

CCC provides a concessionary travel scheme that allows residents of the Canterbury district who are over 60 or have certain disabilities to obtain free off-peak travel on all local bus services nationwide. This scheme helps to improve local bus usage and potentially help reduce congestion.

**DM 5: CCC will work in partnership with KCC to implement the Canterbury Bus Strategy and support the Quality Bus Partnership with Stagecoach East Kent in Canterbury**

The Kent Freedom Pass scheme has been launched in the Canterbury district, as one of three of the pilot areas in Kent. This scheme allows young people aged 11 to 16 unlimited travel on public bus services for a year, for a one off payment of £50. The aim is for the scheme to go County-wide by 2010. To date, the scheme has successfully achieved a modal shift of 27%. The next objective is to try and extend the scheme to include 16 to 19 year olds in full time education.

**DM 6: CCC will work in partnership with KCC to continue with the Kent Freedom Pass scheme in Canterbury**

### **6.1.6 Roadside Emissions Testing**

Under the Road Traffic (Vehicle Emissions) (Fixed Penalty) (England) Regulations 2002 (Statutory Instrument Number 1808) local authorities with AQMA are able to apply to the Secretary of State for Transport for the power to conduct roadside emissions testing of vehicles. The aim is to identify those vehicles that make a disproportionate contribution to emissions through poor maintenance with on-the-spot fines for those that fail. The scheme of a formal roadside emissions testing programme is not considered as cost-effective for stand-alone authorities.

CCC is investigating the potential for joint working with the vehicle and operator services agency (VOSA) and police on roadside emissions testing in Canterbury, in particular within the Broad Street/Military Road AQMA. In addition, funding for Roadside Emissions Testing equipment will be sought through the annual air quality grant programme.

**DM 7: CCC will investigate the potential for Roadside Emissions Testing in Canterbury, in particular within the Broad Street/Military Road AQMA**

### **6.1.7 Land Use Planning**

Section 106 agreements (S106), or planning obligations, are legal agreements between local authorities and developers, which are linked to planning permission for a development. Section 106 agreements are drawn up when it is considered that a development will have negative impacts that cannot be dealt with satisfactorily through conditions in the planning permission.

The Kent & Medway Air Quality Partnership is currently drafting a Planning Guidance Document on Air Quality and Development, which will outline the S106 requirements and process. In Canterbury benefits will be sought on new development where increased traffic generation will impact on the AQMA.

**DM 8: CCC will request S106 contributions for developments likely to have a direct impact on air quality in the AQMA**

### **6.1.8 Pathway or Receptor-based Abatement Systems**

Within the Broad Street/Military Road AQMA there is little potential for substantial screening, e.g. through tree planting, between the road traffic emissions and residential properties, notably within the Broad Street street canyon section where properties are very close to the roadside. The close proximity of sensitive receptors to the adjacent road network (emission

source) means that creating an effective barrier between the source and the receptor is not feasible. There may be some scope for consideration to this through the planning process with new development proposals.

However, emerging technological innovations such as NO<sub>x</sub> reducing paving and paint materials may warrant consideration if potentially cost-effective as a solution.

Noxer blocks are blocks of cement mortar with a 5-7mm thick surface layer of Titanium(IV)oxide (titanium dioxide) on it. Titanium (IV) oxide is a photocatalyst that uses sunlight to absorb and render oxides of nitrogen (NO and NO<sub>2</sub>) harmless by converting them to nitrate ions (NO<sub>3</sub><sup>-</sup>), which are then either washed away by rain or soaked into the concrete to form stable compounds. The active principle—basically a blend of titanium dioxide that acts as photocatalyzer—can also be incorporated into paints.

London boroughs Camden and Westminster have been trialling nitrogen oxide (NO<sub>x</sub>) removing paving within their Clear Zone and the City of London and London Borough of Camden are trialling NO<sub>x</sub> busting paint. Congleton Borough Council also recently (June 2008 Press Release) have begun spraying the pavements, walls and some facades in their Congleton AQMA with a clear solution called Activa (supplied by Ecopurer) that claims to reduce exhaust fume gases. The initial results of the Camden paving trial, which commenced in 2006, were considered inconclusive. Positive impacts in terms of NO<sub>x</sub> reduction were measured (up to 12%), but similar reductions were recorded at other sites without the paving in place. Similarly, the City of London trial has not shown conclusively that measured improvements were due to the paint. Earlier trials in Italy and Japan have had much more positive and conclusive measured impacts (50% NO<sub>x</sub> reduction). It is considered that the impacts of both the paving and painting is improved where there is poor dispersion (low turbulence), as may be found in a street canyon environment.

Further investigation is required to assess the appropriateness of the use of such technology in the AQMA and to understand the optimum extent and location for effectiveness.

**DM 9: CCC will investigate the potential for use of NO<sub>x</sub> reducing paving and paints within the AQMA**

#### **6.1.10 Alternative Vehicle Technologies**

The Draft Action Plan was presented to the General Purposes Committee on 13/11/08. It was minuted at that committee that due to the location of the Council Offices and the Serco depot in Canterbury, the Council should consider investing in and making more use of LPG or electric cars and vehicles, and insist that Serco vehicles were also either LPG or electric. Any problems with using such vehicles could be identified and solved and, in addition, would set a good example to other organisations in the District.

The current Canterbury District Environmental Services contract runs until 2013. There is no provision in this contract to insist that Serco vehicles are LPG/electric. This is a matter that could be considered in a new service contract.

Under the Green Staff Travel Plan, staff owning an electric or hybrid car can use the electric recharging facility at Military Road.

**DM 10: CCC will consider investing in and making more use of LPG or electric cars and vehicles.**

### **6.1.11 Investigation of new road links**

Again, at the General Purposes Committee on 13/11/08, it was minuted that consideration should be given to a proposal that traffic diversions should be put in place so that traffic approaching from the east along the A257 could cut through the army barracks to the Sturry Road, where there were a number of retail outlets. This would cut down on the traffic using the inner ring road and thus improve air quality.

One of the objectives in the Canterbury District Transport Action Plan is that a route for a new A28/A257 Barracks link road should be identified by 2011. It is likely that the construction of such a route will only be achievable through development opportunities.

**DM 11: CCC will work in partnership with KCC to investigate a route for a new A28/A257 link road.**

**A summary of the direct measures for the AQMA is shown in Table 4.**

#### **Direct Measures considered but dismissed on the grounds of cost-effectiveness and/or feasibility at this stage**

CCC will continue to monitor progress and best practice on these and other measures and work in partnership with KCC and other partners to investigate their potential for implementation to improve air quality and the environment in general.

#### **Low Emission Zone (LEZ) or Clear Zone**

A Low Emission Zone (LEZ) is a geographic zone defined for an area where vehicles of an acceptable emissions standard (currently Euro III) can enter and move around. The concept is held widely as a way of achieving air quality objectives within large urban area where economies of scale can be achieved with respect to set-up and operating costs. A Clear Zone is a defined urban area, usually a City, which exploits new technologies and operational approaches to improve quality of life and support economic growth, whilst minimising the adverse impacts of its transport systems.

Consideration to the implementation of an LEZ or Clear Zone within Canterbury is dismissed at this stage on the grounds of cost and feasibility. Both could be considered in future as part of integrated transport and parking strategy proposals to reduce the impacts of traffic on the city centre. Investigation of potential funding could enable such a scheme to be taken forward with partners if appropriate.

#### **Road User Charging or Workplace Parking Levy**

The Transport Act 2000 gave local authorities powers to introduce road user charging or workplace parking levy schemes. The revenue generated from such schemes would be used to improve local transport in the area.

The costs of introducing a road charging scheme can be offset by the revenue that is generated. Area wide charging is likely to be more costly to introduce than a designated route. The feasibility of area wide schemes is discussed in the South East Plan and it is unlikely that they will be introduced in the short term to achieve the air quality objective. Road User Charging is not being pursued by Kent County Council at this stage. Any consideration to potential schemes in Canterbury would need to be compatible with a regional scheme. Also, any scheme would need to be part of an overall package and promoted as such to highlight the range of benefits, countering any negative arguments.

Based on charging workers for parking at their place of work, the implementation of a workplace parking levy could reduce the number of private vehicles entering Canterbury. No local authority has implemented a workplace charging scheme as yet, mainly because of public opposition. However, Nottingham City Council has approved a workplace charging scheme. The scheme will now be submitted to the secretary of state for confirmation and subject to government approval, the scheme will start in 2010. Workplace charging is not considered suitable within the Canterbury District Action Plan (up to 2014) and is not supported within the Local Transport Plan for Kent (2006 – 2011). An area-wide parking levy could be investigated for the future, building on the work of organisations in Canterbury who are already charging their staff and/or visitors to park in conjunction with promotion of alternatives as part of their Travel Plans. This is likely to grow both in terms of the level of charging and the organisations implementing it as more organisations develop Travel Plans and more are required through the planning process.

However, KCC has been tasked (in conjunction with the Canterbury Partnership) to carry out a city-wide multi modal transport model by 2010. This is with a view to investigating the feasibility and implications of road charging and workplace parking levies as a means to reduce congestion and improve air quality in Canterbury. The outcome of this study will be reported in future Action Plan Progress reports.

### **Idling Engine Emissions**

The Road Traffic (Vehicle Emissions)(Fixed Penalty) (England) Regulations 2002 permit all local authorities in England to take action against drivers who leave their vehicle engines running unnecessarily when parked. The local authority can issue a fixed penalty (£20) to any driver blatantly running their engine unnecessarily and who refuses all reasonable requests to switch off. Idling Engine Emissions are not considered as a significant factor in the Broad Street/Military Road AQMA to be a cost-effective solution to air quality issues in the area.

### **AQMA signage/awareness**

A further minuted direct measure from the General Purposes Committee on 13/11/08 was that consideration should be given to placing a sequence of banners/signs above/in the road in Broad Street and Military Road with the following possible slogans:

You are entering an air pollution zone  
Too many cars = worse air pollution  
More air pollution = more asthma  
Do you really need to be driving here?

There are highway implications with this measure. KCC Highways have advised that a Licence would be required to place signs adjacent to the carriageway and the terms of this Licence, if granted, would be very restrictive. Suitable sites for signage are very limited in this area. In addition, there is a protocol for permitted signs/banners, which includes size, wording, drawings, logos etc. Development Control have advised that Planning Permission may also be required due to Broad Street and Military Road being part of a Conservation Area.

The option of incorporating air quality information, advice and alerts into the Variable Message Signage has already been mentioned as part of the Canterbury Urban Traffic Management and Control Project. This may be a better option to consider.

## **6.2 Proposed General District-wide Measures to Improve Air Quality**

There are general measures that can be implemented by CCC, or which CCC can feed into, aimed at improving the air quality throughout the district. These are contained within adopted policy documents, or those currently under development and a number have funding secured. These will reduce background pollution concentrations and indirectly will work towards achieving the Air Quality Objectives within the AQMA. Of those included below, a number have the potential to have greater, albeit still potentially only low, impact on improving air quality through the ability to concentrate efforts in certain areas e.g. along Broad Street/Military Road. These measures will not have specific further investigation undertaken on them directly as part of this process, although the designation of Broad Street/Military Road as an AQMA should afford it extra consideration when further work is done to implement them over the coming years.

### **6.2.1 Travel Plans**

A Travel Plan is a general term for a package of tailored measures to encourage the use of sustainable methods of transport and reduce the reliance on the private car, particularly single occupancy travel. They can be for one or a group of organisations and involve the development of a set of mechanisms, initiatives and targets that together can reduce the environmental and health impacts of travel. Using alternative fuels and home working can also be included. Travel Plans are also being developed for schools, residential developments and area-wide, including mixed use developments.

A School Travel Plan is a set of measures to help cut the number of car journeys people make to school, encourage more journeys by public transport, and increase walking and cycling. There are a number of schools within and near to the AQMA, where implementation of School Travel Plans will be of particular significance. The DfT and Kent Local Transport Plan target is for all Kent schools to have travel plans by 2010.

A Workplace Travel Plan should be tailored to the needs of individual businesses. It considers journeys from home to work, but can also include business journeys, travel by visitors, deliveries, contractors and company cars. Large organisations may benefit from a whole range of new ideas and changes, while small businesses may only need to make one or two very simple changes to make a big difference. 'New Ways 2 Work' is a KCC led initiative to encourage everyone from small businesses to major corporations to look more closely at the impact which commuting and business travel has on their staff, productivity and corporate image. This promotes simple steps that organisations can take, such as setting up a car sharing scheme, or asking for KCC help to set up a comprehensive Workplace Travel Plan.

The 2<sup>nd</sup> LTP objective for Workplace Travel Plans is to approach all major employers with more than 200 personnel and offer assistance to establish Sustainable Travel Plans and assist in their implementation. The target is for 50% of all Kent employers employing more than 200 staff to have Travel Plans by 2011. Within Canterbury there is already a planning requirement for all new developments likely to generate significant travel movement to submit travel plans as part of their planning permission. CCC will work in partnership with KCC to target those organisations in the district which are generating high volumes of traffic, notably those impacting on the AQMA.

The city council recently set up a Canterbury Employers Travel Forum to enable the larger city centre employers and Further Education establishments to work together to tackle congestion.

<p><b>GM 1: CCC will work in partnership with KCC to increase uptake and implementation of School and Workplace Travel Plans, particularly where likely to impact on the AQMA</b></p>
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The Government is keen for local authorities to demonstrate their commitment to delivering cleaner air by leading by example and therefore the implementation of the Council's staff Travel Plan is a key measure to take forward in the plan.

CCC has an adopted Council Travel Plan (March 2005), which concentrates on the Military Road, Canterbury Council office, where the majority of staff are located (>80%).

The four objectives are to:

- Improve travel choices for staff.
- To help reduce traffic congestion in the Canterbury area and the inconvenience that results from this.
- To reduce pressure on the limited number of car parking spaces available at Military Road and at the other City Council workplace locations with similar problems.
- To represent an 'up front' public demonstration of corporate commitment and to set a good example to others.

The three main targets that are proposed for the first five years are to:

- Reduce single occupancy car use from 64% to 50%
- Increase occasionally used other modes of travel from 33% to 50%
- Reduce the total number of car journeys to/from Military Road office by 16%.

The key principles of the Plan have been approved by Members as a process of voluntary incremental change aimed at increasing travel choices, with a view to introducing harder hitting measures if necessary such as charging for parking (in about 3 years time) after the identified priority initiatives have been put in place.

The principal measures to achieve these targets are:

- A fairer system of allocating parking permits at Military Road enabling more operational efficiency of parking spaces;
- More secure and user friendly bicycle parking facilities, the provision of showers, changing rooms and clothes lockers and the provision of pool bikes;
- Promotion of free Park and Ride;
- Discounted fares, free tickets, improved travel information and public transport services;
- Improved promotion and provision of pool cars for business use;
- A car sharing system, help in finding potential car share partners and a free emergency lift home;
- Lunch time Health Walks;
- More flexible working including working from home and more flexible working hours;
- More information and better awareness-raising;
- The provision of non-financial incentives.

## **GM 2: CCC will continue to develop and implement the Council Travel Plan**

### **6.2.2 Improve Emissions Standards for Council Fleet and Public Service Vehicles**

This measure would lead to reductions in emissions of NO<sub>x</sub> by improving emissions standards of vehicles in the public service sectors.

#### *Quality Bus Partnerships*

There is a Quality Bus Partnership in Canterbury with Stagecoach East Kent. Further initiatives to support the BQP are proposed through the 2<sup>nd</sup> Local Transport Plan. The

potential to achieve improvements in emissions standards through Quality Bus Partnerships is potentially high, such as through increased fleet renewal.

### *Taxis*

With respect to taxi emissions, consideration could be given to setting minimum emissions standards for taxis through a review of the current licensing system.

### *Council fleet and contractor vehicles*

The scope for improvements in the Council fleet and for contractor vehicles is being investigated through contract renewal/review. The Government is keen for local authorities to demonstrate their commitment to delivering cleaner air by leading by example and therefore the implementation of the Council Travel Plan and improving the Council's fleet emissions are key measures to take forward in the plan.

There is currently no overall policy with respect to improving Council fleet emissions, although individual departments have been taking this into account through the procurement process e.g. low polluting pool car was leased in 2007. The Council's Environmental Policy Working Group is currently considering the impact of the Council's services on CO<sub>2</sub> emissions and a policy with respect to improving vehicle fleet emissions is expected to be a part of this.

**GM 3: CCC will continue to work with KCC and other partners to deliver improvements in emissions standards, where practicable.**

### **6.2.3 Car Share and Car Club Schemes**

Kentcarshare.com is a regional car sharing scheme for businesses and the public.

<http://kentcarshare.com/>. CCC is a Kentcarshare partner and encourages their staff to car share.

**GM 4: CCC will continue to work with partners to actively support and promote the Kent-wide car share scheme, to encourage greater uptake.**

A car club provides its members with quick and easy access to a car for short term hire. Members can make use of car club vehicles as and when they need them. Car clubs offer cost savings as members of a car club pay lower fixed costs than car owners. The annual membership typically costs less than a tax disc. There are often low user membership fees for those doing only one or two trips a month. After that you pay as you drive.

Car clubs result in a reduction in car miles driven, with members walking or cycling more, using public transport more often or simply re-arranging how they make journeys and travelling less. Reducing car miles driven in turn reduces exhaust emissions and improves air quality.

Belonging to a car club makes it easier for people to meet their transport needs without running their own car, or in some cases without owning a second car. Research in the UK and overseas has found significant changes in travel behaviour once the link between car use and car ownership is broken. Car club members typically drive less and make more use of public transport, cycling and walking. In the UK, former car owners increase their use of non-car transport modes by 40% after joining a car club. Two-thirds of those who owned a car before joining saw their mileage fall, by an average of around 25%. Car club users typically give up owning a first or second car on joining; others defer purchasing one due to using the car club instead. The result being that each car club car typically replaces 6 private cars. Car clubs can

also be considered for areas with low provision of on and off-street parking to help reduce parking pressures.

Within Kent, there is a car club (Street Car) operating in Maidstone town centre. The cars are located in the lay-by area immediately outside Sessions House and adjacent to the County Council Members car-park. The cars are low polluting VW Polo BlueMotions and are used by KCC as pool cars during weekdays and by other members of the car club at other times. Investigation of the potential of establishing car club schemes in Canterbury is considered within the 2<sup>nd</sup> Kent Local Transport Plan.

**GM 5: CCC will explore, with KCC and other partners, the potential for operation of Car Club Schemes in Canterbury.**

#### **6.2.4 Cycling Measures**

The 2<sup>nd</sup> Kent Local Transport Plan proposes improved cycle parking provision district-wide to increase cycle usage in the Canterbury area. This includes secure parking at bus and train stations, Park and Ride sites and other high use amenities. In addition, pedestrian and cycle routes from the Canterbury West Station to the city centre need to be improved. Schemes are likely to be implemented and funded through the Kent LTP.

The city council is also committed to improving the cycle route network and the key priority scheme identified for funding within the capital programme is the Coastal Cycle Route (Reculver to Whitstable) and Chartham to Canterbury cycle route.

**GM 6: CCC will work in partnership with KCC to implement improvements to the Canterbury local cycle route network**

#### **6.2.5 Land Use Planning**

Land use planning has a key role in delivering sustainable transport systems within the area by considering and influencing the accessibility, location, scale, density, design and mix of development and encouraging alternative modes of travel. The Local Plan requires major development which would significantly increase travel to implement travel plans. Section 3.8 summarises the main Canterbury District Local Plan First Review (2006) policies, which will contribute to securing air quality improvements. These will be considered within the emerging CCC LDF.

**GM 7: All relevant CCC Departments including Environmental Protection, Planning Policy and Development Control will continue working closely together, to ensure that air quality is taken into account in the planning process when considering future land uses particularly with sites in or close to AQMAs or in areas marginally below air quality objectives.**

To provide support to local plan policies, the development of a supplementary planning document for air quality assessments of developments and, in particular, for development, which may impact on an AQMA is recommended in the Policy Guidance LAQM.PG (03). The Kent & Medway Air Quality Partnership, of which CCC is a member, are currently developing a County wide planning guidance document for air quality and development control.

**GM 8: CCC will develop through the Kent & Medway Air Quality Partnership a planning guidance document to assist with air quality assessments of development proposals**

## 6.2.6 Local Air Quality Management and Pollution Control

### Air Quality Monitoring

CCC's air quality monitoring network provides more accurate information and understanding of air quality within the District. Continuous monitoring stations are installed at three sites within the district, which monitor nitrogen dioxide (NO<sub>2</sub>) (3 sites) and particulate (PM<sub>10</sub>) (1 site) concentrations. A continuous NO<sub>2</sub> monitor was installed in the AQMA in October 2006, which will provide more accurate information on pollutant concentrations in the AQMA as Action Plan measures are implemented. The continuous monitoring is supplemented by NO<sub>2</sub> passive diffusion tubes, a number of which are within the AQMA.

**GM 9: CCC will continue their commitment to undertake local air quality monitoring within the District to ensure a high standard of data is achieved to assess against air quality objectives**

### Promotion and Education

It is important that information on air quality is provided in a clear and accessible way. The Council web site <http://www.canterbury.gov.uk/> provides details on air quality within the District and LAQM Review and Assessment Reports are available for viewing.

**GM 10: CCC will make details of the Action Plan measures and annual progress reports available on its website to ensure accessibility to the consultation and implementation process.**

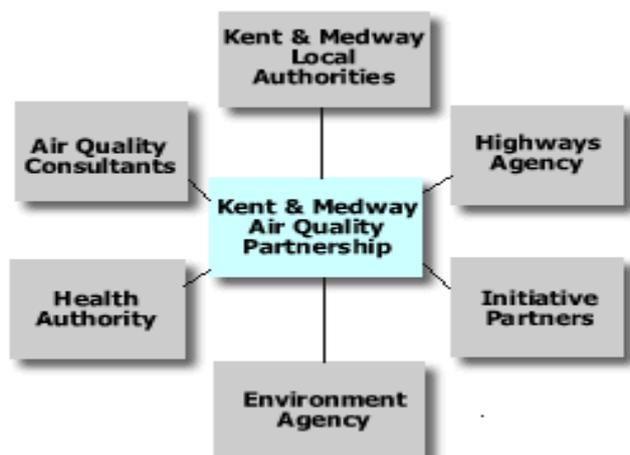
### *AirTEXT Service*

The airTEXT service is designed to support people who are badly affected by air pollution by providing air quality alerts and health advice on how to manage symptoms. Services have successfully been set up in a number of local authorities, including many London Boroughs and the Sussex Air Quality Partnership authorities.

**GM 11: CCC will investigate the potential for setting up an airTEXT service in Canterbury.**

### *Kent & Medway Air Quality Partnership*

CCC is a member of the Kent & Medway Air Quality Partnership (K&MAQP) which was formed in 1992. The members of the Partnership are shown below.



The major aims and objectives of the Partnership are:

- To facilitate a co-ordinated approach throughout Kent and Medway to the Local Air Quality Management (LAQM) obligations placed on local authorities under the Environment Act 1995.
- To compile, update and maintain an Emissions Inventory of air pollution sources in and around Kent, to assist with the LAQM process.
- To comment on and influence the economic, planning and transport policies within the county so that air quality issues are properly considered and dealt with.
- To gain an understanding of the health implications associated with poor air quality and the extent to which air quality threatens the health of Kent and Medway's communities.
- To work with national agencies, neighbouring authorities and European partners to promote an awareness of air quality issues and to participate in joint initiatives to further the knowledge and understanding of air quality issues.
- Liaise with DEFRA and government bodies to assist with the implementation of the National Air Quality Strategy.

The Partnership co-ordinates a county-wide air quality monitoring network, the Kent & Medway Air Quality Monitoring Network, which is funded in partnership with all the Kent local authorities. The K&MAQP represents the views of Kent at regional and national Air Quality Management Groups.

**GM 12: CCC will continue to support and be a Member of the Kent and Medway Air Quality Partnership and Monitoring Network Group. Canterbury will also work together with the Kent & Medway Air Quality Partnership on air quality studies within the County to raise the profile of air quality in Canterbury and County-wide.**

## Pollution Control

Prescribed Industrial Processes are regulated by CCC and the Environment Agency under the Environmental Protection Act 1990 Part I A & B and subsequent Environmental Permitting Regulations 2007. There are 45 prescribed Part B Processes in Canterbury regulated by CCC.

With regard to nuisance emissions from unregulated processes, Statutory Nuisance is enforced by the Environmental Protection team under the Environmental Protection Act 1990 Part III. This controls smoke, dust, fumes or gas emissions from commercial and domestic premises which are causing a nuisance or are prejudicial to health. CCC has an Enforcement Policy in place to ensure that, where the Local Authority has jurisdiction, effective measures are enforced against persons responsible.

**GM 13: CCC will continue to proactively enforce industrial pollution control and nuisance legislation to minimise pollutant emissions from these sources in the Canterbury area.**

## 6.2.7 Energy Management

### Domestic Energy Use

CCC is working in partnership with the Kent Energy Centre to promote increased energy efficiency in residential properties in the District. The Kent Energy Centre co-ordinates the implementation of the Kent Health & Affordable Warmth Strategy (2001) on behalf of all Kent local authorities including CCC, which aims to tackle fuel poverty and promote energy efficiency measures. There is a Comprehensive Energy Savings Programme which includes projects such as distribution of energy efficient light bulbs, as well as promoting uptake of grants for improving energy efficiency and insulation. All these measures will lead to improvements in domestic energy efficiency throughout the district.

### Building Control

Building Control can contribute to the development of policies for air quality improvement through the promotion of emission-reducing technologies in new developments and buildings.

The Building Control Service has a statutory responsibility to ensure that new building works within the district meet minimum technical standards in relation to health, safety, welfare and energy conservation, as prescribed under the Building Regulations 1991. The Legislation sets out substantive requirements and technical guidance to achieve minimum standards. This technical guidance is contained in Approved Documents giving general guidance as well as practical guidance about some of the ways of meeting the requirements of the Regulations. Approved Document L, "Conservation of Fuel and Power" requires reasonable provision to be made for the conservation of fuel and power in buildings by:

- limiting the heat loss through the fabric of the building;
- controlling the operation of the space heating and hot water systems;
- limiting the heat loss from hot water vessels and hot water service pipe work;
- limiting the heat loss from hot water pipes and hot air ducts used for space heating;
- installing in buildings artificial lighting systems, which are designed and constructed, to use no more fuel and power than is reasonable in the circumstances and making reasonable provision for controlling such systems.

Part L of the Building Regulations identifies the legal minimum a development needs to meet in terms of energy efficiency in the UK. However, in Kent developers should additionally look to meet more stringent demands to satisfy the aims of the Kent and Medway Structure Plan (Policy SP1 and NR1) and the overarching aim of reducing CO<sub>2</sub> emissions, improving energy efficiency and increasing the proportion of energy generated from renewable sources. Many of these options have direct synergies with the improvement of local air quality.

**GM 14: CCC will continue to work together with the Kent Energy Centre and other**

### **6.2.8 Alternative public transport options**

The Draft Action Plan was presented to the General Purposes Committee on 13/11/08. It was minuted at that committee that consideration should be given to the introduction of electric trams. Further investigation into this option will therefore be made.

**A summary of the proposed general District-wide measures to improve air quality is provided in Table 5.**

#### **General Measures considered but dismissed on the grounds of cost-effectiveness and/or feasibility at this stage**

##### **Electric Trams**

A proposal was put forward at the General Purposes Committee on 13/11/08 that consideration should be given to the introduction of electric trams. The Air Quality Steering Group has considered this option. However, investigation and advice so far has resulted in the decision not to pursue this measure at this stage. The main considerations are the high costs involved for the infrastructure (substations, track/overhead cables and depots) and also the road space that would be required to introduce this scheme. Kent Highways have advised that the current road space around the city centre is not sufficient.

**Table 4 Summary Table of Direct Action Plan Measures**

Action	Description	Organisation responsible	Date to be achieved by	Cost/ Funding	Air quality improvement in AQMA	Other potential impacts	Performance Indicator	Rank (based on cost-effectiveness)
DM1	CCC will work in partnership with KCC and freight operators to implement the Freight Quality Partnership Action Plan	CCC/KCC/ Freight operators	Ongoing	Moderate LTP2	High	Reduction in congestion; improved journey times; improved city centre environment	implementation of improvement schemes	1
DM2	CCC will work in partnership with KCC to implement traffic management improvements in the city centre, particularly within the Broad Street/Military Road AQMA	KCC/CCC	2010/11	Moderate LTP2	Moderate	Reduction in congestion; improved journey times; improved city centre environment	implementation of traffic management measures	2
DM3	CCC will work in partnership with the Highways Agency and KCC to deliver the New A2 Slip Roads Schemes	Highways Agency /KCC/CCC	2010-/14	High LTP2/ Highways Agency	Low	Reduced congestion; improved journey times; improved city centre environment	implementation of new A2 slips	8=
DM4	CCC will continue to work with partners to implement measures within the Canterbury Parking Strategy, including enhancement of Park and Ride	KCC/CCC	2006-2016	High LTP2	Moderate	Reduced congestion; improved journey times; increased public transport use; improved city centre environment	Implementation of additional Park & Ride provision. Passenger numbers. Number of Parking spaces.	5
DM5	CCC will work in partnership with KCC to implement the Canterbury Bus Strategy and support the Quality Bus Partnership with Stagecoach East Kent in Canterbury	KCC/CCC	On going	High LTP2	Low	Reduced congestion; improved journey times; increased public transport use; improved city centre environment	Implementation of the improvement schemes. Passenger numbers.	8=
DM6	CCC will work in partnership with KCC to continue with the Kent Freedom Pass scheme in Canterbury	KCC/CCC	On going	Low LTP funding	Low	Reduced congestion; improved journey times; safer roads; increased public transport use; improved city centre environment	Passenger numbers; modal shift.	3

The costs are provided as: 'Low' (up to £100,000); 'Moderate' (between £100,000 – £1 million); and 'High' (greater than £1 million). The air quality improvements are provided as: 'Low' (<0.2µg/m<sup>3</sup>); 'Moderate' (between 0.2 – 1 µg/m<sup>3</sup>); and, 'High' (greater than 1 µg/m<sup>3</sup>). The timescales where not specified are provided as: short term (1-2 years), medium term (2-5 years), long term (>5 years)

**Table 4 (Continued) Summary Table of Direct Action Plan Measures**

Action	Description	Organisation responsible	Date to be achieved by	Cost/ Funding	Air quality improvement in AQMA	Other potential impacts	Performance Indicator	Rank (based on cost-effectiveness)
DM7	CCC will investigate the potential for Roadside Emissions Testing in Canterbury, in particular within the Broad Street/Military Road AQMA	CCC	2010	Low AQ Grant	Low	Improved education and awareness raising	% failure rate	6 (Other considerations eg. practicalities of carrying out the test have been taken into account, resulting in the ranking being downgraded)
DM8	CCC will request S106 contributions for developments likely to have a direct impact on air quality in the AQMA	CCC	2010	Low	Low	Socio-economic implications of increased costs for development	Contributions secured for air quality through S106	4=
DM9	CCC will investigate the potential for use of NO <sub>x</sub> reducing paving and paints within the AQMA	CCC	2010	Low (1000m <sup>2</sup> paving is approx £60,000) AQ Grant	Low	Potential improvements to city centre environment	implementation of improvement schemes	4=
DM10	CCC will consider investing in and making more use of LPG or electric cars and vehicles	CCC	Post 2012	Moderate Possible future budget provision	Low	Potential improvements to city centre environment	implementation of improvement schemes	7
DM11	CCC will work in partnership with KCC to investigate a route for a new A28/A257 link road.	KCC/CCC	Post 2011	High Developer funding	High	Reduced congestion; improved journey times; improved city centre environment	implementation of improvement schemes	9 (Other consideration such as land acquisition, access to MoD land have resulted in the ranking being downgraded)

The costs are provided as: 'Low' (up to £100,000); 'Moderate' (between £100,000 – £1 million); and 'High' (greater than £1 million). The air quality improvements are provided as: 'Low' (<0.2µg/m<sup>3</sup>); 'Moderate' (between 0.2 – 1 µg/m<sup>3</sup>); and, 'High' (greater than 1 µg/m<sup>3</sup>). The timescales where not specified are provided as: short term (1-2 years), medium term (2-5 years), long term (>5 years)

**Table 5 Summary Table of General Action Plan Measures**

Action	Description	Organisation responsible	Date to be achieved by	Cost/ Funding	Air quality improvement in AQMA	Other potential impacts	Performance Indicator
General District-wide Measures							
GM1	CCC will work in partnership with KCC to increase uptake and implementation of School and Workplace Travel Plans, particularly where likely to impact on the AQMA	KCC/CCC/ Schools/ Businesses	Ongoing	Low	Low	Reduced congestion	Number of new travel plans
GM2	CCC will continue to develop and implement the Council Travel Plan	CCC	Ongoing	Low CCC existing budgets	Low	Reduced congestion, health benefits to staff	Implementation of Council Travel Plan; progress with targets.
GM3	CCC will continue to work with KCC and other partners to deliver improvements in emissions standards, where practicable	KCC/CCC/ Public transport operators	Ongoing		Low moderate -	Socio-economic implications of increased costs to transport operators, contractors and CCC.	Number of new/improved vehicles within fleets
GM4	CCC will continue to work with partners to actively support and promote the Kent-wide car share scheme, to encourage greater uptake	CCC	Ongoing	Low CCC existing budgets	Low	Reduced congestion	Number new joiners to share lifts.
GM5	CCC will explore, with KCC and other partners, the potential for operation of Car Club Schemes in Canterbury	CCC/KCC	2010/11	Low CCC existing budgets	Low	Reduced congestion and parking pressures	Introduction of Car Club
GM6	CCC will work in partnership with KCC to implement improvements to the Canterbury local cycle network	KCC/CCC	Ongoing	Moderate CCC existing budgets  LTP2	Low	Reduced congestion; health benefits; better quality environment	Number miles new cycle lanes/ routes.
GM7	All relevant CCC Departments including Environmental Protection, Planning Policy and Development Control will continue working closely together, to ensure that air quality is taken into account in the planning process when considering future land uses particularly with sites in or close to AQMAs or in areas marginally below air quality objectives.	CCC	Ongoing	Low CCC existing budgets	Low	Health benefits for residents in new development proposals	Number of planning applications with air quality conditions/ assessments
GM8	CCC will develop through the Kent & Medway Air Quality Partnership a planning guidance document to assist with air quality assessments of development proposals	CCC/ K&MAQP	2009/10	Low CCC existing budgets	Low	Improved quality of assessments	Completion of planning guidance

The costs are provided as: 'Low' (up to £100,000); 'Moderate' (between £100,000 – £1 million); and 'High' (greater than £1 million). The air quality improvements are provided as: 'Low' (<0.2µg/m<sup>3</sup>); 'Moderate' (between 0.2 – 1 µg/m<sup>3</sup>); and, 'High' (greater than 1 µg/m<sup>3</sup>). The timescales where not specified are provided as: short term (1-2 years), medium term (2-5 years), long term (>5 years)

**Table 5 (Continued) Summary Table of General Action Plan Measures**

Action	Description	Organisation responsible	Date to be achieved by	Cost/ Funding	Air quality improvement in AQMA	Other potential impacts	Performance Indicator
GM9	CCC will continue their commitment to undertake local air quality monitoring within the District to ensure a high standard of data is achieved to assess against air quality objectives	CCC	Ongoing	Low CCC Existing budgets/Air Quality Grant	Low	Enable effective monitoring and evaluation of progress	Number of monitoring sites % data capture
GM10	CCC will make details of the Action Plan measures and annual progress reports available on its website to ensure accessibility to the consultation and implementation process	CCC	Ongoing	Low CCC Existing budgets	Low	Improved awareness	Availability of recently published reports on the Website
GM11	CCC will investigate the potential for setting up an airTEXT service in Canterbury	CCC	2010	Low CCC Existing budgets/Air Quality Grant	None	Improved awareness and support to sufferers of air pollution symptoms	Implementation of AirText scheme
GM12	CCC will continue to support and be a Member of the Kent and Medway Air Quality Partnership and Monitoring Network Group. Canterbury will also work together with the Kent & Medway Air Quality Partnership on air quality studies within the County to raise the profile of air quality in Canterbury and County-wide.	CCC	Ongoing	Low CCC Existing budgets	Low	Improved awareness	Membership of the Partnership and Network continued.
GM13	CCC will continue to proactively enforce industrial pollution control and nuisance legislation to minimise pollutant emissions from these sources in the Canterbury area.	CCC	Ongoing	Low CCC Existing budgets	Low	Reduction in nuisance complaints	BVPI for upgrade of permitted industrial processes
GM14	CCC will continue to work together with the Kent Energy Centre and other partners to promote and implement energy efficiency measures in Canterbury	CCC/Kent Energy Centre	Ongoing	Low CCC Existing budgets	Low	Improved energy efficiency; reduced CO <sub>2</sub> emissions; reduced costs	% improvement in energy efficiency Standard Assessment Procedure rating

The costs are provided as: 'Low' (up to £100,000); 'Moderate' (between £100,000 – £1 million); and 'High' (greater than £1 million). The air quality improvements are provided as: 'Low' (<0.2µg/m<sup>3</sup>); 'Moderate' (between 0.2 – 1 µg/m<sup>3</sup>); and, 'High' (greater than 1 µg/m<sup>3</sup>). The timescales where not specified are provided as: short term (1-2 years), medium term (2-5 years), long term (>5 years)

## 7 IMPLEMENTATION AND MONITORING

CCC will work jointly on the action plan measures with its partners including KCC, transport operators, schools and local businesses. To secure the necessary air quality improvements there must be involvement by all local stakeholders and CCC will actively work to encourage community participation in the process.

The implementation and effectiveness of the Action Plan will be carefully monitored through monitoring of nitrogen dioxide at relevant receptor locations within the AQMA. In addition, traffic flow changes on the key roads will also be assessed through the review and assessment process, and the uptake of local measures such as Travel Plans will be monitored. Indicators have been provided for measures to be undertaken by the Council to monitor progress annually.

Targets and indicators have also been established through the Kent 2<sup>nd</sup> Local Transport Plan. Below are those specific to the air quality shared priority, although other indicators relating to congestion and accessibility shared priorities will also be of relevance.

- Air quality (Shared priority) - Air quality target related to traffic emissions  
Target: to reduce the annual average level of NO<sup>2</sup> emissions at Kent's AQMAs to 40ug/m<sup>3</sup> by 2010/11 (based on 10 AQMA declarations)

Trajectory shows that the intermediate target of a 10% traffic reduction in the AQMAs was on track as reported in Kent's LTP Delivery Report 2008.

There will be regular review and assessment of the action plan proposals to evaluate progress and this will be reported annually through LAQM and 2<sup>nd</sup> Local Transport Plan progress reports.

## 8 DEFRA ACTION PLANNING REQUIREMENTS COMPLIANCE CHECKLIST

WORK AREA	CONSIDERED/INCLUDED	LOCATION IN ACTION PLAN/ COMMENTS
<b>Adherence to Guidelines and Consideration of Policies</b>		
Statutory Consultees consulted?	✓	Sec 5 p 24 App 1
Consulted with other Local Authorities and internal departments?	✓	Sec 5 p 24 App 1
Statement of Pollutant causing AQMA?	✓	P 1 Sec 2 p 7-8
Principle sources of pollutants identified?	✓	Sec 2 p 7 -8
Have other local authorities' plans and policies been considered?	✓	Sec3 p11-22
Options timetable included?	✓	Sec 4 p 2-3 Table 4 & 5 p 40-43
Have options been costed?	✓	Sec 4 p 23 Table 4 & 5 p 40-43
Have the impacts been assessed?	✓	Sec 2 p 9-10 Table 4 & 5 p 40-43
<b>Checklist of Measures</b>		
Have options been considered?	✓	Sec 2 p 9-10 Table 4 & 5 p 40-43
How many options considered?	✓	Direct - 11 Indirect – 15 Sec 6 p 25-39
Transport impacts assessed?	✓	Sec 4 p 23 Sec 3 p 13, 20 - 22
Have air quality impacts been assessed modelled or measured?	✓	Sec 2 p 9-10
Have socio-economic impacts been assessed?	✓	Sec 6 p 25 - 39
Have other environmental impacts been assessed?	✓	Sec 6 p 25 - 39
Have costs been considered?	✓	Table 4 & 5 p 40-43 Sec 4 p 23
<b>Appropriateness and Proportionality</b>		
Do measures seem appropriate to the problem?	✓	Sec 6 p 25 – 39 Sec 2 p 7-10
Have the measures been assessed?	✓	Sec 2 p 7-10 Table 4 & 5 p 40-43
Are the measures likely to succeed?	✓	Table 4 & 5 p 40-43
Have wider impacts been assessed?	✓	Sec 6 p 25 – 39
Was the costing method appropriate?	✓	Sec 6 p 25 – 39, 40-43
Is it likely that the AQMA objective will be met?	Not Known	Sec 2 p 9-10
Do the chosen options comply with Government Policies?	✓	Sec 6 p 25 – 39
<b>Implementation</b>		
Are measures realistic?	✓	Sec 6 p 25 – 39, 40-43
Have responsibilities been assigned to the relevant party?	✓	Sec 6 p 25 – 39, 40-43
Does the assigned party have the necessary powers?	✓	Sec 6 p 25 – 39, 40-43
Is the financing secure and identify who pays?	✓	Sec 6 p 25 – 39, 40-43

## 9 GLOSSARY OF TERMS

<b>Abbreviation</b>	<b>Full name</b>
AQMA	Air Quality Management Area
AQS	Air Quality Strategy
BAT	Best Available Technology
CCC	Canterbury City Council
DEFRA	Department for Environment, Food and Rural Affairs
DETR	Department for Transport and Regions
DOE	Department of the Environment
HDV	Heavy Duty Vehicles
HGV	Heavy Goods vehicles
IPPC	Integrated Pollution Prevention & Control
KCC	Kent County Council
LAAPC	Local Authority Air Pollution Control
LAQM	Local Air Quality Management
LDD	Local Development Documents
LDF	Local Development Framework
LDV	Light Duty Vehicles
LEZ	Low Emission Zone
LSP	Local Strategic Partnership
LTP	Local Transport Plan
NAQS	National Air Quality Strategy
NO <sub>2</sub>	Nitrogen dioxide
NO <sub>x</sub>	Oxides of nitrogen
NSCA	National Society for Clean Air
PM <sub>10</sub>	Fine particle matter less than 10µm diameter
ppb	Parts per billion
SO <sub>2</sub>	Sulphur dioxide
µg/m <sup>3</sup>	Micrograms per cubic metre
UTMC	Urban Traffic Management and Control
VMS	Variable Message Signage

## 10 REFERENCES

DEFRA (2003) Policy Guidance LAQM.PG (03)

DEFRA (2007) Air Quality Standards (England) Regulations 2007, the Stationery Office

Defra in partnership with the Scottish Executive, Welsh Assembly Government and Department of the Environment Northern Ireland (2007) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, The Stationery Office

Kent County Council (2003) Kent Environment Strategy

Kent County Council (2006) Local Transport Plan for Kent 2006– 2011

Kent County Council (2006) Kent and Medway Structure Plan

NSCA (2000) Air Quality Action Plans

NSCA (2001) Air Quality: Planning for Action

SEERA (2006) Draft South East Plan (Regional Spatial Strategy)

Canterbury City Council (2006) Canterbury District Local Plan First Review

Canterbury City Council (2004) Canterbury's District Transport Action Plan

Canterbury City Council Canterbury Corporate Plan 2008- 2012

Canterbury Local Strategic Partnership (2003) Canterbury District Community Strategy

## APPENDIX I CONSULTATION OUTCOME

Consultation with internal Departments within CCC and with partners KCC, have led to the formulation of this Action Plan. Discussions through the Air Quality Steering Group have led to further changes to the draft Plan and have been incorporated directly into the document.

The following provides a summary of the external consultation on the Plan, which has been taken into account in the development of the Plan where possible.

### Air Quality Action Plan Questionnaire - feedback

**Number of response - 22**

#### **Agreement with Direct Measures**

<b>Measure</b>	<b>Strongly agree</b>	<b>Agree</b>	<b>Disagree</b>	<b>Strongly disagree</b>
Freight Quality Partnership Action Plan	50.0% (11)	22.7% (5)	4.5% (1)	4.5% (1)
Congestion Plan	45.5% (10)	31.2% (7)	9.1% (2)	4.5% (1)
Traffic management improvements	31.8% (7)	31.8% (7)	4.5% (1)	13.6%(3)
A2 slip roads	63.6% (14)	9.1% (2)	13.6%(3)	4.5% (1)
Parking strategy	45.5% (10)	22.7% (5)	13.6%(3)	9.1% (2)
Quality Bus Partnership	50.0% (11)	27.2% (6)	4.5% (1)	4.5% (1)
Kent Freedom Pass scheme	45.5% (10)	36.3% (8)	4.5% (1)	-
Roadside emission testing	41.0% (9)	18.1% (4)	13.6%(3)	18.1% (4)
S106 contributions	36.3% (8)	27.2% (6)	4.5% (1)	9.1% (2)
NOX reducing paints/paving	27.2% (6)	18.1% (4)	18.1% (4)	9.1% (2)
LPG/electric vehicles	45.5% (10)	31.2% (7)	-	4.5% (1)
A28/A257 link road	77.3% (17)	9.1% (2)	9.1% (2)	-
Signage	41.0% (9)	13.6%(3)	9.1% (2)	18.1% (4)

55% (12) of responders travelled through the AQMA every day

45.5% (10) live in the AQMA

22.7% (5) are en route to work

22.7% (5) are sole occupiers in a car

27.3% (6) walk through the AQMA

59.1% (13) use public transport less than monthly/never

45.1% (10) say public transport is inconvenient

22.7% (5) say public transport is too expensive

31.8% (7) said improving traffic management in the AQMA would improve their daily journey

31.8% (7) said improving traffic management in the AQMA would not improve their daily journey

### **Criticisms/negative comments from the Public Consultation**

#### **Freight Quality Partnership Action Plan**

No comments made

#### **Congestion Plan**

Incomplete, not a published plan, no consultation on it

Not clear who is responsible for measures/no timescale

#### **Traffic management improvements**

No comments made

#### **A2 slip roads**

Will bring more pollution into city

#### **Parking strategy**

Information in draft plan for public consultation is incorrect

#### **Quality Bus Partnership**

Bus lanes encourage more buses which encourages more pollution

Bus transport is expensive and inflexible

#### **Kent Freedom Pass scheme**

Isn't this already in place?

#### **Roadside emission testing**

Silly idea – just stop vehicle emitting smoke/fumes

#### **S106 contributions**

No comments made

### **NOX reducing paints/paving**

Will the paints look awful in a conservation area?

### **LPG/electric vehicles**

Will have little effect in AQMA

Merely transfers pollution elsewhere

### **A28/A257 link road**

Don't like proposal, as would bring security issues for army

Don't wait for 2011 – start planning now

### **Signage**

Not helpful as no alternative route for drivers to take

Expensive and will not change peoples behaviour

Need to look at signage further away to re-route traffic (eg. A2/A299 & A28/A253)

Local resident – don't like the idea

### **General comments**

Lots of plans to do very little.

Too long winded

Too long terms to be relevant

Doesn't help to have the coach park on this side of town (Sturry Road)

Just a quick fix – Canterbury needs a bypass

Actions too slow especially as there are 2 schools in the AQMA

Working in partnership with other agencies is rubbish and a waste of money

Current cycle routes are rubbish - need to be more joined up

Policies and strategies section is out of date in Consultation draft

Consultation period too short for amount of information in the draft plan

### **Positive comments from the public consultation**

#### **Freight Quality Partnership Action Plan**

Crazy that all lorries come this way – so measures to reduce traffic are good

#### **Congestion Plan**

No comments made

#### **Traffic management improvements**

No comments made

#### **A2 slip roads**

A priority

Good (but need all junctions improved)

#### **Parking strategy**

A priority

Encouraging P & R is good

**Quality Bus Partnership**

No comments made

**Kent Freedom Pass scheme**

Cheaper public transport will make people use it

**Roadside emission testing**

No comments made

**S106 contributions**

No comments made

**NOX reducing paints/paving**

No comments made

**LPG/electric vehicles**

No comments made

**A28/A257 link road**

Particularly welcomed

Good idea as will help divert traffic from the AQMA

A good idea but start planning now

**Signage**

No comments made

**Additional proposals/suggestions from public consultation**

Join up cycle routes

Improve cycle routes

More emphasis on walking buses

Consider "traffic free days"

Charge for out of town supermarket car parks

Complete Sturry Rd bus lane

Plant more roadside trees (x2)

Compressed natural gas for P & R and Brett/waste vehicles

Create link from A2 to A28 beyond Sturry.

Improve A28 to A299 links beyond Sturry

Build an outer ring road

Congestion charge (x2)

Limit times cars allowed on the road.

Restrict certain times to buses and residents only.

Electric/low emission buses

Bicycle hire scheme

Improve all A2 junctions

Provide low emission fleet of school buses to reduce the number of 'school run mums'

Pressure government for more radical vehicle tax costs for high polluting vehicles

More joined up ticketing for public transport