Maidstone Borough Council

DRAFT

LOW EMISSION STRATEGY

January 2016

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1 INTRODUCTION

In common with most other Local Authorities, Maidstone Borough has areas of poor air quality.

In 2008, the Council designated an Air Quality Management Area (AQMA) covering the whole urban area due to elevated concentrations of Nitrogen Dioxide (NO_2) at residential receptors in six areas of the Borough. NO_2 levels at some key locations near to major roads and junctions remain above the EU Limit Value with no discernible downward trend. The UK is now in breach of the EU Air Quality Directive and infraction proceedings have commenced. The level of fines could reach 400 million Euros and under the reserve powers of Part 2 of the Localism Act 2011, these fines can be passed on to any public authority whose act or omission has contributed to these breaches.

The predominant source of these elevated levels is the emissions of oxides of nitrogen (NOx) from road transport vehicles. Road transport vehicles are also a significant source of fine particulate concentrations in Maidstone and, although levels fall below the EU threshold, it is estimated that approximately 5.6% of deaths in Maidstone are attributable to fine particulate concentrations (less than 2.5 microns in size). In 2013, the World Health Organisation (WHO) classified diesel exhaust emissions as carcinogenic to humans.

The Maidstone Carbon Management Plan states that 35% of all Carbon Dioxide (CO_2) emissions caused by Maidstone Borough Council are due to fleet operations and business travel with little progress made in reducing these emissions.

Maidstone Borough Council considered introducing a Low Emission Zone for the urban area, however, analysis showed that the costs would outweigh the potential benefits in the exceedance areas. Therefore, this Low Emission Strategy (LES), is being adopted, which will not only help improve health and the environment but will provide a platform for inward investment and competitive advantage for Maidstone.

2 AIMS

The aims of the Low Emission Strategy are as follows:-

1. To achieve a higher standard of air quality across Maidstone

2. To embed an innovative approach to vehicle emission reduction through integrated policy development and implementation in Maidstone and across the region

3. To improve the emissions of the vehicle fleet in Maidstone beyond the 'business as usual' projection, through the promotion and uptake of low and ultra low emission vehicles

4. To reduce emissions through an integrated approach covering all appropriate municipal policy areas. Under each area, the specific actions aimed at reducing emissions will be developed

3 ACTIONS

This strategy is divided into a number of themes. We will develop and carry out actions under each of these themes. The themes are shown below together with case studies illustrating what has been done in each area by other local authorities and other organisations, demonstrating what is possible. These examples are indicative but other schemes will be investigated in developing the final actions.

3.1 TRANSPORT EMISSIONS

Since transport is the main cause of the pollution affecting Maidstone Borough, the Transport section of the Low Emission Strategy will be the most important. This section will complement other Council Policies such as the Local Transport Plan and the Air Quality Action Plan but whereas these Policies attempt to deal with the problem by reducing congestion and encouraging so called modal shift, i.e. reducing the use of private cars by encouraging increased use of public transport, walking and cycling, the Low Emission Strategy attempts to tackle the vehicle emissions themselves.

3.1.1 Public Transport; Buses

The latest UK road-traffic emission factors show that buses are significantly higher emitters of NOx than cars, LGVs and even HGVs. The level of emissions is mainly dependent upon the emission technology (Euro classes). The bus fleet in Maidstone contains a proportion of the older Euro I, Euro II and Euro III vehicles, and MBC should investigate ways to improve the composition of the bus fleet in the Borough.

Increasingly, Local Authorities are introducing Emissions Standards for the bus fleets within their Boroughs. One consequence of this is that, as bus fleet operators use their newer, cleaner buses in areas where emissions standards have been introduced, they shift their older more polluting buses to the areas where no standards apply.

Case Study 1 - Brighton and Hove City Council Low Emission Zone

Brighton and Hove City Council introduced a Low Emissions Zone (LEZ) in January 2015. The area of the zone is small, but almost 98% of bus movements in the city centre pass through it. All buses passing through the LEZ will be required to be Euro V or higher, although operators have been given 5 years to bring their entire fleets up to this standard. CCTV will be used to ensure that only registered buses meeting the required standard enter the LEZ. Furthermore, buses are prohibited from leaving their engines idling in the LEZ for more than one minute, except for reasons of passenger comfort in extremely hot or cold weather. BHCC has worked with bus companies to secure grant funding to retrofit buses with suitable equipment to reduce both NO_2 and particulate emissions, and currently has 100 vehicles, used in the city centre, which are being upgraded.

3.1.2 Taxis

Whilst Taxis are far less significant polluters than buses, MBC should still be forward thinking and encouraging the shift towards low and ultra-low emission vehicles. The present Taxi Licensing Policy sets a vehicle age standard, however, a standard based on vehicle emissions, coupled with measures to encourage the use of hybrid and electric vehicles as taxis would represent a significant improvement.

Case Study 2 - Brighton and Hove City Council Taxi Policy

Brighton and Hove City Council has a policy prohibiting taxis from idling whilst stationary at taxi ranks. BHCC's taxi policy also has more generous age restrictions for hybrid and electric vehicles.

3.1.3 Freight Emission Strategy

The council should enter into dialogue with freight owners to find ways to improve the emissions of the HGV and LGV fleets using the Borough's road network. One of the simplest ways of doing this is by changing driver behaviour (so called eco-driving) and there are a number of commercially available driver aids designed to assist with this.

One such device is called Lightfoot, which consists of a simple display which shows the driver when the engine speed is in the most economical range. Lightfoot has been independently tested at Bath University, and was shown to reduce fuel consumption by approximately 10% whilst reducing CO_2 emissions by 10%, NOx emissions by 20%, and particulate emissions by 15%.

Case Study 3 – Northumberland County Council introduce the Lightfoot Eco-driving Aid

Northumberland County Council undertook a two week trial of Lightfoot and were so impressed with the results that they have now installed it in 250 vehicles in their light vehicle fleet. This fleet includes light commercial vehicles and car derived vans, delivering a wide variety of services. The response from drivers to the new technology has been very supportive and a 7% fuel cost saving has been achieved.

Lightfoot has also been adopted by a number of Local Authorities including Nottingham and Oxford's City Councils, as well as many commercial vehicle fleets including Royal Mail and Autoglass. It has also been shown to bring about a reduction in accident rates.

MBC's own vehicle fleet currently uses some 130,000 litres of fuel annually, thus a device with the potential to reduce this by up to10% appears to be worthy of further consideration.

Fleet Recognition Schemes, are schemes which encourage fleet operators to improve the performance and efficiency of their fleets, and offer some system of recognition for the improvements achieved. The two main schemes are ECOstars, which would be implemented and paid for by the council, and is free to fleet operators, and FORS (Fleet Operator Recognition Scheme) which individual fleet operators pay to join. The disadvantage of ECOstars is that is quite expensive for the Council, DEFRA grant funding is no longer available, as it once was, and the precise benefits are unclear at present.

Case Study 4 – EcoStars

EcoStars was created in 2008 by the four South Yorkshire Local Authorities. The second scheme started in Devon in 2010 and the third in 2012. There are now more than 20 schemes running in the UK, with the London Boroughs of Sutton and Croydon launching the newest scheme in March 2015. Originally intended for HGVs the scheme has been extended to include buses and taxis too. EcoStars now has a total of over 300 members with a total of 14000 vehicles.

3.1.4 Promoting Low Emission Vehicles and Infrastructure

Compressed natural gas (CNG), a form of methane, is a relatively clean fuel which can be used in place of petrol, diesel, and LPG. It produces lower emissions of NOx, carbon dioxide, carbon monoxide, particulates, and un-burnt hydrocarbons than other fuels. At present, there is no CNG refuelling infrastructure in Kent, which is a major obstacle to uptake, as it means that any fleet operator wishing to switch to CNG will need to travel to London or Essex to refuel.

There is anecdotal evidence that some fleet operators would like to switch to CNG, and there is further anecdotal evidence that supplier will install the infrastructure free of charge is sufficient demand can be identified.

Some grant funding is still available for electric vehicle charging points.

Case Study 5 – Milton Keynes Council promote the use of electric vehicles

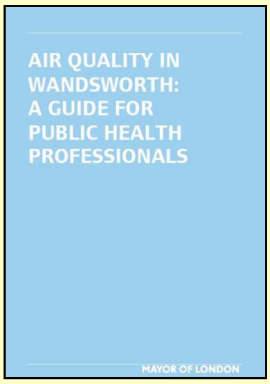
Milton Keynes Council has to date installed 170 fast/standard charging points and 56 rapid charging points, all of which are publicly available and located throughout the borough. Cars may park for free to use the charging points and are eligible for parking discounts at other times, and there are restricted parking bays in a number of car parks, which are reserved for electric vehicles.

4 PUBLIC HEALTH

Public Health is one of the key drivers behind the Low Emission Strategy. Air pollution is known to exacerbate asthma and allergies, and disproportionately affects the young, the elderly and those with pre-existing respiratory conditions such as bronchitis and Chronic Obstructive Pulmonary Disease (COPD). It also causes increased rates of hospital admission and premature deaths. Diesel fumes are now known to be carcinogenic.

Case Study 6 – GLA Air Quality Guides for Public Health Professionals

In 2012 the Greater London Authority produced borough specific guides on air quality for public health professionals. The aim of these documents is to provide an overview of the health impacts of air pollution in each London Borough. The documents examine the key pollutants of concern in London and the health risks associated with these. They examine the concentrations of these pollutants each borough, and the health impacts of each, along with information on vulnerable groups and the number of deaths in the borough which can be attributed to exposure to air pollution.

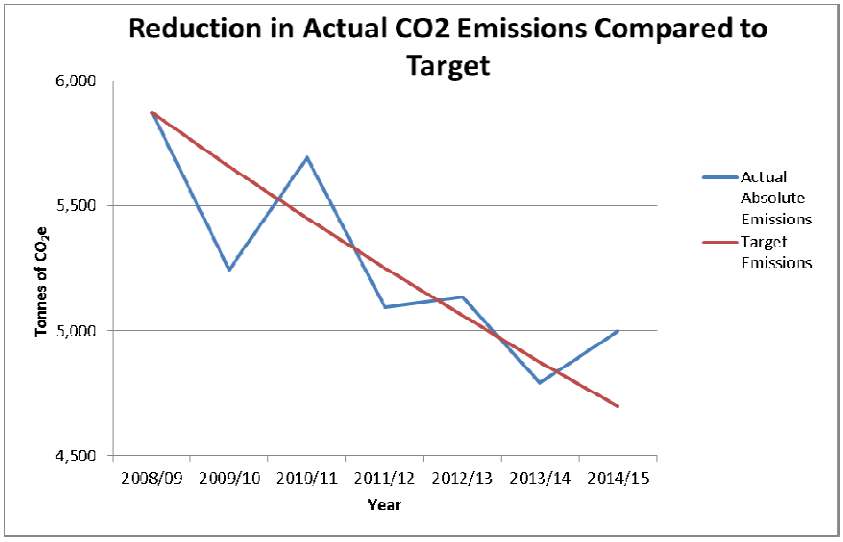


5 CARBON MANAGEMENT

MBC produced a Carbon Management Plan, with the aim of reducing CO_2 emissions from its activities by 20% from the 2008-09 baseline by 2015. This equates to 5,295 tonnes CO_2 with a cumulative value of £1.6 million. The baseline emissions for transport (fleet and business travel) is 2,024 tonnes.

The Carbon Management Plan comprised some 44 actions and projects, some straightforward, and some aspirational, by which the target should be met.

The Plan is now complete, and the graph shows the actual annual CO_2 reductions which the plan achieved.



In future years, carbon management will form part of the Low Emission Strategy, rather than being a stand alone document. Actions to be investigated include the use of LED lighting in and additional PV panels in Council buildings. Such projects will be assessed on a case by case basis.

6 PLANNING AND DEVELOPMENT CONTROL

Effective planning policies can play a significant role in helping sustain air quality improvements by both discouraging the use of high emission vehicles and supporting the uptake of low emission vehicles, including the provision of low emission vehicle refuelling facilities, such as EV charging points.

Recently published National Planning Practice Guidance (NPPG) states that mitigation may include the contribution of "funding to measures, including those identified in **air quality action plans** and **low emission strategies**, designed to offset the impact on air quality arising from new development". While air quality is only one of many considerations that are relevant to planning, the NPPG states that where sustained compliance with EU Limit Values is prevented, a local authority is to "consider whether planning permission should be refused".

It is increasingly recognised that developers should be required to use mitigation measures to offset the environmental damage caused by their new developments.

A number of Local Authorities have developed Supplementary Planning Guidance which includes the integration of mitigation measures into scheme design as standard and uses a damage cost approach to inform the scale of mitigation required for major schemes. This approach should work very well in Maidstone Borough.

7 PROCUREMENT

The purchasing power of the public sector is significant in Maidstone and Kent. Recent legislation and guidance encourages the public sector to support the uptake and deployment of low emission vehicles through sustainable procurement decisions. The Maidstone LES development provides an opportunity to review sustainable procurement practices in both the Borough and County and identify specific principles and measures that could benefit both air quality and carbon reduction targets. The review provides an opportunity to look at 3 areas of procurement that could help reduce vehicle emissions:

7.1 Contracts relating to goods and services provided to the Council

Public sector organisations are required to look at best value, rather than lowest cost, when making procurement decisions. The **Public Services (Social Value) Act 2012** came into force on the 31st January 2013. The Act, for the first time, places a duty on public bodies to consider social value, including environmental considerations, ahead of a procurement exercise.

Local sourcing is practised widely by local authorities, whereby local suppliers are encouraged to bid for council contracts. Such initiatives have the potential to support the local economy while helping reduce overall mileage. Local sourcing offers the potential for lighter goods/low emission vehicles to be used in delivery. Helping local suppliers develop emission strategies can provide competitive advantage in procurement decisions.

7.2 Procurement of vehicles by the Council

The **Cleaner Road Transport Vehicles Regulations 2011** bring into force the requirements of the **EU Clean Vehicles Directive 2009** and require public sector organisations to consider the energy use and environmental impact of vehicles they buy or lease. A key concept of the Regulations is the consideration of whole life costs whereby the operational costs over a vehicle life, including pollution damage costs, are taken into account rather than just the purchase price. This helps to redress the issue of low emission vehicles costing more than conventional vehicles, while potentially having lower operating costs that outweigh the purchase increment.

Case Study 7 – Low Emission Strategies Partnership Guidance

The Low Emission Strategies Partnership has produced guidance in order to assist public sector organisations in meeting their environmental obligations with respect to Air Quality Management and Climate Change commitments, by providing practical advice and examples of best practice in the use of procurement to reduce road transport emissions. The guidance is aimed at professionals and politicians, without a background in public sector procurement, to understand how they can expand their capabilities, in addition to traditional approaches, to tackle the problems they are facing in securing environmental improvements. Similarly, the guidance also aims to provide an understanding of vehicle emission reduction possibilities for procurement officers.

7.3 Partnerships

The Council should examine the increased potential for purchase cost savings when buying low emission vehicles and deploying low emission vehicle infrastructure through innovative partnerships with both public sector organisations and the private sector.

Maidstone's Procurement Strategy should reflect all of the above legislation and guidance.

8 NON-TRANSPORT EMISSIONS

Whilst transport emissions are the major source of pollution in the Borough, non transport emissions contribute a significant percentage of background emissions. Examples of non transport emission sources include, residential and commercial buildings, combined heat and power plants, and construction sites, and permitted processes.

9 ECONOMIC DEVELOPMENT

The LES also aims to provide a platform for inward investment, not only in terms of accessing funding, but through the encouragement of the low emission vehicle supply chain and ancillary services to locate in the borough.

The LES will build on the Maidstone Economic Development Strategy, whose stated aim is "a model 21st century town , a distinctive place, known for its blend of sustainable rural and urban living, excellence in public services, dynamic service sector-based economy, and above all, quality of life."

The LES will also compliment the Sustainable Community Strategy for Maidstone 2009-2020 and the work of the Local Strategic Partnership.

10 AIR QUALITY MANAGEMENT AREA

There are six air quality hotspots within the Borough. Having identified these hotspots, rather than declare six individual Air Quality Management Areas (AQMAs), a single AQMA was declared, covering the entire urban area of the Borough. There were very good reasons for doing this, for example, administrating 6 individual AQMAs can be significantly more onerous than administering a single AQMA. However, it does give rise to potential anomalies, since the single AQMA includes many properties where we know the air quality to be perfectly acceptable. This can cause difficulties, for example, when dealing with planning applications, where applying measures designed to tackle poor air quality, is hard to justify at some locations. The boundaries of the AQMA will therefore need to be kept under review as the LES is implemented. The Air Quality Action Plan also needs to be updated to reflect the latest guidance and legislation.