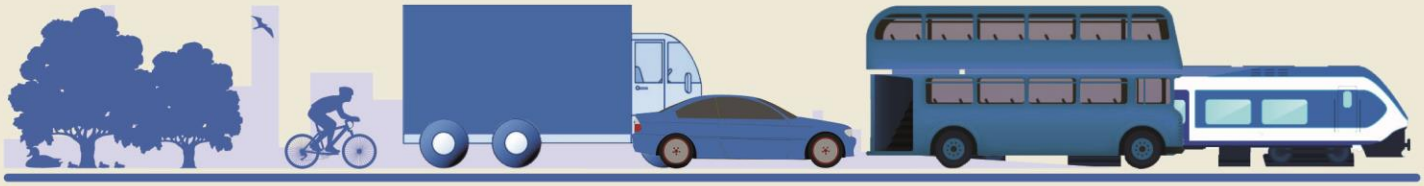
LOW EMISSION STRATEGY

December 2017



MAIDSTONE
Borough Council

Maidstone Borough Council

Low Emission Strategy

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. Whenever an Air Quality Management Area is declared, the Council must produce an Air Quality Action Plan describing the measures by which Air Quality will be improved so that the Air Quality Objectives can be met. MBC has taken the innovative approach, with the agreement of DEFRA, of producing a Low Emission Strategy which will also fulfil the requirements of the Air Quality Action Plan.

The predominant source of the elevated levels of air pollution 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 known that long term exposure to high levels of air pollution can potentially have serious health impacts. It is now thought that there is no safe level for fine particles (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 ended in 2015 and has not been renewed. The LES and action plan (appendix 1) will replace the Carbon Management Plan.

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 assist Maidstone Borough Council in complying with relevant air quality legislation.
3. To embed an innovative approach to vehicle emission reduction through integrated policy development and implementation in Maidstone and across the region
4. 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
5. 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 discussion and examples of the actions under consideration. These examples are indicative of the extensive actions proposed within the strategy and which are detailed fully within the action plan (appendix 1).

THEME 1 - TRANSPORT

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 and strategies such as the Local Plan, Local Transport Plan, Integrated Transport Strategy and the Infrastructure Delivery Plan. In the past, Air Quality Action Plans have tended to try to deal with the problem by reducing congestion, i.e. by improving the road network and flow of traffic and encouraging modal shift, i.e. reducing the use of private cars by encouraging increased use of public transport, walking and cycling.

The council does and will continue to work with partners both in improving the road network and in encouraging modal shift. The council has a stand alone cycling and walking strategy and the Low Emission Strategy has actions which will compliment this such as encouraging the use of car parks further from the town centre. These elements are vitally important in the overall improvement of air quality. There are a wide number of strategies and schemes currently aimed

at these factors and it would not be the most effective use of resources to duplicate this work. While this strategy will link with and support that work, the emphasis of the Low Emission Strategy is therefore on improving the vehicle emissions themselves.

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 comprises predominantly Euro III vehicles, and although there are a significant number of Euro V vehicles. 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.

Therefore, an emissions standard for buses operating in the District, could achieve a significant improvement in air quality. This will be a medium to long term action, and is intended apply to the High Street initially, which is only open to buses and taxis but still has an exceedance of the Air Quality Objectives for NO_2. We will work with bus operators to decide what a reasonable standard is, and over what period of time this could be achieved.

Similarly, MBC will consider an emissions standard for taxis. Taxis are far less significant polluters than buses, however MBC will be forward thinking and encourage 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. This will be considered during the next review of taxi policy.

The council will be looking at ways to improve the emissions of the HGV and LGV fleets using the Borough's road network. For example, it might be possible to ease restrictions on late night deliveries, so that some lorries can be taken away from busy areas at peak times. However, this will need to be balanced with protecting residents from unreasonable noise disturbance.

MBC's own vehicle fleet currently uses some 130,000 litres of fuel annually, any savings can bring about financial as well as environmental benefits.

The Council will also be looking for ways to help promote the update of electric vehicles, for example, by encouraging developers to build in EV charging points to new developments, using parking policy to provide incentives for using low emission vehicles, and ensuring that all its own EV points are maintained and available for the public.

The Council will cooperate with One Maidstone to explore the opportunities such as their Business Improvement District Bid to promote clean air in the Borough.

THEME 2
PLANNING

Effective planning policies will play a vital role in helping to 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 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.

Maidstone Borough Council is proposing to implement the planning guidance developed the Kent and Medway Air Quality Partnership in the short term, and in the longer term intends to develop its own Development Plan Document, linked directly to the adopted Local Plan. This element will be one of the actions that has the most potential impact as it will mitigate the effects of necessary new development on air quality in a holistic nature and secure the improvement of the EV charging network in the borough.

This important link between planning and air quality is therefore fully recognised in the strategy

THEME 3 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:

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.

Procurement of vehicles by the Council

The **Cleaner Road Transport Vehicles Regulations 2011** brings 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.

MBC only has two pool cars, one diesel and one petrol. Changing them to electric or hybrid would be expensive, but would also improve the profile of MBC's vehicle fleet and show the Council leading by example.

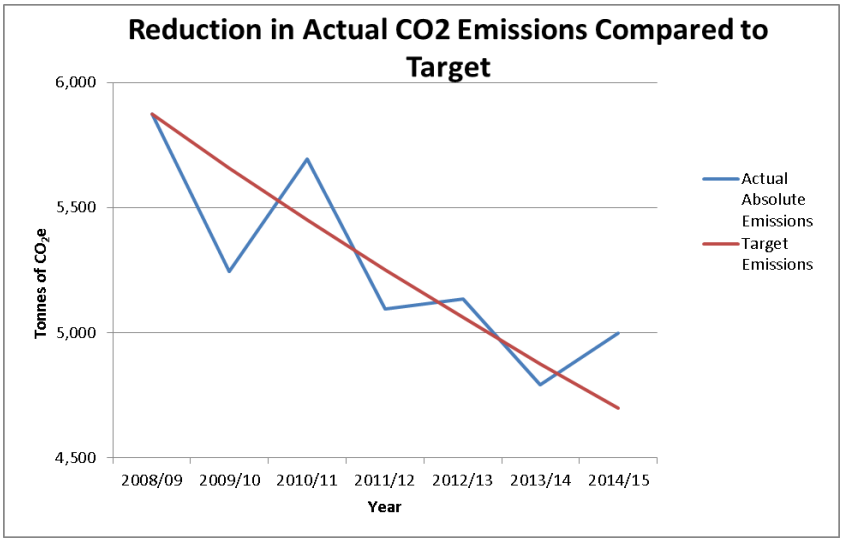
Partnerships

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 Commissioning and Procurement Strategy should reflect all of the above legislation and guidance, and will be reviewed as part of the Low Emission Strategy.

THEME 4 - 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. MBC will ensure that its buildings and those operated by contractors on its behalf, are performing as efficiently as possible, for example by the use of LED lighting in and additional PV panels in Council buildings. Such projects will be assessed on a case by case basis.

THEME 5 - 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.

In supporting the work of the Healthy Living team the Low Emissions Strategy will compliment but not duplicate work being undertaken to promote active travel initiatives and public transport use. This includes the councils Walking and Cycling Strategy.

The strategy also recognises that air quality issues often affect those in more deprived communities and vulnerable people who have pre-existing health conditions. This contributes to the level of health inequality which is experienced across the borough. The strategy will support but not duplicate the work of organisations such as the West Kent Clinical Commissioning Group and the Maidstone Health Inequalities Action Plan.

Consideration will be given to the introduction of a wide ranging scheme for recognising and rewarding behaviours which further the aims of the Low Emission Strategy. For example, business or vehicle fleet operators who have taken steps to reduce their emissions could be given a certificate, or sticker to display on their vehicles or premises, along the lines of the National Food Hygiene Rating Scheme.

Monitoring and Review

Progress on the action plan will be reported to DEFRA on an annual basis since the Low Emissions Strategy will form the Air Quality Action Plan. This update will also be reported to the committee with oversight of the strategy. The strategy as a whole will be reviewed in 2021 in line with the Local Plan.

Areas for future action

There are other sources of both particulate and nitrogen emissions that contribute to the global emissions to air of these pollutants. Most notable of these are agriculture and biomass energy generation. While these areas are important the council will, at this stage focus its resources on the areas where the impact on public health is most significant. It is also anticipated that specific guidance will be issued by DEFRA in relation to emissions from agriculture and biomass. When this is released this can be incorporated in the strategy and action plan.

Glossary of Terms

Glossary Term	Definition
µg/m3	Micrograms per cubic metre
AADT	Annual Average Daily Traffic
AIR-PT	An independent analytical proficiency-testing (PT) scheme, operated by LGC Standards and supported by the Health and Safety Laboratory (HSL)
Annualisation	The process of estimating annual means from the extrapolation of short-term monitoring results
APR	Annual Progress Report
AQAP	Air Quality Action Plan. A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the LA intends to achieve air quality limit values
AQMA	Air Quality Management Area. An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives
ASR	Annual Status Report
AURN	Automatic Urban and Rural Network
BAM	Beta Attenuation Monitors
Bias Correction	For NO2 diffusion tubes, bias represents the overall tendency of the tubes to under or over-read relative to the reference chemiluminescence analyser. This should not be confused with precision, which is an indication of how similar the results of duplicate or triplicate tubes are to each other. It is necessary to calculate a bias factor and adjust monitored results accordingly
C4H6	1,3-Butadiene
C6H6	Benzene
CAZ	Clean Air Zone. Where certain types of vehicles cannot enter without meeting set emission

	standards or facing a penalty charge
Chemiluminescence	The emission of a photon of light during a chemical reaction which does not produce significant quantities of heat
CHM	Department of Environment (DoE) Chimney Height Memorandum (CHM) 3rd Edition
CO	Carbon monoxide
Defra	Department for Environment, Food and Rural Affairs
DfT	Department for Transport
Detailed Assessment	Use of a detailed dispersion model to determine if a particular emissions source is likely to create an exceedance of a given Air Quality Strategy objective
Dispersion Modelling	The mathematical computation of the dispersal of emissions as they travel through the ambient atmosphere
DMRB	Design Manual for Roads and Bridges. An air quality screening tool produced by Highways England
DOAS	Differential Optical Absorption Spectrometer
EA	Environment Agency (England)
EF	Emission factor
Effective Stack Height	The height of an emissions release relative to the influence of adjacent buildings
EFT	Emissions Factors Toolkit
ELV	Emission Limit Values
E-PRTR	European Pollutant Release and Transfer Register
Exceedance	Where ambient concentrations for a given pollutant and averaging period are above that which is given as the objective limit in the Air Quality Strategy at a location representative of public exposure
FDMS	Filter Dynamics Measurement System
f-NO2	The fraction of overall nitrogen oxides that are emitted directly as nitrogen dioxide

Fugitive Emissions	Emissions brought about by unintended or irregular releases that do not pass through the intended emissions point, mostly from industrial activities
g/GJ	grams per gigajoule
GIS	Geographical Information System
GLA	Greater London Authority
GSS	Environment Agency (EA) Guidance on Stationary Sources (GSS)
HDV	Heavy Duty Vehicle
HGV	Heavy Goods Vehicle
Hot-spot	A localised area where emissions and/or concentrations of a given pollutant are notably higher than is generally the case across the wider Local Authority area
IPPC	Integrated Pollution Prevention and Control
Kerb	In the context of LAQM, the kerb is defined as the edge of the carriageway with free-flowing traffic. In most instances, this will be the physical kerb with the pavement, although in some cases, where for example stationary vehicles are regularly parked alongside a road, the 'nominal' kerb may be classed as being within the road itself, away from the 'physical' kerb
KPH	Kilometres per hour
LAPPC	Local Air Pollution Prevention and Control
LAQM	Local Air Quality Management
LAQM.PG16	Local Air Quality Management Policy Guidance 2016
LAQM.TG16	Local Air Quality Management Technical Guidance 2016
LDV	Light Duty Vehicle
LEP	Low Emission Partnership
LEZ	Low Emissions Zone. Where certain types of vehicles cannot enter without meeting set emission

	standards or facing a penalty charge
LGV	Light Goods Vehicle
Local Background	In a broader sense, the "local background" can be said to be equal to the "total background" concentration at any given point, with the term "local" used to clarify that this must be relevant to the geographical point in question. However, in some contexts (particularly source apportionment), "local background" is a component of the "total background". It then relates to sources that contribute to the "total background" that lie within a Local Authority area, which they should thus have some influence over. In this case, the "total background" would be equal to the "local background" + the "regional background"
LTP	Local Transport Plan
MCERTS	Monitoring Certification Scheme, providing the framework for businesses to meet monitoring quality requirements
Model Verification	A comparison of the modelled results versus monitoring results at relevant locations to enable the adjustment of model outputs, minimising the inherent uncertainties associated with dispersion modelling
MPH	Miles per hour
NAEI	National Atmospheric Emissions Inventory
NIEA	Northern Ireland Environment Agency
NO2	Nitrogen dioxide
NOx	Oxides of nitrogen
NRMM	Non-Road Mobile Machinery
NRW	Natural Resources Wales
NTM	National Traffic Model
NWP	Numerical Weather Prediction
O3	Ozone

OBS	Meteorological Observations data
PAH	Polycyclic Aromatic Hydrocarbons
Pb	Lead
Plant	Industrial, manufacturing or construction mechanical equipment or vehicle
PM10	Airborne particulate matter with an aerodynamic diameter of 10µm (micrometres or microns) or less
PM2.5	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less
ppbV	parts per billion by volume
Primary Source	A source of emissions that directly contributes to the concentrations of a given pollutant
QA/QC	Quality Assurance and Quality Control
Recirculation Zone	Area of air flow composed of one or more vortex created by an obstructive object, which has the effect of increasing concentrations of a pollutant by limiting their dispersal
Regional Background	The component of the “total background” that does not come from local sources, thus is outside of direct local authority control. This is represented by the "rural" column in the national background maps
Relevant Receptor	A location representative of human (or ecological) exposure to a pollutant, over a time period relevant to the objective that is being assessed against, where the Air Quality Strategy objectives are considered to apply
RMSE	Root Mean Square Error
RSW	Report Submission Website
Screening Assessment	Use of a screening tool to determine if a particular emissions source is likely to create an exceedance of a given Air Quality Strategy objective
Secondary Source	A source of emissions that in-directly contributes to the concentrations of a given pollutant, primarily via chemical reaction with other components of the

	atmosphere
SEPA	Scottish Environment Protection Agency
SO2	Sulphur dioxide
Source Apportionment	The process of attributing the relative contribution of individual emissions sources to the overall ambient concentration of a given pollutant
Street Canyon	Generally defined as narrow streets where the height of buildings on both sides of the road is greater than the road width, leading to the formation of vortices and recirculation of air flow that can trap pollutants and restrict dispersion
Target Emission Rate	The calculated emissions rate at which it is considered unlikely that the given objective for a pollutant and averaging period will be exceeded, to be obtained through the LAQM screening tools
TEA	Triethanolamine
TEMPro	Transport Trip End Model Presentation Programme
TEOM	Tapered Element Oscillating Microbalance
TEOM-FDMS	Tapered Element Oscillating Microbalance Filter Dynamics Measurement System
TfL	Transport for London
Total Background	The "total background" is equal to the "local background" + the "regional background"
UKAS	United Kingdom Accreditation Service
USA	Updating and Screening Assessment
USEPA	United States Environmental Protection Agency
VCM	Volatile Correction Model
WASP	Workplace Analysis Scheme for Proficiency

Appendix 1. Low Emission Strategy Action Plan

Short term 1-3 years, medium term 3-5 years long term 5+ years

Theme	Action	Key Stakeholders	Brief outline	Timescale	Potential impact and potential risks
Transport 1	Investigate Low Emission Standard for Buses. Either a graduated scheme of improvement "Low Emissions Zone" or a Euro 6 "Clean Air Zone" Starting in the High Street	Environmental Protection (Lead) Business Improvement team Economic Development MBC Public Transport KCC Arriva NuVenture	The starting point is to get up to date information about the composition of the bus fleet operating in Maidstone. It will then be important to work with the operators to decide what a reasonable Euro Standard or equivalent would be, how long we would allow for operators to comply, how the scheme would be enforced and what the penalties for non compliance would be. In the event that the "Clean Air Zone" approach is adopted this would be an immediate Euro 6 standard. Estimate 60-70 buses that would need to be retrofitted to comply with Low Emissions Zone. This will be achieved through inclusion in the proposed "We care about air" scheme with additional recognition for low emission vehicles. Acknowledged that some factors are outside of our control and that this particular action is a multi	1-3 years for feasibility study **5+ Years for CAZ**	**A detailed proposal would need to be separately agreed by committee in its own right. The proposal itself is also likely to require a public consultation.** Costs are not known at this stage a ball estimate that **£50,000** would be required to evaluate and establish feasibility and detailed costings if this element is undertaken by an external contractor. This will only be possible if external funding can be secured for the project. If funding cannot be secured the project could be progressed by officers but this would take longer. Potential impact is high, would make a meaningful difference in the high street and beyond as most buses also traverse the other hot spot areas to reach the high street. There is also potential to broaden it to the whole AQMA and to include other vehicle types is the future. Difficulty and risk level is high due to perceived impact on bus companies. It will be important to work closely

			faceted and very significant undertaking. This action needs to relate or refer to the infrastructure delivery plan.		with them in developing and implementing the project. Risks are financial, political and reputational for this project and will need to be fully evaluated in the investigation phase before a final decision can be made. There is an impact on their business models which would need to be taken into account as part of any evaluation. This scheme will be technically difficult and potentially expensive in terms of consultation, legal work and infrastructure such as signage and enforcement monitoring. MBC can apply for the necessary traffic regulation orders but it would be reliant on that being granted and the project as a whole being fully supported by KCC with buy in from the bus operators.
Transport 2	Securing Grant funding for buses	Environmental Protection (Lead) Arriva KCC Public Transport NuVenture MBC Park and	MBC are currently the lead authority for a project where up to 10 buses to be fitted with emission abatement technology.	1-3 years	This has potential to make a real measurable difference. As the retrofitted buses will immediately have reduced emissions. The difficulty is in securing bus operator co-operation. 4 buses have already secured however gaining agreement from bus operators for further buses is proving to be more difficult. If a low emission zone were declared this may become easier as it

		Ride	Further bids will be considered and applied for as grant funding becomes available.		would give operators the opportunity to reduce their costs. The potential impact of securing further grants is high as increased funding will enable to projects to progress more quickly and some may determine whether they progress at all. The difficulty is low, however the majority of funding has recently been awarded to Cities and councils where a Clean Air Zone has been imposed by DEFRA. The declaration of a Low Emissions Zone may provide an additional hook to provide successful bids. This does not carry a direct risk to MBC as the only money spent is grant funded. There is a risk in not being able to secure buses to retrofit.
Transport 3	Provide input into and influence the review of bus station, time tabling and peripheral routes	Planning MBC (Lead) Arriva Nu Venture Economic Development KCC Public Transport	Report to commence a review of the bus interchange facilities, park and ride and parking in and around Maidstone Town Centre is being undertaken by MBC in partnership with multiple stakeholders. Environmental Protection will provide input to ensure that improvement of Air Quality is a core principle of this review.	5+ years	Potential impact on high street is high if the result is that buses are relocated from the area. However there is a risk in that relocation may create an air quality problem elsewhere. As the buses will continue to operate this project in itself will not greatly impact wider area. It is important to ensure that

		Director of Regeneration and Place			Environmental Protection is included in the project as it progresses and good links have been made with the main project officers.
Transport 4	Use of MBC Parking Policy to improve Air Quality.	Planning (Lead) Parking Property Services KCC Planning (leady Parking MBC (Lead)	Report to commence a review of the bus interchange facilities, park and ride and parking in and around Maidstone Town Centre is being undertaken by MBC in partnership with multiple stakeholders. Environmental Protection will provide input to ensure that improvement of Air Quality is a core principle of this review Investigate measures to reduce on street parking in pinch points where this causes congestion. This will involve locating the key areas and identifying measures to improve traffic flow. This can link in with the SMART report. Provision of cheaper or free parking for low emissions vehicles. Investigate the potential for applying variable parking fees increasing in the town centre and decreasing further out.	5+ years	The potential impact medium. The difficulty and risk is low as consideration of AQ issues should be part of any such review. The potential impact is high if sufficient traffic flow improvement can be delivered. The difficultly lies in the reliance on KCC to support and implement this project as it is not in MBC control. This removal of on street parking carries a risk in terms of negative reaction and publicity by those affected by not being able to park in those areas. The potential impact is high encouraging the uptake of electric vehicles This could be the use of dedicated EV parking bays or reduced tariff not linked to a specific bay. The scheme could also then apply to residents parking permits etc. The technical difficulty low but this project carries a cost of up to £2000 per space per annum if applied to a free dedicated bay.

Transport 5	Prevent bus and taxi drivers from leaving their engines idling	Environmental Protection MBC (Lead) Public Comms MBC Licensing MBC Arriva Nu Venture	This will be achieved through inclusion in the proposed "We care about air" scheme with additional recognition for low emission vehicles. The initial approach will be one of education and promotion to encourage better practice. Should improvements fail to be realised enforcement options will be considered further. The council will explore the adoption of enforcement powers to be used should the educational approach need reinforcement.	1-3 years	The impact is difficult to predict but potentially high over time if a genuine behavioural shift can be achieved. The difficulty level is technically low but will involve significant officer time in promotion and administration of the scheme. It will also require a budget allocation. See action detailed in public health section.
Transport 6	Emissions Standard for Taxis to euro 6 standard	Licensing Manager (Lead)	This will be achieved through the taxi licensing policy by reducing the age of vehicles permitted to be used. The timing would coincide with the next programmed review of the taxi policy. This can only apply to vehicles registered in MBC.	5+ years	The potential impact is not as high as for buses. But would contribute to lowering of emissions. The difficulty comes from the fact that we have no control over taxis from over the rest of the county. Could apply only to our own fleet. There is a risk that this project could make MBC taxi services less competitive than other Kent authorities.
Transport 7	Work with schools to reduce impact of school	Environmental Protection (Lead)	Continuation of MBC sponsorship of the Walk on Wednesday Scheme.	1-3 years	The impact of the scheme as a whole is measurable in terms of car journeys reduced. Sponsorship of the project also provides good publicity

	traffic	KCC Economic development	Link in with other regular MBC contacts, with schools such as visits and attendance at large events.		opportunities to raise the profile of the MBC air quality agenda. Difficulty is low. Financial cost £2300 pa is within existing budget. The impact is difficult to predict and measure. Difficulty and risk are low in linking in with established outreach programs already being delivered. Time and financial resources needed to prepare successful programs. Costs could be met within existing budgets provided that the ambitions and program materials are limited.
Transport 8	Encourage use of Low and Ultra Low emission vehicles as taxis	Licensing MBC (Lead)	This will be achieved through inclusion in the proposed "We care about air" scheme with additional recognition for low emission vehicles. It will also include consideration of a reduced license fee for low and ultra low emission vehicles.	3-5 years	The impact likely to be low at the start but has the potential to grow. Difficulty is in engaging with stakeholder and convincing them of the merits of using low emission vehicles. There is risk that in offering a reduced fee MBC will lose revenue from the license fee. As uptake of applicable vehicles increases the reduction would need to be reviewed.
Transport 9	Encourage and facilitate	Environmental Protection MBC	Environmental Protection will work with colleagues in planning to provide	1-3 years	The potential impact is unknown. We do not know how many vehicles it

	reducing the impact of delivery vehicles	(Lead) Planning MBC Environmental Enforcement MBC	guidance to developers to limit restrictions on post-peak time delivery This will be balanced with protecting residents from unreasonable noise disturbance.		would relate to. This would reduce congestion and take lorries off the road at peak time. Difficulty is quite low however there is a risk that this measure may cause increased noise complaints to be received as night time deliveries could never be truly silent.
Transport 10	Ensure that all EV Points are maintained and available for the public	Property Services MBC and KCC (Lead)	There are currently EV points at Maidstone House, Moat Park KCC Allington Depot. It is important that the Local Authorities lead by example in ensuring that these and any other provided are maintained in good working order and are accessible to the public.	1-3 years	The potential impact high in that MBC is leading by example. The difficulty is low. The risk lies in not being able to demonstrate that MBC is maintaining its own facilities. This would damage the credibility of the council. It is important that KCC also maintain their services as many people will not know which facilities belong to who. In this aspect this project has some reliance on a party beyond the control of MBC.
Transport 11	Bus driver training	Arriva Nu Venture Environmental Protection to gather information (lead).	Environmental considerations can be included in driver training. Bus companies and MBC will agree a driver training checklist. Operators will then provide details of how many drivers per year have received the training.	1-3 years	Potential impact low, risk also low. This will enable operators to actively demonstrate the pro-active approach they are taking. MBC can encourage and reward good practice via the awards and recognition scheme detailed later in the action plan.

Transport 12	Promote Champion and Encourage the Use of new and novel technology	All	All stakeholders will be open to the use of new and novel technologies and ideas to contribute to solving problems, speeding up solutions or delivering them more quickly.	Aspirational	The potential impact unknown as it depends on the project identified. Difficulty and risks are again variable depending on the technology, costs and the intended uses.
Planning 1	Local Plan Development Plan Document	Planning Policy (Lead)	This will be a "mini" local plan relating just to air quality and could have several policies within it. It will deal with the issue in the round and make it a high priority for MBC corporately.	2 years Committee report within municipal year	**The costs of this project could be significant. As such this action will be subject to individual approval by committee. Based upon experience provided by the recent local plan review a very ball park cost of this project is £65,000. The council will bid for grant money to offset costs of this project but will complete it even if not successful** Potential impact is high as will provide long term and robust inclusion of AQ in developments within MBC. Difficulty is high in that it will involve several consultation periods and scrutiny by planning inspector. Estimated time for delivery 2 years. There is a risk that the DPD will not be adopted but this is mitigated by the short term use of the Kent and Medway Guidance in the interim.

Planning 2	Adopt Kent and Medway Air Quality Planning Guidance. Having made necessary adaptations to suite MBC circumstances	EP Planning Policy (Lead)	This will adopted as technical guidance in the short term pending the longer term The main components of the guidance are to require mitigation of air quality impacts to be designed into major developments and to require EV charging infrastructure in new large developments	1-3 years Achieved early Add in name. Live Jan 18,	The potential impact high and long term. Difficulty level is low. As technical guidance no formal consultation would be required for adoption and use. There is a risk that developers could appeal against conditions added following the guidance but there will still be some weight attributable to the document. The replacement of the guidance with a more robustly defensible document is part of another action.
Planning 3	Development Management influence on developments to mitigate impact on AQ.	Development Management (Lead) Environmental protection (Lead)	Ensure that design of new developments does not create new AQ problems e.g. buffer zones are incorporated to set back developments from heavily used roads. Establish if possible the impact of nox from boilers	Ongoing 1-3 years	The potential impact is high in prevention of new street canyons. Which cause air quality problems to be made worse. Difficulty and risk are low and this work is already ongoing. The potential impact is low on the AQMA specifically but this project could be important in reducing overall emissions in the borough. It will play an important part of the holistic emissions mitigation of developments. Difficulty and risks with project are low.

Procurement 1	Review of Commissioning and Procurement Strategy	Procurement (Lead)	This will be reviewed and reported to the relevant committee for decision to be made on what weighting should be attached to local procurement. This would apply to direct and contracted procurement. The assessment and weighting should have consideration of global emissions of the service procured. Examples of the type of action which could be considered, are an emission standard for vehicles delivering to the Council, or restrictions on distances which supplies can be sent	3-5 years	It is likely that a new strategy will need to be approved individually by committee. This will enable the costs and benefits to be explored thoroughly and for a decision to be made taking those factors into consideration. The potential impact of the project is high particularly in showing the council is leading by example. There may difficulty in ensuring buy in from all managers which should to be championed at a senior management level. There is a risk that by adopting measures to reduce emissions through procurement that the lowest price option may not be the best scoring bid. This will depend

					on what weighting is attached to this element or if is a mandatory requirement.
Property/ carbon management 1	Review park and ride scheme to create lower emissions.	Parking (Lead)	Current contract has been extended to summer 2018. When renewed will be able to specify emissions standards of buses but this will ultimately be a Cllr decision. Inclusion of the potential for Park and Stride will also be considered for people wishing to park and walk into town.	3-5 years	**It is likely that this measure will need to be approved individually by committee. This will enable the costs and benefits to be explored thoroughly and for a decision to be made taking those factors into consideration.** The potential impact is high reducing emissions from buses which traverse the High Street and other air quality hot spots. This also shows MBC leading by example in actively doing something that it is asking other bus operators to do. The action ties in with the potential low emissions zone and the bus retrofitting project. Difficulty technically low. There is a risk that this may carry an increased cost of contract and therefore higher costs to use the service.
Property/ carbon management 2	Increase electric vehicle infrastructure	Parking (Lead)	A reserved bay for electric vehicle parking point may result in £2000pa in lost income. In addition to examining the increase in infrastructure it is	3-5 years	The potential impact is high in encouraging the uptake of electric vehicles. Difficulty levels are technically low.

	EV Charging point long term strategy	**Parking MBC** **KCC Sustainable Transport**	important to ensure that those already in place are in full working order and accessible to the public. In addition to increasing the provision within the town centre consideration should be given to increasing the provision in the rural areas to increase the overall provision. **This will involve planning to ensure that the provision of EV charging infrastructure is programmed to accommodate increased use, the way in which users need access and changes in technology.** **This should link in with the work of KCC in this area.**	3-5 years	The action carries a cost of £2000 per space per year if provided free of charge. The provision of further infrastructure in rural areas should be considered as these are typically less well served. There is a risk that having provided the spaces they are underused. The location of the provision will need to carefully considered to achieve the best benefit. The potential impact is high in ensuring that residents of Maidstone are able to make the best use of electric vehicles and charging infrastructure. Joined up working particularly with KCC will be essential to achieve this action.
Property/ carbon managem ent 3	Sustainable development principles enshrined in MBC development projects.	Director of Regeneration and Place (Lead)	It is more cost effective to build in suitable measures than to retrofit. This could include energy efficiency, and sustainable materials etc. This should include projects in Mote Park, Union Street and Maidstone East, Brunswick Street. It could include community heating schemes.	1-3 years	The potential impact is high in showing MBC leading by example. Difficulty levels are low if led by senior management. There is a risk that in adopting these principles development costs may increase slightly. However that is largely countered by the risk of being identified as not following those principles at the same time as the council is encouraging the approach in

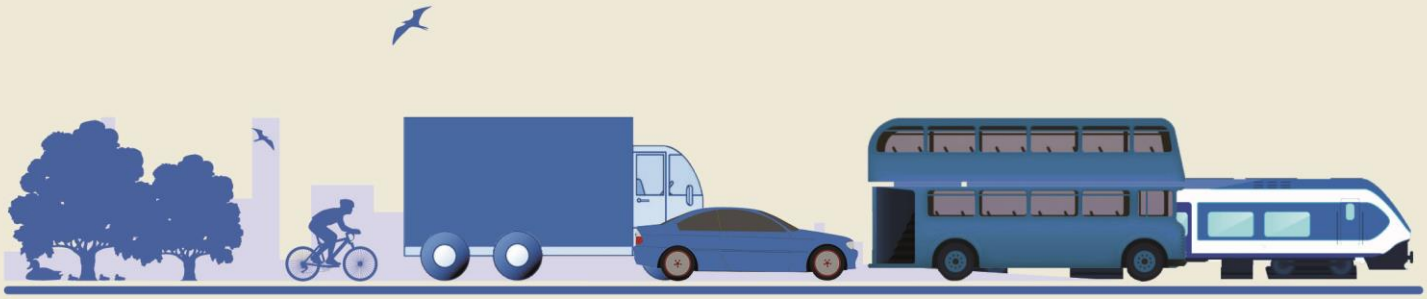
					private developers.
Property/ carbon management 4	Scheduling of refuse vehicles to minimise AQ impact. put cleaner vehicles in poor AQ areas	Waste and Street Scene (Lead)	This involves putting cleaner vehicles in poor AQ areas This is not as simple as it sounds as vehicles do get swapped around between rounds.	1-3 years	The potential impact is high in reducing emissions from diesel vehicles particularly at busy times of the day. This project will demonstrate that MBC is leading by example. There is difficulty in scheduling vehicles consistently, no added risk.
Property/ carbon management 5	Ensure that any buildings owned by MBC and managed by contractor are performing as efficiently as possible to reduce emissions.	Property Services (Lead)	This would include use of low energy lighting heating etc.	1-3 years	The potential impact depends on when the contract for each building is is renewed. It also depends on how efficient the current operation of each building is by the operators. Difficulty is low. There may be a risk that the cost of contracts could increase to cover the costs of installing low emission measures. This could be mitigated by the wording of any contract.
Property/ carbon management 6	Minimising emissions from MBC Fleet	Waste and Street Scene (Lead)	This will involve further trials of in suitable areas such as for town centre focussed units and supervisor vans. Other vehicles need greater range. These will be replaced with more efficient less polluting vehicles as they are replaced.	5+years	The potential impact is high depending on the numbers of vehicles that can be changed and how suitable to the alternative vehicles are. Difficulty level is technically low. The action is likely to carry some added costs and need it will be

			The golf course has petrol buggies which could be replaced.		important to ensure only suitable vehicles are used which do not affect service delivery. Increased initial costs of purchase should be regained in lower fuel costs.
Property/ carbon management 7	Review heat recovery opportunities in MBC property e.g. Crematorium	Waste and Street Scene (Lead) Property Services	This will involve capturing the waste heat and using it on site.	3-5 years	The potential impact is high and shows MBC to be leading by example in reducing waste emissions. The difficulty may be high technically in terms of installing the appropriate infrastructure and securing a customer for the heat. There are also potential difficulties in overcoming and anticipated negative public reaction. Costs of installing the infrastructure are likely to be high however a long term profit should be the aim of the project for it to be considered viable.
Property/ carbon management 8	Review MBC pool car provision	Procurement (Lead)	MBC currently has one petrol and one diesel car. Both less used than have been. It may be possible and beneficial to replace the pool car provision with staff access to a "car club" or "zip car scheme".	1-3 years	The potential impact is low as MBC operates only two cars. However it does show MBC leading by example.

Property/ carbon management 9	Improved bicycle parking facilities	Parking (Lead)	There is currently good provision in town centre, at West station and top of Gabriel's Hill. These are not covered facilities It would be possible to dedicate parking spaces to provide secure covered facilities. This would cost £2000pa per space. It may however be possible to to charge for the use of covered secure facilities.	1-3 years	The potential impact is low with provision of facilities reported as good. It is unlikely to encourage much greater cycling. However the provision of secure facilities which can be used at a chargeable rate may encourage those with expensive bikes to use them and offset costs of installation. Difficulty is level low. There would be an installation cost for secure facilities and a loss of revenue of £2000 per space per year if located in existing parking spaces. There is a risk that having set up the facilities they are not used.
Public Health 1	Raise public awareness of AQ issues and promotion of good practices by important stakeholders	Environmental Protection (Lead) KCC Licensing MBC Comms Health Team CCG	A recognition scheme will be devised and promoted to promote awareness of AQ issues and best practices among key stakeholders. These will include taxi and bus operators with "awards" given for those performing to a high level. It could also include businesses and business groups working to reduce their overall emissions, or who encourage flexible working initiative to reduce staff travel etc.	1-3 years	**There is a risk that this scheme could try to cover too many areas in scope and be too expensive and time consuming to launch and administer. The scope and administration of the scheme will need to be carefully determined before it is implemented.** **We will seek private sector funding for the scheme in order to deliver it.** The potential impact is high across the transport and property emissions areas provided that sufficient participation in the scheme can be achieved.

					Difficulty level is high, it will take time and a budget provision that is not currently available to develop and implement the scheme. The scheme will also need to be allowed time secure membership and grow. There will be an ongoing time commitment required to administrate the scheme unless it can be handed over once running to be run by members of the scheme themselves.
Public Health 2	Raising Awareness of Air Quality and health issues	Environmental Protection (Lead) Health Team NHS KCC	The council will work with partners to highlight the issues of health and air quality and promote this on the wider public health agenda. This will involve promoting the e-mail alert scheme available to warn people when air pollution is likely to be high. This will particularly target vulnerable groups.	1-3 years	The impact of this action is difficult to measure as awareness is intangible. It is possible to measure the number of people signed up to the alert scheme but only over the Kent Area. The difficulty is technically low but will require officer time and buy in from partners to be effective.
Public Health 3	Review of air monitoring provision in Maidstone Area	Environmental Protection	The council will review its network of monitoring locations and methods across the area to ensure that they are proportionate, relevant and cost effective.	1-3 years	This is good practice and will ensure that the council is monitoring in a way that ensures our data is accurate and relevant.
Public Health 4	Ensure that the protection and improvement of public health is a core principle of AQ work.	Environmental Protection (Lead)	All of the actions above will have a direct or indirect impact on public health. Where an existing scheme is in operation we will signpost to it. See above re engagement with school groups and larger events.	1-3 years	The impact of this action is difficult to measure as the initiatives being flagged are operated by others. Difficulty level is technically low as the intention is to intention is to flag public health initiatives already in progress rather than to repeat them.

			The Environmental Protection Team Leader will represent this issue as a Public Health Champion within MBC.		
Review and update of strategy and action plan 5	Progress report to committee at same time as the DEFRA annual report	Environmental Protection	The council reports progress on its action plan annually. This report will be submitted to the committee when completed. This will be the point at which actions can be revised, noted as completed and new actions added as agreed.	Annually	This will demonstrate the level of progress in individual actions and will enable the action plan to be updated regularly.



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