



Central Bedfordshire Council Air Quality Action Plan

In fulfilment of Part IV of the
Environment Act 1995
Local Air Quality Management

2019 - 2024

Central Bedfordshire Council

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Executive Summary

This Air Quality Action Plan (AQAP) has been produced as part of our statutory duties required by the Local Air Quality Management framework. It outlines the action we will take to improve air quality in Central Bedfordshire between 2019 and 2024.

This is the first action plan relating to the Air Quality Management Areas declared in 2015 (Amphill and Sandy).

Air pollution is associated with many adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society: children and older people, and those with heart and lung conditions. There is also often a strong correlation with equalities issues, because areas with poor air quality are also often the less affluent areas^{1,2}.

The annual health cost to society of the impacts of particulate matter alone in the UK is estimated to be around £16 billion³. Central Bedfordshire Council is committed to reducing the exposure of people in Central Bedfordshire to poor air quality to improve health.

Air Quality within Central Bedfordshire is generally good; the main source of air pollution is from road traffic emissions, specifically nitrogen dioxide (NO₂). In 2015 two areas were designated as Air Quality Management Areas (AQMAs) due to levels of nitrogen dioxide exceeding the Governments Air Quality Objectives; these are:

- Sandy (adjacent to the A1 from the Bedford Road/A603 roundabout to the Georgetown exit) in relation to breaches of both the hourly and annual NO₂ objectives
- Amphill town centre in relation to the exceedance of the hourly NO₂ objective

An Air Quality Management Area was declared in Dunstable in 2005 regarding the exceedance of the annual NO₂ objective. This Action Plan does not address this AQMA but the existing Air Quality Action Plan for this area will be reviewed as soon as practicable.

We have developed actions that can be considered within 9 broad topics:

- Alternatives to private vehicle use
- Freight and delivery management
- Policy guidance and development control
- Promoting low emission transport
- Promoting travel alternatives
- Public information
- Transport planning and infrastructure
- Traffic management

¹ Environmental equity, air quality, socioeconomic status and respiratory health, 2010

² Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006

³ Defra. Abatement cost guidance for valuing changes in air quality, May 2013

- Vehicle fleet efficiency

Our priorities are to implement measures to target emissions from road transportation and to promote the uptake of electric vehicles and/or alternative forms of travel such as walking, cycling and public transport.

In this AQAP, we outline how we plan to effectively tackle air quality issues within our control. However, we recognise that there are many air quality policy areas that are outside of our influence (such as vehicle emissions standards agreed in Europe), but for which we may have useful evidence, and so we will continue to work with regional and central government on policies and issues beyond Central Bedfordshire Council's direct influence.

Responsibilities and Commitment

This AQAP was prepared by the Public Protection's Pollution Team of Central Bedfordshire Council (CBC) with the support and agreement of the following officers and departments/agencies:

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Jodie Colclough, Strategic Transport, Central Bedfordshire Council
Nicola Sinden, Public Health, Central Bedfordshire Council
Sarah James, Public Health, Central Bedfordshire Council
Development Control, Central Bedfordshire Council
Public Transport, Central Bedfordshire Council
Sarah Naylor, Highways England

This AQAP has been approved by:

The Draft Air Quality Action Plan will be reviewed and finalised following the Public Consultation. We will then report the findings and finalised Air Quality Action Plan to Overview and Scrutiny for final review and approval prior to being signed off by Executive Member for Community Services

Progress each year will be reported in the Annual Status Reports (ASRs) produced by Central Bedfordshire Council, as part of our statutory Local Air Quality Management duties and submitted to Defra (Department for Environment, Food and Rural Affairs).

If you have any comments on this AQAP please send them to the Pollution Team at:

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1.0 Introduction

This report outlines the actions that Central Bedfordshire Council will deliver between 2019 to 2024 to reduce concentrations of air pollutants and exposure to air pollution; thereby positively impacting on the health and quality of life of residents and visitors to the district.

It has been developed in recognition of the legal requirement on the local authority to work towards Air Quality Strategy (AQS) objectives under Part IV of the Environment Act 1995 and relevant regulations made under that part and to meet the requirements of the Local Air Quality Management (LAQM) statutory process.

This Plan will be reviewed every five years at the latest and progress on measures set out within this Plan will be reported on annually within Central Bedfordshire Council's air quality Annual Status Report (ASR).

2.0 Summary of Current Air Quality in Central Bedfordshire Council

Air Quality within Central Bedfordshire is generally good; the main source of air pollution is from road traffic emissions, specifically nitrogen dioxide (NO₂). In 2015 two areas were designated as Air Quality Management Areas (AQMAs) due to levels of nitrogen dioxide exceeding the Governments Air Quality Objectives; these are:

- Sandy (adjacent to the A1 from the Bedford Road/A603 roundabout to the Georgetown exit) in relation to breaches of both the hourly and annual NO₂ objectives
- Ampthill town centre in relation to the exceedance of the hourly NO₂ objective

An Air Quality Management Area was declared in Dunstable in 2005 regarding exceedance of the annual NO₂ objective. This Action Plan does not address this AQMA but the existing Air Quality Action Plan for this area will be reviewed as soon as practicable.

For further information, please refer to the latest Annual Status Report (ASR) from Central Bedfordshire Council. This can be found at <http://www.centralbedfordshire.gov.uk/environment/types-pollution/air/quality.aspx>

3.0 Central Bedfordshire Council's Air Quality Priorities

The major source of air pollution in Central Bedfordshire is from road transportation; therefore, measures that target such emissions have a high priority within the Air Quality Action Plan.

In Ampthill, the Air Quality Management Area is within the town centre, which has narrow sections of roads and a double round about to control traffic flow from four traffic streams. The town centre is often congested at peak times and problems occur with traffic negotiating narrow sections and/or parked delivery vehicles.

In Sandy, the Air Quality Management Area is for an area 10metres either side of the carriageway of the A1 (from the Bedford Road/A603 roundabout to the Georgetown exit). The road is a national trunk route, attracting a large amount of traffic daily, some residential properties are close to the carriageway.

3.1 Public Health Context

The Health & Social Care Act 2012 sets out the statutory requirement for Local Authority leadership of Public Health from April 2013, giving Central Bedfordshire Council a duty to improve the health of its residents. The transfer of responsibility for significant areas of public health represents a unique opportunity to transfer the focus from treating sickness to developing the active promotion of health and wellbeing. The Health and Wellbeing Strategy for Central Bedfordshire (2013-2016) set out the key priorities for the Health & Wellbeing Board (HWBB).

The Board identified 4 key priorities in which they felt we could make an impact. These were:

- ensuring good mental health and wellbeing at every age
- giving every child the best start in life
- enabling people to stay healthy for longer
- improving outcomes for frail older people

The Joint Strategic Needs Assessment (JSNA) for Central Bedfordshire (<https://www.jsna.centralbedfordshire.gov.uk/>) provides an overview of the health of the district, as well as some in-depth analysis on health topics, air quality features within the document. The JSNA makes it clear that Central Bedfordshire faces many inter-connected public health challenges where improvements are required.

The council will seek to strengthen the link between Public Health and air quality through joint working and policy development. The council, will also seek to maximise funding opportunities for potential air quality related projects in the district, such as the re-introduction of a system to notify vulnerable people when poor air quality is predicted such as 'AirAlert' and measures to reduce dependence on private cars

(increasing the take up of walking and cycling to improve both local air quality and levels of physical activity helping to reduce obesity rates in the district).

Currently there are several ongoing projects being managed by Public Health colleagues, which although have the intention to increase physical activity/reduce obesity will have a positive impact on air quality, these include:

- Excess Weight Partnership Strategy which involves input from some 18 departments within Central Bedfordshire Council and Bedford Borough Council
- Sustrans Bikelt Programme runs within 34 schools to encourage children and staff to bike to school (not currently within Ampthill), the KPI results show that levels of physical activity have risen by over 25% and therefore the programme has achieved its targets. However, these programmes ended in March 2018 and as a result, focus is now to target parents to ensure that these levels are maintained/increased in future years. This is being achieved by school staff members becoming Bikelt champions to continue the work achieved thus far.
- However, from April 2018, the STARS (Bedfordshire Sustainable Travel Access to Railway Stations) Funding programme will focus on the promotion of walking and cycling (and bus use) to the Midland Mainline train stations in Bedfordshire towns with railway stations (or in the vicinity) - including Ampthill/Flitwick/Harlington.
- Asthma Schools – this is a relatively new initiative which involves the school nursing teams to deliver a package of training which has been developed around issues surrounding asthma including triggers and ensuring the correct care is in place. The first training sessions took place in April 2017.
- PSHE – is a programme for schools to be used by teachers as a resource for information surrounding various issues – i.e. mental health, safety, health, etc. This resource could be used to give information regarding air quality for use by teachers to develop class plans, etc.

These will be included in the measures on the AQAP as they are currently or will potentially benefit air quality by assisting to reduce the dependence on cars for making journeys, encourage take up of walking and cycling, or to provide more information regarding air quality

3.2 Planning and Policy Context

Both PM₁₀ and NO₂ emissions can arise during the construction and operational phases of new development, with the impacts influenced by the size and location of the development.

The land use planning system is recognized as playing an integral part in protecting and improving air quality by managing the environmental impacts from development. This is achieved by ensuring new developments do not have a negative impact on the local air quality and that public exposure to air pollutants is reduced in areas which exceed the air quality standards.

The National Planning Policy Framework (NPPF), adopted in March 2012, sets out the Government's planning policies for England and how these are expected to be applied. The NPPF replaces over a thousand pages of national policy (including 'PPG 23: Planning and Pollution Control'). The NPPF must be considered in the preparation of Local and Neighbourhood Plans, and is a material consideration in planning decisions. Planning policies and decisions must reflect and where appropriate promote relevant EU obligations and statutory requirements. The framework on air quality contained within the NPPF is stated in paragraph 124 as follows:

'Planning policies should sustain compliance with and contribute towards EU limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and the cumulative impacts on air quality from individual sites in local areas. Planning decisions should ensure that any new development in Air Quality Management Areas is consistent with the local air quality action plan.'

A declaration of an AQMA does not necessarily mean that there will be no new development within that area. Rather it means that greater weight must usually be given to the consideration of air quality impacts and their mitigation. It is not necessarily the case that a proposed development in an area of poor air quality will have a negative impact. The fact that the development is close to the existing AQMA does not mean that it will necessarily affect the area of exceedance of the air quality objectives, or that it will be affected by air pollution that exceeds the objective. However, it is important to recognise when such development might introduce additional people into an area of poor air quality.

The importance of the role of the planning regime in controlling air pollution was recognised in the March 2012 National Planning Policy Framework (NPPF), by the identification of air pollution as a material planning consideration (**DCLG 2012**). Paragraph 109 of the NPPF refers to the generality of its role:

The planning system should contribute and enhance the natural and local environment by

- *Preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, **air**, water or noise pollution or land instability. (DCLG 2012).*

Central Bedfordshire Council's planning policies currently reflect that of the legacy authorities, thus:

Currently the North Local Development Framework covers the north area of central Bedfordshire. The Local Development Plan for the north includes the Core Strategy and Development Management Policies Development Plan document (adopted November 2009), the Site Allocations document and the Proposals Map. There are also a number of saved policies from Mid Bedfordshire Local Plan 2005.

The North Local Development Plan, contains policies which relate to the control/reduction of air pollution through the planning/development control mechanisms, these include:

Policy DM3 – high quality development

- comply with current guidance on noise, waste management, vibration, odour, water, light and **airbourne pollution**;

Policy CS4 -linking communities – accessibility & transport

- appropriate access and linkages including provisions for cyclists/pedestrians and public transport

Policy DM9 – Providing range of transport

- reduce need to travel, promote more sustainable transport modes, maximise capacity of existing transport network and add capacity & new infrastructure where needed

Policy DM2 – Sustainable construction of new buildings

- to make central Bedfordshire a more environmentally, economically and socially sustainable place

Meanwhile, the South Local Development Framework covers the south area of central Bedfordshire. The Local Development Plan for the south includes a written statement, which sets out the policies and proposals for the development of the area and the justification for them. This is accompanied by the proposals maps, which represents the policies spatially. The South Bedfordshire Local Plan was adopted in 2004. The Endorsed Core Strategy (was accepted for by the Secretary of State in 2011); there are also many saved policies from South Bedfordshire Local Plan.

The South Local Development Plan, contains policies which relate to the control/reduction of air pollution through the planning/development control mechanisms. These include:

- Policy T1 – to control the location of development and maximise the likelihood of achieving reduced levels of trip generation.
- Policy T3 – council will work with relevant parties to sustain and improve bus access, services and facilities to reduce dependence on the private car.
- Policy T5 – Improve safety and attractiveness of the pedestrian environment.
- Policy T6 – Provide network of safe, direct and attractive high-quality cycle routes and improved facilities for cyclists.

Central Bedfordshire Council submitted their Local Plan to the Planning Inspectorate on the 30th April 2018, following a Regulation 18 consultation from 4th July – 29th August 2017 and a Regulation 19 consultation from 11th January to the 22nd February 2018. This is in accordance with the Town and Country Planning Act, 1990. As result of this, the Local Plan will be going through an examination period later this year prior to adoption. Its contents include the proposed planning policies and procedures to help ensure that planning applications that may have impacts on air quality are assessed appropriately against these national policies.

Once the Local Plan is adopted, the policies within the plan will supersede those of previous plans, specifically development management policies identified within the existing Core Strategy. Therefore, applications made after the adoption of the Local Plan will need to comply with and/or refer to the new policies.

This Action Plan aims to highlight measures to mitigate pollution concentrations for the Ampthill and Sandy AQMAs. The planning regime will be used to support the Action Plan measures.

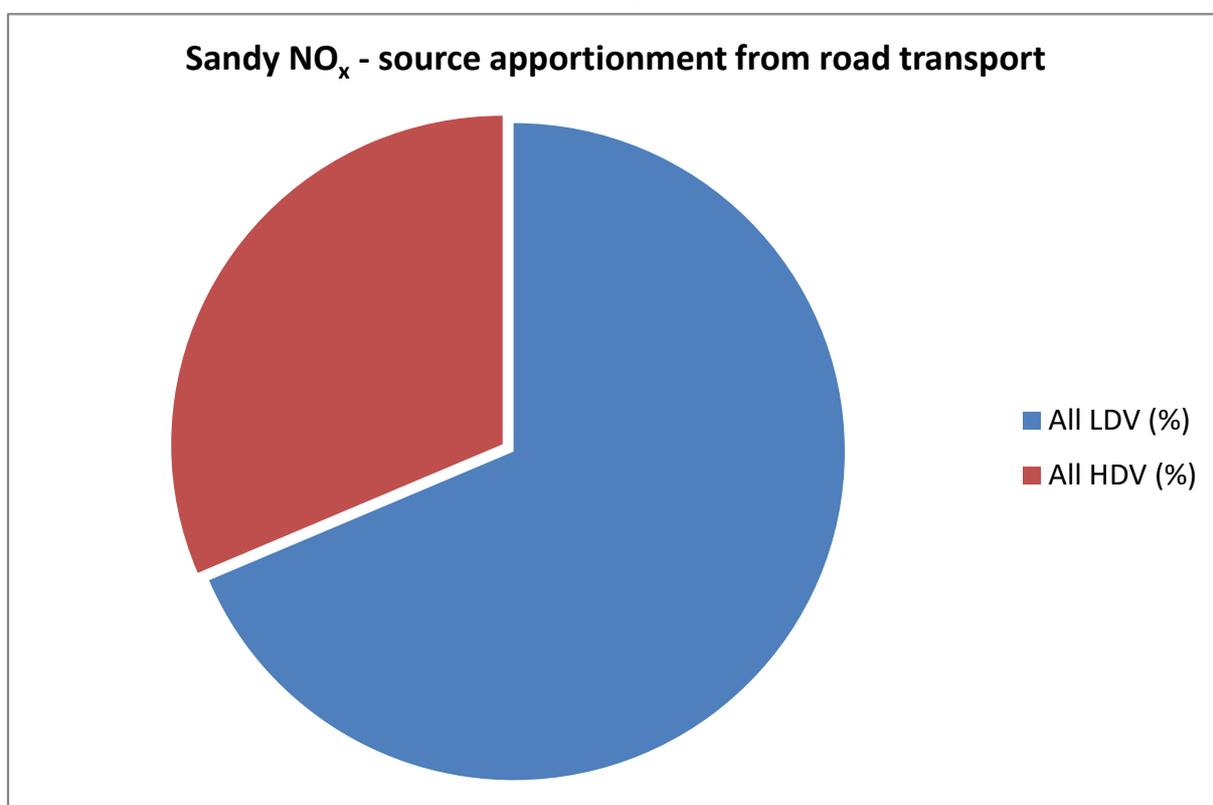
3.3 Source Apportionment

The AQAP measures presented in this report are intended to be targeted towards the predominant sources of emissions within Central Bedfordshire Council’s area.

The major source of pollution for both the Ampthill and Sandy Air Quality Management Areas is road transportation. Therefore, measures within this plan, include actions to target reduction in emissions from transport.

The Emissions Factor Toolkit⁴ was utilised to provide some details relating to the contribution of emissions from road transportation. Traffic count information for the count point between the A603 roundabout and the Georgetown exit in Sandy was obtained from Department of Transport.

Figure 3.1 – Source apportionment of NO_x emissions from road transport – NAEI 2017 (based on 2016 traffic count figures)

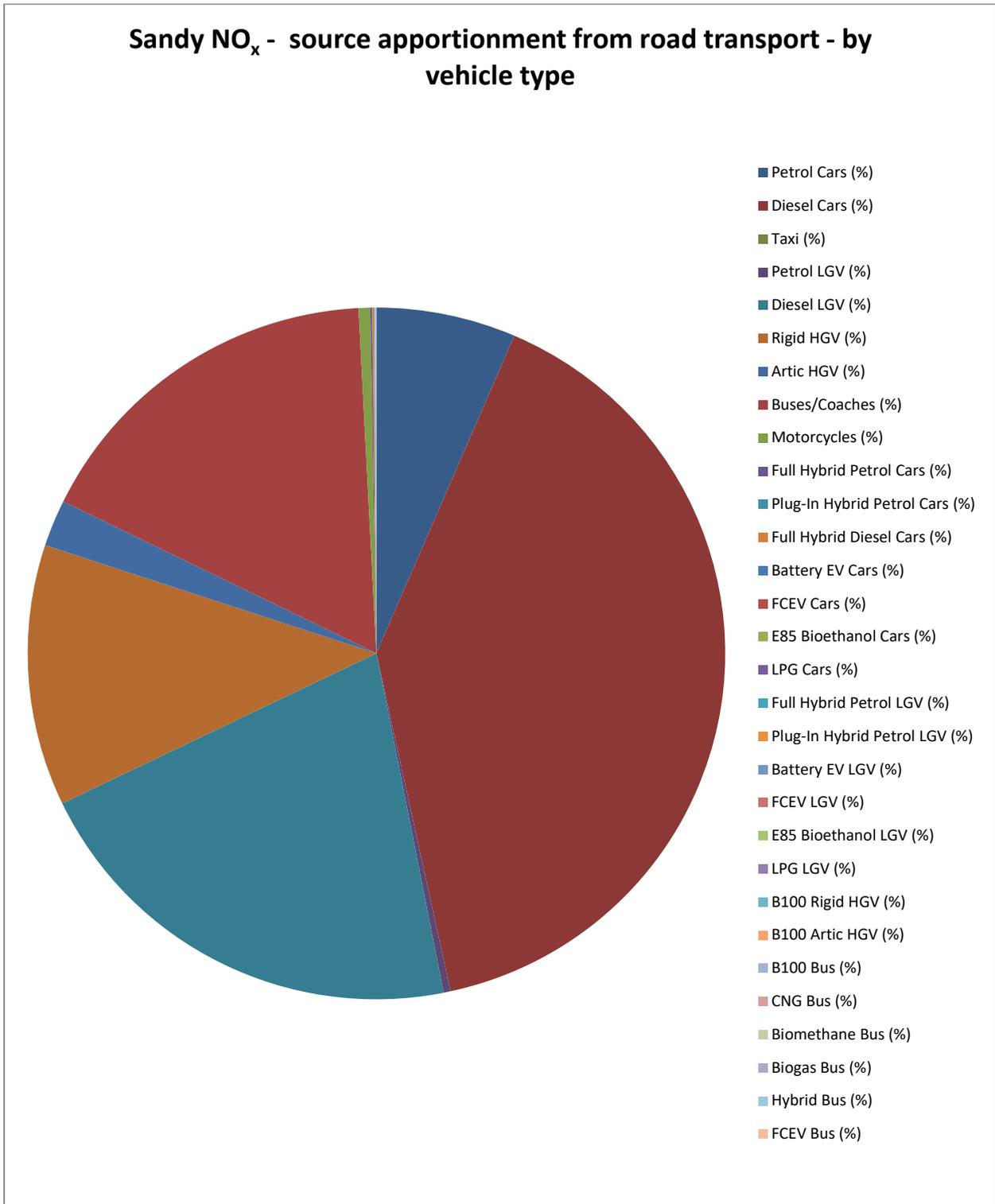


Results show that LDV vehicles account for 68.59% of NO_x emissions and HDVs some 31.41%

⁴ EFTv6.02 – released November 2014

A more detailed breakdown of the source apportionment from the traffic in Sandy can be seen in Figure 3.2 below, it can clearly be seen that diesel cars are the major contributor of NO_x emissions (some 40.11%); diesel LGVs contribute 20.95%; buses/coaches contribute 16.93%; rigid HGVs contribute 12.21% and petrol cars some 6.47%.

Figure 3.2 – Source apportionment of NO_x emissions from road transport, split by vehicle type - NAEI 2017 (based on 2016 traffic count figures)



In Ampthill, the fleet split has a much lower percentage of large HGVs due to the restrictions for such vehicles through the town; there are many bus routes and operators providing routes to Bedford, Milton Keynes, Flitwick, etc. Emissions from the bus fleet will greatly depend on the age of the vehicles and their associated Euro emissions standards. Generally, the newer the bus the less emissions it emits to the atmosphere.

The main HGVs contributors then are lorries, either delivering to locations in the town or lost/ignoring HGV restrictions on the local road network; or buses/coaches.

However, the rise in the sales of diesel cars over recent years have greatly increased, it is therefore likely that this sector of the road transport fleet will be a major contributor to the pollution levels in the town centre.

There is unfortunately no traffic count information currently available in this location and therefore source apportionment cannot be completed (like Sandy above).

However as further research/scoping work is carried out into proposed improvements to the Public Realm more information may be available, which will enable modelling the likely impact on the local air pollution concentrations of the options.

3.4 Required Reduction in Emissions

In Sandy both the hourly and annual objectives are being exceeded, therefore in some locations the required reduction in emissions are much greater than in others.

Results from diffusion tube sites in Sandy show the location of the exceedances of the AQOs to be within the declared AQMA. The results are shown overleaf (note that annualisation, bias adjustment and distance correction calculations have been applied as per Defra Technical Guidance).

Figure 3.3 – Results from NO₂ diffusion tube monitoring in Sandy

Site ID	Site Type	Monitoring Type	Valid Data Capture 2016 (%) ⁽²⁾	NO ₂ Annual Mean Concentration (µg/m ³) ⁽³⁾				
				2012	2013	2014	2015	2016
N1	Roadside	Diffusion Tube	100	35.5	32.4	33.7	33.7	36.4
N6	Roadside	Diffusion Tube	100	36.56	35.54	35.38	33.29	34.25
N20	Roadside	Diffusion Tube	100	80.45	80.39	74.15	67.32	69.77
N16	Roadside	Diffusion Tube	83	34.4	35.49	31.5	33.7	34.6
N17	Roadside	Diffusion Tube	100	35.6	36.1	37.8	38.6	34.6
N18	Roadside	Diffusion Tube	100	35.61	28.58	29.92	27.76	29.94
N25	Roadside	Diffusion Tube	100	NA	NA	NA	34.25	38.13
N28	Roadside	Diffusion Tube	100	NA	NA	NA	NA	24.62
N30	Roadside	Diffusion Tube	100	NA	NA	NA	NA	59.91
N31	Roadside	Diffusion Tube	100	NA	NA	NA	NA	27.93

The results from the real-time analyser in Sandy (approximately 2metres from the kerb of the A1) indicate that there is not a breach of the hourly objective at that location. This is confirmed by the diffusion tube monitoring results which show that whilst some monitoring locations are near to the annual AQO limit of 40µg/m³; none exceed this.

The location in breach of both the annual and hourly AQOs is a localised spot, a row of cottages immediately fronting the A1 (approximately 1metre from the kerb). The tube sited on the downpipe of one of the cottages (site N20) has been consistently over the 60µg/m³ (which Defra Guidance advises is the level at which is likely to indicate a breach of the hourly AQO of 200 µg/m³ not to be exceeded more than 18 times a year).

However, another tube placed in the vicinity (site N30), again 1 metre from the kerb of the A1, which is in a more open position than N20, shows an exceedance of the annual and hourly mean.

Figure 3.4 – 1-Hour Mean NO₂ Monitoring Results (realtime analyser in Sandy)

Site ID	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2016 (%) ⁽²⁾	NO ₂ 1-Hour Means > 200µg/m ³ ⁽³⁾				
					2012	2013	2014	2015	2016
MD3	Roadside	Automatic		93	0	0	0 (113)	0 (130)	1

Notes:

Exceedances of the NO₂ 1-hour mean objective (200µg/m³ not to be exceeded more than 18 times/year) are shown in **bold**.

(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

(3) If the period of valid data is less than 85%, the 99.8th percentile of 1-hour means is provided in brackets.

Therefore, it can be seen from monitoring site N20 a 29.77µg/m³ reduction in nitrogen dioxide (NO₂) is required to achieve compliance with the annual AQO and 9.77 µg/m³ to achieve compliance with the hourly AQO.

In Ampthill only the annual objective is being exceeded. Results from diffusion sites in the town show the locations of the exceedances of the AQO to be within the declared AQMA. The results are shown overleaf (note that annualisation, bias adjustment and distance correction calculations have been applied as per Defra Technical Guidance).

Figure 3.5 – Results for NO₂ diffusion tube monitoring in Ampthill

Site ID	Site Type	Monitoring Type	Valid Data Capture 2016 (%) ⁽²⁾	NO ₂ Annual Mean Concentration (µg/m ³) ⁽³⁾				
				2012	2013	2014	2015	2016
N21	Roadside	Diffusion Tube	100	26.57	27.14	26.97	23.49	25.94
N22	Roadside	Diffusion Tube	100	40.69	41.03	42.25	36.2	30.1
N23	Roadside	Diffusion Tube	100	47.07	43.34	47.71	42.08	46.37
N27	Roadside	Diffusion Tube	83	NA	NA	NA	NA	34.44
N32	Roadside	Diffusion Tube	92	NA	NA	NA	NA	NA

As can be seen from the above results Site N23 (Dunstable Street, Ampthill) requires a 6.37µg/m³ reduction in nitrogen dioxide to achieve compliance with the annual AQO.

3.5 Key Priorities

Our priorities are to:

- Priority 1 – Implement measures to target emissions from road transportation
- Priority 2 – Promote the uptake of electric vehicles
- Priority 3 – Promote alternative forms of travel such as walking, cycling and use of public transport

4.0 Development and Implementation of Central Bedfordshire Council’s AQAP

4.1 Consultation and Stakeholder Engagement

In developing/updating this AQAP, we have worked with other local authorities, agencies, businesses and the local community to improve local air quality. Schedule 11 of the Environment Act 1995 requires local authorities to consult the bodies listed in Table 4.1. In addition, we will undertake the following stakeholder engagement:

(This will be carried out during the Public Consultation period)

- E.g. website
- Articles in local newspaper
- Questionnaires distributed directly to households along major roads

The response to our consultation stakeholder engagement is given in Appendix A. (When the public consultation regarding the Draft Air Quality Action Plan is closed all comments will be reviewed and amendments to the Action Plan will be made to reflect these, where appropriate. A summary of responses will then be shown in Appendix A of the Final Air Quality Action Plan).

Table 4.1 – Consultation Undertaken

Yes/No	Consultee
Yes	the Secretary of State
Yes	the Environment Agency
Yes	the highways authority
Yes	all neighbouring local authorities
Yes	other public authorities as appropriate, such as Public Health officials
Yes	bodies representing local business interests and other organisations as appropriate

4.2 Steering Group

Meetings were held with individual officers within various departments of Central Bedfordshire Council (such as Public Health & Transport Planning, etc.) alongside discussions with colleagues in Highways England.

From these a number of actions were identified and a draft Action Plan developed for consultation, initially with these colleagues, to ensure that details were correct.

A Public Consultation will be carried out after the internal consultation is complete and any comments/amendments have been incorporated to the Action Plan.

5.0 AQAP Measures

The 19 measures within this Air Quality Action Plan (AQAP) are those that have been selected for adoption and implementation in pursuit of the air quality objectives within the two Air Quality Management Areas of Ampthill and Sandy and to improve the air quality across the district as a whole. These measures have been grouped into 'packages' where they have similar characteristics or are alternative options to achieve the same end. The Council does not necessarily have the power to implement them all directly but potentially does have a role in attempting to influence those bodies or individuals who could implement them.

Measures are either:

- Strategic (i.e. aimed at integrating air quality into all relevant areas of decision making within Central Bedfordshire Council); or
- Specific (i.e. aimed at promoting more sustainable travel choices and reducing traffic related emissions within the two AQMAs and the district as a whole).

Four 'Package of Measures' have been recommended for implementation at this time:

- Package 1: reducing emissions through strategic measures
- Package 2: optimising traffic flow through the AQMAs
- Package 3: reducing transport emissions
- Package 4: promoting sustainable transport options

This Action Plan is:

- Focused – road transport is the major source of emissions in the AQMAs and ambient background levels are an additional significant source.
- Proportionate – the plan puts most emphasis on reducing ambient background concentrations and emissions from road transportation and contains specific measures to attempt to address those emissions.
- Realistic – the measures in the plan have been assessed as being the more feasible, acceptable and cost effective among many options.
- Strategic – key measures to be implemented include improving the council's capacity to manage air quality, to prevent worsening the air quality and to make progress towards achieving the air quality objectives/standards.

5.1 Action Plan Measures

Package of Measures 1: Reducing emissions via strategic means

Measure 1: Improve links with the Local Transport Plan (LTP)

The air quality problem in Central Bedfordshire is predominantly a result of emissions from road vehicles, as is the case elsewhere in the UK. Consequently, the LTP constitutes a key mechanism for delivering initiatives aimed at improving local air quality.

The Public Protection team responsible for providing local air quality management work will work closely with colleagues responsible for producing the LTP to ensure that this Action Plan and the associated measures to improve air quality within the two AQMAs and across the district in general, are integrated into future versions of Central Bedfordshire Council's LTPs.

Measure	Title	
1	Improve links with the Local Transport Plan (LTP)	
Key intervention		
Measures to ensure the current poor air quality in the two AQMAs (Amphill & Sandy) is improved where possible and to avoid future problems are implemented via the LTP		
Definition	Measure/indicator	
Future versions of the LTP to include: <ul style="list-style-type: none"> Reference to the three AQMAs (Amphill, Sandy and Dunstable) and measures included in the AQAP(s). Integration of AQAP with LTP. Develop action plan options that will be implemented via the LTP 	Integration of AQAP into next version of the LTP	
Responsibility		
Public Protection, Strategic Transport Team (Central Bedfordshire Council)		

Measure 2: Improve links with the Local Planning and Development Framework

PM₁₀ and NO₂ emissions can arise during the construction and operational phases of new development, with the impacts influenced by both the size and location of the development. The land use planning system plays a central role in managing environmental impacts of new development and contributes to the protection and long-term improvement in air quality. This is achieved by ensuring that new developments do not have a negative impact on local air quality and that public exposure to air pollutants is reduced in areas which breach the air quality objectives/standards (and no viable actions are available to reduce pollutant concentrations).

To maintain and improve air quality within Central Bedfordshire, Public Protection are consulted on planning applications to assess the likely impact on air pollution concentrations and/or if the development is likely to result in people being exposed to poor air quality. Public Protection officers may request that a further assessment be carried out by developers to determine any appropriate mitigation for the development given its location/size and subsequent impact of the development on the local environment. Alternatively, Public Protection officers may recommend refusal of the development should there be no suitable mitigation measures.

Air quality is a material planning consideration and Central Bedfordshire Council’s Submitted Local Plan (currently awaiting examination)) includes policies to aid consideration and control of development which may impact on air quality. Central Bedfordshire Council’s Design Guide also sets out sustainable approaches to development with the aim of reducing impacts on the environment and the community.

Public Protection were consulted during the preparation of the Local Plan and comments were taken into consideration.

Measure	Title	
2	Improve links with the Local Planning and Development Framework	
Key intervention		
Local planning considerations aim to mitigate the cumulative negative air quality impacts of new development.		
Measures to ensure the current poor air quality in the two AQMAs (Amphill & Sandy) is improved where possible and to avoid future problems are implemented via the planning regime		
Definition	Measure/indicator	
<ul style="list-style-type: none"> Require developers to undertake an Air Quality Assessment in circumstances where a new development could have a negative impact on air quality and provide a mitigation plan where necessary Continue to use planning conditions and legal obligations to require developers to adopt measures, such as requesting travel plans, provision of cycle parking facilities and installing electric vehicle recharging infrastructure To produce a developer’s, guide re AQ 	No of assessments No of sites with: Travel plans Cycle parking facilities EV charging points Inclusion of Developers Guide re AQ on Planning webpage and to be made available to developers.	
Responsibility		
Public Protection, Local Planning and Development Framework (Central Bedfordshire Council)		

Measure 3: Improve links with Public Health

Poor air quality has been recognised as a significant public health issue. The Public Health Outcomes Framework contains an indicator specific to PM_{2.5}. Central Bedfordshire Council will seek to strengthen the link between Public Health and air quality through joint working and policy development.

Public Health currently have several projects in operation which will have a positive impact on air pollution, Public Protection will endeavour, wherever practicable to work alongside colleagues to achieve an effective outcome.

Central Bedfordshire Council, will seek Public Health funding opportunities for potential air quality related projects in the AQMAs and the district in general, such as the re-introduction of ‘AirAlert’.

Measure	Title	
3	Improve links with Public Health	
Key intervention		
Strengthen the link between Public Health and air quality		
Definition	Measure/indicator	
<ul style="list-style-type: none"> Seek opportunities to strengthen the link between Public Health and air quality through joint working and policy development in Central Bedfordshire 	Policies, relationships and processes in place to ensure air quality considered wherever relevant. No of joint projects KPI	
Responsibility:		
Public Health & Public Protection, Central Bedfordshire Council		

Package 2: optimising traffic flow through the AQMAs

It is recognised that traffic flow through the AQMAs could be significantly improved. To bring about improvements, (whether through the re-design of the current road layout or traffic flow prioritisation alterations, etc), it is essential that the traffic movements/flow and associated issues within each area are fully understood; this is to be achieved through initial investigations. The findings of these investigations will be used to inform the development of a business case or funding for highway infrastructure improvements.

Currently the Highways team are surveying and modelling various options for managing the traffic through the AQMA in Ampthill – re-prioritising the main north-south route and improving the Public Realm, etc. This may impact areas including air quality, congestion and safety. Conclusions and recommendations from these studies will form the basis of future actions in Ampthill.

Meanwhile Highways England is reviewing the situation in Sandy, to identify options which may be adopted to improve the air quality in the AQMAs.

Measure 4: Junction and Congestion Investigations

A roundabout is utilised at the A1/A603 junction at Sandy. At peak times, there are considerable tailbacks both on the A1 and the local road (A603). There are residential properties which are situated particularly close to the A1 (which is in the location where the NO₂ hourly air quality objective is being breached) and in peak times some queuing outside these properties is evident. Pollution deposition is evident on these buildings.

In Ampthill town centre, there is a double mini-roundabout serving a four-way junction. Some of the roads are narrow at this point and at peak times there is congestion. Residential properties front some of the stretches of road leading to the junction. The Dunstable Street – Bedford Street is the main route providing a route to the A507 and Flitwick to the south and Bedford to the north. Woburn Road provides a link to the A507 and Church Street leads to other villages. Pollution deposition is evident on some of the buildings.

It is proposed to assess the feasibility for the investigation of the efficiency of both junctions (Sandy A1/A603 roundabout and the Ampthill town centre mini-roundabout). A review of currently available information from existing sources (i.e. reports/studies) and use the findings to identify realistic potential actions/measures to improve traffic flow within these AQMAs. If feasible actions/measures are identified then the development of a business case for funding highway infrastructure improvements should be undertaken.

Measure	Title	
4	Junction and congestion investigations	
Key intervention		
A feasibility study into investigating efficiency and impacts of congestion of relevant junctions within the AQMAs, identify actions to improve traffic flow at these locations.		
Definition	Measure/indicator	
Review the efficiency/congestion at relevant junctions and road layouts within the AQMAs at the following: <ul style="list-style-type: none"> • A1/A603 roundabout at Sandy • Ampthill town centre (Bedford Street / Dunstable Street / Woburn Street and Church Street) which is currently controlled by mini roundabouts. 	Reports produced – identify potential measures to improve air quality, road safety and reducing congestion by improving traffic flow. development of a business case for funding highway infrastructure improvements should be undertaken	
Responsibility:		
Highways England & Strategic Transport Team & Public Protection, Central Bedfordshire Council		

Measure 5: Road signage and satellite navigation alterations

Carry out a review of the highways signage in the vicinity and within the Ampthill AQMA to ensure that traffic is being directed along the most appropriate route and remove unnecessary traffic from the town centre. For instance, ensure traffic travelling to Bedford from the A507 is not directed through Ampthill but signage directs them to use the A6 or A421.

There is a restriction on HGVs within the vicinity and within Ampthill itself, however HGVs still use the local road network and cut through the town centre. The occasional presence causes some disruption as the roads are narrow in places causing delays/congestion and these vehicles (pre-euro 6) emissions are generally high, which add to the air pollution levels in the AQMA. There is a need to review the signage/satellite navigation systems advising HGVs the most appropriate route avoiding the restricted routes.

In addition, visitors to the district and/or through traffic will not be familiar with the local road network and will often rely on satellite navigation systems. There is the potential that these systems can be updated to avoid unnecessary travel through the Ampthill AQMA and for HGVs to avoid restricted routes.

There will be a need to enforce the HGV restrictions within the Ampthill AQMA and within the district.

Unfortunately, the Sandy AQMA relates to the A1 which is a major trunk road and therefore traffic is not able to be re-routed.

Measure	Title	
5	Road signage and satellite navigation alterations	
Key intervention		
Determine significance of current road signage and satellite navigation routes on AQMA through traffic		
Definition	Measure/indicator	
<ul style="list-style-type: none"> Investigate current road signage within the vicinity of the Ampthill AQMA, to identify opportunities for improvement, with the aim of preventing unnecessary through-traffic (this measure does not apply to the Sandy AQMA as the A1 is a major trunk road). Investigate the need for altering satellite and online route planning routes to avoid the Ampthill AQMA where possible 	Undertake review of road signage in and near the Ampthill AQMA Review routes advised by satellite navigation systems and online route planners to ascertain if amendments are needed.	
Responsibility:		
Strategic Transport & Public Protection, Central Bedfordshire Council		

Measure 6: On street parking/delivery

There are a limited number of on street parking bays in Ampthill, mainly on the wider sections of the roads along Woburn Street (not within the AQMA).

There are a few layby areas providing off-street parking alongside the AQMA, so reducing potential congestion/air pollution caused by parked vehicles on the highway.

However, the town centre has a number of shops and delivery vehicles are often parked outside, although there is a restriction on delivery times in Ampthill, this causes delays and congestion as the traffic flow is impeded at these times, which adds to the burden of air pollution in the area. Should these delivery vehicles or vehicles using the on/off street parking facilities leave their engines idling then this will add to the pollution emissions and potential impact on local residents.

Currently the Highways team are surveying and modelling various options for managing the traffic through the AQMA – re-prioritising the main north-south route and improving the Public Realm, etc. This would impact many areas including air quality, congestion and safety. Conclusions and recommendations from these studies will form the basis of future actions in Ampthill.

In Sandy, there are no on street parking facilities and deliveries to houses fronting the A1 are not frequent enough to cause issues to the road network. Thus, Sandy is not included in this measure.

Measure	Title	
6	On street parking / delivery	
Key intervention		
Determine significance of on street parking and deliveries on road network (Ampthill only)		
Definition	Measure/indicator	
<ul style="list-style-type: none"> Review impact of on-street parking & deliveries within AQMA 	Could be a part of the report dealing with the Public Realm improvements including potential road layout amendments in Ampthill	
Responsibility:		
Strategic Transport & Public Protection, Central Bedfordshire Council		

Measure 7: Research impact on use of average speed cameras / change to speed limit (Sandy only)

It is recognised that the A1 attracts a great many vehicles and has various speed limits along its length. Currently there is a 50mph speed limit from St. Neots Road to the A603 roundabout; a safety camera is sited near to the cottages where the diffusion tube measures exceedances of both the hourly and annual NO₂ AQOs.

There is local knowledge to indicate that this speed limit may not always be obeyed and that some traffic may brake to avoid detection by the camera and then accelerate off. As such, emissions from the road traffic may be increased (heavy braking and then acceleration).

Therefore, it is proposed for a feasibility study to be considered to research into the impact of the use of average speed cameras to prevent the braking/acceleration of vehicles, thus smoothing the traffic speeds and the impact on air quality, safety and congestion. In addition, the study could review the impact on decreasing the speed limit to 40mph (from the current limit of 50mph) through this section of the A1.

It is proposed to contact other local authorities who have adopted the use of average speed camera and/or lowering speed restrictions on trunk roads/motorways to ascertain effectiveness in achieving improvements to the local air quality.

Measure	Title	
7	Research use of average speed cameras/speed limit (Sandy only)	
Key intervention		
Feasibility study to be considered to determine significance of current speed limit on emissions and the effects of traffic slowing and then accelerating and the impact of the introduction of average speed cameras (Sandy only)		
Definition	Measure/indicator	
<ul style="list-style-type: none"> Feasibility study to be considered to determine significance of speed limit/traffic speed on emissions and the effects of braking/acceleration at current safety camera. Research into the impact of the use of average speed cameras to prevent the braking/acceleration thus smoothing the traffic flow by ensuring speed limit observed and potentially decreasing speed limit to 40mph (from the current 50 mph). Research other local authorities that have adopted such measures to ascertain effectiveness 	Outcome of feasibility study Use of appropriate modelling to ascertain significance and to show if any improvement could be made to the air quality and if so by what amount Response from other LAs	
Responsibility:		
Highways England & Public Protection, Central Bedfordshire Council		

Package of Measures 3: Reducing transport emissions

This can be achieved in several ways, e.g. promotion of alternative fuels and low/zero emission vehicles, car sharing schemes and incentives and reducing the volume of traffic, etc.

Measure 8: Promote use of electric vehicles (EV)

It is recognised that EV could offer solutions to the air quality issues; as such the aim is for the council to promote and encourage the uptake and use of electric (plug in and hybrid) vehicles. By communicating both the personal and business benefits of EVs and the Government grants available to both towards the cost of each new EV vehicle (subject to certain conditions). The Government announced in April 2017 that people purchasing an EV vehicle will benefit from up to £4,500 off the cost of an Ultra-Low Emission Vehicle; up to £2,500 of the cost of a hybrid and £500 towards the cost of installation of a charge point in their home.

Central Bedfordshire Council (CBC) recognises that there are barriers preventing the successful uptake of EV, for example the range of the vehicles; the availability and accessibility of charging points; the disposal/recycling of the batteries and the potential of different networks providing the equipment which results in the user having several various cards to use the differing systems.

Central Bedfordshire Council has had an EV network for 5 years, however the demand was low. Demand has been increasing over the last year. Currently there are 9 charging points in the district.

Measure	Title	
8	Promote use of electric vehicles (EV)	
Key intervention		
Encourage use and uptake of electric vehicles		
Definition	Measure/indicator	
<ul style="list-style-type: none"> • Management of CBC EV network to go out to tender in 2017 and include: <ul style="list-style-type: none"> ○ Upgrading existing ageing equipment ○ Developing new locations/sites with various EV charging facilities (ie rapid charge, etc) ○ Promoting locations of EV charging facilities • Require EV provision in new developments (at least ensuring cabling is in place so EV charging points can be installed at a later date • Explore possibility of local incentives, such as the waiving of car parking charges when using EV equipment and priority bays for EV 	No of charging stations and additions to the network. Usage of the sites No of new developments installing such equipment / no of charging points	

<ul style="list-style-type: none"> Promote the presence and availability of existing EV charge points within the district 	Percentage increase in usage
Responsibility:	
Strategic Transport, Development Control/Planning, CBC Assets Team & Public Protection, Central Bedfordshire Council	

Measure 9: Green incentives for taxi drivers

Taxis do considerable local mileage and consequently add to the air pollution within the district. Therefore, there is good reason to encourage taxi companies and drivers to use cleaner (e.g. electric) vehicles.

Currently new vehicles licensed to be utilised as taxis must be under 5 years of age, however vehicles currently licensed will be permitted to be re-licensed annually provided they pass the necessary mechanical inspection, but any replacement vehicles must meet the age requirement. A second (6 monthly) inspection will be required for vehicles over 5 years of age to ensure that standards are maintained.

This means that the taxi vehicle fleet will naturally become cleaner as newer vehicles are licensed and the older more polluting vehicles are no longer viable for this use.

The council sets licence fees annually on a strict cost recovery basis as case law prohibits councils from cross subsidising or making surplus on fees charged for their licensing functions. It would therefore not be possible for CBC to offer a subsidy to taxi companies and drivers who licence cleaner vehicles, thus reducing the licence fee paid to below cost-recovery levels.

However, St. Albans City and District Council currently have adopted a reduction of £60 of the cost of a 1 year vehicle licence fee for authorised low emission CO₂ vehicles or fully electric vehicles. Authorised vehicles are the Toyota Prius, 1500cc VVTi and any fully electric vehicle that complies with the licencing conditions. Therefore, Central Bedfordshire Council will aim to ascertain how this reduction in fees is funded from the Licensing Team at St. Albans and review if such an option is practicable within Central Bedfordshire.

Generally, taxis will impact more on the Ampthill AQMA as there is a taxi rank within the town centre and more patrons wanting their services, than that of the Sandy AQMA, where a small number of taxis will pass through. The town centre taxi rank on Friday and Saturday nights is an on-street one, a small number of vehicles wait on the road in the town centre (near the roundabout) the remaining queue is held in a supermarket car park, this limits the number of cars causing an obstruction to passing traffic. However, if engines are left idling when queuing then this will add to the air pollution – therefore taxis should be encouraged to switch engines off whilst waiting fares.

Taxi companies and drivers should be encouraged to use smarter driving techniques by promoting that this can increase fuel efficiency whilst reducing emissions.

Measure	Title	
9	Impact of Taxis'	
Key intervention		
Green Incentives for Taxis and encourage taxi companies and drivers to use smart driving techniques and adopt anti-idling at ranks		
Definition	Measure/indicator	
<ul style="list-style-type: none"> • Check idling whilst carrying out spot licencing checks • Include information regarding Smarter Driving Techniques and Idling in information pack • Approach St. Albans Council to ascertain how the reduction in the 1 year vehicle taxi licence is funded to ascertain if practicable in Central Bedfordshire 	<ul style="list-style-type: none"> • No of taxis' found to be idling at each spot check • No of packs sent out. Demand for training • Identify funding stream and if available in Central Bedfordshire and are members agreeable to suggestion 	
Responsibility:		
Licensing Team & Public Protection, Central Bedfordshire Council		

Measure 10: reducing the emissions from goods vehicles within AQMAs

Central Bedfordshire Council’s Freight Strategy (2011) states that in 2008 95% of freight moved in the district is carried by road in lorries and vans. The Freight Strategy (2011) also states 1 in 20 businesses registered in the district are transport and storage operators. A further 55% were engaged in sectors that rely directly on transport operations such as construction/manufacturing/agricultural and retail.

The Strategy’s objectives include:

- Minimise the negative impacts on local communities and the environment from freight traffic and operations
- Encourage the movement of freight by means other than road haulage where appropriate and feasible

The Strategy details the Designated Road Freight Network (DRFN) which specifies primary and secondary freight routes in the district, ensuring that such vehicles travel on primary routes avoiding town centres as feasible, unless serving local communities or moving to generators/destinations not on the delegated network.

The Freight Strategy (2011) advocates that promotion of the use of cleaner vehicles and smarter driving to local freight companies are measures to be used.

Generally, the vehicle weight restriction which covers the Ampthill AQMA limits the number of the HGVs entering the area; however Light Goods Vehicles will contribute

to the air pollution. There are already limits on the times deliveries cannot take place (during peak rush hours).

The Sandy AQMA is adjacent to the A1 and therefore is a major trunk road and is used as a freight route, there is no suitable alternative route to avoid the AQMA. Central Bedfordshire Council is working with Highways England to identify actions to reduce emissions from HGVs along the A1.

Measure	Title
10	Reducing the emissions from goods vehicles within AQMAs
Key intervention	
Target reduced emissions from LGVs and HGVs operating within the AQMAs	
Definition	Measure/indicator
<ul style="list-style-type: none"> Enforce vehicle weight restrictions within Ampthill Enforce delivery time restrictions within Ampthill Encourage companies accepting deliveries within the Ampthill AQMA to get drivers to switch off engines (where possible) to prevent emissions and to try to park in locations which will cause less disruption to the traffic (to prevent tailbacks/congestion) 	<p>No of breaches</p> <p>No of breaches</p> <p>Promote to local businesses and seek voluntary agreements. Adoption of delivery policies before planning permission granted.</p>
Responsibility:	
Strategic Transport, Development Control/Planning & Public Protection, Central Bedfordshire Council	

Measure 11: reducing emissions from the Council fleet

Central Bedfordshire Council has some 90 vehicles in its fleet, including hire vehicles; 46 vehicles are used to transport SEN Education and Social Services clients to centres and to provide home to school transport.

The council should lead by example and target reductions in emissions from its transport fleet activities as much as practicable. To this end:

Actions:

Central Bedfordshire Council’s Fleet Policy includes the need to minimise the environmental impact of its fleet.

Recently the Fleet Team procured new minibuses; a stipulation in the tender was that the vehicles must be Euro6 compliant. Euro6 engines helps halve the amount of nitrogen oxides that is emitted, the EU focus in on the NOx because it is one of the most harmful greenhouse gases. It can last up to 150 years, significantly longer than other greenhouses gases.

In addition, the fleet utilises AdBlue which is a Selective Catalytic Reduction agent that works by being sprayed into the exhaust gas and helps to breakdown NOx into

steam and nitrogen, resulting in the tailpipe emissions from these Euro6 diesel engine minibuses are cleaner than their predecessors.

Fleet vehicles have recently been fitted with a device called Lightfoot which consists of a simple dashboard display to show the driver when the engine is operating within its most efficient/economical range. Lightfoot has been independently tested at Bath University and was shown to reduce NOx emissions by 20%; particulate emissions by 15%; fuel consumption by approximately 10% and CO₂ emissions by 10%.

The Fleet Team are looking to replace the other older minibuses within the fleet with Euro6 compliant vehicles with the Lightfoot system installed by November 2018.

Once this project is complete, attention will focus on reviewing the smaller vehicles in the fleet (i.e. smaller 9 seater minibuses, panel vans, 4x4s, etc) that would need to be replaced to maintain the environmental standards across the fleet.

Measure	Title	
11	Reducing the emissions from the council's fleet	
Key intervention		
Reducing emissions from the council's fleet		
Definition	Measure/indicator	
Continue to target reductions in emissions from the council's fleet ¹ <ul style="list-style-type: none"> ○ Continue replacing older minibuses with Euro6 compliant vehicles by November 2018 ○ Review smaller vehicles in fleet to identify those requiring to be replaced to maintain environmental standards. 	EMS performance indicator for annual fuel usage reduction No of vehicles meeting Euro6 standards	
Responsibility:		
Fleet Manager & Public Protection, Central Bedfordshire Council		

Measure 12: Promote Liftshare, Dial-a-Ride & Travel choices

The encouragement of travellers to plan their journey and share transport, whenever possible is likely to lead to fewer vehicle trips and therefore fewer emissions. 'If half of UK motorists received a lift one day a week, pollution would be reduced by 10% and traffic jams by 20%.' (Liftshare.com, 2017). Car sharing and travel planning are therefore important measures to improve air quality.

Lift share schemes are currently in operation within Central Bedfordshire and throughout the country; Central Bedfordshire Travel Choices Liftshare aims to match those requesting lifts with those able to provide that service and this scheme is not affiliated with any large organisations, currently there are 162 members. Additionally,

there is the Central Bedfordshire Council Liftshare for employees of the council, currently there are 130 members.

The Council will aim to promote these schemes with the intention to increase the membership and uptake of car sharing journeys.

Incentives to aid the uptake of car sharing may be required and will need further consideration as to their suitability and practicality but could include designated parking bays for high occupancy vehicles and reduced parking charges.

Central Bedfordshire Council has a new contract for community transport providing 'dial-a-ride' services throughout the mid and east Bedfordshire areas, which commenced on the 15th October 2018. This service operates Monday to Friday between 8:30am to 5pm, with bookings being taken up to a week in advance.

The Greensand 'dial-a-ride' service is available on a membership basis with which normally costs £20 per year (but currently there is a special launch offer for free membership until 31st March 2018 for anyone joining before the end of 2018). Fares then range from "2.25 for shorter trips to £3.75 for longer journeys.

The new service will cover Ampthill and Sandy.

Central Bedfordshire Council also funds similar 'dial-a-ride' services in other areas including Leighton Buzzard and Dunstable.

Measure	Title	
12	Promote Liftshare, Dial-a-Ride and sustainable travel through the Travel Choices project	
Key intervention		
Aim to promote these schemes with the intention to increase the membership and uptake of car sharing journeys		
Definition	Measure/indicator	
<ul style="list-style-type: none"> o Actively promote these schemes throughout Central Bedfordshire and seek increase in membership both with the council staff and public schemes o Investigate potential incentives to increase car sharing 	Number of members Determine viable incentives used by other local authorities/companies and investigate suitability for adoption by CBC	
Responsibility:		
Strategic Transport & Public Protection, Central Bedfordshire Council		

Measure 13: Encouraging smarter driving

Encouraging people to drive and operate their vehicles more efficiently, results in reduced fuel consumption and reductions in exhaust emissions. This is achieved by improving driving skills (smoother driving, less harsh breaking and smoother acceleration) and undertaking regular vehicle servicing (checking tyres, fuel filters and engine tuning) as well as carrying out journey planning. These measures are known as “Smarter Driving”. Other measures include minimising the use of air conditioning and reducing the weight of the vehicle (i.e. removing roof racks and unnecessary items in the car boot).

Many new vehicles are equipped with stop-start technology, whereby the engine shuts off automatically and then restarts when needed (by applying pressure to the accelerator) – this reduces the amount of time the engine spends idling, reducing fuel consumption and emissions. Drivers of older vehicles should be encouraged to switch off their engines when in stationary traffic or parked; countdown timers on traffic signals would be advantageous to both drivers and pedestrians. Drivers should also be encouraged to allow stationary vehicles waiting to make a right turn into side roads or those waiting to exit side roads to do so, where practicable, as these stationary vehicles cause tailbacks and congestion.

Measure	Title	
13	Encouraging smarter driving	
Key intervention		
Raise awareness of smarter driving techniques		
Definition	Measure/indicator	
Raise awareness and encourage residents and businesses to adopt smarter driving methods	Incorporating messages into relevant communication channels and campaigns over the next 12 months	
Explore the possibility of providing/obtaining smarter driving training for council employees	Undertake sufficient research to determine whether the possibility of providing/obtaining training is viable	
Review effects of the Lightfoot system installed into new fleet vehicles on actual reductions in emissions and fuel usage	Review emissions and fuel usage data and driver feedback/testimonial	
Promote 'anti-idling' ethos & raise awareness of emissions and fuel usage	Public education of issues surrounding idling – leaflets/posters/web, etc	
Responsibility:		
Fleet Manager, Corporate Training & Public Protection, Central Bedfordshire Council		

Package 4: promoting sustainable transport options

Measure 14 – Participate with Public Health’s Excess Weight Strategy to increase the number of families walking and cycling to school/work

Although the result of the departments differ Public Health aims to increase physical activity and reduce levels of obesity, whilst Public Protection aims to improve air quality and reduce concentration levels of pollution, the path to achieve these objectives can be a shared one. Success can be measured using Bikelt and Travel Hub data.

Measure 15 – Participate with other Council initiatives (which could impact on air quality)

- Sustrans Bikelt Programme runs within 34 schools to encourage children and staff to bike to school (not currently within Ampthill), the KPI results show that levels of physical activity have risen by over 25% and therefore the programme has achieved its targets. However, this programme ends in March 2018 and as a result, focus is now to target parents to ensure that these levels are maintained/increased in future years. This is being achieved by school staff members becoming Bikelt champions to continue the work achieved thus far.
- However, from April 2018, the STARS (Bedfordshire Sustainable Travel Access to Railway Stations) Funding programme will focus on the promotion of walking and cycling (and bus use) to the Midland Mainline train stations in Bedfordshire towns with railway stations (or in the vicinity) - including Ampthill/Flitwick/Harlington.
- Asthma Schools – this is a relatively new initiative which involve the training of Asthma Champions being trained in each school which includes the potential triggers (which can be air pollutants), as well as ensuring suitable care is in place to prevent asthma attacks (identifying triggers, behaviour change, use of inhalers, remove trigger, etc.) and provide a suitable care/treatment plan should it be necessary. This is being delivered through school nursing teams and the first round of training took place in April 2017.
- PSHE – is a programme for schools to be used by teachers as a resource for information surrounding various issues – ie mental health, safety, health, etc. This resource could be used to give information regarding air quality for use by teachers to develop class plans, etc.

Measure	Title
14/15	Participate with Public Health initiatives which impact on air quality
Key intervention	
Measures to ensure the current poor air quality in the two AQMAs (Ampthill & Sandy) are improved where possible and to avoid future problems are implemented	

Definition	Measure/indicator
<ul style="list-style-type: none"> The work surrounding Public Health’s Excess Weight Strategy aims to increase the number of people walking/cycling to school/work Sustrans Bike It programme STARS 	Success can be measured using Bikelt and Travel Hub data No of participants/schools KPIs
Responsibility	
Public Health, Sustainable Transport Team & Public Protection, (Central Bedfordshire Council)	

Measure 16: Promote travel planning

A Travel Plan is a package of measures designed to influence the travel behaviour of individuals, businesses, schools and other organisations, by promoting sustainable travel. The general aim is to reduce the negative effects of traffic by encouraging alternatives, especially to that of single-occupancy car journeys.

Central Bedfordshire Council are working with schools, businesses, developers and individuals to promote sustainable travel through use of Travel Plans.

Travel Plans should seek to:

- Reduce the use of cars by encouraging car sharing
- Provide links to enable the use of public transport
- Improve road safety for pedestrians and cyclists and
- Identify any mitigation works to be funded by the developer in conjunction with the proposal.

Public Health and Transport colleagues have aimed to increase opportunities for children/young people to travel to/from and between schools and colleges by sustainable modes through schemes such as within the Excess Weight Strategy and the Bikelt programme. From April 2018, the STARS programme will focus on sustainable transport to/from railway stations on the Midland mainline (Flitwick & Harlington).

Measure	Title
16	Promote Travel Planning
Key intervention	
Measures to ensure the current poor air quality in the two AQMAs (Amphill & Sandy) are improved where possible and to avoid future problems are implemented	
Definition	Measure/indicator
<ul style="list-style-type: none"> Continue working with schools, businesses, developers and individuals to promote sustainable travel through use of Travel Plans 	No of participating organisations

<ul style="list-style-type: none"> • Requirement for proposed new developments that would have significant transport implications to have a Travel Plan. • STARS programme to focus on sustainable transport to/from rail stations 	
Responsibility	
Development Control/Planning, Public Health & Public Protection, (Central Bedfordshire Council)	

Measure 17: Promote walking and cycling

There are numerous financial, health and environmental benefits to be gained from walking and cycling such as:

- Walking and cycling improves overall physical fitness and wellbeing
- Travelling by bicycle is often just as fast (or faster) as a car door to door across towns, especially at peak times.
- Travelling by bicycle or walking cuts congestion and creates no air pollution emissions
- Bicycles are free to park
- Walking and cycling incurs no road tax, fuel bills

The promotion of walking principally involves providing well-maintained footways, highlighting the many associated environmental, social and economic benefits, providing literature such as local walking maps and supporting/promoting the existence of local walking groups.

Measure	Title
17	Promote Walking and Cycling
Key intervention	
Promote Walking and Cycling	
Definition	Measure/indicator
<ul style="list-style-type: none"> • Review and maintain/improve the walking & cycling environments • Promote the benefits of walking & cycling to the public 	<ul style="list-style-type: none"> • No of dedicated cycle paths / usage & location of cycle parking facilities. • Update Central Bedfordshire Council's Walking and Cycling Strategies • Provide maps to show walking/cycling routes • Promote Travel Choices service and extend to the north of the district

<ul style="list-style-type: none"> • STARS programme to focus on sustainable transport to/from rail stations 	<ul style="list-style-type: none"> • KPI, etc. <ul style="list-style-type: none"> ○ Uptake of sustainable transport
Responsibility	
Public Health, Highways Development Management Team & Public Protection, (Central Bedfordshire Council)	

Measure 18: promote use of public transport

The council recognises that improvements to and the promotion of public transport will bring about reduced congestion and improve air quality.

Public transport can provide a good alternative to the car for the journey to/from work. For businesses, developing a public transport strategy reduces the need for expensive parking spaces and improves site access to staff and customers. For employees, journeys via public transport can be cheaper than the real cost of travelling by car; are less stressful than driving and help build exercise into the daily routines (i.e. walking to/from bus stop or rail station).

Central Bedfordshire Council is currently in the process of producing a Public Transport Strategy.

Measure	Title
18	Promote use of Public Transport
Key intervention	
Promote use of Public Transport	
Definition	Measure/indicator
<ul style="list-style-type: none"> • Complete and publish Central Bedfordshire Council’s Public Transport Strategy • Promote the benefits of public transport to the public • STARS programme to focus on sustainable transport to/from rail stations (especially commuters) 	<ul style="list-style-type: none"> • Ensure KPIs are included to measure impact on air quality, i.e.: <ul style="list-style-type: none"> ○ No of passengers ○ Euro standards of vehicles • Promote health/speed of journey/financial benefits • Provide timetables and route maps • Promote Travel Choices service and extend to the north of the district to aid travel planning • KPI, etc.

from Ampthill (and those traversing through the AQMA travelling from Flitwick rail station)	<ul style="list-style-type: none"> ○ Uptake of sustainable transport ○ No of passengers etc
Responsibility	
Public Health, Highways DM Team & Public Protection, (Central Bedfordshire Council)	

Measure 19 – Re-introduction of an early warning of air pollution system

Central Bedfordshire Council along with other local authorities throughout Bedfordshire and Hertfordshire are working to re-introduce a free air quality alert service to notify people with respiratory conditions (e.g. asthma, COPD) at times when poor air quality is predicted.

This service will be designed to inform vulnerable people the day before the poor air quality is predicted to occur, to assist them make informed choices about managing their respiratory health (e.g. changing daily activity).

Measure	Title	
19	Re-introduction of an early warning of air pollution system	
Key intervention		
Re-introduce and promote an early warning of air pollution system		
Definition	Measure/indicator	
<ul style="list-style-type: none"> • Continue work of Herts & Beds Air Quality Network group (made up of local authorities within Herts and Beds) to re-introduce the system • Promote the benefits of system to the public and other organisations 	<ul style="list-style-type: none"> • Contract put out for tender bids and supplier chosen • Herts & Beds group to work with supplier to establish format of messages (test/email) • Promote service <ul style="list-style-type: none"> ○ No of subscribers • Promote impacts on health for users 	
Responsibility		
Public Protection, (Central Bedfordshire Council) & Herts and Beds Air Quality Network Group		

Figure 5.0 Summary of action plan measures to be adopted

Measure	Title
Package of Measures 1: Reducing emissions via strategic measures	
1	Improve links with Local Transport Plan (LTP)
2	Improve links with Local Planning/Development Framework
3	Improve links with Public Health
Package of Measures 2: Optimising traffic flow through the AQMAs	
4	Junction & Congestion investigations
5	Road signage and satellite navigation system alterations
6	On-street parking & deliveries
7	Research impact on use of average speed cameras and lower speed limit (Sandy only)
Package of Measures 3: Reducing transport emissions	
8	Promote use of electric vehicles (EV) & ultra-low emission vehicles (ULEV)
9	Green incentives for taxi drivers
10	Reducing emissions from goods vehicles
11	Reducing emissions from the council's fleet
12	Promote Liftshare, Dial-a-Ride and Travel Choices
13	Encourage smarter driving
Package of Measures 4: Promoting sustainable transport options	
14	Support the Public Health's Excess Weight Strategy includes promotion of cycling/walking
15	Participate with other council initiatives (which could impact on air quality)
16	Promote travel planning
17	Promote walking and cycling
18	Promote use of public transport
19	Re-introduction of an early warning of air pollution for vulnerable people

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Table 5.1 – Air Quality Action Plan Measures

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
	Title				Date	Date				Date	
1	Improve links with Local Transport Plan (LTP)	Freight & Delivery Management	Route Management Plans/ Strategic routing strategy for HGV's	Central Bedfordshire council	current	3months - ongoing	AQAP included in LTP 2026			2026	
2	Improve links with Local Planning / Development Control	Policy Guidance and Development Control	Other policy	Central Bedfordshire Council	current	Ongoing	Number of: AQ assessments Sites with travel plans Sites with cycle parking Sites with EV charging points		AQ required to be assessed for large sites or sites in areas where the development could affect AQ	-	
3	Improve links with Public Health	Policy Guidance and Development Control and Promoting Travel Alternatives	Other policy and Promotion of walking/cycling	Central Bedfordshire Council	current	3months - ongoing	KPI re AQ No of joint projects Policies, etc in place to ensure AQ is considered where relevant			-	
4	Junction Investigations	Traffic Management	Strategic highway improvements	Central Bedfordshire Council and Highways England	current	12 – 24 months	Reports produced to identify potential measures to improve AQ, safety and reduce congestion by improving traffic flow		Work currently being undertaken to identify potential changes & benefits	2020	

Central Bedfordshire Council

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
5	Congestion Study	Traffic Management	Congestion management	Central Bedfordshire Council and Highways England	Current	12 - 24 months	Action measures identified and adopted		This may be addressed through studies for other potential measures	2020	
6	Road Signage & Satellite Navigation System alterations	Traffic Management	Strategic highway improvements	Central Bedfordshire Council	3 months	6 – 12 months	Undertake review of signage in/near of Ampthill AQMA Review SatNav & route planners to see if amendments needed		Work yet to commence	2020	
7	On Street Parking & deliveries	Traffic Management	Strategic highway improvements and Parking enforcement on highways	Central Bedfordshire Council	Current	12 - 24 months	Likely to be part of report dealing with Public Realm improvements- ie road layout amendments		Likely to be part of report dealing with Public Realm works ie. road layout amendments	2020	
8	Research impact on use of average speed cameras (Sandy only)	Traffic Management	Strategic highway improvements	Highways England	3-6months	9 -12 months	Use of modelling to ascertain significance of improvements in AQ Response from other Local Authorities who used such measures in AQAPs		Work yet to commence as other potential measure being investigated		This may well be investigated further if the potential of a barrier between A1 & cottages is not viable

Central Bedfordshire Council

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
9	Promote use of electric vehicles	Promoting Low Emission transport	Prioritising uptake of low emission vehicles	Central Bedfordshire Council	ongoing	ongoing	No charging stations & additions to network Usage of sites No of new developments installing such equipment & no of points % increase in usage		New tender due for management of equipment. Upgrade of equipment due. Looking to expand network	2022	
10	Green incentives for taxi drivers	Promoting Low Emission transport	Taxi emission incentives	Central Bedfordshire Council	3 months	9 - 12 months	No idling at spot checks No of packs issued & demand for training Identify potential funding & if members agreeable to incentives		Work yet to commence	2021	
11	Reducing emissions from goods vehicles	Freight & Delivery Management	Delivery/service plans and Quiet/out of hours delivery	Central Bedfordshire Council	Current	6 – 12 months	No of breaches of vehicle weight restriction (Amphill) Enforce delivery time restrictions (Amphill) Seek voluntary agreements with local businesses re anti-idling deliveries Agree delivery policy prior to planning permission		Work yet to commence	2020	

Central Bedfordshire Council

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
12	Reducing emissions from council fleet	Vehicle fleet efficiency	Fleet efficiency	Central Bedfordshire Council	Ongoing	12 – 24 months	EMS performance indicator for annual fuel usage reduction No of vehicles in fleet meeting Euro6 standard (& % of fleet)		Fleet being updated with Euro 6 standard. EMS indicator to monitor fuel usage etc	2022	
13	Promoting Liftshare & Travel Choices	Alternatives to private vehicle use	Car lift/sharing schemes and Other	Central Bedfordshire Council	Ongoing	12 -24 months	No of members (% increase) Determine viable incentives used by other LAs' & companies and suitability for use in central Beds		Schemes in place but need rolling out to cover north of district and publicising to maximise usage	2021	
14	Encourage smarter driving	Vehicle fleet efficiency	Driver training and ECO driving aids	Central Bedfordshire Council	Ongoing	12-24 months	Ascertain if obtaining/providing training viable Review emissions & fuel usage data and driver feedback Incorporate messages in relevant communication channels & campaigns Develop public education re idling through press, leaflets, posters& web		CBC fleet being updated with Euro 6 vehicles & fitted with smarter driving system (Lightfoot)	2022	

Central Bedfordshire Council

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
15	Support the Public Health's Excess Weight Strategy (inc promotion of walking & cycling)	Promoting travel alternatives	Promotion of walking/cycling & Intensive active travel campaign	Central Bedfordshire Council	Ongoing	Ongoing	Use Bikelt & Travel Hub data No of participants / schools KPIs		Schemes ongoing more may be developed		
16	Participate with other Council initiatives (which could impact on AQ – i.e Bikelt & STARS)	Policy Guidance & development Control; Promoting travel alternatives and Public Information;	Other	Central Bedfordshire Council	ongoing	4 months then ongoing	Use Bikelt & Travel Hub data No of participants / schools KPIs		Schemes ongoing more may be developed		
17	Promote travel planning	Promoting travel alternatives	School/workplace travel planning & other	Central Bedfordshire Council	ongoing	ongoing	No of participating organisations STARS programme objectives /KPIs No of proposed new developments requiring travel plans		Number of schools & businesses already participating STARS starting in April 2018		

Central Bedfordshire Council

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
18	Promote walking and cycling	Promoting travel alternatives	Promote cycling & walking	Central Bedfordshire Council	ongoing	ongoing	No of dedicated cycle paths / usage & location of cycle parking facilities. Update CBCs Walking & Cycling strategies Provide maps to show routes Promote Travel Choices service & extend to the north of the district KPI, etc. <i>Uptake of sustainable transport</i>		Schemes in place but need rolling out to cover north of district and publicising to maximise usage		
19	Promote use of public transport	Promoting travel alternatives	Promote use of public transport	Central Bedfordshire Council	Ongoing	ongoing	Ensure KPIs are included to measure impact on air quality, i.e.: <i>No of passengers Euro standards of vehicles</i> Promote health / speed of journey / financial benefits Provide timetables & route maps Promote Travel Choices service & extend to north of the district to aid travel planning KPI, etc. <i>Uptake of sustainable transport</i> <i>No of passengers</i>				

Appendix A: Response to Consultation

Table A.1 – Summary of Responses to Consultation and Stakeholder Engagement on the AQAP

Consultee	Category	Response
None as yet as full public consultation due after the internal consultation		

Appendix B: Reasons for Not Pursuing Action Plan Measures

Table B.1 – Action Plan Measures Not Pursued and the Reasons for that Decision

Action category	Action description	Reason action is not being pursued (including Stakeholder views)
	Complete table for all measures that will not been pursued.	Add a 2-3 sentence summary for each action
Strategic	Road signage to indicate presence of AQMAs	Minimal benefit. Potential blight to residents
Strategic	Road user charging	Not viable
Remove receptors	Remove homes & businesses	Not practicable. No emission reduction
Receptors	Install mechanical ventilation at residential properties (Sandy)	Not an ideal solution and mechanical ventilation not favoured by this authority. No reduction in emissions. A last case possibility for mitigation if no other measures practicable. On hold for now pending feedback on other potential measures.
Remove sources	Pedestrianisation of AQMAs	Unsuitable in Sandy as A1 is a trunk road. Highways colleagues are investigating work to the Public Realm in Ampthill town centre but to still allow through traffic.
Remove sources	Relief Road/Bypass	Ampthill already benefits from the A507 which provides a route to the M1 junction 13 and the A428 to Bedford and and the A1 at Baldock (junction 10). The A1 is a major trunk road and there are no plans to alter the route. New roads often induce new traffic. Potential to generate new exposure. Very expensive to implement new infrastructure projects. Limited land for this type of development.

Reducing transport emissions	Vehicle emissions testing	Lack of resources for enforcement
Reducing transport emissions	Idling vehicle enforcement	Lack of resources for enforcement
Reducing transport emissions	Fleet/fuel monitoring of council vehicles	Incorporated with reducing emissions from council fleet. No need for specific measure within this AQAP
Reducing transport emissions	Bidding for grant for the Bus Clean Technology Fund (retro upgrade to Euro IV emission standard for older buses)	Raised options with bus operators – no interest and therefore no bid submitted to Defra
Other	Home energy efficiency	Not significant in terms of existing problems. Dealt with elsewhere (HECA)
Other	Enforcement of Smoke Control Areas	There are no such areas within Central Bedfordshire
Other	Environmental nuisance (including bonfires)	Regulated by separate legislation (Environmental Protection Act 1990)
Other	Controlling industrial air pollution emissions	Regulated by separate legislation (Environmental Permitting Regulations 2016 (as amended))
Other	Reporting of smoky vehicles	Place link to online reporting form on Central Bedfordshire Council's air quality page. No need for specific measure within this plan
Other	Promote air quality issues	Council already has dedicated webpage for air quality. Local Air Quality Management reports available. Hertfordshire and Bedfordshire Air Quality Network webpages also provides a significant amount of data.
Traffic management	Research impact on emissions at the cottages fronting A1 (Sandy) if barrier was	The study carried out by Highways England was exploring the potential of erecting a barrier between the A1 and the residential properties as initial research indicated that an

	erected to minimise emissions affecting residents	area behind the barrier benefitted from lower pollutant concentrations. However, it was concluded that there was not the physical space for a 1metre high barrier to be erected in this location and therefore this measure will not be pursued.
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Glossary of Terms

Abbreviation	Description
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the local authority 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
AQS	Air Quality Strategy
ASR	Air quality Annual Status Report
Defra	Department for Environment, Food and Rural Affairs
EU	European Union
JSNA	Joint Strategic Needs Assessment
LAQM	Local Air Quality Management
NAEI	National Atmospheric Emissions Inventory
NPPF	National Planning Policy Framework
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxides
PM ₁₀	Airborne particulate matter with an aerodynamic diameter of 10µm (micrometres or microns) or less
PM _{2.5}	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less

References

- Department of Transport - traffic count information obtained from <http://www.dft.gov.uk/traffic-counts/cp.php?la=Central+Bedfordshire>
- Defra – Emissions Factor Toolkit (EFTv6.02) obtained from <http://laqm.defra.gov.uk/review-and-assessment/tools/emissions-factor-toolkit.html>
- Defra NO_x to NO₂ conversion spreadsheet v5.1 (June 2016) obtained from <https://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html#NOxNO2calc>
- Defra Technical Guidance LAQM.TG16 a copy is available from <https://laqm.defra.gov.uk/supporting-guidance.html>