

FOREST HEATH DISTRICT COUNCIL

LOCAL AIR QUALITY STRATEGY



Forest Heath
District Council

PORTFOLIO HOLDER:	Cllr Nigel Roman
DOCUMENT SPONSOR:	Nicola Baker
DOCUMENT AUTHOR:	Ian Watson
STRATEGY DATE	2012

CONTENTS

FOREWORD

1 INTRODUCTION

- 1.1 Purpose of the Strategy
- 1.2 National Air Quality Strategy
- 1.3 Aims of the Local Air Quality Strategy

2 OVERVIEW OF FOREST HEATH

- 2.1 Local Demographics
- 2.2 Partnership Working
- 2.3 Climate Change
- 2.4 Sustainable Development

3 POTENTIAL POLLUTANTS AND EFFECTS ON HUMAN HEALTH

- 3.1 Introduction
- 3.2 Greenhouse Gases
- 3.3 Particulate Matter (PM₁₀)
- 3.4 Carbon Monoxide
- 3.5 Nitrogen Oxides

4 LEGISLATION

- 4.1 Introduction
- 4.2 Environmental Protection Act 1990
- 4.3 Environment Act 1995
- 4.4 Air Quality Regulations 2000
- 4.5 Air Quality Standards Regulations 2010
- 4.6 Environmental Permitting (England and Wales) Regulations 2010
- 4.7 Clean Air Act 1993
- 4.8 Planning Act 2008

5 LOCAL AIR QUALITY MONITORING

- 5.1 Introduction
- 5.2 Monitoring in Forest Heath

6 POLLUTION PREVENTION AND CONTROL

- 6.1 Permitted Installations

7 PLANNING

- 7.1 Introduction
- 7.2 Air Quality Assessments and Planning Applications

8 TRANSPORT

- 8.1 Introduction
- 8.2 Suffolk County Council (SCC) Local Transport Plan 2011 – 2031
- 8.3 Highways Agency
- 8.4 Mitigation to Reduce the Impact on Air Quality by Road Vehicles

9 LOCAL AIR QUALITY STRATEGY OBJECTIVES

9.1 Introduction

9.2 Objectives for the Air Quality Strategy

APPENDIX 1: MONITORING SITES

LINKS

LIST OF TABLES

Table 1: Current UK Air Quality Assessment Criteria

LIST OF FIGURES

Figure 1: Determining Significant Impacts on Air Quality

FOREWORD

To be able to breathe clean air is the right of every individual and is an essential element to maintaining the quality of life. However, air pollution, especially that evolving from road transport, continues to be a serious problem. The Environmental Audit Commission recently published a report stating that poor air quality costs the UK £8.5bn – £20bn per year in terms of poor health and reduces every person's life expectancy by seven to eight months. Thousands of people require hospital treatment, and children are especially susceptible due to the fragile nature of their developing lungs.

Forest Heath District Council's commitment to maintaining clean air is an important aspect of our wider policies to support sustainable development, which will:

- Protect the environment
- Ensure sensible use of natural resources, especially those that are non-renewable
- Ensure that high levels of economic growth and development are attained and maintained
- Ensure that the social needs of all our residents are met

By working in partnership with other local authorities within Suffolk and neighbouring areas, industry and other social groups, our residents can be sure that the Council is determined to maintain and improve the local air quality to ensure that air pollution remains below prescribed levels.

Cllr Nigel Roman, Portfolio Holder Environment and Waste

1 INTRODUCTION

1.1 Purpose of the Strategy

This strategy outlines how the Council will manage local air quality in order to discharge its statutory responsibilities arising from the National Air Quality Strategy and in doing so, improving local air quality to ensure air pollution remains below prescribed levels, thus maintaining the health and well-being of our residents. Local air quality is also dealt with through the planning system, where it may be a material consideration that requires an assessment to be made on the impact of the projected increase in road transport that will have on future air quality.

1.2 National Air Quality Strategy

Air quality in the UK has generally continued to improve since 1997 when the first national Air Quality Strategy was adopted. The main reasons for tackling poor air quality are the link between air quality and quality of life and the need to minimise the risk of poor air quality to human health. Certain groups are vulnerable to poor air quality, including:

- People with lung disease and heart conditions
- The elderly
- Asthma sufferers
- Children

The Air Quality Strategy for England, Scotland, Wales and Northern Ireland aims to:

- Map out as far as possible, current and future ambient air quality in the UK in the medium term;
- Provide the best practicable protection to human health and the environment by setting evidence based objectives for the main air pollutants; and
- Describe the air pollution climate in the UK to provide a framework to allow all those who contribute to air pollution, who have a part to play in its abatement, or are affected by it, to identify their role in improving air quality.

The current national Air Quality Strategy was published in 2007 in accordance with the Environment Act 1995. It sets health-based standards for important air pollutants, which are outlined in Table 1.

Table 1: Current UK Air Quality Assessment Criteria

Pollutant	Air Quality Objective	
	Concentration	Measured as
Benzene All authorities	16.25 µg/m ³	Running annual mean
Authorities in England and Wales only	5.00 µg/m ³	Annual mean
Authorities in Scotland and Northern Ireland only	3.25 µg/m ³	Running annual mean
1,3 Butadiene	2.25 µg/m ³	Running annual mean
Carbon monoxide Authorities in England, Wales and Northern Ireland only	10.0 mg/m ³	Maximum daily 8 hour mean
Authorities in Scotland only	10.0 mg/m ³	Running 8 hour mean
Lead	0.5 µg/m ³ 0.25 µg/m ³	Annual mean Annual mean
Nitrogen dioxide	200 µg/m ³ not to be exceeded more than 18 times a year 40 µg/m ³	1 hour mean Annual mean
Particles (PM_{2.5}) Exposure Reduction UK	25 µg/m ³	Annual mean
UK urban areas	Target of 15% reduction in concentration at urban background	Annual mean
Sulphur dioxide	350 µg/m ³ not to be exceeded more than 24 times a year 125 µg/m ³ not to be exceeded more than 3 times a year 266 µg/m ³ not to be exceeded more than 35 times a year	1 hour mean 24 hour mean 15 minute mean
Polycyclic aromatic hydrocarbons (PAHs)*	0.25 ng/m ³	As annual average
Carbon monoxide	10 mg/m ³	Maximum daily running 8 hour mean
Ozone: protection of vegetation & ecosystems*	target value of 18,000 µgm ³ based on AOT40 to be calculated from 1 hour values from May to July, and to be achieved, so far as possible by 2010	Average over 5 years

Note: * - not included in legislation yet

1.3 Aims of the Local Air Quality Strategy

The aim of the Council is to be a modern, highly regarded organisation, enabling and providing high quality services that continually improve the quality of life for the whole of the community. This will be achieved by actively involving the community, which is essential for the future development and improvement in the district, and to deliver high quality services and excellent value for money for our residents.

As part of the aim, FHDC is committed to improving local air quality and ensuring that air pollution remains below the prescribed levels. The development of a local air quality strategy will achieve this by:

- Identifying the motives for tackling poor air quality.
- Demonstrating a corporate commitment to delivering cleaner air, therefore setting an example for others to follow.
- Properly accounting for air quality considerations in wider policy areas such as land planning, transport planning, energy efficiency, waste management, economic development and regeneration.
- Raising the profile of air quality in the local community.
- Identifying key sources of air pollution and developing appropriate mitigating actions.
- Helping to build and sustain partnerships with local businesses, industry, the community and other local authorities within Suffolk.

2 OVERVIEW OF FOREST HEATH

2.1 Local Demographics

Forest Heath is a rural district located in the west of Suffolk and has three main centres of population; Newmarket, Mildenhall and Brandon. It covers an area of 144 square miles (37,398 hectares) and contains two United States Air Force bases located at Mildenhall and Lakenheath. The district has several industrial estates centred in and around the principal towns, in addition to the progressive agricultural enterprises located in the rural parts of the district. The horse racing industry towards the west of the district and Newmarket is recognised as a centre of excellence for the international horse racing and blood stock industry.

The population of the district as at 2010 was 64,300 (National Online Manpower Information System), and the US air bases influence the population with approximately 12,000 USAF personnel and their dependents stationed there. The average annual rate of growth of the population is 0.60% (2001 – 2010), which is due to natural increase (more births than deaths) and because it is assumed that there will be more immigrants than emigrants (i.e. a net flow of immigrants).

2.2 Partnership Working

The Council is committed to working in partnership and in doing so, unlock the potential of the district, and promote the principles of sustainable development by:

- Recognising the needs of everyone
- Protecting the environment
- Using natural resources wisely
- Contributing towards high and stable levels of economic growth and employment

To achieve this, the Council welcomes involvement from all sectors of the community and strives to be a good neighbour to the other authorities within Suffolk by working together in achieving the wider benefits of delivering clean air for all residents and visitors. By taking advice where required and working together as part of the Suffolk Environmental Protection Group (SEPG), a difference can be made.

The Council has also recently entered a shared service partnership with St Edmundsbury Borough Council and will aim to produce a joint strategy at the next review of this document.

2.3 Climate Change

The greatest environmental challenge that the world is currently experiencing is climate change. Rising global temperatures are predicted to bring changes in weather patterns, rising sea levels and increased frequency and intensity of extreme weather events.

Air quality and climate change are fundamentally interrelated. Many common air pollutants are 'climate active', and reducing emissions will lessen the warming effect on our climate. A warming climate also threatens to make air quality worse, with the prevalence of harmful photochemical smogs likely to increase throughout longer, hotter summers.

The process of climate change relates to levels of 'greenhouse gases' in the Earth's atmosphere. For many years it has been known that gases such as carbon dioxide and methane have a warming effect; they let heat from the sun in, but trap reradiated heat from the Earth within the atmosphere. Without this natural greenhouse effect, the Earth would be too cold for complex life to exist. However, the increasing levels of atmospheric greenhouse gases that have been measured over recent decades are cause for concern. The Earth has warmed by 0.75 °C over the last hundred years, with around 0.4 °C of this warming occurring since the 1970s. The 2007 assessment report of the Intergovernmental Panel on Climate Change (IPCC) demonstrates that the primary driver of the observed changes in climate is human activity.

Emissions of CO₂ and local air pollutants generally arise from the same combustion sources – power stations and industry, homes and offices, and vehicle exhausts. Policies to manage emissions from these sources must consider both sets of emissions, otherwise a reduction in one set of emissions may be achieved at the expense of an increase in emissions of the other.

The consequences of unabated climate change will be significant, with increased temperatures, sea level rises and a greater frequency of extreme weather events having serious effects on the natural environment, as well as on human health and well-being.

It is well recognised that national action alone cannot deliver the targets set in the Climate Change Act, and that local authorities and their partners have a key role in both reducing emissions of greenhouse gases and adapting communities to the effects of a changing climate.

The hotter, drier summers predicted for the future will lead to an increase in summer ozone pollution events. The hot summer of 2003 led to a substantial ozone smog event across southeast England and much of Europe – summers of this type are expected to become typical by 2040. Climate change therefore makes meeting some air quality targets harder, and public health will be negatively affected unless emissions of air pollutants are reduced.

2.4 Sustainable Development

"Sustainable development is development that meets the needs of the present, without compromising the ability of future generations to meet their own needs."

The concept of sustainable development can be interpreted in many different ways, but at its core is an approach to development that looks to balance different, and often competing, needs against an awareness of the environmental, social and economic limitations we face as a society.

Living within our environmental limits is one of the central principles of sustainable development. But the focus of sustainable development is far broader than just the environment. It's also about ensuring a strong, healthy and just society. This means meeting the diverse needs of all people in existing and future communities, promoting personal wellbeing, social cohesion and inclusion, and creating equal opportunity.

Sustainable development is about finding better ways of doing things, both for the future and the present. We might need to change the way we work and live now, but this doesn't mean our quality of life will be reduced. We all have a part to play. Small actions, taken collectively, can add up to real change.

FHDC has been working towards sustainable development since the United Nations Conference on Environment and Development in 1992, placed a duty on local authorities to undertake work towards the aims of Local Agenda 21 (a program that provided a framework for implementing sustainable development at the local level).

FHDC will be revising its sustainable development strategy during 2012. As part of the new sustainable development strategy, FHDC will have the obligation to ensure that all residents, visitors and the environment enjoy good local air quality.

3. POTENTIAL POLLUTANTS AND EFFECTS ON HUMAN HEALTH

3.1 Introduction

The Suffolk Primary Care Trust Annual Report for 2010 indicated that residents of Forest Heath experience slightly lower death rates compared with the rest of Suffolk. However, 77.7% of all deaths were either from cancer, cardiovascular disease or lung disease. In 2009, the Committee on the Medical Effects of Air Pollution published “Long-Term Exposure to Air Pollution: Effect on Mortality” and stated that there is *“little doubt that long-term exposure to air pollutants has an effect on mortality and thus decreases life expectancy.”*

3.2 Greenhouse Gases

The atmospheric accumulation of certain gases (the greenhouse gases), produced primarily from burning fossil fuels to generate power, are changing the Earth’s energy balance so that global warming occurs, which may lead to other effects such as a global rise in sea levels. Evidence indicates that in the future, instances of heat related summer deaths may increase and there may also be an increase in fatalities by major disasters caused by gales and coastal flooding. The chief gas contributing to this effect is carbon dioxide, as well as methane, nitrous oxide, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride.

3.3 Particulate matter (PM₁₀)

Particles with a diameter of 10 microns (PM₁₀) are the most hazardous of fine particles that can damage human health (dependent on the chemical composition of the particulates); even at concentrations previously thought to be unimportant. PM₁₀ is composed of a wide range of materials from a variety of sources, including:

- Primary particles arising from combustion processes
- Secondary particles, mainly sulphate and nitrate formed by chemical reactions in the atmosphere
- Coarse particles composing of suspended soils and dusts, sea salt, biological particles and particles from construction work

PM₁₀ is among the most harmful of all air pollutants. When inhaled these particles evade the respiratory system’s natural defences and lodge deep in the lungs. Health problems begin as the body reacts to these foreign particles. PM₁₀ can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body’s ability to fight infections. Although particulate matter can cause health problems for everyone, children, the elderly, exercising adults, and those suffering from asthma or bronchitis are especially vulnerable to PM₁₀’s adverse health effects. Also, recent studies have linked PM₁₀ exposure to the premature death of people who already have heart and lung disease, especially the elderly.

3.4 Carbon Monoxide

Carbon monoxide is a product of incomplete burning of hydrocarbon-based fuels and is emitted by vehicles. It primarily affects the air quality in urban areas with heavy traffic. It inhibits the blood’s ability to carry oxygen to body tissues, including

vital organs such as the heart and brain, which may lead to drowsiness or even asphyxiation at very high concentrations. It reacts with other pollutants to produce ground-level ozone.

3.5 Nitrogen Oxides

Nitrogen oxides (NO_x) is a collective term used to refer to nitric oxide (NO) and nitrogen dioxide (NO₂). Nitrogen oxides are produced from combustion processes from nitrogen in the air and to a lesser extent from nitrogen in fuels. Nitric oxide is rapidly converted to nitrogen dioxide in the air by reaction with ozone and other oxidants. The main source of emissions in the UK is road traffic. Both nitric oxide and nitrogen dioxide are toxic. Nitrogen dioxide can irritate the lungs and lower resistance to respiratory infections such as influenza. Continued or frequent exposure to concentrations that are typically much higher than those normally found in the atmosphere may cause increased incidence of acute respiratory illness in children.

4 LEGISLATION

4.1 Introduction

This chapter sets out the legislative framework within which this strategy is set. A significant quantity of UK policy is determined by European legislation, however, the UK framework is equally important and domestic measures are listed below.

4.2 Environment Protection Act 1990

Part III of the Environment Protection Act 1990 (EPA 90) contains the main legislation on statutory nuisance and allows for action to be taken by either local authorities or individuals. Section 79 of the Act defines statutory nuisance as:

- Any premises in such a state as to be prejudicial to health or a nuisance
- Smoke emitted from premises so as to be prejudicial to health or a nuisance
- Fumes or gases emitted from premises so as to be prejudicial to health or a nuisance
- Any dust, steam, smell or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance
- Any accumulation or deposit which is prejudicial to health or a nuisance
- Any animal kept in such a place or manner as to be prejudicial to health or a nuisance
- Noise emitted from premises so as to be prejudicial to health or a nuisance
- Any insects emanating from relevant industrial trade or business premises and being prejudicial to health or a nuisance
- Artificial light emitted from premises so as to be a prejudicial to health or a nuisance
- Any other matter declared by any enactment to be a statutory nuisance

4.3 Environment Act 1995

The Environment Act 1995, which covers England, Scotland and Wales, initiated the implementation of the Air Quality Regulations 2000, which sets out the statutory duties of all local authorities with regards to the management of local air quality.

4.4 Air Quality Regulations 2000

The Air Quality Regulations 2000 and amendment regulations require all local authorities in the UK to review and assess air quality in their area. If any standards are being exceeded or are unlikely to be met by the required date, that area should be designated as an Air Quality Management Area (AQMA) and the local authority must draw up and implement an action plan aimed at reducing levels of the pollutant. Local authorities are required to make copies of their reviews and assessments of local air quality available to the public, as well as any orders designating an AQMA and to consult locally on the action plan.

In 2009 FHDC declared an AQMA in Newmarket, along the High Street and Old Station Road, due to slightly elevated levels of nitrogen dioxide from vehicle emissions. Work is currently ongoing to develop an Action Plan, which is aimed at improving the local air quality.

4.5 Air Quality Standards Regulations 2010

The Air Quality Standards Regulations 2010 came into force on 11 June 2010 as a result of the action to manage and improve air quality, which is largely driven by EU legislation. The 2008 ambient air quality directive (2008/50/EC) sets legally binding limits for concentrations in outdoor air of major air pollutants that impact public health such as particulate matter (PM₁₀ and PM_{2.5}) and nitrogen dioxide (NO₂). As well as having direct effects, these pollutants can combine in the atmosphere to form ozone, a harmful air pollutant (and potent greenhouse gas) which can be transported great distances by weather systems.

4.6 Environmental Permitting (England and Wales) Regulations 2010

The Environmental Permitting (England and Wales) Regulations 2010 require a range of industrial installations, with the potential to cause pollution, to obtain a permit before operating. The Environment Agency is responsible for those Part A(1) installations that may impact upon air, land and water - Integrated Pollution Prevention and Control (IPPC), while local authorities are responsible for installations known as Part A(2) and Part B installations.

Part A(2) installations are controlled through a single permitting process designed to protect the environment that pose less of a threat to the environment than Part A(1) installations. All emissions to air, water (including discharges to sewer) and land together with a range of other environmental effects defined as emissions will be considered together. Part B installations are those that may only have an impact upon the local air quality.

Part B processes such as petrol stations, small waste oil burners, cement batching plants, mobile crushing plants and timber treatment processes contain a number of conditions within their permits to control and reduce the emissions of pollutants to the air. Under the above legislation, the Council's specific responsibilities include:

- Registering all relevant industrial activity within the district.
- Monitoring, inspecting and controlling the impact of industrial processes.
- Promoting best practice and encouraging education and awareness.
- Identifying industrial activity within the district requiring permitting.
- Maintaining a public register on all registered and licensed processes within the district.
- Investigating complaints relating to pollution incidents.

4.7 Clean Air Act 1993

The Clean Air Act 1993 allows Councils to establish Smoke Control Areas to improve air quality by requiring the burning of cleaner fuels. This helps the UK to meet air quality standards for sulphur dioxide and particulates set by European law. Under the Environmental Protection Act 1990 smoke emitted from a domestic chimney outside a smoke control area is also covered by nuisance provisions.

Currently, there are no Smoke Control Areas within Forest Heath.

4.8 Planning Act 2008

The Planning Act gained Royal Assent on 26 November 2008. The Act contains a number of reforms to existing town and country planning legislation, particularly the Town & Country Planning Act 1990 and Planning & Compulsory Purchase Act 2004. The planning system plays a key role in protecting and improving the natural environment, public health and safety and amenity. Spatial strategies and development plans, which set the strategic framework for the development of an area can prevent harmful development and mitigate the impact of potentially polluting developments. Decisions on individual planning applications can have an immediate impact on the local environment and human health, and can have a significant impact towards attaining sustainable development.

5 LOCAL AIR QUALITY MONITORING

5.1 Introduction

A vital function within the review and assessment process is that of air quality monitoring. This provides the required qualitative and quantitative data for compliance measurement against the objectives of the National Air Quality Strategy.

5.2 Monitoring in Forest Heath

The Council currently monitors NO₂ at 42 sites throughout the district (See Appendix 1), using diffusion tubes. These provide a simple and inexpensive method of screening air quality in an area, to give an indication of average NO₂ concentrations over a period of weeks or months. The sampler consists of a small plastic tube open at one end and an absorbent packed at the other, and the tubes are sent to an accredited laboratory for analysis at the end of the designated monitoring period.

Results of previous annual reports sent to Defra indicated that no further assessment was required for CO, benzene, 1,3-butadiene, lead or SO₂. Concentrations of NO₂ and PM₁₀ predicted in the vicinity of Fiveways Roundabout, Barton Mills, led to a Detailed Assessment being undertaken. The results from this have shown that although levels of NO₂ at the Fiveways Roundabout are at concentrations above the AQS objective, an AQMA does not need to be declared due to the lack of relevant receptors.

However, the results of a Detailed Assessment led to the declaration of an AQMA in 2009 in Newmarket due to slightly elevated levels of NO₂. This has necessitated the undertaking of a Further Assessment to supplement the information that has already been gathered, which will allow the Council to:

- Confirm the original assessment.
- Refine the sources of pollution.
- Take into consideration any new guidance from Defra.
- Take into consideration of any new development that was not considered earlier.
- Carry out additional monitoring.

Consequently, a draft Action Plan has been prepared, which demonstrates that a range of measures have been adequately considered, incorporating an evaluation of the cost-effectiveness and proportionality of any proposed measure that may be invoked to improve the local air quality.

A Detailed Assessment is also currently being undertaken in Brandon, which will indicate whether there is an exceedance of the national AQS objectives for nitrogen dioxide.

6 POLLUTION PREVENTION AND CONTROL

6.1 Permitted Installations

Within Forest Heath there are currently five Part A(1) installations:

- 1 metal processor
- 1 chemical manufacture
- 3 pig installations

These are permitted by the Environment Agency.

There are 31 Part B installations, of which:

- 11 are petrol stations
- 4 use small waste oil burners
- 3 are dry cleaners
- 2 operate mobile crushing facilities
- 2 undertake roadstone coating activities
- 2 undertake timber treatment processes
- 2 operate powder coating processes
- 3 use bulk cement
- 1 sprays road vehicles
- 1 sterilises medical equipment

All have been issued permits by Forest Heath in accordance with the Environmental Permitting (England and Wales) Regulations 2010.

Emissions from industrial sources and domestic fuel burning (i.e. biomass burners) contribute towards a much lower proportion of ground level pollution concentrations than road traffic. The emissions from all permitted installations and those in neighbouring authorities may not lead to exceedences of the air quality objectives on their own, but in combination with other sources, they do contribute to the problem.

7 PLANNING

7.1 Introduction

Local planning decisions have the potential to significantly affect local air quality, through the location and design of emission sources and the location of receptors. Consequently, where appropriate, the application for the development will be accompanied by an assessment which will determine whether the proposals will have an impact upon the local air quality. The Council is tasked with determining these planning applications against a whole range of social, economic and environmental criteria, and air quality may be one of the material considerations, which have to be taken into account as part of the decision.

New local development proposals that may have an impact upon local air quality include:

- New industrial installations.
- New biomass burners.
- New developments that significantly change traffic flows.
- New landfill sites.

7.2 Air Quality Assessments and Planning Applications

Air quality considerations that relate to land use and its potential development will depend upon the following factors:

- The severity of the impacts on air quality.
- The air quality in the area surrounding the proposed development.
- The proposed use of the development, incorporating the length of time that people may be exposed to the local atmosphere.
- Any positive benefits to the local air quality through other material considerations.

Developments will require an air quality assessment where there is potential for a significant change in air quality, and if there are indications that there may be a significant change in relevant exposure, such as building residential properties in an area where the standard of air quality is already poor. The intention of the assessment is to demonstrate the potential changes in air quality as a result of a proposed development.

Environmental Services (ES) examine all planning applications, and where necessary, make a recommendation that an air quality assessment should be undertaken for the proposed development. The contents of the assessment should include:

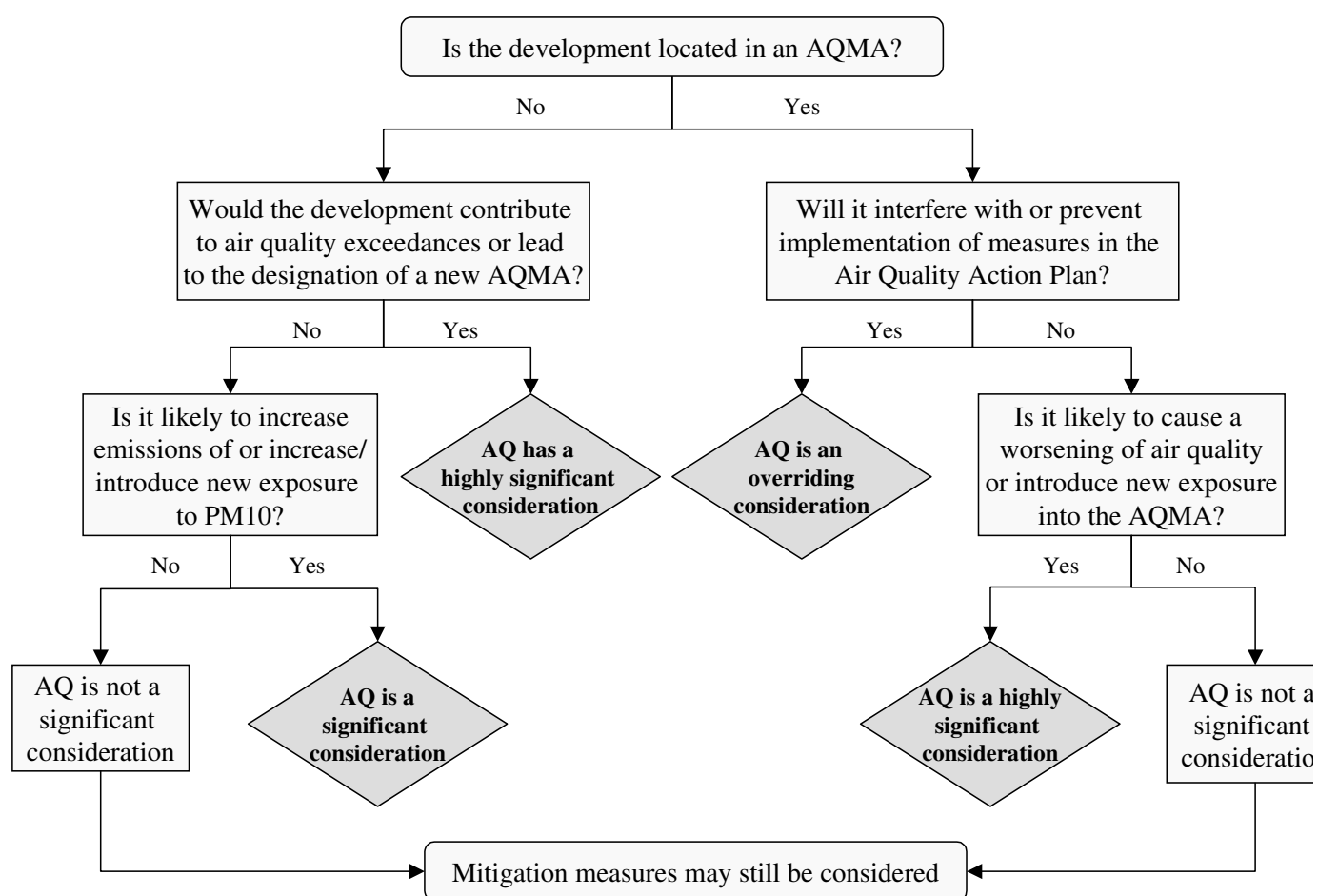
- Relevant details of the proposed development.
- Description of the relevant air quality standards and objectives.
- Details of the assessment method, including traffic data, emission data, meteorological data and background pollutant concentrations
- Results of the modelling assessment.

- Summary of the assessment results.

Land use planning can be an effective tool for improving air quality, and as such the results of air quality assessments should not be used to block an application, but they should be used to address and reduce any impacts to the quality of air that a development may have.

The results of an air quality assessment can determine if the proposed development is significant in terms of air quality, and the potential impacts upon human health. Figure 1 is used to determine whether or not the proposed development is significant.

Figure 1: Determining Significant Impacts on Air Quality.



8 TRANSPORT

8.1 Introduction

Road transport is a major source of air pollution in the UK. Subsequently it is the one area that Councils throughout the country can focus on in an attempt to mitigate its impact upon the environment. Partnership working with all other authorities within Suffolk has resulted in several measures that address this issue and are outlined below.

8.2 Suffolk County Council (SCC) Local Transport Plan 2011 - 2031

The local transport plan identifies SCC's proposed programme of transport improvements from 2011 – 2031, which establishes longer-term ambitions for transport improvements in Suffolk. The plan has a focus on:

- The challenge of maintaining the highway network in good condition.
- Tackling congestion in the larger towns by more efficient management of traffic, reducing the demand for car travel and promoting more sustainable means of travel.
- Improved connectivity and accessibility in rural areas.
- Seeking improvement to the A11, A12 and A14 trunk roads connecting businesses in Suffolk to each other and to their markets.
- Seeking improvement to the rail network for freight and passengers.
- Relief for market towns suffering from high levels of through traffic.

In particular, whilst Newmarket has a designated Air Quality Management Area (determined due to exceedences of the national objectives for nitrogen dioxide), SCC plans to support sustainable growth in the town by improving the transport network with a focus on reducing local trips being made by car.

Brandon is also recognised as a place where sustainable growth should be supported by improving the traffic network and reducing congestion, with the aim of improving the local air quality.

8.3 The Highways Agency

The purpose of the Highways Agency is to operate, maintain and improve the strategic trunk road network, which can influence the effect of road transportation on air quality by:

- Contributing to strategic planning
- Road improvements
- Integrating transport and encouraging sustainable travel
- Providing better information for improved operation
- Working with local authorities to deliver the national Air Quality Strategy

Their priority for air quality is to operate and develop the road network in a way that is compatible with working toward compliance with statutory air quality limits.

Consequently, the major project affecting Forest Heath is the A11 Fiveways to Thetford improvement starting in 2012.

8.4 Mitigation to Reduce the Impact on Air Quality by Road Vehicles

In order to sustainably reduce the negative impact of local transport related emissions and in doing so, contribute towards achieving the national Air Quality Strategy objectives, the Council recommends the following principles:

- Promoting the use of public transport
- Promoting and using emission abatement technologies and alternative fuels, particularly for buses and taxis
- Encouraging walking and cycling
- Implementation of travel plans
- Traffic management incorporating traffic calming
- Improving energy efficiency
- Enforcement of pollution prevention and control legislation
- Implementation of roadside emissions testing
- Provision of air quality guidance for developers
- Provision of information to improve fuel efficiency
- Development that is sustainable
- Working in partnership with other appropriate organisations

9 LOCAL AIR QUALITY STRATEGY OBJECTIVES

9.1 Introduction

The aim of this strategy is to provide the best practicable protection to human health and the environment through effective local air quality management. In doing so, the strategy will ensure that the appropriate steps are taken to maintain air pollution below prescribed levels. The introduction of objectives with set targets and dates to be achieved by will be used as indicators to assess whether or not this has been accomplished.

9.2 Objectives for the Air Quality Strategy

The objectives below detail how the Council intends to mitigate the effects of activities undertaken throughout the district, especially transportation, which may have an impact on the local air quality.

APPENDIX

Objective:	Actions:	Monitoring and Review:
1. To meet the air quality objectives laid down in the National Air Quality Strategy	<ul style="list-style-type: none"> • Continue to participate in the UK Nitrogen Dioxide (NO₂) diffusion tube network 	<ul style="list-style-type: none"> • Carry out the Updating and Screening Assessment in 2012 • Review NO₂ levels within the district monthly
2. To work in partnership with operators and regulated installations prescribed under the EP (England and Wales) Regulations 2010	<ul style="list-style-type: none"> • To provide advice and guidance to current and potential operators • Continue to inspect all permitted installations • Promote the Council's enforcement policy in relation to local air pollution and prevention control • Continue to encourage process operators to consider the benefits of environmental management in general • Undertake survey to identify installations operating without a permit 	<ul style="list-style-type: none"> • Contribute to pre planning application discussions and post application advice. • Inspections undertaken on an annual basis using a risk assessment approach • Last survey undertaken in 2007, next one scheduled for 2013
3. To raise public awareness of air quality issues and to promote behaviour aimed at improving air quality, especially in the AQMA in Newmarket	<ul style="list-style-type: none"> • Undertake an awareness campaign as part of the consultation for the Air Quality Action Plan in Newmarket • Support local and national campaigns aimed at promoting greener travel • Continue to encourage uptake of energy efficiency measures through publicity of local and national grant programmes and general advice • To maintain a comprehensive, informative and up to date air quality website 	<ul style="list-style-type: none"> • Work in partnership with other organisations to organise the campaign • Determine the success or otherwise of awareness activities using customer feedback • Review data obtained annually relating to the take-up of energy efficiency measures in both private and social housing • Carry out an annual review of information on the website
4. To periodically assess air quality in the district in line with	<ul style="list-style-type: none"> • Annual reporting 	<ul style="list-style-type: none"> •

APPENDIX

Objective:	Actions:	Monitoring and Review:
national guidance		
5. Identify and address air quality issues through the planning process	<ul style="list-style-type: none"> • Continue to ensure all planning applications are assessed with regard to potential impacts upon local air quality • Continue to identify and control air quality issues arising from individual planning applications through close liaison with Development Control 	<ul style="list-style-type: none"> • Undertake internal audit every six months to ensure all relevant planning applications are being assessed
6. To continue to work in partnership with all local authorities within Suffolk and the Highways Agency to secure an integrated approach to air quality issues	<ul style="list-style-type: none"> • Identify availability of data (traffic counts, prediction etc.) to assist in forthcoming Review and Assessment process • Ensure three-way consultation process on all developments, plans and strategies with air quality implications • Identify and propose mitigation methods to reduce the effects of road vehicles on air quality 	<ul style="list-style-type: none"> • Review partnership working annually • Appraise traffic data sources annually
7. To expand the ambient air quality monitoring network		<ul style="list-style-type: none"> • Review of Air Quality Strategy in 2017, with a view to producing a West Suffolk document

APPENDIX 1: MONITORING SITES

Mildenhall: Field Road, Recreation Way, Kingsway and the High Street

Beck Row: The Street

Lakenheath: Albert Rolph Drive and the High Street

Brandon: London Road, Stores Street, the High Street and Thetford Road

Elveden, the A11 and the primary school

Red Lodge: Turnpike Road and Heath Farm Road

Kentford: Station Road

Newmarket: Old Station Road, Sun Lane, the High Street, Market Street, Station Approach, Exning Road, Nimbus Way and Fordham Road

Exning: Church Street

LINKS

<http://www.defra.gov.uk/environment/quality/air/air-quality/laqm/>

www.legislation.gov.uk

<http://www.iaqm.co.uk/>

<http://www.environment-agency.gov.uk/business/topics/permitting/default.aspx>