



# **EXETER AIR QUALITY STRATEGY**

**2015-2020**

## The Air Quality Strategy – Executive Summary

This Air Quality Strategy draws together the existing air quality work undertaken by Environmental Health and Licensing at Exeter City Council (the Council). All of this work is driven by statutory obligations and the strategy provides a means of organising and co-ordinating it to best effect. This Strategy sits beneath and supplements the Exeter Vision and the draft Climate Change and Sustainability Strategy.

DEFRA's National Air Quality Strategy and Air Quality Action Plans set out how Government will improve and protect ambient air quality, as part of the creation of a sustainable environment.

The importance and profile of air quality was increased following the 2011 and 2014 enquiries into air pollution by the Environmental Audit Committee. Air quality has also made the national news as evidence of health impacts grows, particularly for ultra-fine particles (PM2.5) and as a result of court cases taken against HM Government by Client Earth for failing to comply with EU obligations.

The Government has challenged local authorities under Part IV of the Environment Act 1995 to assess and manage their air quality. National health-based standards and objectives have been published to allow air quality to be assessed and to drive forward management policies in order to work towards meeting the standards and objectives.

The Council uses a comprehensive network of 62 air pollution monitors, along with computer models, to assess air quality in Exeter. These show that air quality is generally good. There is, however, a need to tackle emissions of nitrogen dioxide associated with motor vehicles along the busiest roads into the city. This resulted in the legal designation of an Air Quality Management Area (AQMA) by the Council for areas in very close proximity to some of the main routes into Exeter. In total, 232 Local Authorities have declared AQMAs. The great majority of these are the result of traffic-related emissions of nitrogen dioxide. These include five other Devon authorities and encompass areas as diverse as Cullompton, Norwich and Manchester.

The creation of the AQMA enables the Council to develop and focus policies designed to protect and improve Exeter's air quality. These have been formalised within a detailed Air Quality Action Plan for Exeter, which aims to reduce pollution by cutting congestion on the main routes into the city. The Council has also published a Low Emissions Strategy for the city which sets out actions that can be taken to reduce all transport emissions, including particulates, noise and carbon emissions as well as nitrogen dioxide.

In addition to local air quality management, the Council has numerous other statutory duties with regard to air quality such as the management of specified 'prescribed processes'. In Exeter there are currently 42 processes for which the Council or the Environment Agency has to issue permits and ensure that these are being complied with.

Other areas of work for the Environmental Health Services which are related to air quality issues include responding to air quality complaints and advice requests, and the provision of advice to the planning service (both forward planning and development control). Officers within Environmental Health and Licensing are also involved in programmes of work concerned with important sustainability issues such as climate change.

This air quality strategy provides details of all of these activities. It also gives a number of specific air quality objectives and summarises the approaches to these and the suggested methods of monitoring and reviewing the Council's progress in meeting them.

The air quality monitoring undertaken by the Council shows that air quality is generally very good in the city.

## 1. INTRODUCTION

- 1.1 Few things are as fundamental as the air we breathe. Modern medical statistics now allow us to begin to see the real impact that the air we breathe has on our health. The main local air pollutants of concern in Exeter are nitrogen dioxide (NO<sub>2</sub>) and particulates (PM). Particulate matter causes the greatest harm to people's health, but evidence for the effects of nitrogen dioxide is growing too. For example, the smallest particulates (PM<sub>2.5</sub>) have been estimated to cause equivalent to 29,000 premature deaths per year in the UK. In Exeter the local figure is thought to be around 42 deaths per year<sup>1</sup>. The young, the old and those with existing medical conditions will be the most affected. Other research has also suggested links between high levels of fine particles (PM<sub>2.5</sub>) and lower school assessment grades for high-school age children, because of school absences and reduced productivity while learning at school<sup>2</sup>.
- 1.2 Impacts on health of this scale inevitably have a significant effect on the population and the economy. Recent evidence<sup>2</sup> suggests that the scale of the effect may be greater than the impact of industrial disputes in terms of the number of absences from work, and greater than passive smoking or road traffic accidents in terms of the impact on life expectancy. The costs to the UK economy in 2010 were roughly 5% of GDP<sup>2</sup>. The understanding of air quality costs and impacts is still developing and so care must be taken when quoting the effects listed above. Nevertheless, important implications for health, wellbeing and economic growth are starting to emerge<sup>2</sup>.
- 1.3 Clean air that is fit to breathe is one of the key factors required to deliver a safe environment for both current and future generations. The Council has developed a number of interlinked strategies which aim to deliver a sustainable environment, described below.

## 2. STRATEGIC CONTEXT

### The Exeter Vision

- 2.1 The Exeter Vision Partnership<sup>3</sup> aims to ensure Exeter develops sustainably by bringing together the public, community, voluntary and business sectors to work on the priorities that matter most to our city's communities. The Exeter Vision is our city's sustainable community strategy and to become a sustainable city Exeter must balance the economic, social and environmental aspects of the community.
- 2.2 The long-term benefits of supporting the environment include improved health, varied wildlife, visual and recreational appeal, and continuing pride in the city. The city's parks, valley parks, Ship Canal, Exe Estuary, important wildlife sites and nearby Dartmoor National Park make a big contribution to people's quality of life, providing opportunities for informal recreation, learning and self development. They also affect the city's ability to attract visitors and investment. Although we presently enjoy a good natural environment, it is under threat from many different sources, in particular inappropriate development, poor management and the effects of climate change. To address these issues, businesses, public agencies and communities need support to change the way we think about the environment and use natural resources.
- 2.3 The Exeter Vision includes the following aspirations:

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<sup>1</sup> Public Health England, PHE-CRCE-010: Estimating Local Mortality Burdens associated with Particulate Air Pollution 2014. <http://www.hpa.org.uk/Publications/Environment/PHECRCEReportSeries/PHECRCE010/>

<sup>2</sup> Natural Capital Committee (2015). The State of Natural Capital, Protecting and Improving Natural Capital for Prosperity and Wellbeing.

<sup>3</sup> Devon & Cornwall Constabulary, Devon County Council, Devon Primary Care Trust, Devon Wildlife Trust, Environment Energy, Exeter Business Forum, Exeter Cathedral, Exeter Chamber of Commerce, Exeter City Council, Exeter College, Exeter Council for Voluntary Service, Exeter Federation of Small Businesses, Exeter Senior Voice, Met Office, University of Exeter.

- To identify the risks of climate change and develop appropriate adaptation measures.
- To identify opportunities to use energy and heat from the 'Waste to Energy' plant.
- To negotiate energy efficient & renewable energy schemes through planning applications.
- To drive forward best practice in sustainable procurement.
- For communities to actively seek to minimise climate change, including through energy efficiency and the use of renewable energy.
- For pollution on land, in water and in the air to be minimised and for waste to be minimal and disposed of in accordance with good practice.
- For developments and buildings to be sited in sustainable locations and to be high quality, mixed-use, durable, flexible and adaptable, using materials that minimise negative environmental impacts.

### **The Council's Purposes**

2.4 To meet the above challenges, the Council has adopted a set of purposes, which include the aims of becoming a sustainable city and improving quality of life:

- Deliver good development
- Keep me/my environment safe & healthy
- Help me run a successful business

### **The Draft Climate Change and Sustainability Strategy**

2.5 This document is under review. It will describe the Council's response to global climate change. This Air Quality Strategy will be reviewed in light of the final Climate Change and Sustainability Strategy if required.

### ***Air Quality Strategy***

2.6 This air quality strategy draws together the existing air quality work undertaken by the Council's Environmental Health and Licensing. All of this work is driven by statutory obligations and the strategy provides a means of organising and co-ordinating it to best effect. This strategy sits beneath and supplements the Exeter Vision and the draft Climate Change and Sustainability Strategy.

The key aims of the air quality strategy are:

- to ensure that the air breathed by residents and visitors to Exeter is of the highest possible quality and without unacceptable risk to health;
- to ensure that air quality issues are identified, considered and taken into account by the Council in order to secure more sustainable forms of development.

2.7 Sections 3 through to 6 describe the air quality work currently undertaken by the Council. They detail the main air quality legislation, recent developments in this field and the measures that the Council has taken (or will take) to implement them. Section 7 outlines the overall approach and the key aims of the air quality strategy, while Section 8 identifies the principal objectives of the strategy and summarises the proposed approaches to delivering and monitoring them.

## **3. LOCAL AIR QUALITY MANAGEMENT**

3.1 The Environment Act 1995 and the associated regulations (the Air Quality (England) Regulations 2000 and the Air Quality (England) (Amendment) Regulations 2002) impose a duty on local authorities to review the air quality within their districts on a regular basis. Air

quality within the local authority area must be assessed and compared with health-based objectives which have been set by the Government and which relate to seven key pollutants (See Appendix 1).

- 3.2 If there are any locations in an authority's area in which an objective is unlikely to be met within a specified period, and, if members of the public could be exposed to the poor air quality in such a location, an 'Air Quality Management Area' (AQMA) must be designated. Possible measures to improve air quality within that management area should then be reviewed within an Air Quality Action Plan. In total, 232 Local Authorities have declared AQMAs, the majority of which are the result of traffic-related nitrogen dioxide concentrations. These include five other Devon authorities and encompass areas as diverse as Cullompton, Norwich and Manchester.
- 3.3 Environmental Health and Licensing undertake the air quality review process each year according to a timetable set out by the Government. A network of 62 air pollution monitors, along with computer models, is used to assess air quality in Exeter. The Council operates two automatic monitoring sites. The main site is at the Royal Albert Memorial Museum (RAMM) in Queen Street, which provides continuous measurements for sulphur dioxide (SO<sub>2</sub>), ozone (O<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), oxides of nitrogen (NO<sub>x</sub>), carbon monoxide (CO) and small particles (PM<sub>10</sub>). The data from the O<sub>3</sub>, and NO<sub>x</sub> analysers are included in the DEFRA AURN network (Exeter Roadside site), but the PM<sub>10</sub>, SO<sub>2</sub> and CO are not. The second automatic analyser site is at Alphington Street, which measures PM<sub>10</sub> concentrations.
- 3.4 Both the PM<sub>10</sub> analysers are TEOMs. The TEOM method of measuring particulates has failed the DEFRA equivalence test, however advice from DEFRA is that Local Authorities need not replace TEOMs immediately unless PM<sub>10</sub> concentrations are close to the objective level. In Exeter, the objective level for particulates is not likely to be exceeded and therefore the two TEOMs are still being used. When they are due for replacement, care will have to be taken to ensure that any new equipment does meet the equivalence criteria.
- 3.5 Graphs showing the recent trends in concentrations of carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), particulate matter (PM<sub>10</sub>), sulphur dioxide (SO<sub>2</sub>) and ozone (O<sub>3</sub>) are included at Appendix 4. These show that air quality is generally very good and concentrations of all pollutants measured are stable or decreasing (with some inter-annual variability).
- 3.6 Nitrogen dioxide is the only pollutant where compliance with the Government's National Air Quality Strategy 2000 objective is not attained in all parts of the city, although in the majority of the city concentrations are generally low. However evidence of the health impacts of local air pollutants such as fine and ultra-fine particles (PM<sub>10</sub> and PM<sub>2.5</sub>) as well as nitrogen dioxide is growing, even where concentrations are low. Public Health England have estimated that in Exeter PM<sub>2.5</sub> concentrations result in 42 additional deaths per year<sup>4</sup>. The young, the old and those with existing medical conditions will be those most affected.
- 3.7 Although the majority of national air pollutant objectives are met in Exeter, there is a need to reduce traffic emissions generally, and emissions of nitrogen dioxide specifically along the five main arterial routes into the city. This has resulted in the legal designation of an Air Quality Management Area (AQMA) for areas in very close proximity to some of the main routes into Exeter. A map showing the location of this area can be seen in appendix 5. This plan also shows the monitoring locations. The yellow stars indicate those locations where an exceedence of the annual average NO<sub>2</sub> objective was measured in 2014.
- 3.8 The creation of this area enables the Council to develop and focus policies designed to protect and improve our air quality. These have been formalised within a detailed Air Quality Action Plan for Exeter, which aims to reduce pollution by cutting congestion on the main routes into the city. The Council has worked closely with Devon County Council (the

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<sup>4</sup> Public Health England, PHE-CRCE-010: Estimating Local Mortality Burdens associated with Particulate Air Pollution 2014. <http://www.hpa.org.uk/Publications/Environment/PHECRCEReportSeries/PHECRCE010/>

Highways Authority) to produce the Action Plan, which is available to view at <http://www.exeter.gov.uk/index.aspx?articleid=15176> . The AQAP has been submitted to and accepted by the Department for Environment, Food and Rural Affairs (DEFRA). From this, one can conclude that Exeter's Air Quality Action Plan is a robust document.

3.9 As part of the AQAP, an Exeter Low Emission Strategy for 2015 to 2018 was published in 2015. It seeks to reduce transport emissions of nitrous oxides (NO<sub>x</sub>) and contribute towards meeting the EU limit values for NO<sub>2</sub>, whilst also reducing emissions of particulates, noise and carbon dioxide (CO<sub>2</sub>). The strategy will improve connections between the work done by air quality officers and public health specialists. It will consider both local air quality and climate change issues to ensure that policies are beneficial to both.

3.10 The strategy contains actions that are arranged under 6 themes:

- Exeter City Council actions
- Business and employer actions
- Commuting / personal travel
- Reducing congestion on roads
- Encouraging low emission vehicles
- Health and awareness

These actions will be undertaken by Exeter City Council and key stakeholders including Devon County Council during the period 2015 to 2018 to ensure that the city continues to grow and prosper, and that planned development is delivered as sustainably as possible.

#### **4. ENVIRONMENTAL PERMITTING (ENGLAND AND WALES) REGULATIONS 2010**

4.1 Certain types of industrial and waste disposal processes must be permitted under the above regulations in order to operate legally. The authority responsible for issuing the permit is either the Environment Agency or Exeter City Council, depending on the type of process involved. All processes which fall under Parts B or A2 of the regulations are regulated by the Council.

4.2 Environmental Health and Licensing are currently responsible for the regulation of a total of 36 Part B and 3 A2 processes (see Appendices 2 and 3). The permit applies controls on the levels of prescribed substances that may be emitted to the atmosphere, or in the case of A2 installations, to the three media of air, land and the water environment. Operators of the processes must provide detailed information on monitoring and controls to prevent or minimise emissions based on the principle of 'Best Available Techniques' (BAT). The documentation for all Part B and A2 permitted processes in the Exeter is available on a public register as required by statute.

4.3 Officers work closely with these businesses to ensure that their impacts on the environment are minimised. Permitted premises are visited by officers to ensure compliance with the conditions contained within the permit. Furthermore all complaints relating to these processes are thoroughly investigated and if necessary enforcement action will be taken if there is a breach of a condition. This role plays an important part in the protection of local air quality. In general there is good compliance by permitted premises within Exeter.

4.4 There are three Part A1 processes in Exeter, detailed below, which are regulated by the Environment Agency:

<b>SITE</b>	<b>ADDRESS</b>	<b>SUBSTANCE</b>
South West Metal Finishing	Alphinbrook Road, Marsh Barton, Exeter, EX2 8TJ	Acids
Exeter Power	Kenton Place, Marsh Barton, Exeter	Power Station
Bocm Pauls Limited	Kestrel Way, Sowton, Exeter, EX2 7LN	Animal Feed Compounding

Environment Agency officers undertake a similar role to that of Council officers and inspect these processes to check compliance with permit conditions. The permit will ensure that pollution from these processes is prevented, or where that is not practicable, minimised.

## **5. AIR QUALITY COMPLAINTS AND ADVICE REQUESTS**

- 5.1 The Environmental Protection Act 1990 Part 3 requires local authorities to inspect their districts for the presence of any statutory nuisance, to investigate complaints alleging nuisance and to serve an abatement notice where it finds that a statutory nuisance exists. As far as air quality is concerned, this section of the Act means that the Council is obliged to check for, and investigate, incidents of nuisance arising from smoke, fumes, odours and dust.
- 5.2 The Clean Air Act 1993 prohibits the emission of dark smoke from any industrial or commercial premises except for processes prescribed for control under the Environmental Permitting regime (see section 3 above) which are exempt from all parts of the Clean Air Act. It also deals with pollution from smoke, grit, dust and fumes from furnaces and the creation of smoke control areas.

### **Current Activity in Exeter**

- 5.3 In the year 2014/15 over 200 requests regarding air quality issues were received by Environmental Health and Licensing. The majority of domestic air quality complaints regarding sporadic events cannot be easily resolved using the statutory nuisance provisions of the Environmental Protection Act 1990 due to problems in gathering adequate evidence. Problems arising from a fixed, continuous commercial or industrial source are easier to quantify but the solutions are often complex and expensive. Also, if businesses can show that they are using the 'best practicable means' to reduce the impact of a nuisance, the local authority cannot successfully pursue legal action against them.
- 5.4 There are no bye-laws relating to bonfires, however, officers from Environmental Health and Licensing do investigate any complaints about bonfires and other smoke problems and offer appropriate advice to both the complainant and the person causing the complaint. In cases where a person has repeated bonfires, action under the statutory nuisance provisions of the Environmental Protection Act 1990 can be considered.
- 5.5 Approximately 60% of the City is covered by Smoke Control Areas which restrict the type of fuel and type of appliance that may be used in domestic premises. There are no plans to extend this any further as sulphur dioxide levels, the prime pollutant that the areas seek to control, are no longer a problem in the City.
- 5.6 Investigating complaints about air quality related statutory nuisances, such as smoky bonfires, odours and smoke from domestic chimneys, is a significant aspect of the Council's work. This statutory work provides an opportunity to educate through liaison and enforcement. All complaints are investigated and officers will apply the appropriate level of enforcement in line with the Environmental Health and Licensing enforcement policy in order to protect public health and the air quality in the city.
- 5.7 There were no significant air pollution incidents identified from the investigations carried out in relation to service requests received during 2014/15; this is consistent with previous years and illustrates that in general there are few air pollution problems in Exeter from activities in domestic and commercial premises.

## **6. AIR QUALITY AND THE PLANNING PROCESS**

- 6.1 The National Planning Policy Framework (NPPF) describes planning policy. It places a general presumption in favour of sustainable development, based on local development plans. The NPPF contains twelve core planning principles, one of which is that planning

should “*contribute to...reducing pollution*”. Planning decisions should prevent unacceptable risks from air pollution, by ensuring that new development is appropriate for its location. The effects of pollution on health, and the sensitivity of the area and the development should be taken into account. With particular reference to air quality, the NPPF states that:

*“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”.*

6.2 The NPPF is supported by online Planning Practice Guidance (PPG), which explains that:

*“Assessments should be proportional to the nature and scale of development proposed and the level of concern about air quality”.*

It also provides examples of the types of measures to be considered. It states that:

*“Mitigation options where necessary, will depend on the proposed development and should be proportionate to the likely impact”.*

Guidance also makes it clear that the controls under the planning and pollution control regimes should complement rather than duplicate each other.

6.3 Officers in Environmental Health and Licensing will closely liaise with Planning Services to ensure that air quality issues are taken into consideration at both the development and adoption of the Council’s Development Plan documents and policies, and when Members consider planning applications.

### **Transport Management**

6.4 The third local transport plan (LTP3) is the mechanism by which Devon County Council will identify, program and implement infrastructure schemes and allocate funding for sustainable transport. The LTP3 sets out an overall vision for a 15 year timespan, with objectives that include the following:-

- delivering and supporting new development and economic growth;
- working with communities to provide safe, sustainable and low carbon transport choices;
- strengthening and improving the public transport network; and
- making Devon the “place to be naturally active”.

6.5 Specific measures are described in the Exeter Strategy. Under the headings of “Improving access to the city centre” and “Enabling and supporting smarter travel”, this contains details of the following relevant policy areas:

- To maintain and develop a high quality bus network by implementing real-time information, smart-card technology, additional priority measures and interchanges with other transport modes.
- The Devon Metro scheme involves expanding the role of railways serving Devon, including new stations within Exeter at Newcourt and Marsh Barton and improved links from surrounding local towns.
- New Park and Ride sites to the north and west of Exeter.
- Provide charging facilities for electric vehicles at key locations and expand this network as required.
- Increase cycling and walking by the development of further targeted routes between key residential and employment areas.
- Promote car sharing and car clubs with negotiated contributions from developers to expand these schemes as required.



- Proactive traffic management involves managing peak pressures using real time displays and developing a traffic signal strategy for key corridors.
- Introduce further HGV priority measures and investigate the potential for freight consolidation centres.
- Promote healthier and sustainable travel options using a variety of media to raise awareness and provide information.
- Support existing school travel plans and work with key employers and employment areas to develop further travel plans.

6.6 There is further information on all of these measures in the Exeter Strategy. It does not however identify actual schemes or allocate funding. This is done through a series of implementation plans. In the Strategy, Devon County Council also recognises that “with funding opportunities limited, it will be necessary to negotiate contributions towards sustainable transport infrastructure from all new development, including funding for travel planning measures. Alternative sources of funding will also need to be sought and using demand management measures such as workplace parking for new developments will help generate income for reinvesting in the transport system.”

6.7 The LTP3 intends to manage the impact of future development, and to use this to deliver improvements to the current transport situation as well where possible. This is reflected in the findings of the Strategic Environmental Assessment of the LTP3, which were that it would have a low positive impact on air quality. The SEA recognises that there is high uncertainty associated with this, as the pace and timing of the delivery of development and associated infrastructure is not certain. The air quality impacts will also be affected by behavioural responses to the various measures and these can be hard to predict accurately.

6.8 Officers from Environmental Health and Licensing liaise directly with Devon County Council transport management officers and through the Devon Chief Environmental Health Officers’ Environmental Protection sub-group.

### **Development Control**

6.9 As detailed above potential impacts on air quality are a material planning consideration. On a day to day basis, Environmental Technical Officers check all planning applications for any potential impacts on air quality and developments likely to be affected by existing/potential sources of pollution, and work with the City Development to minimise any likely adverse effects.

## **7. A STRATEGIC APPROACH TO AIR QUALITY**

7.1 As identified in previous sections Exeter City Council already plays a major role in controlling the adverse effects of air pollution via its Environmental Health and Licensing Service. In addition, the Local Development Framework and development control activities help to minimise the creation of new polluting activities and promote sustainable development.

7.2 The City Council undertakes the prime role in managing local air quality and has a duty to continuously review and assess ambient air quality against specific objectives.

7.3 Local air quality management is an on-going process and, in order to facilitate accurate assessment and control of present and future air quality, it is important to adopt a strategic approach. This strategy draws together existing Council activities that will work towards achieving the prescribed objectives.

7.4 To further develop the air quality strategy two key aims have been identified:

- to ensure that the air breathed by residents and visitors to the City is of the highest possible quality and without unacceptable risk to health;

- to ensure that air quality issues are identified, considered and taken into account by the Council in order to secure more sustainable forms of development.

7.5 A series of objectives have been drawn up which support these two key aims. These objectives are explained and the approach to delivery are summarised in the following section (Section 8) of this report. Performance is measured annually against service plan targets, by documented review of the strategy and against National and Local performance indicators.

## 8. OBJECTIVES OF THE AIR QUALITY STRATEGY

OBJECTIVE	APPROACH	MONITORING AND REVIEW
1. To meet the air quality objectives laid down in the National Air Quality Strategy. Where objectives are not met to work towards achieving the air quality objectives.	<ol style="list-style-type: none"> <li>1. Carry out Assessments of Air Quality in line with Government timetable.</li> <li>2. Where objectives are not met declare an AQMA in line with statutory requirements.</li> <li>3. To work with Devon County Council to monitor the AQAP, submit annual reports to DEFRA within the required timetable, and review the plan in 2016.</li> <li>4. Maintain the citywide NO<sub>2</sub> diffusion tube network and annually review the locations of the tubes to ensure that they are located in relevant locations.</li> <li>5. Maintain the real-time monitoring stations located at the RAMM and Alphington Street.</li> </ol>	<ol style="list-style-type: none"> <li>1-3. Reports will be submitted to DEFRA, for approval, as required by the statutory timetable.</li> <li>4. Undertake an annual review of monitoring locations.</li> <li>5. Calibrate/maintain the equipment in line with the requirements of the national Automatic Urban Rural Network.</li> </ol>
2. To implement the Low Emissions Strategy (LES) for Exeter	<ol style="list-style-type: none"> <li>1. Work with Devon County Council and partners to implement the actions in the LES in accordance with the work programmes.</li> </ol>	<ol style="list-style-type: none"> <li>1. To be monitored and reported in the Service Plan.</li> </ol>
3. To provide an effective service for responding to and resolving air quality complaints and enquiries.	<ol style="list-style-type: none"> <li>1. To respond to service enquiries in accordance with the service standard and internal procedures.</li> </ol>	<ol style="list-style-type: none"> <li>1. To be monitored and reported in the Service Plan.</li> </ol>
4. To work in partnership with operators and regulate processes permitted under the Environmental Permitting regime in line with DEFRA's requirements and best practice.	<ol style="list-style-type: none"> <li>1. Inspect all prescribed processes in line with risk-ranking as detailed by DEFRA guidance.</li> <li>2. Review all prescribed processes at least once every six years.</li> <li>3. Identify and secure key pollution control improvements as specified in Process and Sector Guidance Notes through education or, if necessary, enforcement.</li> </ol>	<ol style="list-style-type: none"> <li>1-3. Monitored via the annual statistical return submitted to DEFRA and in the Service Plan.</li> </ol>
5. To raise public awareness of Air Quality issues and to promote behaviour aimed at improving air quality.	<ol style="list-style-type: none"> <li>1. To contribute articles on air quality to the local media and take part in national campaigns.</li> <li>2. To maintain and review the air quality information on the Council website.</li> </ol>	<ol style="list-style-type: none"> <li>1-2. To be monitored and reported in the Service Plan.</li> </ol>
6. Identify and address air quality issues through the Local Development Framework and Development Control process.	<ol style="list-style-type: none"> <li>1. Liaise with officers in City Development to ensure the protection of air quality is identified within the Local Development Framework.</li> <li>2. Identify and control air quality issues arising from individual planning applications through close liaison with the Development Control section.</li> </ol>	<ol style="list-style-type: none"> <li>1. Monitor development of LDF.</li> <li>2. Monitor achievement via the Service Plan</li> </ol>

## 9. CONCLUSIONS

- 9.1 The air quality monitoring undertaken by the Council shows that air quality is generally very good in the city. There is, however, a need to tackle emissions of nitrogen dioxide associated with motor vehicles along the busiest roads into the city. This has resulted in the designation of an Air Quality Management Area (AQMA) by the Council for areas in very close proximity to some of the main routes into Exeter. The need to declare an AQMA is not unique to Exeter, nationwide 232 Local Authorities have declared AQMAs, the majority of which are also the result of traffic-related nitrogen dioxide concentrations. These include five other Devon authorities and encompass areas as diverse as Cullompton, Norwich and Manchester. An Air Quality Action Plan has been developed with Devon County Council in order to implement measures which will work towards achieving the air quality objective. Progress on the implementation of the AQAP will be reported to DEFRA annually.
- 9.2 As part of the AQAP, an Exeter Low Emission Strategy for 2015 to 2018 was published in 2015, which identifies actions that will reduce transport emissions of nitrous oxides (NO<sub>x</sub>) and contribute towards meeting the EU limit values for NO<sub>2</sub>, whilst also reducing emissions of particulates, noise and carbon dioxide (CO<sub>2</sub>).
- 9.3 In addition to local air quality management, the Council has numerous other statutory duties with regard to air quality such as the management of specified 'prescribed processes'. Officers work closely with these businesses to ensure that their impacts on the environment are minimised. This role plays an important part in the protection of local air quality.
- 9.4 Investigating complaints about air quality related statutory nuisances, such as smoky bonfires, odours and smoke from domestic chimneys, is a significant aspect of the Council's work. This statutory work provides an opportunity to educate through liaison and enforcement. All complaints are investigated and officers will apply the appropriate level of enforcement in line with the Council's enforcement policies in order to protect public health and the air quality in the city.
- 9.5 Officers liaise with City Development to ensure that air quality issues are taken into consideration at both the development and adoption of the Council's Development Plan documents and policies, and when Members consider planning applications. Officers within Environmental Health and Licensing are also involved in programmes of work concerned with important sustainability issues such as climate change.
- 9.6 All of the above play an integral role in ensuring that aims and aspirations of the Exeter Vision and the Councils' Strategic Objectives are met.

## APPENDIX 1

Objectives given in the National Air Quality Strategy 2000, for the purposes of Local Air Quality Management and compliance based on 2014 data.

Pollutant	Air Quality Objective		Date to be achieved by	Compliance
	Concentration	Measured as		
Benzene	16.25 µg/m <sup>3</sup>	Running annual mean	31.12.2003	Yes
	5.00 µg/m <sup>3</sup>	Running annual mean	31.12.2010	Yes
1,3-Butadiene	2.25 µg/m <sup>3</sup>	Running annual mean	31.12.2003	Yes
Carbon monoxide	10.0 mg/m <sup>3</sup>	Running 8-hour mean	31.12.2003	Yes
Lead	0.5 µg/m <sup>3</sup>	Annual mean	31.12.2004	Yes
	0.25 µg/m <sup>3</sup>	Annual mean	31.12.2008	Yes
Nitrogen dioxide	200 µg/m <sup>3</sup> not to be exceeded more than 18 times a year	1-hour mean	31.12.2005	No
	40 µg/m <sup>3</sup>	Annual mean	31.12.2005	No
Particles (PM <sub>10</sub> ) (gravimetric)	50 µg/m <sup>3</sup> , not to be exceeded more than 35 times a year	24-hour mean	31.12.2004	Yes
	40 µg/m <sup>3</sup>	Annual mean	31.12.2004	Yes
Sulphur dioxide	350 µg/m <sup>3</sup> , not to be exceeded more than 24 times a year	1-hour mean	31.12.2004	Yes
	125 µg/m <sup>3</sup> , not to be exceeded more than 3 times a year	24-hour mean	31.12.2004	Yes
	266 µg/m <sup>3</sup> , not to be exceeded more than 35 times a year	15-minute mean	31.12.2005	Yes

## APPENDIX 2

### Industrial Processes in the Exeter designated as 'Part B' Processes with regard to the Environmental Permitting Regulations 2010

SITE	ADDRESS	SUBSTANCE
Central Garage	70A Fore Street, Topsham, Exeter, EX3 0HQ	Waste Oil
Isca Motors	Water Lane, Exeter, EX2 8BY	Waste Oil
Vanborn & Radford	Lions Holt Garage, R/O 77Victoria Street, Exeter, EX4 6JG	Waste Oil
Exeter Gearbox Centre	Grace Road Central, Marsh Barton, Exeter, EX2 8QA	Waste Oil
SHB Hire Ltd	Bradman Way, Marsh Barton, EX2 8PE	Waste Oil
Exeter Motor Works	Unit 2, 31-35 Old Tiverton Road, EX4 6LG	Waste Oil
MBS	Marsh Green Road, Marsh Barton, Exeter	Waste Oil
Nationwide Crash Repair Centre	Exhibition Way, Pinhoe, Exeter, EX4 8HT	Paint Solvent
Vospers	9 Marsh Barton Road, Marsh Barton, Exeter, EX2 8YA	Paint Solvent
Fairweather Autosshine	Vulcan Works, Water Lane, Exeter, EX2 8BY	Paint Solvent
Sowton Motor Body Repairs	10 Bittern Road, EX2 7LW	Paint Solvent
Exeter Diesels Ltd	10 Marsh Barton Road, EX2 8LW	Paint Solvent
E & JW Glendinning	Kenton Place, Marsh Barton, Exeter	Concrete batching
Hanson	16 Hennock Road, Marsh Barton, Exeter	Concrete batching
Aggregate Industries (Bardon)	Heron Road, EX2 7LL	Concrete batching
Exeter and Devon Crematorium	Topsham Road, Exeter	
System Six	3 Christow Road, EX2 8QP	Particulates
Original Style	Falcon Road, Sowton	Particulates
Johnsons	Cowley Bridge Road, Exeter, EX4 5AA	Solvents
Johnsons	76 South Street, Exeter	Solvents
Royal Devon and Exeter Hospital	Barrack Road, Exeter, EX2 5DW	Solvents
Careclean	43 Sidwell Street, Exeter, EX4 6NS	Solvents
Kenjo	139 Sidwell Street, Exeter	Solvents
Morrisons	Prince Charles Road, EX4 7BY	Solvents

**Industrial Processes in the Exeter designated as 'Part A(2)' Processes with regard to the Environmental Permitting Regulations 2010**

<b>SITE</b>	<b>ADDRESS</b>	<b>SUBSTANCE</b>
Jewson	Kestrel Way, Sowton, Exeter, EX2 7LA	Particulates, timber treatment chemicals
J L Thomas & Co. Ltd	Spring Gardens, Canal Banks, Exeter, EX2 8DX	Hypo chloride caustic soda, sulphuric acid
Howmet UK Ltd	Kestrel Way, Sowton, Exeter, EX2 7LG	Acids, Solvents

### APPENDIX 3

#### Processes authorised for the unloading of petrol from mobile containers into storage at service stations

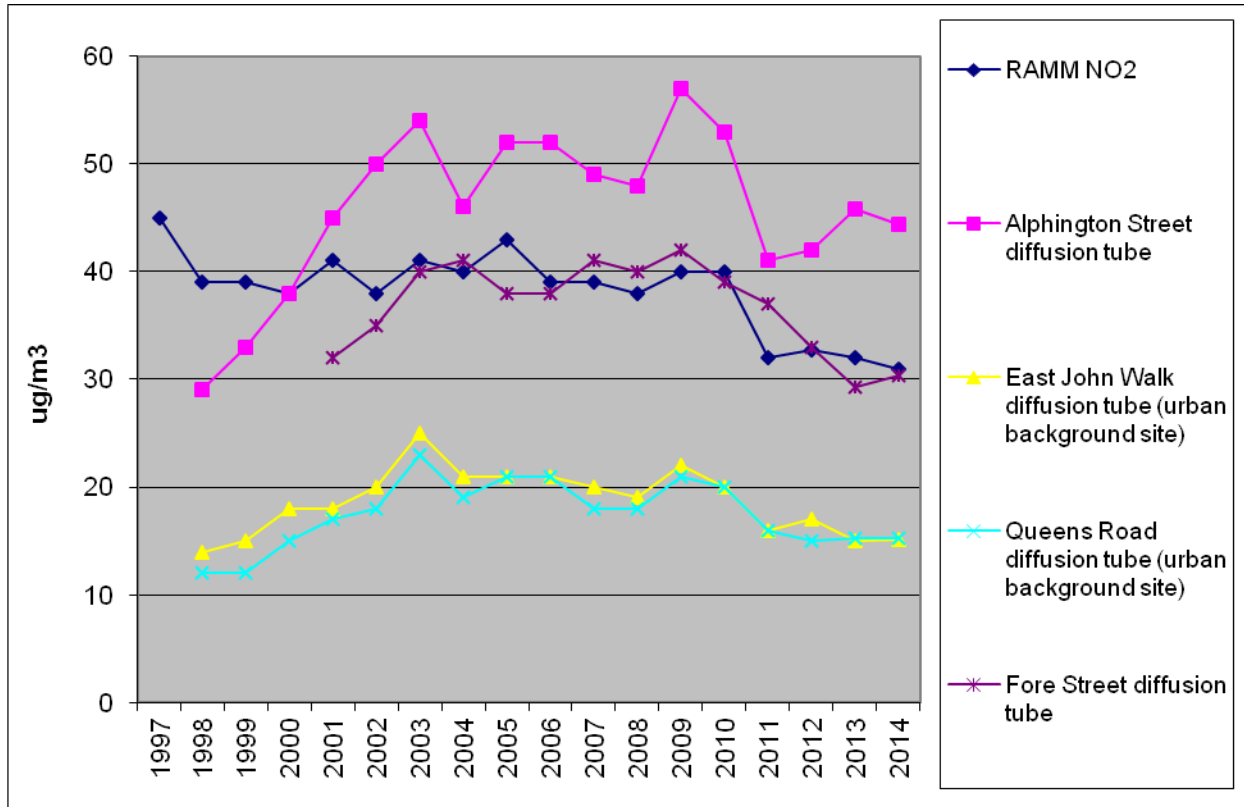
SITE	ADDRESS	SUBSTANCE
J Sainsbury's (Pinhoe) Petrol Station	1 Hill Barton Road, Pinhoe, Exeter, EX1 3PF	Petrol and Diesel
Alphington Service Station (Esso)	Alphington Road, Exeter, EX2 3NA	Petrol and Diesel
Pinhoe Garage Ltd	Main Road, Pinhoe, EX4 8HR	Petrol and Diesel
Tesco Filling Station	Exeter Vale Shopping Centre, Russell Way, Exeter, EX2 7EZ	Petrol and Diesel
J Sainsbury's (Alphington) Petrol Station	Alphington Road, Exeter	Petrol and Diesel
Shell Countess Wear Garage	399 Topsham Road, Countess Wear, Exeter, EX2 6HA	Petrol and Diesel
University Garage (Esso)	Cowley Bridge Road, Exeter, EX4 5AD	Petrol and Diesel
Tesco Express	85 Fore Street, Heavitree, Exeter, EX1 2RN	Petrol and Diesel
Granada Services (Esso)	M5 Service Station, Sowton, Exeter, EX2 4AR	Petrol and Diesel
Dunns Motors	Trusham Road, Marsh Barton, Exeter, EX2 8RL	Petrol and Diesel
Birchy Barton Filling Station	Honiton Road, Exeter, EX1 3EB	Petrol and Diesel
Morrisons	Prince Charles Road, Exeter, EX4 7BY	Petrol and Diesel



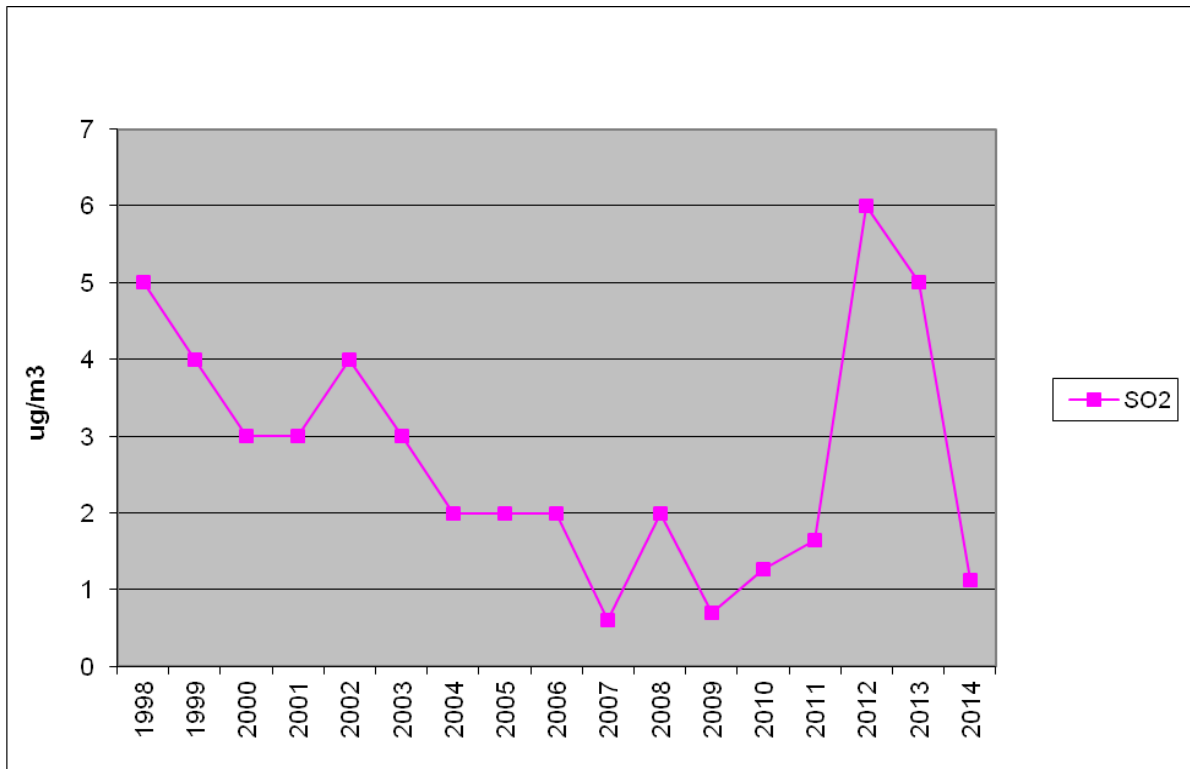
**APPENDIX 4**

**Graphs showing the trend in pollutant concentrations in Exeter. These demonstrate that air quality is generally very good and concentrations of all pollutants measured stable, or decreasing (with some inter-annual variability)**

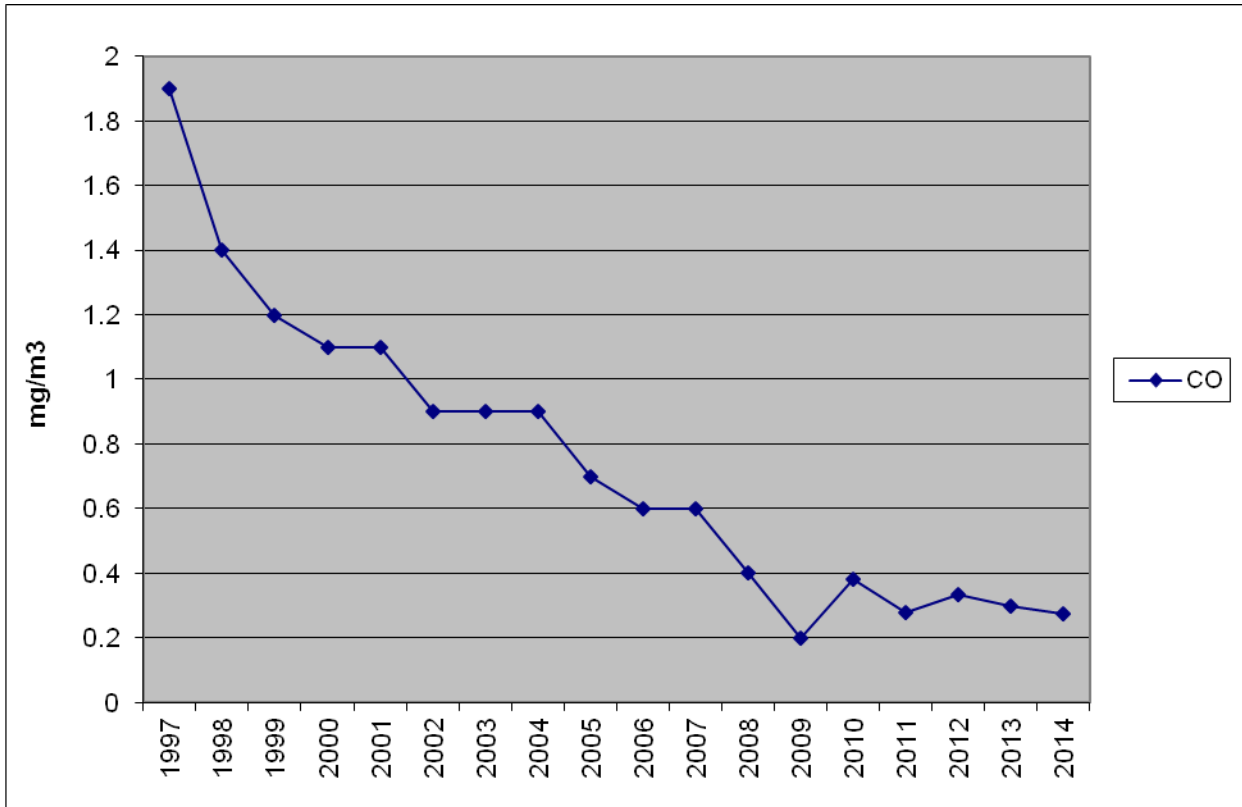
Historic Nitrogen Dioxide Concentrations at RAMM Queen Street and Four Long-Term Diffusion Tube Locations.



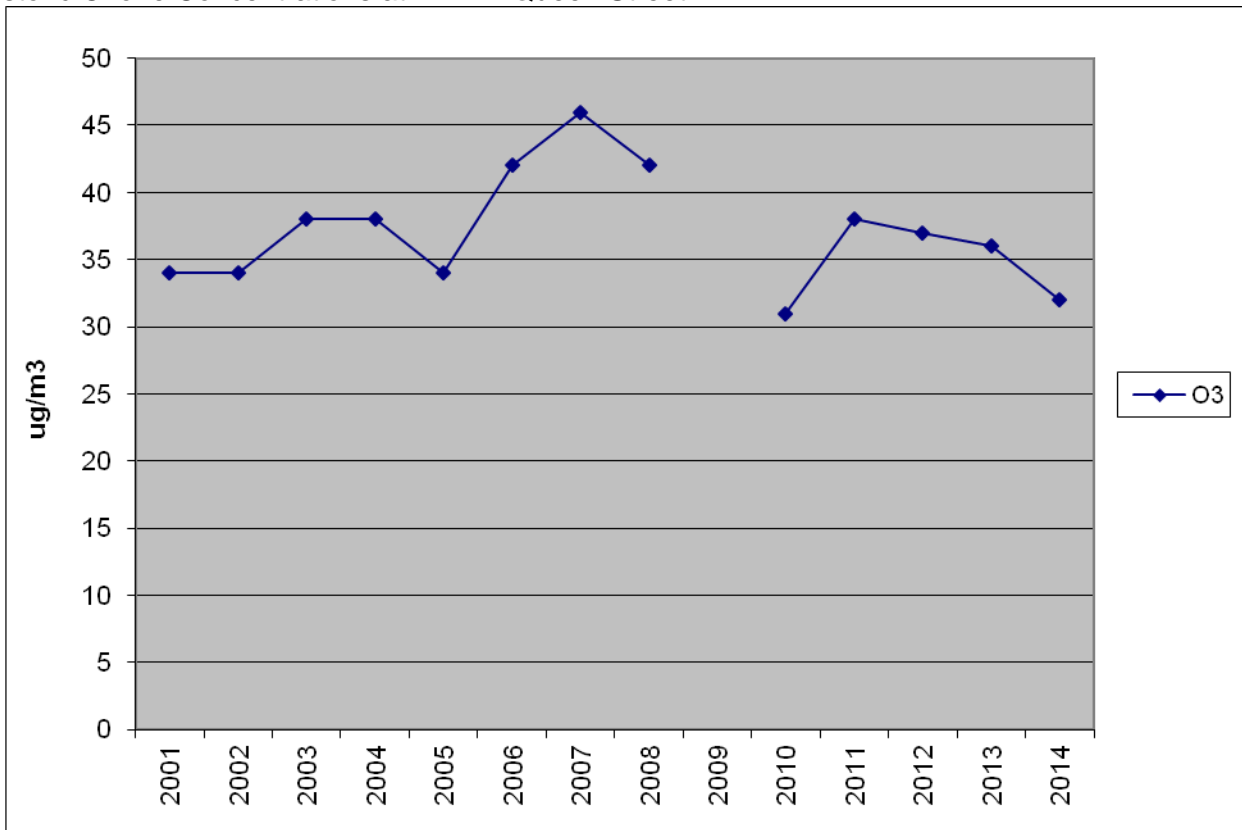
Historic Sulphur Dioxide Concentrations at RAMM Queen Street



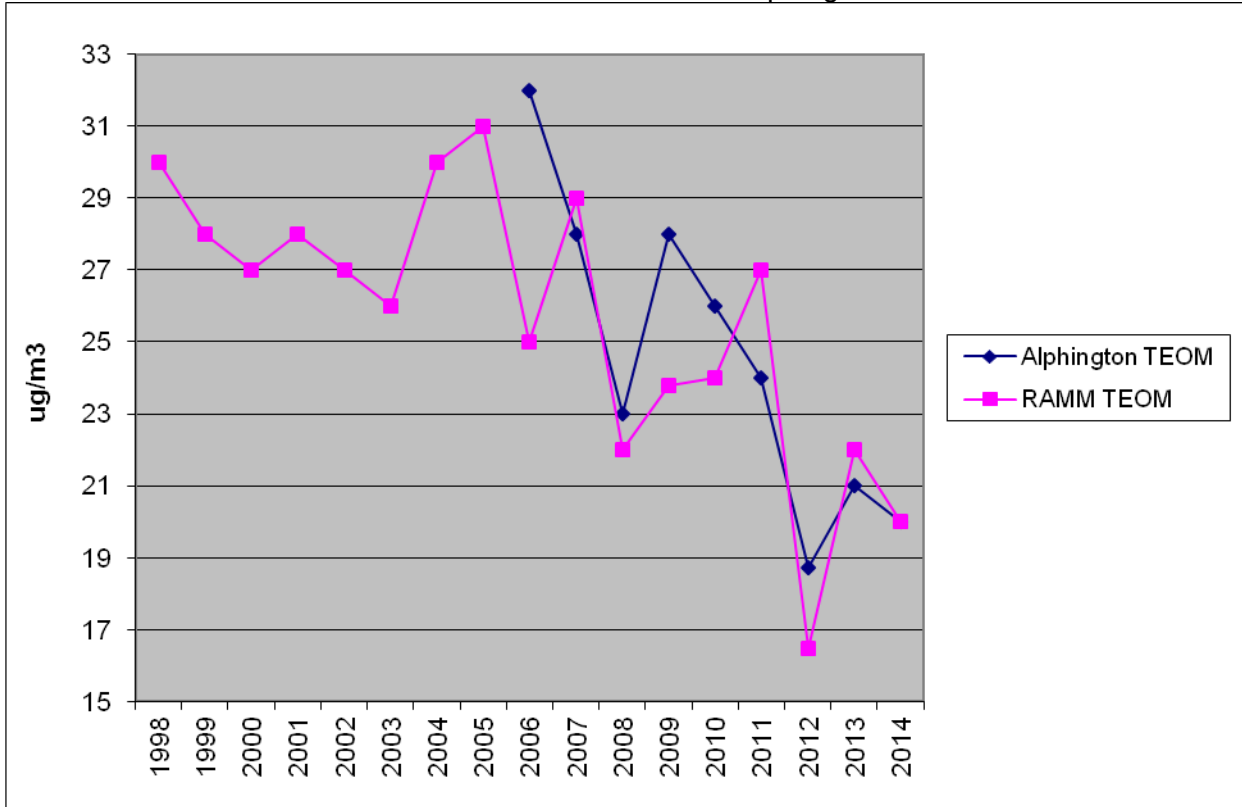
Historic Carbon Monoxide Concentrations at RAMM Queen Street



Historic Ozone Concentrations at RAMM Queen Street



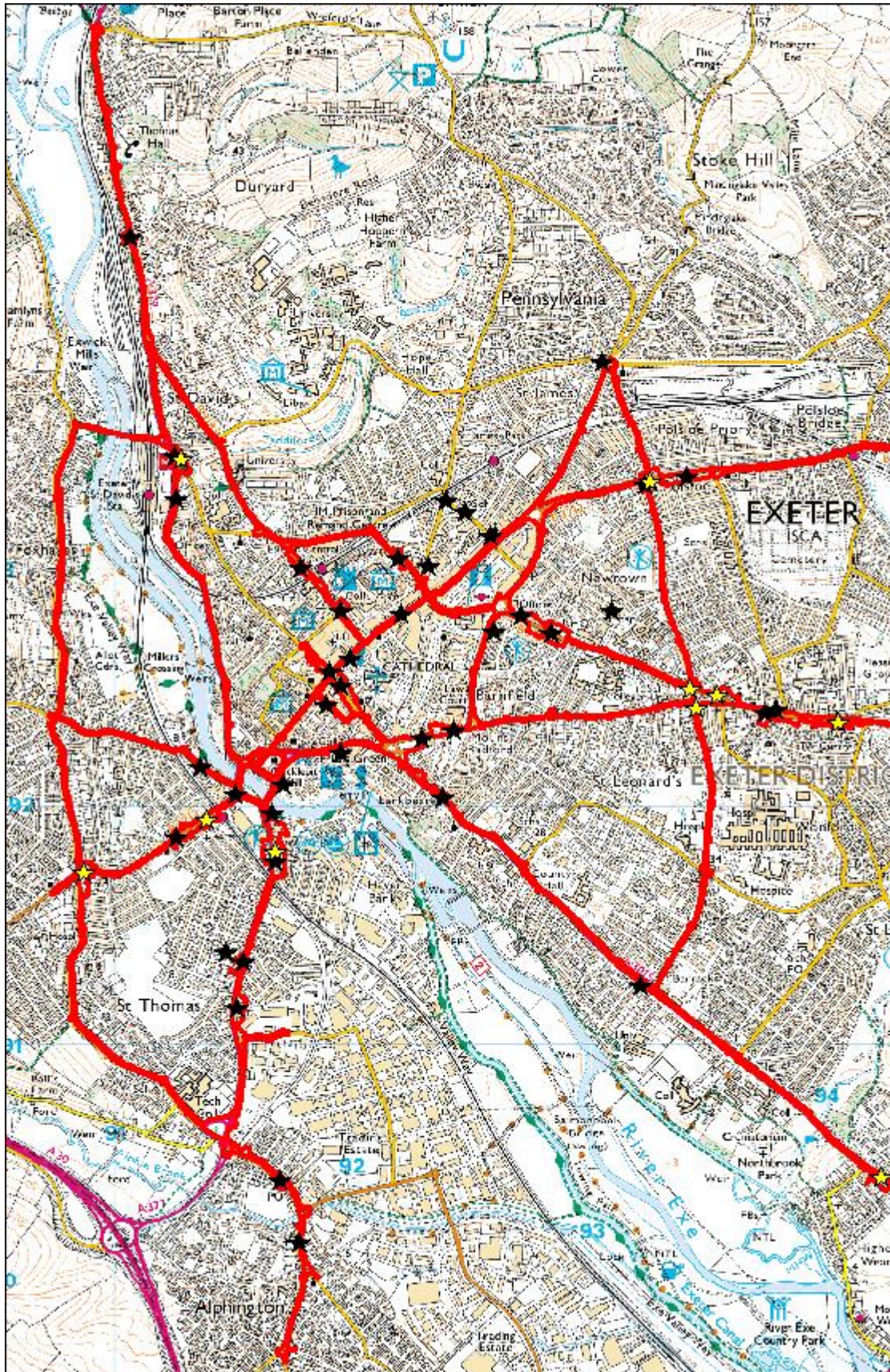
Historic PM10 Concentrations at RAMM Queen Street and Alphington Street TEOMs





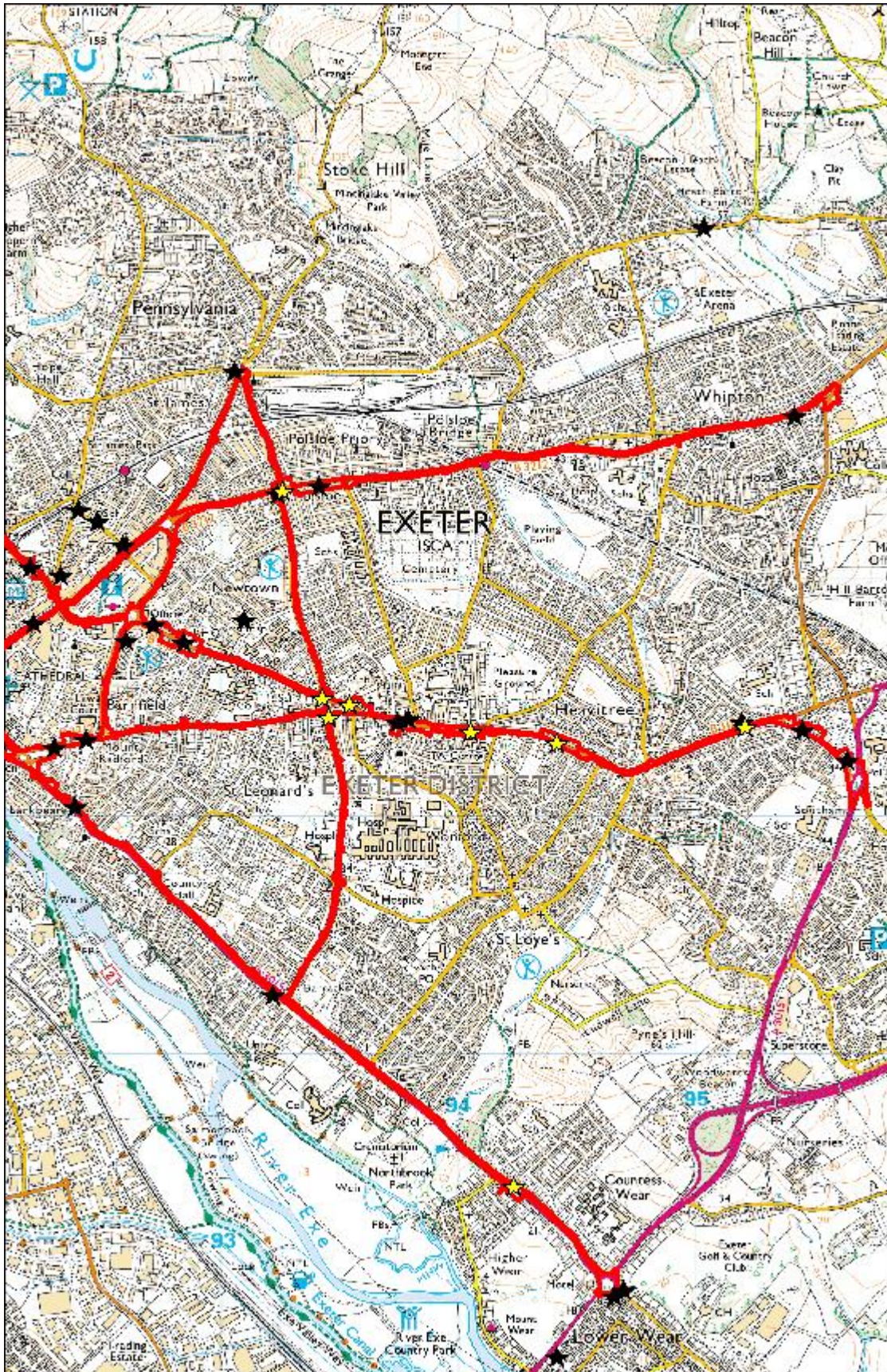
## APPENDIX 5

Maps showing AQMA Boundary, Monitoring Locations and Exceedences of NO<sub>2</sub> Annual Average Objective in 2014 (exceedences shown in yellow)



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