



Department  
for Environment  
Food & Rural Affairs

[www.gov.uk/defra](http://www.gov.uk/defra)

## **Draft Air Quality Plan for the achievement of EU air quality limit value for nitrogen dioxide (NO<sub>2</sub>) in Southampton Urban Area (UK0019)**

**September 2015**



Llywodraeth Cymru  
Welsh Government



The Scottish  
Government  
Riaghaltas na h-Alba



© Crown copyright 2015

You may re-use this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence v.3. To view this licence visit [www.nationalarchives.gov.uk/doc/open-government-licence/version/3/](http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/) or email [PSI@nationalarchives.gsi.gov.uk](mailto:PSI@nationalarchives.gsi.gov.uk)

Any enquiries regarding this publication should be sent to us at:

[air.quality@defra.gsi.gov.uk](mailto:air.quality@defra.gsi.gov.uk)

# Contents

<b>1</b>	<b>Introduction</b>	<b>3</b>
1.1	This document . . . . .	3
1.2	Context . . . . .	3
1.3	Zone status . . . . .	3
1.4	Plan Structure . . . . .	3
<b>2</b>	<b>General information about the Zone</b>	<b>4</b>
2.1	Administrative information . . . . .	4
2.2	Assessment details . . . . .	6
2.3	Reporting Under European Directives . . . . .	8
<b>3</b>	<b>Overall Picture for 2013 Reference Year</b>	<b>8</b>
3.1	Introduction . . . . .	8
3.2	Reference year: NO <sub>2</sub> _UK0019_Annual_1 . . . . .	8
<b>4</b>	<b>Measures</b>	<b>13</b>
4.1	Introduction . . . . .	13
4.2	Source apportionment . . . . .	13
4.3	Measures . . . . .	13
4.4	Measures timescales . . . . .	14
<b>5</b>	<b>Baseline Model projections</b>	<b>15</b>
5.1	Overview of model projections . . . . .	15
5.2	Baseline projections: NO <sub>2</sub> _UK0019_Annual_1 . . . . .	15
	<b>Annexes</b>	<b>19</b>
A	References . . . . .	19
B	Source apportionment graphs . . . . .	20
C	Tables of measures . . . . .	22

# 1 Introduction

## 1.1 This document

This document is the Southampton Urban Area agglomeration zone (UK0019) updated air quality plan for the achievement of the EU air quality limit values for nitrogen dioxide (NO<sub>2</sub>). This is an update to the air quality plan published in September 2011 (<http://uk-air.defra.gov.uk/library/no2ten/>).

This plan presents the following information:

- General information regarding the Southampton Urban Area agglomeration zone
- Details of the NO<sub>2</sub> exceedance situation within the Southampton Urban Area agglomeration zone
- Details of local air quality measures that have been implemented, will be implemented or are being considered for implementation in this agglomeration zone.

This air quality plan for the Southampton Urban Area agglomeration zone should be read in conjunction with the separate UK overview document. The UK overview document sets out, amongst other things, the authorities responsible for delivering air quality improvements and the national measures that are applied in some or all UK zones. The measures presented in this plan and the accompanying UK overview document show how the UK will ensure that compliance with the NO<sub>2</sub> limit values is achieved in the shortest possible time.

## 1.2 Context

Two NO<sub>2</sub> limit values for the protection of human health have been set in the Air Quality Directive (2008/50/EC). These are:

- The annual mean limit value: an annual mean concentration of no more than 40  $\mu\text{g}\text{m}^{-3}$
- The hourly limit value: no more than 18 exceedances of 200  $\mu\text{g}\text{m}^{-3}$  in a calendar year.

The Air Quality Directive stipulates that compliance with the NO<sub>2</sub> limit values will be achieved by 01/01/2010.

## 1.3 Zone status

The assessment undertaken for the Southampton Urban Area agglomeration zone indicates that the annual limit value was exceeded in 2013 but is likely to be achieved before 2025 through the introduction of measures included in the baseline. When combined with the measures outlined in the overview document for the UK we expect this zone to be compliant by 2020.

## 1.4 Plan Structure

General administrative information regarding this agglomeration zone is presented in section 2.

Section 3 then presents the overall picture with respect to NO<sub>2</sub> levels in this agglomeration zone for the 2013 reference year of this air quality plan. This includes declaration of exceedance situations within the agglomeration zone and presentation of a detailed source apportionment for each exceedance situation.

An overview of the measures already taken and to be taken within the agglomeration zone both before and after 2013 is given in section 4.

Baseline modelled projections for 2020, 2025 and 2030 for each exceedance situation are presented in section 5. The baseline projections presented here include, where possible, the impact of measures that have already been taken and measures for which the relevant authority has made a firm commitment to take the measure(s). However, it has not been possible to quantify the impact of all the measures. This section therefore also explains which measures have been quantified, and hence included in the model projections, and which measures have not been quantified.

## 2 General information about the Zone

### 2.1 Administrative information

Zone name: Southampton Urban Area

Zone code: UK0019

Type of zone: agglomeration zone

Reference year: 2013

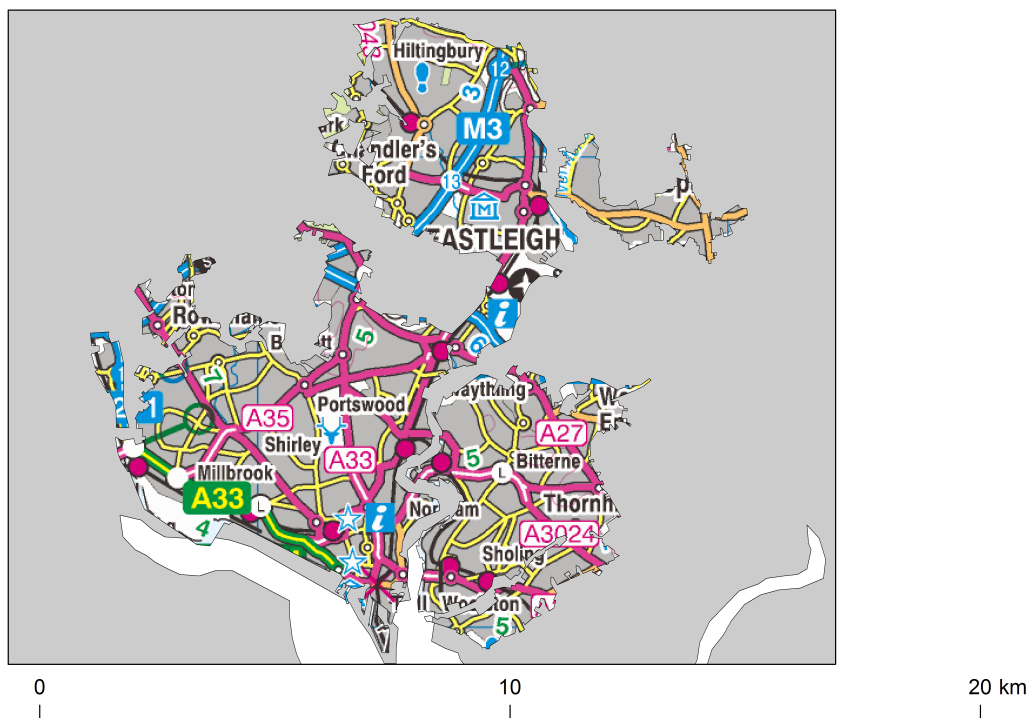
Extent of zone: Figure 1 shows the area covered by the Southampton Urban Area agglomeration zone.

Local Authorities within the zone: Figure 2 shows the location of Local Authorities within the agglomeration zone. A list of these Local Authorities is also given below. The numbers in the list correspond to the numbers in Figure 2.

1. Eastleigh Borough Council
2. Southampton Council
3. Test Valley Borough Council
4. Winchester City Council

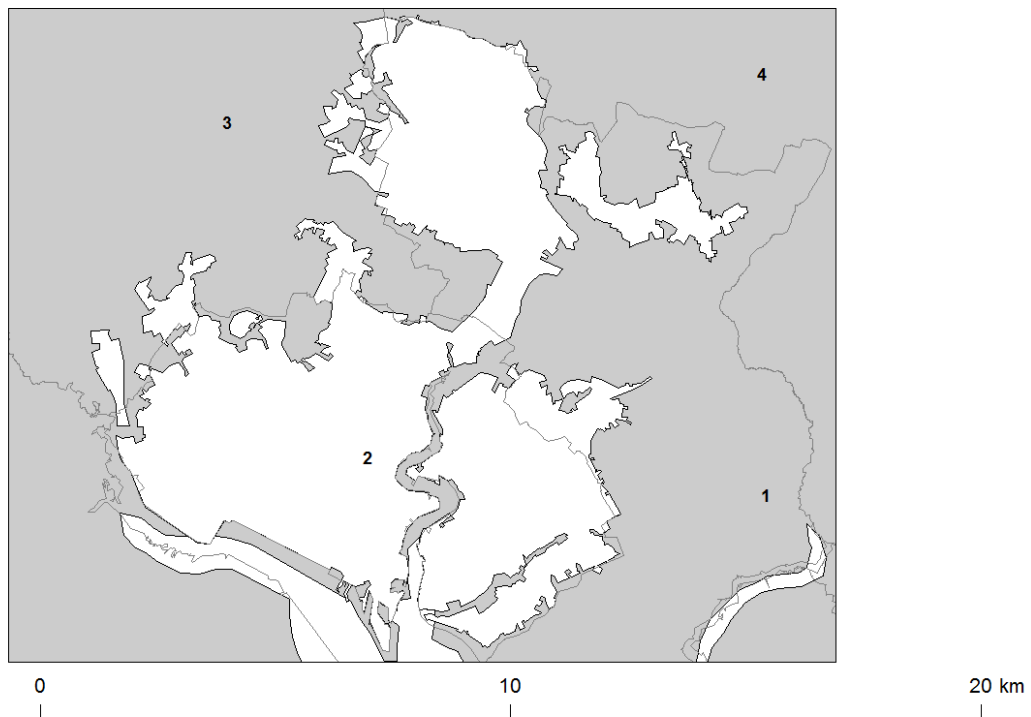
(Note: Local Authority boundaries do not necessarily coincide with zone boundaries. Hence Local Authorities may be listed within more than one zone plan.)

Figure 1: Map showing the extent of the Southampton Urban Area agglomeration zone (UK0019).



© Crown copyright. All rights reserved Defra, License number 100022861 [2015]

Figure 2: Map showing Local Authorities within the Southampton Urban Area agglomeration zone (UK0019).



© Crown copyright. All rights reserved Defra, License number 100022861 [2015]

## 2.2 Assessment details

### Measurements

NO<sub>2</sub> measurements in this zone were available in 2013 from the following national network monitoring stations (NO<sub>2</sub> data capture for each station in 2013 shown in brackets):

1. Southampton Centre GB0598A (98%)

Full details of monitoring stations within the Southampton Urban Area agglomeration zone are available from <http://uk-air.defra.gov.uk/networks/network-info?view=aurm>.

### Modelling

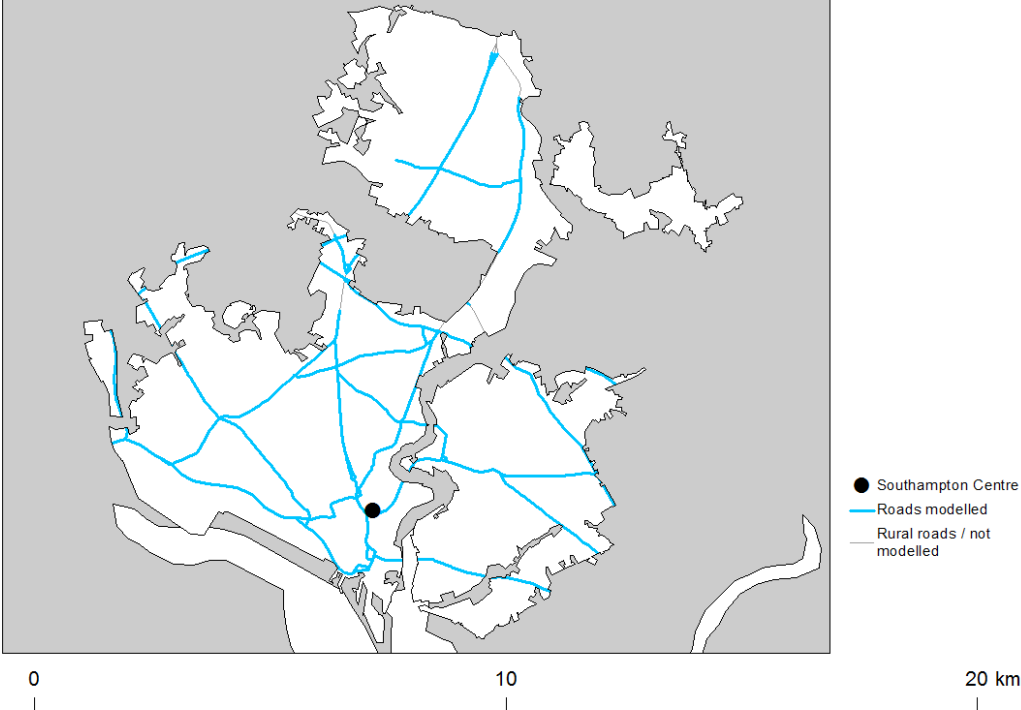
Modelling for the 2013 reference year has been carried out for the whole of the UK. This modelling covers the following extent within this zone:

- Total background area within zone (approx): 79 km<sup>2</sup>
- Total population within zone (approx): 298,793 people
- Total road length where an assessment of NO<sub>2</sub> concentrations have been made: 73 km in 2013 (and similar lengths in previous years)

### Zone maps

Figure 3 presents the location of the NO<sub>2</sub> monitoring stations within this zone for 2013 and the roads for which NO<sub>2</sub> concentrations have been modelled. NO<sub>2</sub> concentrations at background locations have been modelled across the entire zone at a 1 x 1 km<sup>2</sup> resolution.

**Figure 3: Map showing the location of the NO<sub>2</sub> monitoring stations with valid data in 2013 and roads where concentrations have been modelled within the Southampton Urban Area (UK0019) agglomeration zone.**



© Crown copyright. All rights reserved Defra, License number 100022861 [2015]



## 2.3 Reporting Under European Directives

From 2001 to 2012 the UK has reported annually on air quality concentrations using a standard excel questionnaire (Decision 2004/461/EC). These questionnaires are available online from <http://cdr.eionet.europa.eu/gb/eu/annualair>. Since 2013 reporting has been via an e-reporting system (Decision 2011/850/EU) <http://cdr.eionet.europa.eu/gb/eu/>.

In addition, the UK has reported on air quality plans and programmes (Decision 2004/224/EC) <http://cdr.eionet.europa.eu/gb/eu/aqpp>.

# 3 Overall Picture for 2013 Reference Year

## 3.1 Introduction

There are two limit values for the protection of health for NO<sub>2</sub>. These are:

- The annual limit value (annual mean concentration of no more than 40  $\mu\text{g}\text{m}^{-3}$ )
- The hourly limit value (no more than 18 hourly exceedances of 200  $\mu\text{g}\text{m}^{-3}$  in a calendar year)

Within the Southampton Urban Area agglomeration zone the annual limit value was exceeded in 2013. Hence, one exceedance situation for this zone has been defined, NO<sub>2</sub>\_UK0019\_Annual\_1, which covers exceedances of the annual limit value. This exceedance situation is described below.

## 3.2 Reference year: NO<sub>2</sub>\_UK0019\_Annual\_1

The NO<sub>2</sub>\_UK0019\_Annual\_1 exceedance situation covers all exceedances of the annual mean limit value in the Southampton Urban Area agglomeration zone in 2013.

Compliance with the annual limit value in this exceedance situation has been assessed using a combination of air quality measurements and modelling. Table 1 presents measured annual concentrations at national network stations in this exceedance situation since the 1st Daughter Directive (1999/30/EC) came into force in 2001. This shows that there were no measured exceedances of the annual limit value in this zone in 2013. Table 2 summarises modelled annual mean NO<sub>2</sub> concentrations in this exceedance situation for the same time period. This table shows that, in 2013, 18.4 km of road length was modelled to exceed the annual limit value. There were no modelled background exceedances of the annual limit value. Maps showing the modelled annual mean NO<sub>2</sub> concentrations for 2013 at background and at roadside locations are presented in Figures 4 and 5 respectively. All modelled exceedances of the annual limit value are coloured orange or red in the maps.

The maximum measured concentration in the zone varies due to changes in emissions and varying meteorology in different years. However, the models are also updated each year to take into account the most up-to-date science, so the modelled results for different years may not be directly comparable.

The modelling carried out for this exceedance situation has also been used to determine the annual mean NO<sub>x</sub> source apportionment for all modelled locations. Table 3 presents summary source apportionment information in this exceedance situation.

Table 3 summarises the modelled NO<sub>x</sub> source apportionment for the section of road with the highest modelled NO<sub>2</sub> concentration in this exceedance situation in 2013. This is important information because it shows which sources need to be tackled at the location with the largest compliance gap in the exceedance situation. It is

not possible to calculate an unambiguous source apportionment for annual mean NO<sub>2</sub> concentrations for the reasons discussed in the UK Technical Report<sup>1</sup>. Therefore no NO<sub>2</sub> source apportionment is provided.

Figure B.1 in Annex B presents the annual mean NO<sub>x</sub> source apportionment for each section of road within the NO<sub>2</sub>\_UK0019\_Annual\_1 exceedance situation (i.e. the source apportionment for all exceeding roads only) in 2013. Roads have been grouped into motorways, primary roads and trunk roads in this figure.

---

<sup>1</sup>Technical report to be finalised for the final plan.

**Table 1: Measured annual mean NO<sub>2</sub> concentrations at national network stations in NO<sub>2</sub>\_UK0019\_Annual\_1 for 2001 onwards,  $\mu\text{gm}^{-3}$  (a). Data capture shown in brackets.**

Site name (EOI code)	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Southampton Centre (GB0598A)	38 (97)	33 (90)	36 (95)	33 (95)	31 (87)	28 (90)	34 (78)	36 (94)	35 (96)	36 (79)	35 (97)	32 (99)	31 (98)

(a) Annual Mean Limit Value =  $40 \mu\text{gm}^{-3}$

**Table 2: Annual mean NO<sub>2</sub> model results in NO<sub>2</sub>\_UK0019\_Annual\_1 for 2001 onwards.**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Road length exceeding (km)	44.3	13.6	61.2	20.1	21.3	21.4	22.7	21.5	39.1	38.1	35.9	25.4	18.4
Background exceeding (km <sup>2</sup> )	0	0	0	0	0	0	1	1	2	12	5	1	0
Maximum modelled concentration ( $\mu\text{gm}^{-3}$ ) (a)	68.7	58.9	73.6	70.2	74.6	76.0	72.9	82.8	81.9	87.3	72	79	68

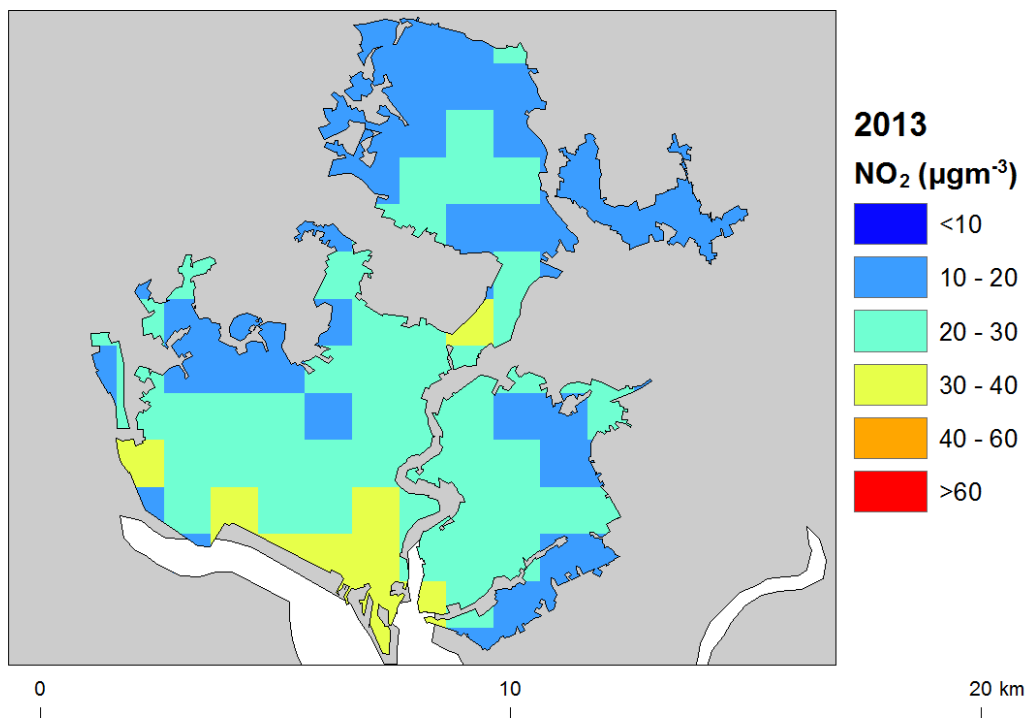
(a) Annual Mean Limit Value =  $40 \mu\text{gm}^{-3}$

**Table 3: Modelled annual mean NOx source apportionment at the traffic count point with the highest modelled concentration in 2013 in NO2\_UK0019\_Annual\_1 ( $\mu\text{gm}^{-3}$ ) (traffic count point 6368 on the A35; OS grid (m): 438000, 113400).**

Spatial scale	Component	Concentration at highest road link (a)
Regional background sources NOx (i.e. contributions from distant sources of > 30 km from the receptor).	Total	8.7
	From within the UK	3.9
	From transboundary sources (includes shipping and other EU member states)	4.8
Urban background sources NOx (i.e. sources located within 0.3 - 30 km from the receptor).	Total	29.3
	From road traffic sources	15.7
	From industry (including heat and power generation)	1.8
	From agriculture	NA
	From commercial/residential sources	1.6
	From shipping	4.7
	From off road mobile machinery	5.1
	From natural sources	NA
	From transboundary sources	NA
From other urban background sources	0.4	
Local sources NOx (i.e. contributions from sources < 0.3 km from the receptor).	Total	152.2
	From petrol cars	11.3
	From diesel cars	39.1
	From HGV rigid	20.5
	From HGV articulated	51.7
	From buses	9.8
	From petrol LGVs	0.3
	From diesel LGVs	19.2
From motorcycles	0.2	
From London taxis	0.0	
Total NOx (i.e. regional background + urban background + local components)		190.2
Total NO <sub>2</sub> (i.e. regional background + urban background + local components)		68

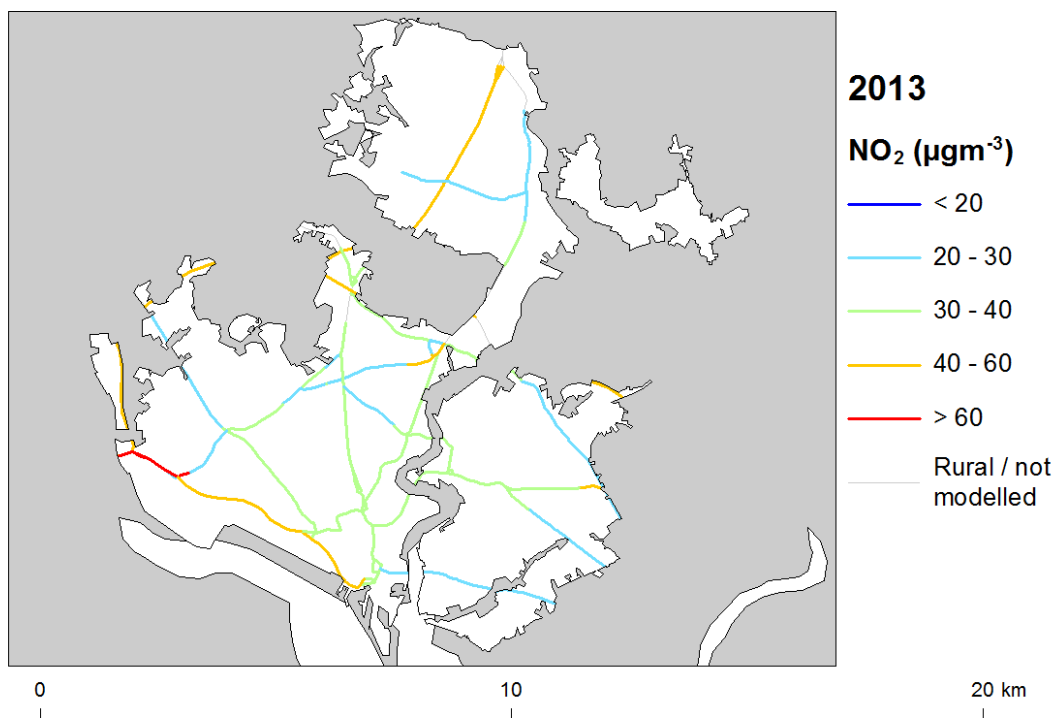
(a) Components are listed with NOx concentration of NA when there is no source from this sector.

**Figure 4: Map of modelled background annual mean NO<sub>2</sub> concentrations 2013. Modelled exceedances of the annual limit value are shown in orange and red.**



© Crown copyright. All rights reserved Defra, License number 100022861 [2015]

**Figure 5: Map of modelled roadside annual mean NO<sub>2</sub> concentrations 2013. Modelled exceedances of the annual limit value are shown in orange and red.**



© Crown copyright. All rights reserved Defra, License number 100022861 [2015]

## 4 Measures

### 4.1 Introduction

This section (section 4) gives details of measures that address exceedances of the NO<sub>2</sub> limit values within Southampton Urban Area agglomeration zone. This includes both measures that have already been taken and measures for which there is a firm commitment that they will be taken.

Section 5 then explains the extent to which it has been possible to incorporate the impacts of these measures into the baseline modelling carried out for this assessment.

### 4.2 Source apportionment

It is important to understand which sources are responsible for causing the exceedance in order to most effectively tailor measures to address the NO<sub>2</sub> exceedance situation described in section 3 above. This can be achieved by considering the source apportionment for the exceedance situation, also presented in section 3. A summary of what the source apportionment shows and the implications for which measures would therefore be appropriate is given here.

Local road traffic was the dominant source in this exceedance location in the reference year. The largest contribution was from articulated HGVs and cars contributing about 25% each of total NO<sub>x</sub> on the road with the highest concentration. Cars, LGVs and on some roads articulated HGVs were important sources on the motorway roads with the highest concentrations in this exceedance situation. Cars and on some roads articulated HGVs were important sources on the primary roads with the highest concentrations. For all road links concentrations of NO<sub>x</sub> from diesel cars were approximately four times greater than NO<sub>x</sub> emissions from petrol cars. NO<sub>x</sub> concentrations from petrol LGVs are a small component of total NO<sub>x</sub> concentrations and less than 2% of total NO<sub>x</sub> from LGVs.

This indicates that appropriate measures should impact on local road traffic sources in this zone. Other measures may also be beneficial depending on the source apportionment for the urban background.

### 4.3 Measures

Measures potentially affecting NO<sub>2</sub> in this agglomeration zone have been taken and/or are planned at a range of administrative levels. These are:

- European Union
- National (i.e. England, Scotland, Wales, Northern Ireland or whole UK)
- Local (i.e. UK Local Authorities)

Details of European Union measures (e.g. euro standards, fuel quality directives, integrated pollution prevention and control) can be found on the European Commission's website ([http://ec.europa.eu/environment/air/index\\_en.htm](http://ec.europa.eu/environment/air/index_en.htm)). Details of national measures are given in the UK overview document.

Relevant Local Authority measures within this exceedance situation are listed in Table C.1 (see Annex C). Table C.1 lists measures which a local authority has carried out or is in the process of carrying out, plus additional measures which the local authority is committed to carrying out or is investigating with the expectation of carrying out in the future.

The Road Investment Strategy announced plans to upgrade the M271/A35 Redbridge roundabout - an area identified in our projections as contributing to the exceedance of EU limits beyond 2020. This scheme is expected to help address pollution sources associated with traffic related to Southampton docks. The scheme will create a dedicated left-turn lane for traffic leaving the M271 for Southampton docks and city centre, plus an improved roundabout layout for traffic from the docks turning onto the M271. The scheme is expected to be completed over 2017-2020.

Southampton City Council has a Local Transport Plan whose intention is to deliver improvements in air quality such as mitigating the impacts of traffic. The overarching aim of the local transport plan is to minimise the cumulative effect of road transport emissions, through measures promoting modal shift towards public transport modes e.g. walking and cycling, the promotion of cleaner vehicle technologies, support for car clubs and other similar schemes.

Parking management measures are being implemented alongside improvements to sustainable travel modes to help increase the attractiveness and viability of these alternatives over private car trips, to support widening travel choice.

Delivery of these measures is being achieved through approaches to parking; controlled parking zones; extended 'park and ride' networks (both bus and rail based systems); workplace travel planning; appropriate consideration of the needs of blue badge holders and developing the provision of electric vehicle charging points within car parks and car clubs.

There are proposals for a sub-regional car club scheme. The operator will supply vehicles to be used for marketing and installation of up to 200 bays. Options for extensive supply of electric vehicles within the fleet will be included. A campaign was run in spring 2014 to drive up membership of the existing City Car Club.

A multi-modal interoperable transport smartcard has also been introduced. The ticket will provide the link between operators and modes to give the best possible products to transport users making public transport seamless, easier to use and cheaper as well as promoting the growth of the sector.

There are a number of significant planning proposals along the M271 corridor. All have the potential to affect traffic on the A33 and air quality. Southampton is proposing a number of mitigation measures including electric vehicle charging points.

Southampton is also considering the possibility of a low emission zone on the Western Approach. In the meantime, the Council is undertaking to develop a Low Emission Strategy which would cover the whole city and use existing policy levers where possible to reduce emissions.

## 4.4 Measures timescales

Timescales for national measures are given in the UK overview document.

Local Authorities report on progress with the implementation of their action plans annually and review action plan measures regularly. Information on local measures was collected in February/March 2015. Hence, any Local Authority action plans and measures adopted by Local Authorities after this time have not been included in this air quality plan.

The reference year for this air quality plan is 2013. Hence where measures started and finished before 2013, then the improvement in air quality resulting from these measures will have already taken place before the reference year and the impact of these measures will have been included in the assessment where the measure has had an impact on the statistics used to compile the emission inventory. Many measures started before the reference year and will continue to have a beneficial impact on air quality well beyond the reference year. Hence measures with a start date before 2013 and an end date after 2013 may have an impact on concentrations in the reference year and a further impact in subsequent years. Where the Status column in Annex C is 'Implementation', this shows that this measure is already underway or that there is a commitment

for this measure to go ahead. Where the Status is 'Planning', 'Preparation' or 'Other' the level of commitment is less clear and it is possible some of these measures may not go ahead.

## 5 Baseline Model projections

### 5.1 Overview of model projections

Model projections for 2020, 2025 and 2030, starting from the 2013 reference year described in section 3, have been calculated in order to determine when compliance with the NO<sub>2</sub> limit values is likely to be achieved on the basis of EU, regional and local measures currently planned. Details of the methods used for the baseline emissions and projections modelling are provided in the UK technical report.

For national measures, it has not been possible to quantify the impact of all measures on emissions and ambient concentrations. The impact for all quantifiable measures has been included in the baseline projections.

The impacts of the individual Local Authority measures have not been explicitly included in the baseline model projections. However, measures may have been included implicitly if they have influenced the traffic counts for 2012 (used as a basis for the compilation of the emission inventory) or in the traffic activity projections to 2020 and beyond (used to calculate the emissions projections). It should be recognised that these measures will have a beneficial impact on air quality, even if it has not been possible to quantify this impact here.

### 5.2 Baseline projections: NO<sub>2</sub>\_UK0019\_Annual\_1

Table 4 presents summary results for the baseline model projections for 2020, 2025 and 2030 for the NO<sub>2</sub>\_UK0019\_Annual\_1 exceedance situation. This shows that the maximum modelled annual mean NO<sub>2</sub> concentration predicted for 2020 in this exceedance situation is 41  $\mu\text{gm}^{-3}$ . By 2025, the maximum modelled annual mean NO<sub>2</sub> concentration is predicted to drop to 33  $\mu\text{gm}^{-3}$ . Hence, the model results suggest that compliance with the NO<sub>2</sub> annual limit value is likely to be achieved before 2025 under baseline conditions in this exceedance situation.

Figures 6 and 7 show maps of projected annual mean NO<sub>2</sub> concentrations in 2020, 2025 and 2030 for background and roadside locations respectively. Maps for 2013 are also presented here for reference.

It should be noted that the baseline projections presented here include the impacts of some measures, where they can be quantified, that have already been or will be implemented.



**Table 4: Annual mean NO<sub>2</sub> model results in NO<sub>2</sub>\_UK0019\_Annual\_1.**

	2013	2020	2025	2030
Road length exceeding (km)	18.4	0.3	0.0	0.0
Background exceeding (km <sup>2</sup> )	0	0	0	0
Maximum modelled concentration NO <sub>2</sub> (μgm <sup>-3</sup> ) (a)	68	41	33	31
Corresponding modelled concentration NOx (μgm <sup>-3</sup> ) (b)	190	98	77	71

(a) Annual Mean Limit Value = 40 μgm<sup>-3</sup>

(b) NOx is recorded here for comparison with the NOx source apportionment graphs for 2013 presented in Annex B of this plan. Limit values for EU directive purposes are based on NO<sub>2</sub>.

Figure 6: Background baseline projections of annual mean NO<sub>2</sub> concentrations in 2020, 2025 and 2030. 2013 is also included here for reference. Modelled exceedances of the annual limit value are shown in orange and red.

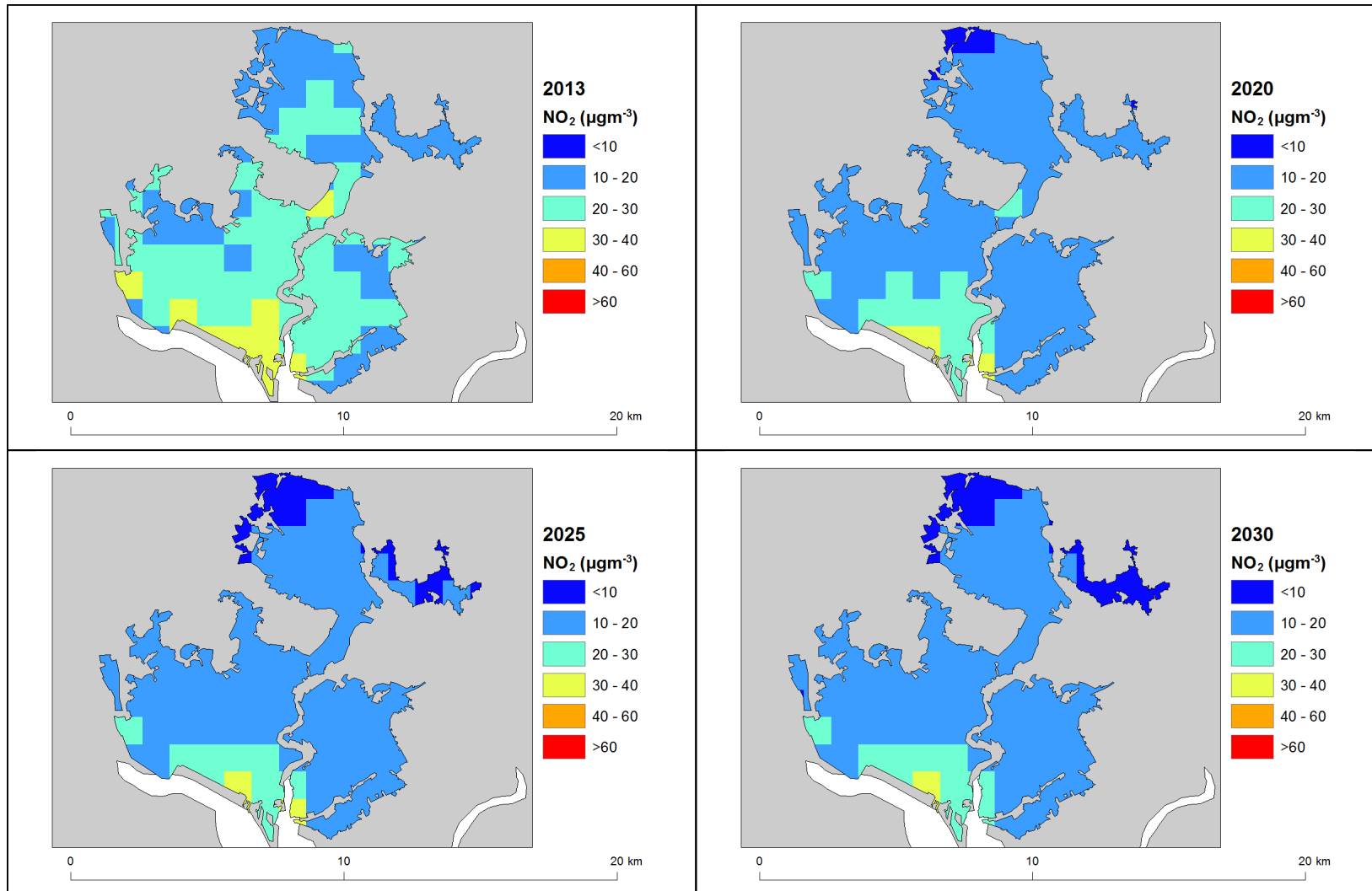
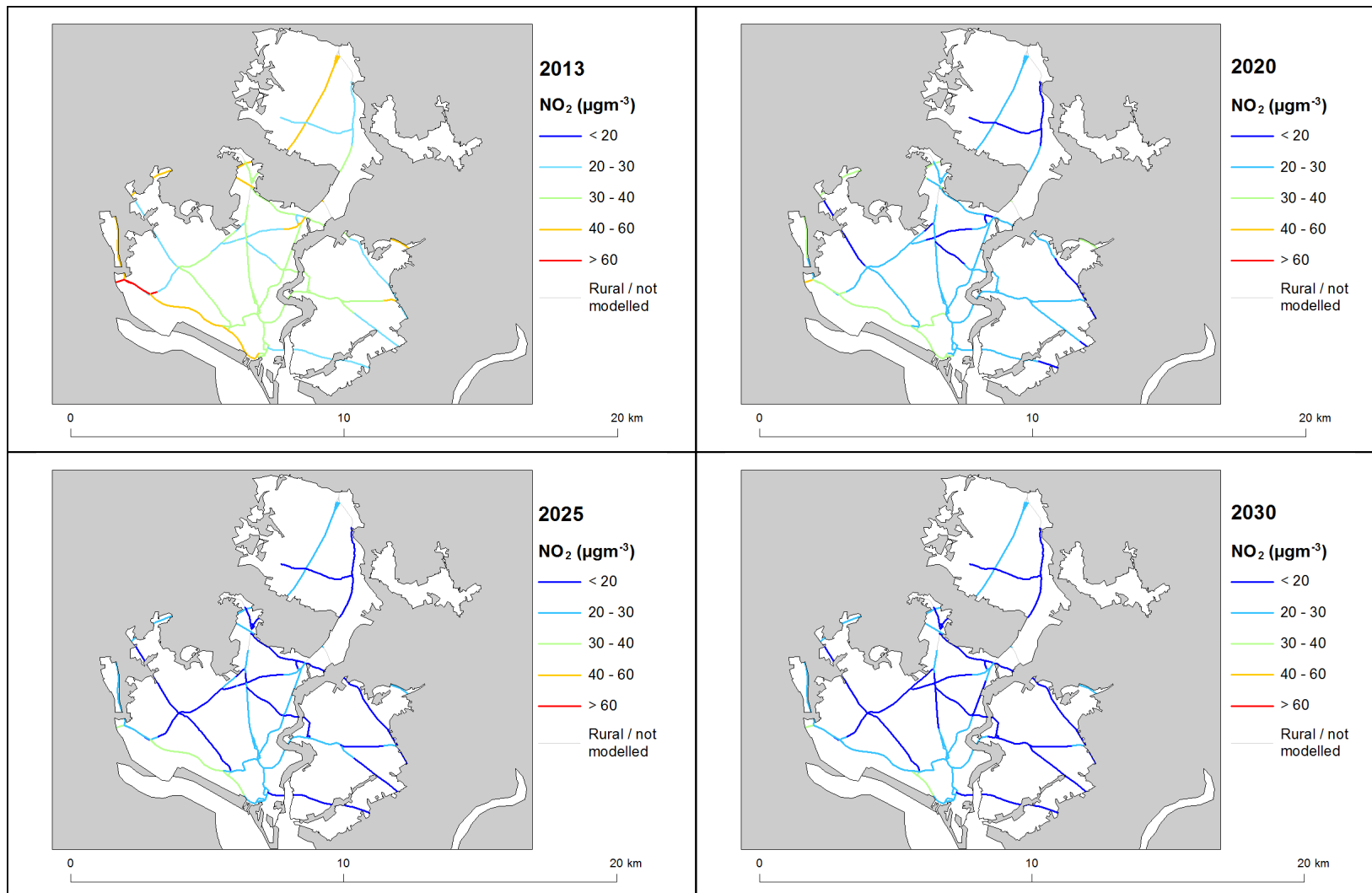


Figure 7: Roadside baseline projections of annual mean NO<sub>2</sub> concentrations in 2020, 2025 and 2030. 2013 is also included here for reference. Modelled exceedances of the annual limit value are shown in orange and red.



# Annexes

## A References

Air Quality Expert Group (AQEG, 2004). Nitrogen Dioxide in the United Kingdom. <http://uk-air.defra.gov.uk/library/aqeg/publications>

Decision 2004/224/EC. Commission Decision of 20 February 2004 laying down arrangements for the submission of information on plans or programmes required under Council Directive 96/62/EC in relation to limit values for certain pollutants in ambient air. From the Official Journal of the European Union, 6.3.2004, En series, L68/27

Decision 2004/461/EC. Commission Decision of 29 April 2004 laying down a questionnaire to be used for annual reporting on ambient air quality assessment under Council Directives 96/62/EC and 1999/30/EC and under Directives 2000/69/EC and 2002/3/EC of the European Parliament and of the Council. From the Official Journal of the European Union, 30.4.2004, En series, L156/78

Decision 2011/850/EU Commission Implementing Decision of 12 December 2011 laying down rules for Directives 2004/107/EC and 2008/50/EC of the European Parliament and of the Council as regards the reciprocal exchange of information and reporting on ambient air quality. From the Official Journal of the European Union, 17.12.2011, En series, L335/86

CDR Central Data Repository. <http://cdr.eionet.europa.eu/>

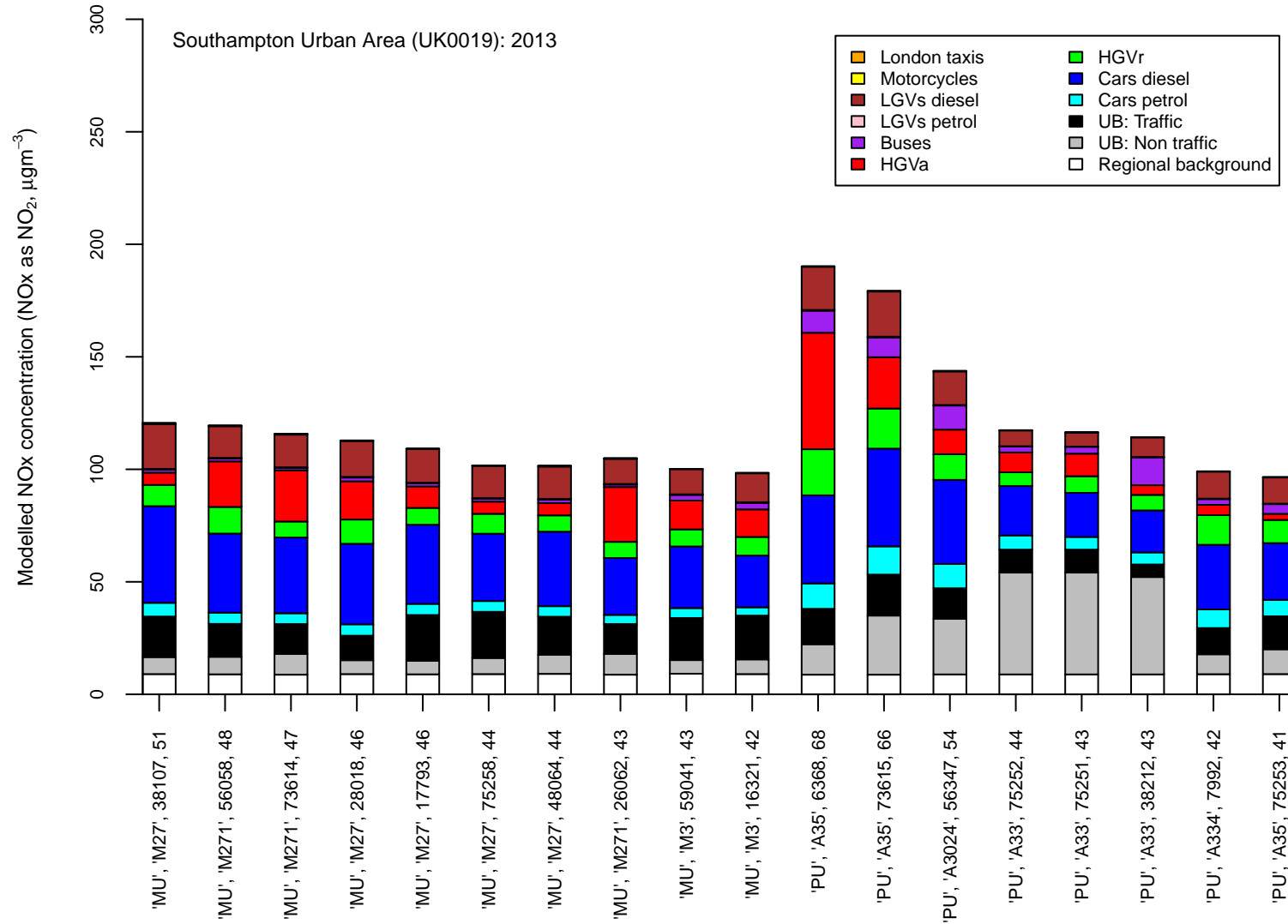
Air Quality Directive 2008/50/EC. Council Directive 2008/50/EC, of 21 May 2008. On ambient air quality and cleaner air for Europe. From the Official Journal of the European Union, 11.6.2008, En series, L152/1

1st Daughter Directive 1999/30/EC. Council Directive 1999/30/EC, of 22 April 1999 relating to limit values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air (The First Daughter Directive). From the Official Journal of the European Communities, 29.6.1999, En Series, L163/41.

## **B Source apportionment graphs**

*Page left blank.*

Figure B.1: Annual mean roadside NO<sub>x</sub> source apportionment plots for all roads exceeding the annual mean NO<sub>2</sub> limit value in 2013.



Road class (MU = motorway, PU = primary road, TU = trunk road), road number, census id 12 and modelled NO<sub>2</sub> concentration (μgm<sup>-3</sup>)

## **C Tables of measures**

*Page left blank.*

**Table C.1 Relevant Local Authority measures within Southampton Urban Area (UK0019)**

Measure code	Description	Focus	Classification	Status	Other information
Eastleigh Borough Council_1	Improve the cycle network	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2012 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Eastleigh Borough Council_2	Encourage school travel planning	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2012 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Eastleigh Borough Council_3	Support the Hampshire County car share program	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2012 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Eastleigh Borough Council_4	Increase use of public transport	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2012 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Eastleigh Borough Council_5	Increase the use and provision of cycleways	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2012 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Eastleigh Borough Council_6	Improve and maintain the network of footpaths	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2012 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Eastleigh Borough Council_7	Develop individual and work place travel plans	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2012 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A



Measure code	Description	Focus	Classification	Status	Other information
Eastleigh Borough Council_8	Increase the use of the local rail network	N/A	Traffic planning and management: Encouragement of shift of transport modes	Evaluation	Start date: 2012 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Eastleigh Borough Council_9	Road improvement to reduce congestion	N/A	Traffic planning and management: Other measure	Evaluation	Start date: 2012 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Eastleigh Borough Council_10	Work with County council to better integrate the AQMA with the LTP	N/A	Other measure: Other measure	Implementation	Start date: 2012 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Eastleigh Borough Council_11	Improve road signage	N/A	Traffic planning and management: Encouragement of shift of transport modes	Evaluation	Start date: 2012 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Eastleigh Borough Council_12	Work with local HDV businesses to move towards the latest fleet Euro standard	N/A	Other measure: Other measure	Planning	Start date: 2012 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Eastleigh Borough Council_13	Raising public awareness about air pollution	N/A	Public information and Education: Internet	Implementation	Start date: 2012 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Eastleigh Borough Council_14	Education/awareness of emission issues	N/A	Other measure: Other measure	Evaluation	Start date: 2012 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Eastleigh Borough Council_15	Work with public transport providers to maintain and improve local services	N/A	Traffic planning and management: Improvement of public transport	Evaluation	Start date: 2012 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Eastleigh Borough Council_16	Alternative HGV route/ban	N/A	Traffic planning and management: Other measure	Evaluation	Start date: 2012 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Eastleigh Borough Council_17	Speed reduction / monitor	N/A	Traffic planning and management: Reduction of speed limits and control	Evaluation	Start date: 2012 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Eastleigh Borough Council_18	HGV weight restriction	N/A	Traffic planning and management: Other measure	Evaluation	Start date: 2012 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Eastleigh Borough Council_19	Traffic calming measures	N/A	Traffic planning and management: Other measure	Evaluation	Start date: 2012 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Eastleigh Borough Council_20	Turn engines off; Bus station and Taxi ranks	N/A	Other measure: Other measure	Planning	Start date: 2015 Expected end date: 2020 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Eastleigh Borough Council_21	Bus day ticket	N/A	Traffic planning and management: Encouragement of shift of transport modes	Evaluation	Start date: 2015 Expected end date: 2020 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Eastleigh Borough Council_22	Park and Ride	N/A	Traffic planning and management: Improvement of public transport	Evaluation	Start date: 2015 Expected end date: 2020 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Eastleigh Borough Council_23	Electric hook up points	N/A	Public procurement: Other measure	Evaluation	Start date: 2015 Expected end date: 2020 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Test Valley Borough Council_1	Work place travel planning for TVBC staff	For TVBC staff	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Test Valley Borough Council_2	Fleet driver training	Fleet driver training	Traffic planning and management: Other measure	Implementation	Start date: 2012 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Test Valley Borough Council_3	Workplace travel planning for major employers within Test Valley	For major employers within Test Valley	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2005 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Test Valley Borough Council_4	Personalised travel planning (Andover)	For selected areas within Andover	Traffic planning and management: Encouragement of shift of transport modes	Evaluation	Start date: 2014 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Test Valley Borough Council_5	School travel plans	For all schools within Test Valley	Traffic planning and management: Encouragement of shift of transport modes	Other	Start date: 2005 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Test Valley Borough Council_6	Promote travel alternatives (inland waterways and rail)	For all businesses, residents and visitors within Test Valley	Traffic planning and management: Encouragement of shift of transport modes	Other	Start date: 2002 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Test Valley Borough Council_7	Promote travel alternatives (cycling)	For all businesses, residents and visitors within Test Valley	Traffic planning and management: Encouragement of shift of transport modes	Other	Start date: 2002 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Test Valley Borough Council_8	Promote travel alternatives (walking)	For all businesses, residents and visitors within Test Valley	Traffic planning and management: Encouragement of shift of transport modes	Other	Start date: 2002 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Test Valley Borough Council_9	Electric vehicle charging points	Electric vehicle charging points	Public procurement: Other measure	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Test Valley Borough Council_10	New Bus Station & Railway Station improvements	New Bus Station & Railway Station improvements	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2013 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Test Valley Borough Council_11	Real-time information of bus routes	Real-time information of bus routes	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2008 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Test Valley Borough Council_12	New bus services serving new housing developments	New bus services serving new housing developments	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2011 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Test Valley Borough Council_13	New cycle routes and cycle parking	New cycle routes and cycle parking	Traffic planning and management: Expansion of bicycle and pedestrian infrastructure	Implementation	Start date: 2002 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Test Valley Borough Council_14	Footway improvements	Footway improvements	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2001 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Test Valley Borough Council_15	Improved access to stations for pedestrians and cyclists	Improved access to stations for pedestrians and cyclists	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2009 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Test Valley Borough Council_16	Junction alterations to reduce congestion	Junction alterations to reduce congestion	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2001 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Test Valley Borough Council_17	Promoting and supporting sustainable modes of transport via the internet	Promoting and supporting sustainable modes of transport	Public information and Education: Internet	Implementation	Start date: 2005 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Test Valley Borough Council_18	Promoting and supporting sustainable modes of transport via leaflets	Promoting and supporting sustainable modes of transport	Public information and Education: Leaflets	Implementation	Start date: 2005 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Test Valley Borough Council_19	Promoting and supporting sustainable modes of transport via radio	Promoting and supporting sustainable modes of transport	Public information and Education: Radio	Implementation	Start date: 2009 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Test Valley Borough Council_20	Car and lift sharing schemes	Promoting and supporting sustainable modes of transport	Other measure: Other measure	Implementation	Start date: 2005 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_Southampton 1.1	School Travel Plan	N/A	Other measure: Other measure	Evaluation	Start date: 2008 Expected end date: 2015 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_1.2	Assist council staff in cycling to work in between meetings	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_1.3	Journey Planning Service	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2010 Expected end date: 2016 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_1.4	Corporate Courier Transport Service	N/A	Traffic planning and management: Freight transport measure	Implementation	Start date: 2013 Expected end date: 2015 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_1.5	Continuous Improvement Objectives for the Council's fleet	N/A	Public procurement: New vehicles, including low emission vehicles	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_1.6	Improve emissions from the Council's vehicle fleet	N/A	Public procurement: New vehicles, including low emission vehicles	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Southampton Council_1.7	Public awareness and information provision	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2012 Expected end date: 2017 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_Southampton Sustainability Travel City 2.1	City-wide travel marketing and communications	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_2.2	Business Travel Planning	N/A	Traffic planning and management: Freight transport measure	Implementation	Start date: 2013 Expected end date: 2017 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_2.3	Freight consolidation and efficiency	N/A	Traffic planning and management: Freight transport measure	Implementation	Start date: 2013 Expected end date: 2017 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_2.4	Public Transport Travel Planning	N/A	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2014 Expected end date: 2015 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_2.5	Smart ticketing and media	N/A	Other measure: Other measure	Implementation	Start date: 2013 Expected end date: 2016 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_2.6	Brompton Bike Hire scheme	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2012 Expected end date: 2014 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Southampton Council_2.7	Legible Bus Network	N/A	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2012 Expected end date: 2016 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_2.8	School Travel Planning	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2012 Expected end date: 2016 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_2.9	Active Travel programme	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2012 Expected end date: 2016 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_2.1	Traffic Control Predictions Development to improve air quality	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2013 Expected end date: 2016 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_2.11	Promotion of home deliveries campaign	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_2.12	Development and promotion of a bus times smartphone app	N/A	Public information and Education: Internet	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_2.13	Cycle Training	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2012 Expected end date: 2016 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A



Measure code	Description	Focus	Classification	Status	Other information
Southampton Council_2.14	City Car Club	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2012 Expected end date: 2016 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_2.15	Real time information provision	N/A	Public information and Education: Other mechanisms	Implementation	Start date: 2012 Expected end date: 2016 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_2.16	Access to work scheme	N/A	Traffic planning and management: Other measure	Implementation	Start date: 2013 Expected end date: 2016 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_2.17	Bus priority measures	N/A	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2012 Expected end date: 2016 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_2.18	Improving Journey Time Reliability	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2013 Expected end date: 2017 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_LPT3 4.1	Cycle Lane/Routes Provision.	N/A	Traffic planning and management: Expansion of bicycle and pedestrian infrastructure	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_4.2	Bus stop improvements	N/A	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2012 Expected end date: 2015 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Southampton Council_4.3	Platform road and Dock Gate 4 removal of gyratory	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2013 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_4.4	Parking measures	N/A	Traffic planning and management: Other measure	Planning	Start date: 2015 Expected end date: 2018 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_4.5	Civic Centre Place design and implementation	N/A	Traffic planning and management: Other measure	Planning	Start date: 2015 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_4.6	Oxford Street	N/A	Traffic planning and management: Other measure	Evaluation	Start date: 2013 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_4.7	Old Town public realm	N/A	Traffic planning and management: Reduction of speed limits and control	Evaluation	Start date: 2012 Expected end date: 2016 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_4.8	North of central station improvements	N/A	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2014 Expected end date: 2016 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_4.9	Legible cities	N/A	Public information and Education: Other mechanisms	Implementation	Start date: 2012 Expected end date: 2016 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Southampton Council_4.1	District Centres - Bitterne	N/A	Traffic planning and management: Other measure	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_Planning Policy 4.1	Local planning policies (citywide)	N/A	Other measure: Other measure	Implementation	Start date: 2014 Expected end date: 2017 Spatial scale: Whole town or city Source affected: Commercial and residential sources Indicator: N/A Target emissions reduction: N/A
Southampton Council_4.2	Targeted planning guidance to address air quality impacts of development	N/A	Other measure: Other measure	Planning	Start date: 2014 Expected end date: 2015 Spatial scale: Whole town or city Source affected: Other, please specify Indicator: N/A Target emissions reduction: N/A
Southampton Council_Other 5.1	Low Emission Zone (LEZ)	N/A	Other measure: Other measure	Preparation	Start date: 2015 Expected end date: 2016 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_5.2	Bus Quality Partnership	N/A	Public procurement: New vehicles, including low emission vehicles	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_5.3	Taxi Quality Partnership	N/A	Other measure: Other measure	Planning	Start date: 2015 Expected end date: 2016 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_5.4	Introduce fixed penalty for idling vehicles (including buses and taxis)	N/A	Traffic planning and management: Other measure	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Southampton Council_5.5	Changes to traffic light phasing	N/A	Traffic planning and management: Other measure	Preparation	Start date: 2015 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_5.6	Port Masterplan actions	N/A	Traffic planning and management: Other measure	Preparation	Start date: 2015 Expected end date: 2017 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_5.7	Integrate Air Quality Impact Assessment into all major transport projects	N/A	Other measure: Other measure	Preparation	Start date: 2015 Expected end date: 2017 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_5.8	Research the health impacts of air pollution	N/A	Other measure: Other measure	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_5.11	Use of adaptive traffic control systems	N/A	Traffic planning and management: Other measure	Preparation	Start date: 2015 Expected end date: 2018 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Southampton Council_5.12	Air Alert	N/A	Public information and Education: Internet	Evaluation	Start date: 2010 Expected end date: 2018 Spatial scale: Whole town or city Source affected: Other, please specify Indicator: N/A Target emissions reduction: N/A
Southampton Council_5.13	Keep the City Moving Group	N/A	Traffic planning and management: Other measure	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Southampton Council_5.14	Flywheel technology	N/A	Retrofitting: Retrofitting emission control equipment to vehicles	Implementation	Start date: 2015 Expected end date: 2018 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Winchester City Council_1	We will work with the County Council to provide an additional Park & Ride facility to the south of Winchester.	Reduce vehicles entering AQMA	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2005 Expected end date: 2011 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Winchester City Council_2	We will ensure that the buses on the Park & Ride service are increasingly environmentally friendly, making allowance for economic and technical considerations.	Improve unit emissions from Park and Ride buses	Other measure: Other measure	Implementation	Start date: 2006 Expected end date: 2016 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Winchester City Council_3	We will review the loading restrictions in the town centre and on the main approach roads to the city	Reduce congestion	Traffic planning and management: Other measure	Implementation	Start date: 2009 Expected end date: 2013 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Winchester City Council_4	We will work with the County Council to replace the Real-Time Information systems at bus stops in and around the city and implement Variable Message Signing (VMS) for the town centre car parks.	Improve uptake of public transport and reduce congestion	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2007 Expected end date: 2008 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Winchester City Council_5	We will support the County Council (a MIRACLES project) in the implementation and use of Variable Message Signing (VMS) on approach routes to the Town, informing travellers of journey conditions.	Reduce congestion & improve park and ride uptake	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2010 Expected end date: 2011 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Winchester City Council_6	We will work with the County Council to carry out an investigation of possible traffic management options and with the Highways Agency on possible measures on the Trunk Road network. The objective being to reduce town centre congestion and therefore improve air quality.	Reduce congestion	Traffic planning and management: Other measure	Preparation	Start date: 2006 Expected end date: 2006 Spatial scale: Whole town or city Source affected: Transport Indicator: Amount of unnecessary cross-town traffic Target emissions reduction: Road network and traffic management study commissioned within WTAP stage 2 traffic management study. No implementation to date due to costs.
Winchester City Council_7	We will develop our own Walking and Cycling strategy and we will continue to work with the County Council on the development and implementation of facilities for cyclists and pedestrians and to support the MIRACLES Bikeabout initiative. This will include working with both the County Council and the Primary Care Trust to promote walking and cycling as a healthy alternative to car based travel.	Promote Walkign/Cycling	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2005 Expected end date: 2015 Spatial scale: Whole town or city Source affected: Transport Indicator: County wide LTP3 indicator Target emissions reduction: N/A
Winchester City Council_8	We will apply for Central Government powers to allow us to take action against vehicles which exceed vehicle emission standards. Long term usage of these powers to be assessed following an initial MIRACLES trial project.	Emission Reductions	Other measure: Other measure	Other	Start date: 2006 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Winchester City Council_9	We will continue to support and encourage the use of an integrated Public Transport system with special emphasis on Quality Bus Partnerships to improve buses including a reduction in their emissions to the latest standards. We will bring forward measures to enhance public transport opportunities within the city.	Improve uptake of public transport	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2005 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: LTP indicators: BVPI102 Bus transport patronage, BVPI104 bus satisfaction and LTP5 Bus punctuality Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Winchester City Council_10	We will continue to manage parking in the city through the Controlled Parking Zones, appropriate charging levels, enforcement and parking availability.	N/A	Traffic planning and management: Differentiation of parking fees	Implementation	Start date: 2006 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Winchester City Council_11	We will keep our parking policies, availability and charges under review to maximise the use of existing and future Park & Ride facilities. We will continue to offer parking discounts to "cleaner" vehicles to encourage their use over other vehicles (a MIRACLES initiative).	N/A	Traffic planning and management: Differentiation of parking fees	Implementation	Start date: 2006 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Winchester City Council_12	We will use cleaner and alternative fuelled vehicles within our own fleet where such options are a viable alternative. We will support the promotion of cleaner vehicle technologies and cleaner fuels.	N/A	Public procurement: New vehicles, including low emission vehicles	Implementation	Start date: 2010 Expected end date: 2015 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Winchester City Council_13	We will take action to increase public awareness of the existence and impacts of poor air quality. We will work with the County Council to develop a strategy for the dissemination of Air Quality Information.	N/A	Public information and Education: Internet	Implementation	Start date: 2006 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Winchester City Council_14	We will ensure that all existing and forthcoming plans, policies and strategies affecting the City take due account of air quality issues and the AQMA. Special regard will be paid to air quality issues in the preparation of the next Local Transport Plan for Hampshire.	N/A	Other measure: Other measure	Implementation	Start date: 2006 Expected end date: 2013 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Winchester City Council_15	We will ensure that new developments and transport schemes take account of their effects on Air Quality and the Air Quality Management Area.	N/A	Other measure: Other measure	Implementation	Start date: 2006 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Winchester City Council_16	We will encourage businesses and other organisations to implement Travel Plans and promote more sustainable travel to their staff. This will include the requirement for Travel Plans through the planning process. Winchester City and Hampshire County Councils will continue to develop their own travel plans.	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2006 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Winchester City Council_17	We will continue to support the Hampshire CarShare scheme and the introduction of Car Clubs	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2006 Expected end date: 2014 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Winchester City Council_18	We will continue working with the County Council and local schools to increase the number of schools with travel plans	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2005 Expected end date: 2011 Spatial scale: Whole agglomeration Source affected: Transport Indicator: Walking to school rates gradually increasing (32%) Target emissions reduction: N/A
Winchester City Council_19	We will review the taxi licensing regime to assess whether to include additional conditions aimed at reducing vehicle emissions	N/A	Permit systems and economic instruments: Introduction/increase of environment taxes	Implementation	Start date: 2011 Expected end date: 2012 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Winchester City Council_20	We will support the County Council in its aim to achieve traffic reduction by encouraging sustainable travel and reducing the need to travel by car.	N/A	Other measure: Other measure	Implementation	Start date: 2010 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Winchester City Council_21	We will monitor the performance of the action plan and reassess the necessity & feasibility of introducing additional measures if these are shown to be necessary to meet the air quality objectives	N/A	Other measure: Other measure	Preparation	Start date: 2014 Expected end date: 2016 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A