



Air Quality Plan for tackling roadside nitrogen dioxide concentrations in Southampton Urban Area (UK0019)

July 2017









Llywodraeth Cymru Welsh Government



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Contents

1	Intro	oduction	3
	1.1	This document	3
	1.2	Context	3
	1.3	Zone status	3
	1.4	Plan structure	4
2	Gen	neral Information About the Zone	4
	2.1	Administrative information	4
	2.2	Assessment details	6
	2.3	Air quality reporting	8
3	Ove	erall Picture for 2015 Reference Year	8
	3.1		8
	3.2	Reference year: NO ₂ _UK0019_Annual_1	8
4	Меа	asures	13
	4.1		13
	4.2	Source apportionment	13
	4.3	Measures	13
	4.4	Measures timescales	14
5	Bas	eline Model Projections	15
	5.1	Overview of model projections	15
	5.2	Baseline projections: NO ₂ _UK0019_Annual_1	15
A	nexe	es	20
	A		20
		References	20 21

1 Introduction

1.1 This document

This document is the Southampton Urban Area agglomeration zone (UK0019) updated air quality plan for tackling roadside nitrogen dioxide (NO₂) concentrations. This is an update to the air quality plan published in December 2015 (https://www.gov.uk/government/collections/air-quality-plan-for-nitrogen-dioxide-no2-in-uk-2015).

This plan presents the following information:

- · General information regarding the Southampton Urban Area agglomeration zone
- Details of NO₂ 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 Air Quality Plan for tackling roadside nitrogen dioxide concentrations (hereafter referred to as the overview document) which sets out, amongst other things, the authorities responsible for delivering air quality improvements and the list of UK and national measures that are applied in some or all UK zones. The measures presented in this zone plan, and the accompanying UK overview document show how the UK will ensure that compliance with the NO_2 limit values is achieved in the shortest possible time.

This plan should also be read in conjunction with the supporting UK Technical Report which presents information on assessment methods, input data and emissions inventories used in the analysis presented in this plan.

1.2 Context

Two NO_2 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 $\mu {
 m gm}^{-3}$
- The hourly limit value: no more than 18 exceedances of 200 μ gm⁻³ in a calendar year

The Air Quality Directive stipulates that compliance with the NO₂ 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 2015 but is likely to be achieved by 2024 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 2022.

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_2 levels in this agglomeration zone for the 2015 reference year of this air quality plan. This includes a 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 2015 is given in Section 4.

Baseline modelled projections for each year from 2017 to 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 implement. 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: 2015 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.)

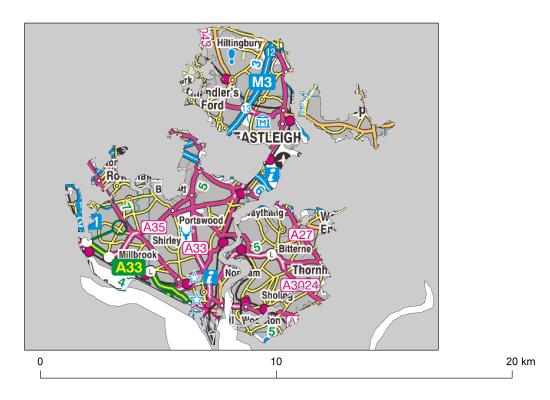
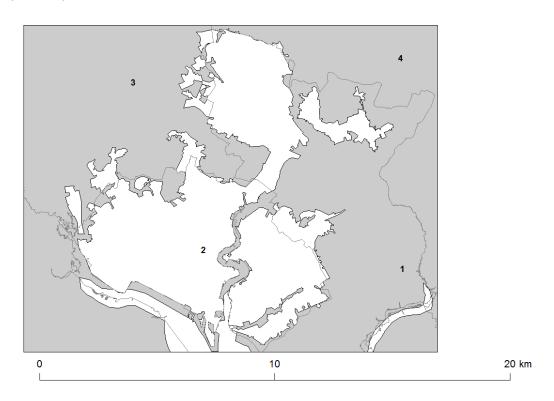


Figure 1: Map showing the extent of the Southampton Urban Area agglomeration zone (UK0019).

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



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2.2 Assessment details

Measurements

 NO_2 measurements in this zone were available in 2015 from the following national network monitoring stations (NO_2 data capture¹ for each station in 2015 shown in brackets):

1. Southampton Centre GB0598A (93%)

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=aurn.

Modelling

Modelling for the 2015 reference year has been carried out for the whole of the UK. This modelling covers the following extent within this zone:

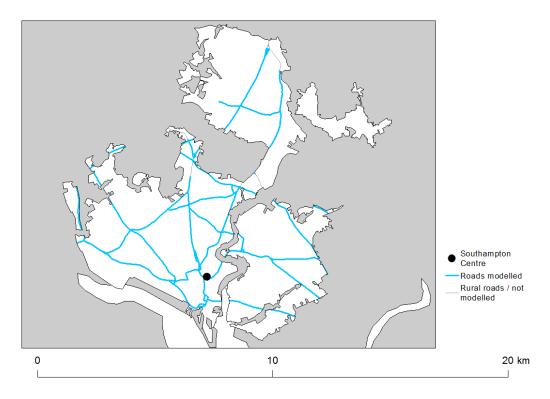
- Total background area within zone (approx): 79 km²
- Total population within zone (approx): 298,793 people

Zone maps

Figure 3 presents the location of the NO_2 monitoring stations within this zone for 2015 and the roads for which NO_2 concentrations have been modelled. NO_2 concentrations at background locations have been modelled across the entire zone at a 1 km x 1 km resolution.

¹Annual data capture is the proportion of hours in a year for which there are valid measurements at a monitoring station, expressed in this document as a percentage. The Implementing Provisions on Reporting (IPR) guidance requires that a minimum data capture of 85% is required for compliance reporting (that is 90% valid data, plus a 5% allowance for data loss due to planned maintenance and calibration). Monitoring stations with at least 75% data capture have been included in the modelling analysis to ensure that a greater number of operational monitoring sites have been used for model calibration and verification purposes. For more information on compliance reporting under European Directives see Section 2.3.

Figure 3: Map showing the location of the NO_2 monitoring stations with valid data in 2015 and roads where concentrations have been modelled within the Southampton Urban Area (UK0019) agglomeration zone.



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2.3 Air quality reporting

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/annualair. Since 2013 reporting has been via an e-reporting system (Decision 2011/850/EU) 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/annualair. Since 2013 reporting has been via an e-reporting system (Decision 2011/850/EU)

In addition, the UK has reported on air quality plans and programmes (Decision 2004/224/EC) since 2003. The most recent previous UK air quality plan for nitrogen dioxide was published in 2015. The plan and supporting documents are available at https://www.gov.uk/government/collections/air-quality-plan-for-nitrogen-dioxide-no2-in-uk-2015 and the submission of this plan via e-reporting is published at http://cdr.eionet.europa. eu/gb/eu/aqd/h/envvryhbq/. Historic plans and programmes are available on http://cdr.eionet.europa.eu/gb/eu/aqpp.

3 Overall Picture for 2015 Reference Year

3.1 Introduction

There are two limit values for the protection of health for NO₂. These are:

- The annual limit value (annual mean concentration of no more than 40 μ gm⁻³)
- The hourly limit value (no more than 18 hourly exceedances of 200 μ gm⁻³ in a calendar year)

Within the Southampton Urban Area agglomeration zone the annual limit value was exceeded in 2015. Hence, one exceedance situation for this zone has been defined, NO₂_UK0019_Annual_1, which covers exceedances of the annual limit value. This exceedance situation is described below.

3.2 Reference year: NO₂_UK0019_Annual_1

The NO₂_UK0019_Annual_1 exceedance situation covers all exceedances of the annual mean limit value in the Southampton Urban Area agglomeration zone in 2015.

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 2015. Table 2 summarises modelled annual mean NO₂ concentrations in this exceedance situation for the same time period. This table shows that, in 2015, 14.4 km of road length was modelled to exceed the annual limit value. There were no modelled background exceedances of the annual limit value. 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. Maps showing the modelled annual mean NO₂ concentrations for 2015 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 modelling carried out for this exceedance situation has also been used to determine the annual mean NO_X source apportionment for all modelled locations. Emissions to air are regulated in terms of oxides of nitrogen

 (NO_X) , which is the term used to describe the sum of nitrogen dioxide (NO_2) and nitric oxide (NO). Ambient NO_2 concentrations include contributions from both directly emitted primary NO_2 and secondary NO_2 formed in the atmosphere by the oxidation of NO. As such, it is not possible to calculate an unambiguous source apportionment specifically for NO_2 concentrations; therefore the source apportionment in this plan is presented for NO_X , rather than for NO_2 (for further details please see the UK Technical Report). Table 3 summarises the modelled NO_X source apportionment for the section of road with the highest NO_2 concentration in this exceedance situation in 2015. 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.

Figure B.1 in Annex B presents the annual mean NO_X source apportionment for each section of road within the $NO_2_UK0019_Annual_1$ exceedance situation (i.e. the source apportionment for all exceeding roads only) in 2015.

Table 1: Measured annual mean NO₂ concentrations at national network stations in NO2_UK0019_Annual_1 for 2001 onwards, μ 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	2014	2015
Southampton Centre	38	33	36	33	31	28	34	36	35	36	35	32	31	32	32
(GB0598A)	(97)	(90)	(95)	(95)	(87)	(90)	(78)	(94)	(96)	(79)	(97)	(99)	(98)	(96)	(93)

(a) Annual Mean Limit Value = 40 μ gm⁻³

Table 2: Annual mean NO₂ model results in NO₂_UK0019_Annual_1 for 2001 onwards.

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
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	12.5	14.4
Background exceeding (km ²)	0	0	0	0	0	0	1	1	2	12	5	1	0	1	0
Maximum modelled concentration (μ 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	63	63

(a) Annual Mean Limit Value = 40 μ gm⁻³

Table 3: Modelled annual mean NO_X source apportionment at the location with the highest NO₂ concentration in 2015 in NO2_UK0019_Annual_1 (μ gm⁻³) traffic count point 73615 on the A35; OS grid (m): 437182, 113720).

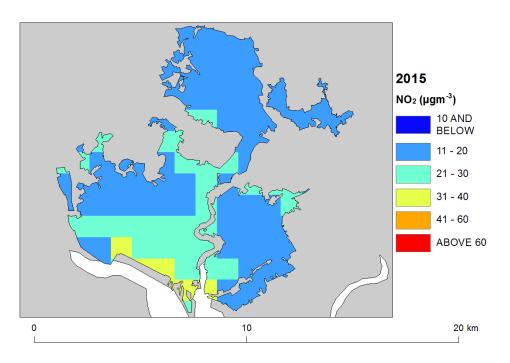
Spatial scale	Component	Concentration at highest road link (a)
Designal background courses NOv (i.e. contributions from	Total	5.4
Regional background sources NOx (i.e. contributions from	From within the UK	2.4
distant sources of > 30 km from the receptor).	From transboundary sources (includes shipping and other EU	3.0
	member states)	
	Total	39.9
	From road traffic sources	15.4
	From industry (including heat and power generation)	1.3
	From agriculture	NA
Urban background sources NOx (i.e. sources	From commercial/residential sources	1."
located within 0.3 - 30 km from the receptor).	From shipping	2.
	From off road mobile machinery	18.
	From natural sources	N
	From transboundary sources	N
	From other urban background sources	0.
	Total	123.
	From petrol cars	10.
	From diesel cars	43.9
	From HGV rigid (b)	17.5
Local sources NOx (i.e. contributions from sources	From HGV articulated (b)	19.3
< 0.3 km from the receptor).	From buses	7.
	From petrol LGVs (c)	0.
	From diesel LGVs (c)	24.
	From motorcycles	0.3
	From London taxis	0.0
Total NOx (i.e. regional background + urban background + lc	cal components)	168.4
Total NO ₂ (i.e. regional background + urban background + lo	cal components)	63

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

(b) HGV = heavy goods vehicle

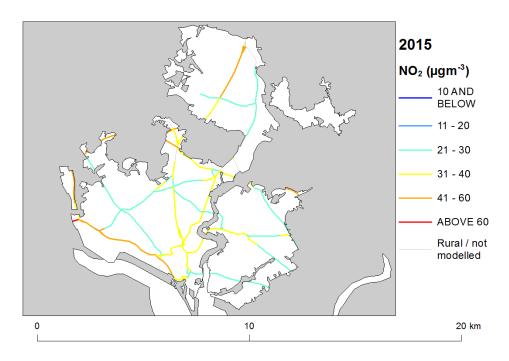
(c) LGV = light goods vehicle

Figure 4: Map of modelled background annual mean NO_2 concentrations 2015. Modelled exceedances of the annual limit value are shown in orange and red.



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Figure 5: Map of modelled roadside annual mean NO_2 concentrations 2015. Modelled exceedances of the annual limit value are shown in orange and red.



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4 Measures

4.1 Introduction

This section gives details of measures that address exceedances of the NO_2 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_2 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 diesel cars at the location of maximum exceedance with a contribution of 43.9 μ gm⁻³ of NO_X out of a total of 168.4 μ gm⁻³ of NO_X. Diesel cars, diesel LGVs and on some roads articulated HGVs were important sources on the motorway roads with the highest concentrations in this exceedance situation. Diesel cars, diesel LGVs and on some roads articulated normal cars, diesel LGVs and on some roads rigid, articulated HGVs and shipping emissions were important sources on the primary roads with the highest concentrations.

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

4.3 Measures

Measures potentially affecting NO_2 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). 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.

Southampton is one of five cities identified in the 2015 national Air Quality Plan as requiring a Clean Air Zone. Southampton City Council, with Government support, is carrying out a detailed feasibility study and localized modelling with the aim of implementing a Clean Air Zone by 2019.

The public health department is working closely with the environmental health and sustainable transport departments to develop a Clean Air Strategy. This includes proposals on transport and local planning to reduce air pollution. The Strategy also includes the development of a Clean Air Partnership to encourage and support businesses and public sector organisations in action.

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.

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. Local authorities were asked to review and, where necessary, provide updates to measures in March/April 2017. Hence, any Local Authority action plans and measures adopted by Local Authorities after this time have not been included in this air quality plan, unless additional information was provided during the consultation process.

The reference year for this air quality plan is 2015. Where measures started and finished before 2015, 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. Measures with a start date before 2015 and an end date after 2015 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 each year from 2017 to 2030, starting from the 2015 reference year described in Section 3, have been calculated in order to determine when compliance with the NO₂ 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 2015 (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: NO₂_UK0019_Annual_1

Table 4 presents summary results for the baseline model projections for each year from 2017 to 2030 for the NO₂_UK0019_Annual_1 exceedance situation. This shows that the maximum modelled annual mean NO₂ concentration predicted for 2020 in this exceedance situation is 49 μ gm⁻³. By 2024, the maximum modelled annual mean NO₂ concentration is predicted to drop to 40 μ gm⁻³. Hence, the model results suggest that compliance with the NO₂ annual limit value is likely to be achieved by 2024 under baseline conditions.

Figure 6 and 7 presents maps of projected annual mean NO_2 concentrations at background and roadside locations respectively in 2024, the year at which compliance is achieved. For reference Figures 8 and 9 show maps of projected annual mean NO_2 concentrations in 2020, 2025 and 2030 for background and roadside locations respectively.

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.

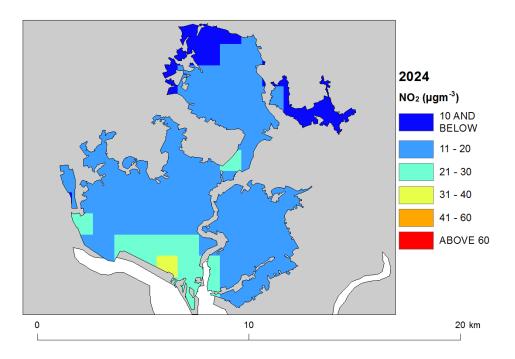
Table 4: Annual mean NO₂ model results in NO₂_UK0019_Annual_1.

	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Road length exceeding (km)	14.4	10.0	8.5	5.9	5.9	5.9	3.7	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Background exceeding (km ²)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum modelled concentration NO ₂ (μ gm ⁻³) (a)	63	58	55	52	49	46	44	41	40	38	37	36	35	34	33
Corresponding modelled concentration NOx (μ gm ⁻³) (b)	168	150	140	131	122	113	106	100	94	89	89	86	83	81	79

(a) Annual Mean Limit Value = 40 μ gm⁻³

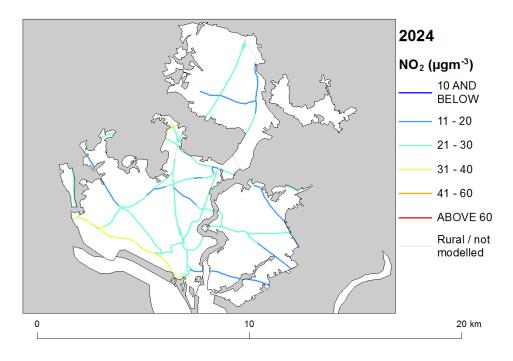
(b) NO_X is recorded here for comparison with the NO_X source apportionment graphs for 2015 presented in Annex B of this plan. Limit values for EU directive purposes are based on NO₂.

Figure 6: Background baseline projections of annual mean NO_2 concentrations in 2024, the year at which compliance is achieved under baseline conditions. Modelled exceedances of the annual limit value are shown in orange and red.



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Figure 7: Roadside baseline projections of annual mean NO_2 concentrations in 2024, the year at which compliance is achieved under baseline conditions. Modelled exceedances of the annual limit value are shown in orange and red.



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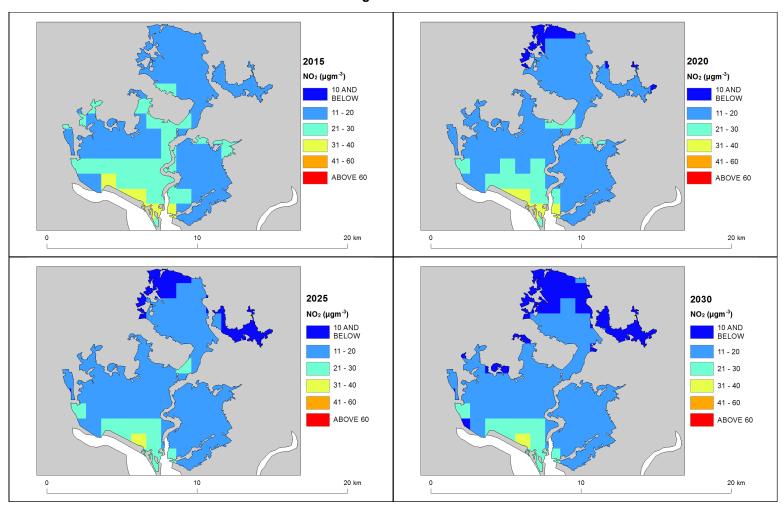


Figure 8: Background baseline projections of annual mean NO₂ concentrations in 2020, 2025 and 2030. 2015 is also included here for reference. Modelled exceedances of the annual limit value are shown in orange and red.

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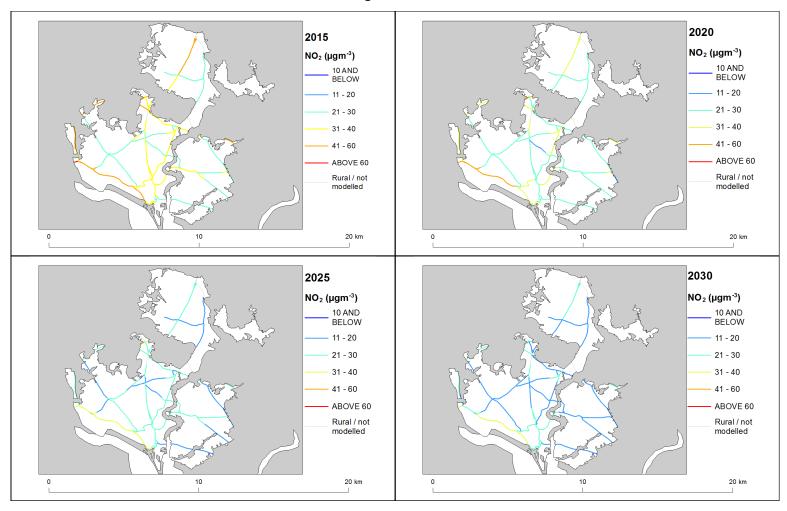


Figure 9: Roadside baseline projections of annual mean NO_2 concentrations in 2020, 2025 and 2030. 2015 is also included here for reference. Modelled exceedances of the annual limit value are shown in orange and red.

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19

Annexes

A References

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.

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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

IPR 2013. Guidance on the Commission Implementing Decision 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 (Decision 2011/850/EU). http://ec.europa.eu/environment/air/quality/ legislation/pdf/IPR_guidance1.pdf

UK Air Quality Plan for tackling roadside nitrogen dioxide concentrations and the UK technical report are available at: http://www.gov.uk/defra.

B Source apportionment graphs

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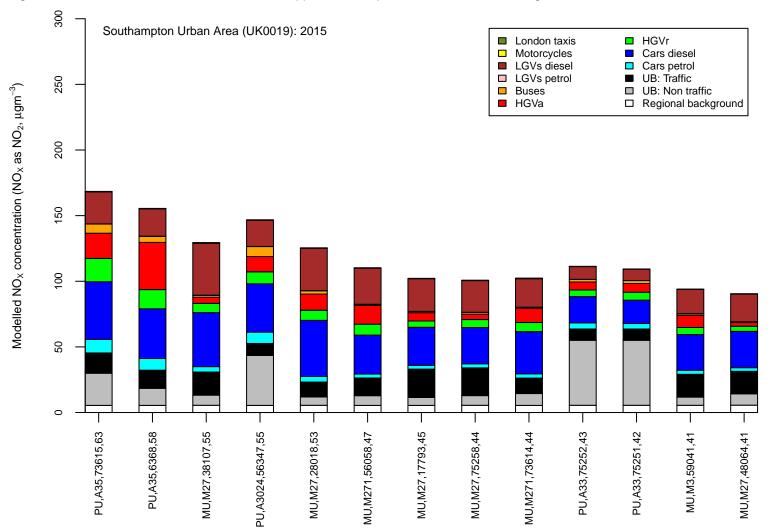


Figure B.1: Annual mean roadside NO_X source apportionment plots for all roads exceeding the annual mean NO₂ limit value in 2015.

Road class (MU = motorway, PU = primary road, TU = trunk road), road number, census id 15 and modelled NO₂ concentration (μ gm⁻³)

C Tables of measures

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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
Eastleigh Borough Council_3	Support the Hampshire County car share program	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Target emissions reduction: N// Start date: 2012 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N//
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//
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

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

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
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

Measure code	Description	Focus	Classification	Status	Other information
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
Eastleigh Borough Council_17	Speed reduction / monitor	N/A	Traffic planning and management: Reduction of speed limits and control	Evaluation	Target emissions reduction: N/A 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
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

Measure code	Description	Focus	Classification	Status	Other information
Southampton Council_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
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_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

Measure code	Description	Focus	Classification	Status	Other information
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
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

Measure code	Description	Focus	Classification	Status	Other information
Southampton Council_2.10	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
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

Measure code	Description	Focus	Classification	Status	Other information
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_3.1	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_3.2	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
Southampton Council_3.3	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_3.4	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_3.5	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_3.6	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_3.7	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

30

Measure code	Description	Focus	Classification	Status	Other information
Southampton Council_3.8	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_3.9	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
Southampton Council_3.10	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_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_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

Measure code	Description	Focus	Classification	Status	Other information
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
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_5.9	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_5.10	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

Measure code	Description	Focus	Classification	Status	Other information
Southampton Council_5.11	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
Southampton Council_5.12	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
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
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

Measure code	Description	Focus	Classification	Status	Other information
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
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

Measure code	Description	Focus	Classification	Status	Other information
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
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
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

Measure code	Description	Focus	Classification	Status	Other information
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
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: N/A
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 Walking/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

Measure code	Description	Focus	Classification	Status	Other information
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
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

Measure code	Description	Focus	Classification	Status	Other information
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
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 though 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