



# Air Quality Plan for tackling roadside nitrogen dioxide concentrations in Portsmouth Urban Area (UK0012)

**July 2017** 









Llywodraeth Cymru Welsh Government



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# **1** Introduction

## 1.1 This document

This document is the Portsmouth Urban Area agglomeration zone (UK0012) updated air quality plan for tackling roadside nitrogen dioxide ( $NO_2$ ) 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 Portsmouth Urban Area agglomeration zone
- Details of NO2 exceedance situation within the Portsmouth 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 Portsmouth 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  $\mu$ gm<sup>-3</sup>
- The hourly limit value: no more than 18 exceedances of 200  $\mu$ gm<sup>-3</sup> 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 Portsmouth Urban Area agglomeration zone indicates that the annual limit value was exceeded in 2015 but is likely to be achieved by 2022 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 2021.

## 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**

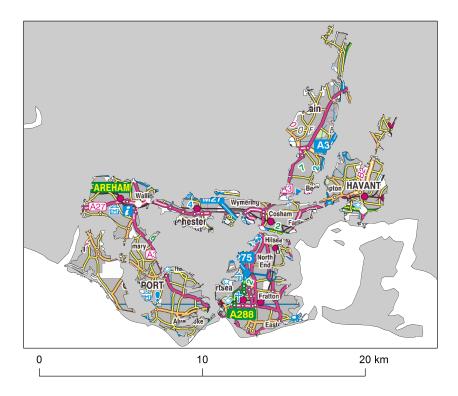
#### 2.1 Administrative information

Zone name: Portsmouth Urban Area Zone code: UK0012 Type of zone: agglomeration zone Reference year: 2015 Extent of zone: Figure 1 shows the area covered by the Portsmouth 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. East Hampshire District Council
- 2. Fareham Borough Council
- 3. Gosport Borough Council
- 4. Havant Borough Council
- 5. Portsmouth City Council
- 6. Winchester City Council

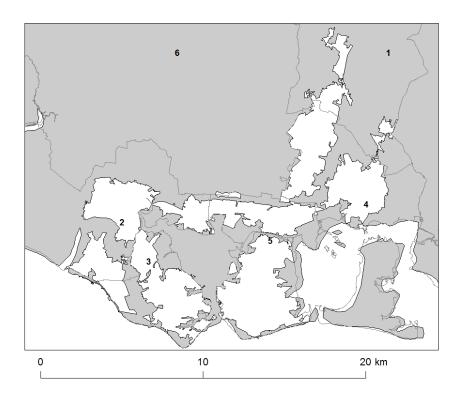
(Note: Local Authority boundaries do not necessarily coincide with zone boundaries. Hence Local Authorities may be listed within more than one zone plan.)

Figure 1: Map showing the extent of the Portsmouth Urban Area agglomeration zone (UK0012).



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Figure 2: Map showing Local Authorities within the Portsmouth Urban Area agglomeration zone (UK0012).



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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 capture<sup>1</sup> for each station in 2015 shown in brackets):

1. Portsmouth GB0733A (93%)

Full details of monitoring stations within the Portsmouth 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:

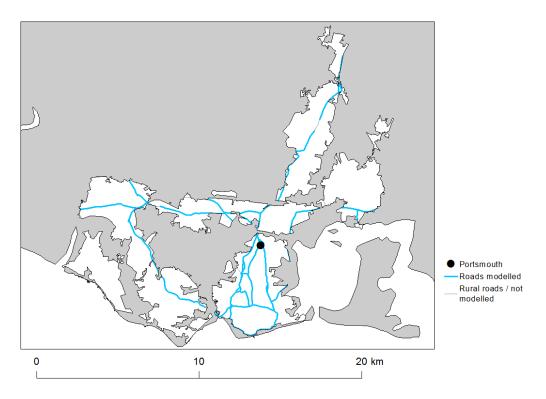
- Total background area within zone (approx): 96 km<sup>2</sup>
- Total population within zone (approx): 399,206 people

#### 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.

<sup>&</sup>lt;sup>1</sup>Annual 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 Portsmouth Urban Area (UK0012) 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 <a href="http://cdr.eionet.europa.eu/gb/eu/annualair">http://cdr.eionet.europa.eu/gb/eu/annualair</a>. Since 2013 reporting has been via an e-reporting system (Decision 2011/850/EU) <a href="http://cdr.eionet.europa.eu/gb/eu/annualair">http://cdr.eionet.europa.eu/gb/eu/annualair</a>. Since 2013 reporting has been via an e-reporting system (Decision 2011/850/EU) <a href="http://cdr.eionet.europa.eu/gb/eu/annualair">http://cdr.eionet.europa.eu/gb/eu/annualair</a>. Since 2013 reporting has been via an e-reporting system (Decision 2011/850/EU) <a href="http://cdr.eionet.europa.eu/gb/eu/annualair">http://cdr.eionet.europa.eu/gb/eu/annualair</a>. 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 NO<sub>2</sub>. These are:

- The annual limit value (annual mean concentration of no more than 40  $\mu$ gm<sup>-3</sup>)
- The hourly limit value (no more than 18 hourly exceedances of 200  $\mu$ gm<sup>-3</sup> in a calendar year)

Within the Portsmouth Urban Area agglomeration zone the annual limit value was exceeded in 2015. Hence, one exceedance situation for this zone has been defined, NO<sub>2</sub>\_UK0012\_Annual\_1, which covers exceedances of the annual limit value. This exceedance situation is described below.

#### 3.2 Reference year: NO<sub>2</sub>\_UK0012\_Annual\_1

The NO<sub>2</sub>\_UK0012\_Annual\_1 exceedance situation covers all exceedances of the annual mean limit value in the Portsmouth 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 NO<sub>2</sub> concentrations in this exceedance situation for the same time period. This table shows that, in 2015, 8.9 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 NO<sub>2</sub> 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  $NO_2\_UK0012\_Annual\_1$  exceedance situation (i.e. the source apportionment for all exceeding roads only) in 2015.

Table 1: Measured annual mean NO<sub>2</sub> concentrations at national network stations in NO2\_UK0012\_Annual\_1 for 2001 onwards,  $\mu$ gm<sup>-3</sup> (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
Portsmouth	27	26	26	24	23	22	23	23	22	22	19	21	20	20	19
(GB0733A)	(97)	(98)	(95)	(98)	(98)	(99)	(99)	(97)	(98)	(98)	(95)	(97)	(84)	(74)	(93)

(a) Annual Mean Limit Value = 40  $\mu$ gm<sup>-3</sup>

Table 2: Annual mean NO<sub>2</sub> model results in NO<sub>2</sub>\_UK0012\_Annual\_1 for 2001 onwards.

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Road length exceeding (km)	27.9	9.9	45.1	14.5	28.2	24.4	23.6	13.6	16.8	25.0	20.4	14.6	10.0	7.9	8.9
Background exceeding (km²)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum modelled concentration ( $\mu$ gm <sup>-3</sup> ) (a)	57.3	49.7	80.7	63.1	66.2	67.1	62.0	63.5	65.9	69.5	64	63	53	52	54

(a) Annual Mean Limit Value = 40  $\mu$ gm<sup>-3</sup>

Table 3: Modelled annual mean NO<sub>X</sub> source apportionment at the location with the highest NO<sub>2</sub> concentration in 2015 in NO2\_UK0012\_Annual\_1 ( $\mu$ gm<sup>-3</sup>) traffic count point 99631 on the A27; OS grid (m): 470900, 106000).

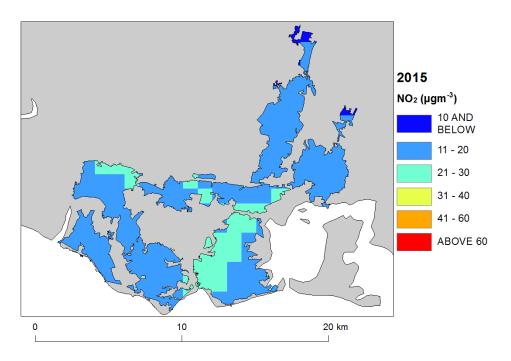
Spatial scale	Component	Concentration at highest road link (a)
Designal background courses NOv (i.e. contributions from	Total	6.0
Regional background sources NOx (i.e. contributions from	From within the UK	2.7
distant sources of > 30 km from the receptor).	From transboundary sources (includes shipping and other EU	3.4
	member states)	
	Total	21.2
	From road traffic sources	12.0
	From industry (including heat and power generation)	3.4
	From agriculture	NA
Urban background sources NOx (i.e. sources	From commercial/residential sources	1.1
ocated within 0.3 - 30 km from the receptor).	From shipping	1.5
	From off road mobile machinery	3.1
	From natural sources	N
	From transboundary sources	NA
	From other urban background sources	0.
	Total	106.
	From petrol cars	10.0
	From diesel cars	40.2
	From HGV rigid (b)	13.0
Local sources NOx (i.e. contributions from sources	From HGV articulated (b)	8.
< 0.3 km from the receptor).	From buses	4.1
	From petrol LGVs (c)	0.2
	From diesel LGVs (c)	29.
	From motorcycles	0.3
	From London taxis	0.0
Total NOx (i.e. regional background + urban background + lc	cal components)	133.3
Total NO <sub>2</sub> (i.e. regional background + urban background + lo	cal components)	54

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

(b) HGV = heavy goods vehicle

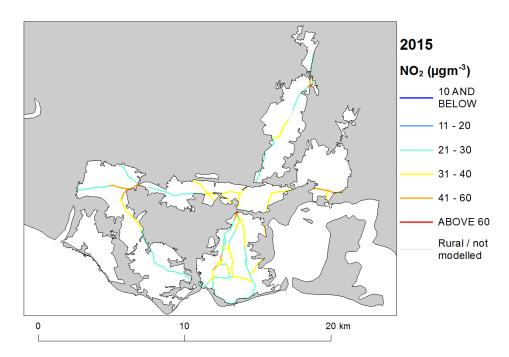
(c) LGV = light goods vehicle

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 Portsmouth 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 40.2  $\mu$ gm<sup>-3</sup> of NO<sub>X</sub> out of a total of 133.3  $\mu$ gm<sup>-3</sup> of NO<sub>X</sub>. Diesel cars and diesel LGVs were important sources on the motorway roads with the highest concentrations in this exceedance situation. Diesel cars, diesel LGVs and on some roads rigid HGVs or buses were important sources on the primary roads with the highest concentrations. Diesel cars and diesel LGVs were important sources.

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.

The measures set out cover a range of activity including many to reduce dependence on private cars through promoting modal shift towards public transport modes, walking and cycling and reducing single occupancy car journeys.

Discounts can be offered to encourage car sharing, low-emission vehicles, mopeds and motorcycles. Park and ride sites offering lower cost parking than in urban centres can help reduce congestion and address poor air quality within the centres. Car club and shared taxis has also been a measure that has featured in the Local Transport Plan (LTP).

It is important to note that many improvements in air quality will be accomplished through the success of the LTP. Many Local Authorities work together as Transport for South Hampshire. This helps to promote a modal shift away from using private cars to walking, cycling and use of both park and ride and park and sail (during the summer) schemes. A busway is used by 17 low emission buses.

This is supported by upgrading bus fleets and the encouragement of school travel planning to promote alternative methods of transport is underway.

The latest LTP programme has been in operation for four years and has delivered a number of schemes that have had a positive impact in improving air quality.

A strategic area-wide approach to improve air quality and the environment is being implemented to minimise the cumulative effect of road transport emissions. This is facilitated through measures promoting modal shift which includes reducing single occupancy car journeys; tackling congestion hotspots; and the introduction of speed reduction measures on a number of roads.

The promotion of active travel has been facilitated by the enhancing the provision of the cycle network at various locations in the city. This includes introducing shared pavements, improvements at road junctions to slow motorists and thereby afford some protection to cyclists, the funding of cycle parking for schools and local businesses, and improvements to pedestrian crossing facilities. Continued investment in real time information at bus stops throughout the city has helped to better convey to users when the next bus is due. This improves the experience of the users and encourages them to continue utilising public transport.

Enhancements to traffic signalling at various junctions throughout the city have led to improved capacity and reduced delays. Works have been carried out to introduce SCOOT and MOVA control as well as localised linking to pedestrian crossings.

Outside of the LTP program, Portsmouth City Council were also granted DfT funding to build a new motorway junction and Park and Ride service providing a dedicated bus lane on the western corridor into the city centre. This lane has also benefitted a number of scheduled bus services further promoting alternatives to use of the private car. The new service has proven to be popular especially with the leisure market with plans being drawn up for further expansion in the future.

Hampshire County Council secured funding in February 2017 to build the Stubbington By-pass which will connect the A32 near Gosport to the A27 to the west of Fareham. Subject to final approval it is expected to be complete by spring 2021 and will alleviate the congestion on the A32 / A27 interchange at Fareham. It is therefore likely to improve air quality on the current exceedances on the A27 at Fareham.

#### 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  $NO_2$  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: NO<sub>2</sub>\_UK0012\_Annual\_1

Table 4 presents summary results for the baseline model projections for each year from 2017 to 2030 for the NO<sub>2</sub>\_UK0012\_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 44  $\mu$ gm<sup>-3</sup>. By 2022, the maximum modelled annual mean NO<sub>2</sub> concentration is predicted to drop to 39  $\mu$ gm<sup>-3</sup>. Hence, the model results suggest that compliance with the NO<sub>2</sub> annual limit value is likely to be achieved by 2022 under baseline conditions.

Figure 6 and 7 presents maps of projected annual mean  $NO_2$  concentrations at background and roadside locations respectively in 2022, 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.

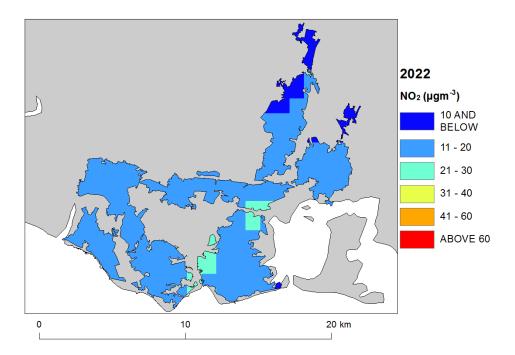
Table 4: Annual mean NO<sub>2</sub> model results in NO<sub>2</sub>\_UK0012\_Annual\_1.

	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Road length exceeding (km)	8.9	8.6	7.8	6.8	4.4	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Background exceeding (km <sup>2</sup> )	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum modelled concentration NO <sub>2</sub> (µgm <sup>-3</sup> ) (a)	54	51	49	47	44	42	39	37	35	34	32	31	29	28	27
Corresponding modelled concentration NOx ( $\mu$ gm <sup>-3</sup> ) (b)	133	123	116	110	103	95	89	83	78	73	69	65	62	59	58

(a) Annual Mean Limit Value = 40  $\mu$ gm<sup>-3</sup>

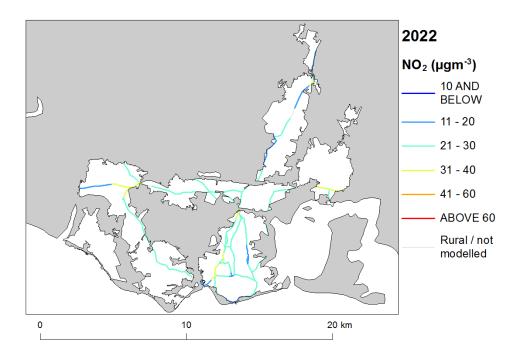
(b) NO<sub>X</sub> is recorded here for comparison with the NO<sub>X</sub> source apportionment graphs for 2015 presented in Annex B of this plan. Limit values for EU directive purposes are based on NO<sub>2</sub>.

Figure 6: Background baseline projections of annual mean  $NO_2$  concentrations in 2022, 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 2022, 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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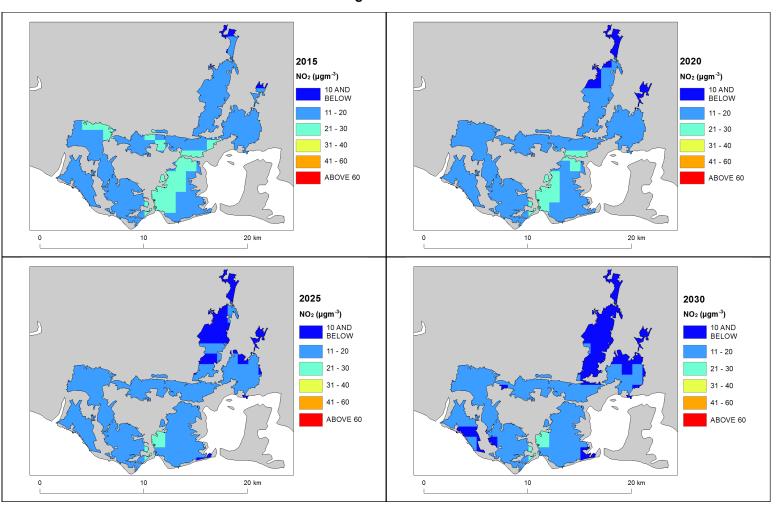


Figure 8: Background baseline projections of annual mean NO<sub>2</sub> concentrations in 2020, 2025 and 2030. 2015 is also included here for reference. Modelled exceedances of the annual limit value are shown in orange and red.

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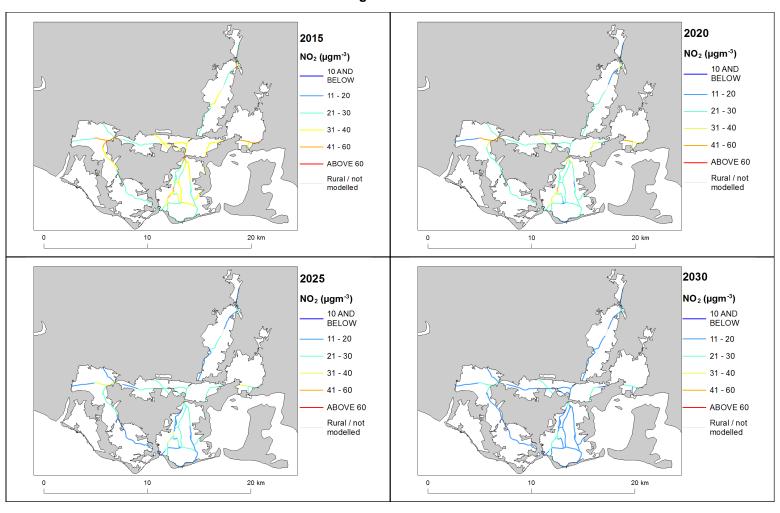


Figure 9: Roadside baseline projections of annual mean  $NO_2$  concentrations in 2020, 2025 and 2030. 2015 is also included here for reference. Modelled exceedances of the annual limit value are shown in orange and red.

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## 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 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

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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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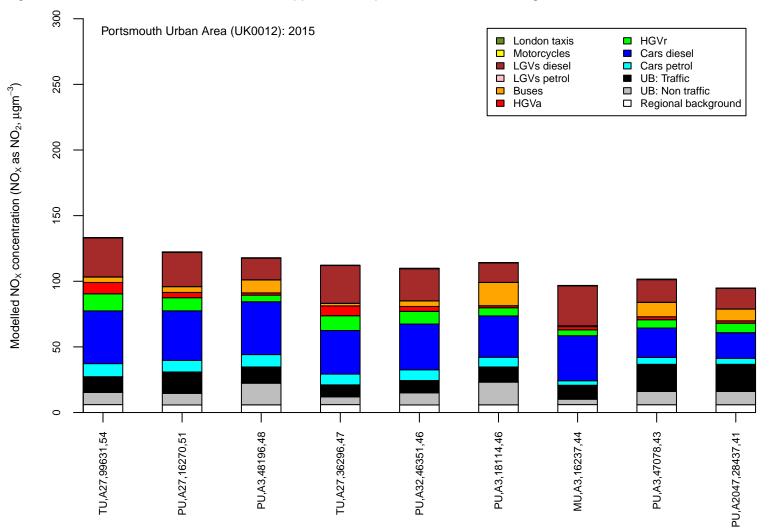


Figure B.1: Annual mean roadside NO<sub>x</sub> source apportionment plots for all roads exceeding the annual mean NO<sub>2</sub> limit value in 2015.

Road class (MU = motorway, PU = primary road, TU = trunk road), road number, census id 15 and modelled NO<sub>2</sub> concentration ( $\mu gm^{-3}$ )

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## C Tables of measures

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#### Table C.1 Relevant Local Authority measures within Portsmouth Urban Area (UK0012)

Measure code	Description	Focus	Classification	Status	Other information
Fareham Borough Council_1	To improve the emission standards of the Fareham Borough Council (FBC) fleet vehicles by the use of cleaner and alternative fuelled vehicles	To replace two refuse vehicles each year with new Euro compliant vehicles	Traffic planning and management: Freight transport measure	Implementation	Start date: 2008 Expected end date: 2020 Spatial scale: Whole town or city Source affected: Transport Indicator: Two new Euro V or VI refuse vehicles to be purchased in 2015/6 Target emissions reduction: Unknown
Fareham Borough Council_2	To seek a reduction in emissions from the local bus fleet	To increase the % of Euro III/IV/V buses from a baseline in 2008/9 of 17% to 33% in 2012/13	Public procurement: Cleaner vehicle transport services	Implementation	Start date: 2008 Expected end date: 2013 Spatial scale: Whole town or city Source affected: Transport Indicator: The number of Euro III, I' & V vehicles in the local fleet. Target emissions reduction: Unknown
Fareham Borough Council_2a	To seek a reduction in emissions from the local bus fleet	To increase the % of Euro III/IV/V buses from a baseline in 2013 of 33% to 40% by 2015	Public procurement: Cleaner vehicle transport services	Implementation	Start date: 2013 Expected end date: 2014 Spatial scale: Whole town or city Source affected: Transport Indicator: The number of Euro III, I' & V vehicles in the local fleet. Target emissions reduction: Unknown
Fareham Borough Council_3	To review the regulation of private hire and hackney carriage emissions and where appropriate, integrate improvements into the taxi licensing regime	To raise awareness of air quality amongst professional drivers in the Borough	Permit systems and economic instruments: Introduction/increase of environment taxes	Implementation	Start date: 2008 Expected end date: 2011 Spatial scale: Local Source affected: Transport Indicator: Provision of "Switch off your engine" signage in taxi ranks and articles in taxi newsletter Target emissions reduction: Unknown
Fareham Borough Council_4	To continue to implement the FBC Sustainable Travel Plan (STP)	To deliver those measures identified in the Council's STP Action Plan	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2008 Expected end date: 2020 Spatial scale: Local Source affected: Transport Indicator: Annual progress against the key measures and timeframes set out in the STP (AQAP, 2008). Target emissions reduction: Unknown

Measure code	Description	Focus	Classification	Status	Other information
Fareham Borough Council_5	To pursue voluntary or VOSA vehicle emission testing in or near the AQMAs	To undertake an air quality promotional type activity in conjunction with the police, EA and/or VOSA	Public information and Education: Other mechanisms	Preparation	Start date: 2009 Expected end date: 2010 Spatial scale: Local Source affected: Transport Indicator: To confirm date of event Target emissions reduction: None
Fareham Borough Council_6	To seek to reduce emissions from badly maintained vehicles by continuing to promote the smoky diesel hotline	To maintain the link to the Smoky Diesel hotline on the FBC website	Public information and Education: Other mechanisms	Implementation	Start date: 2008 Expected end date: 2009 Spatial scale: Local Source affected: Transport Indicator: To check website link on an annual basis Target emissions reduction: Limited
Fareham Borough Council_7	Signing of waiting areas/bus station/bus stops/taxi ranks etc. instructing drivers to turn off engines when stationary	To raise awareness of air quality amongst professional drivers in the Borough	Other measure: Other measure	Implementation	Start date: 2008 Expected end date: 2009 Spatial scale: Local Source affected: Transport Indicator: Provision of "Switch off your engine" signage bus station and articles in taxi newsletter Target emissions reduction: Limited
Fareham Borough Council_8	To examine the feasibility of erecting signs to identify the AQMAs	To raise awareness of air quality and inform/educate drivers on A32 Gosport Road that they are entering an AQMA.	Traffic planning and management: Encouragement of shift of transport modes	Preparation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole town or city Source affected: Transport Indicator: Report on both the identified locations and progress in erecting signage along the A32 Gosport Road. Target emissions reduction: Unknown
Fareham Borough Council_9	To work in partnership with the Gosport Transport and Sustainability Partnership to identify and assist in the delivery of schemes to reduce road congestion on the A32.	Completion of the key schemes set out in the Gosport Transport and Sustainability Partnership.	Traffic planning and management: Improvement of public transport	Other	Start date: 2008 Expected end date: 2012 Spatial scale: Whole agglomeration Source affected: Transport Indicator: Annual progress against the key measures and timeframes set out in the GTSP Target emissions reduction: Unknown
Fareham Borough Council_10	To assist the Highway Authority in promoting and implementing those schemes identified within the Highway Authority's "Strategic Access to Gosport (2010-2026)" (STAG) transport study for the Gosport peninsula.	Completion of key schemes set out in the STAG Implementation Plan. Air quality and AQMA impacts to be assessed qualitatively where possible.	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2008 Expected end date: 2026 Spatial scale: Whole agglomeration Source affected: Transport Indicator: Annual progress towards the programmed 19 schemes listed in the study. Target emissions reduction: Unknown

Measure code	Description	Focus	Classification	Status	Other information
Fareham Borough Council_12	To undertake appropriate improvements to the Quay Street roundabout in conjunction with the nearby retail development and negotiate with the developer a financial contribution for future air quality monitoring in the area	Completion of key schemes set out in the STAG Implementation Plan.	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2011 Expected end date: 2012 Spatial scale: Local Source affected: Transport Indicator: Completed April 2012 Target emissions reduction: Unknown
Fareham Borough Council_13	To develop the climbing lanes between junctions 11 and 12 of the M27	Completion of M27 climbing lanes	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2008 Expected end date: 2008 Spatial scale: Whole agglomeration Source affected: Transport Indicator: Completed 2008 Target emissions reduction: Limited in AQMAs
Fareham Borough Council_14	Develop a Quality Bus Partnership for the A32 including a reduction in emissions from local buses	To increase journeys by passenger transport by 2% by 2010/11 above a 2003/4 baseline in Hampshire (HCC LTP2 Target)	Public procurement: Other measure	Implementation	Start date: 2008 Expected end date: 2010 Spatial scale: Whole agglomeration Source affected: Transport Indicator: Local authorities and local bus companies will sign a legally binding Voluntary Partnership Agreement for the BRT corridor detailing targets for the age & quality of buses, emissions, journey times and ITS by 2011/12 Target emissions reduction: Unknown
Fareham Borough Council_15	Provide a bus/rail interchange facility at Fareham rail station	HCC to develop a transport interchange at Fareham rail station.	Other measure: Other measure	Planning	Start date: 2014 Expected end date: 2020 Spatial scale: Whole town or city Source affected: Transport Indicator: Provision of a transport interchange at Fareham rail station Target emissions reduction: Unknown
Fareham Borough Council_16	To provide a suitable alternative to the light rapid transit system linking Fareham, Gosport and Portsmouth	Build and open the BRT system (HCC to develop the BRT phase 1 route between Gosport and Fareham by 2011/12)	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2011 Expected end date: 2012 Spatial scale: Local Source affected: Transport Indicator: Annual progress against the key measures and timeframes set out for the BRT phases. Target emissions reduction: Unknown

Measure code	Description	Focus	Classification	Status	Other information
Fareham Borough Council_17	To monitor the progress of providing real time information (RTI) at bus stops in Fareham and Gosport	To have 100% RTI (Real Time Information) when the BRT opens. All 14 sites along Phase 1 of the BRT to be fitted with RTI.	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2011 Expected end date: 2012 Spatial scale: Local Source affected: Transport Indicator: Annual reporting of progress in line with meeting the target. Target emissions reduction: Unknown
Fareham Borough Council_17a	To monitor the progress of providing real time information (RTI) at bus stops in Fareham	To upgrade 11 bus stops off the Eclipse busway along the routes of the E1 & E2 buses with Eclipse style shelters, CCTV and RTPI (bus, train and ferry)	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2014 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: Reporting of progress at AQAP meetings in line with meeting the target. Target emissions reduction: Unknown
Fareham Borough Council_18	To provide bus priority measures as part of the Vision for West Street	HCC to develop a transport interchange at Fareham rail station.	Other measure: Other measure	Planning	Start date: 2014 Expected end date: 2020 Spatial scale: Whole town or city Source affected: Transport Indicator: Provision of a transport interchange at Fareham rail station Target emissions reduction: Unknown
Fareham Borough Council_19	To work with local bus operators to provide improved services for people working in Whiteley via the now complete Yew Tree Drive bus link	To increase journeys by passenger transport by 2% by 2010/11 above a 2003/4 baseline in Hampshire (HCC LTP2 Target)	Other measure: Other measure	Planning	Start date: 2013 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: Completed 2011 Target emissions reduction: Completed 2011
Fareham Borough Council_19a	Increase numbers of people using local bus services	Increase annual bus patronage on BRT services operating between Gosport bus station and Fareham bus station by 10% after one year and an aggregate 15% after two years	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2011 Expected end date: 2014 Spatial scale: Whole town or city Source affected: Transport Indicator: Annual number of passenger trips using BRT services Target emissions reduction: Unknown
Fareham Borough Council_20	To continue to subsidise bus travel beyond the statutory minimum to further encourage bus usage	Completed 2009	Other measure: Other measure	Implementation	Start date: 2008 Expected end date: 2009 Spatial scale: Whole town or city Source affected: Transport Indicator: Completed 2009 Target emissions reduction: Unknown

Measure code	Description	Focus	Classification	Status	Other information
Fareham Borough Council_21	To review progress in respect of the FBC Cycle Strategy 2005-11 and the LTP2 and implement those measures likely to have an impact on air quality in the AQMAs	The Cycling Action Plan 2005-11, being in its final year of implementation, is to be reviewed. New targets and indicators will be developed as part of the review. Additionally, the Town Access Plan (TAC) is also being developed through the LDF. Relevant cycling measures from the TAP will also be detailed in future AQAP Reports.	Traffic planning and management: Encouragement of shift of transport modes	Preparation	Start date: 2008 Expected end date: 2016 Spatial scale: Local Source affected: Transport Indicator: The Cycling Action Plan 2005-11, being in its final year of implementation, is to be reviewed. New targets and indicators will be developed as part of the review. Additionally, the Town Access Plan (TAC) is also being developed through the LDF. Relevant cycling measures from the TAP will also be detailed in future AQAP Reports. Target emissions reduction: Limited
Fareham Borough Council_22	To continue to promote public transport and alternative travel arrangements such as the Gosport Ferry and local bus services on the FBC website	To increase journeys by passenger transport by 2% by 2010/11 above a 2003/4 baseline in Hampshire (HCC LTP2 Target)	Public information and Education: Internet	Implementation	Start date: 2008 Expected end date: 2009 Spatial scale: Whole agglomeration Source affected: Transport Indicator: To ensure the details of the Gosport ferry are maintained on the FBC website Target emissions reduction: Limited
Fareham Borough Council_23	Promote the development and implementation of work travel plans amongst companies that use the roads in and around the AQMAs particularly through the use and enforcement of planning conditions	15%of people working in Hampshire to be covered by a travel plan by 2011	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2008 Expected end date: 2013 Spatial scale: Whole agglomeration Source affected: Transport Indicator: To set a similar target for FBC and ensure that the work travel plan agreed for the Quay St retail development is implemented Target emissions reduction: Unknown
Fareham Borough Council_24	To continue to work with schools in Fareham close to the AQMAs for the development, implementation and the annual review of School Travel Plans	100% of students in full time education to be covered by a travel plan by 2008/9 from a 35.5% base in 2003/4	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2008 Expected end date: 2013 Spatial scale: Local Source affected: Transport Indicator: For schools in and around the AQMAs in Fareham to maintain their school travel plan at the current level or improve it to at least a level 3 Target emissions reduction: Unknown

Measure code	Description	Focus	Classification	Status	Other information
Fareham Borough Council_25	To implement the Town Access Plan proposals where they have an impact on air quality in the AQMAs	The Town Access Plan (TAP) is also being developed through the LDF. Relevant cycling measures from the TAP will also be detailed in future Air Quality Action Plan Progress Reports.	Traffic planning and management: Improvement of public transport	Preparation	Start date: 2011 Expected end date: 2016 Spatial scale: Local Source affected: Transport Indicator: The Town Access Plan (TAP) is also being developed through the LDF. Relevant cycling measures from the TAP will also be detailed in future Air Quality Action Plan Progress Reports. Target emissions reduction: Unknown
Fareham Borough Council_27	To use Environmental Permit inspections to encourage the provision of alternative fuels at petrol stations forecourts	Work towards maximising local uptake of alternative fuels, having leafleted all petrol stations	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2008 Expected end date: 2011 Spatial scale: Whole agglomeration Source affected: Transport Indicator: Number for alternative fuelling pumps and evidence of continued Council encouragement Target emissions reduction: Limited
Fareham Borough Council_28	Promote the use of planning policies, alongside other planning and transport measures, to promote sustainable transport choices and reduce reliance on the car	Implementation of the relevant policies set out in the LDF to influence local and regional air quality.	Other measure: Other measure	Planning	Start date: 2008 Expected end date: 2020 Spatial scale: Whole town or city Source affected: Transport Indicator: Examples of where FBC requires higher provision of cycle facilities or lower car parking facilities than the HCC standards for new developments. Target emissions reduction: Unknown
Fareham Borough Council_29	To ensure that the new LDF incorporates planning policy that will not adversely impact on air quality but furthermore enhances air quality where possible.	Member of pollution team to attend LDF meetings	Other measure: Other measure	Implementation	Start date: 2008 Expected end date: 2012 Spatial scale: Whole town or city Source affected: Transport Indicator: Examples of LDF provisions related to air quality Target emissions reduction: Unknown
Fareham Borough Council_30	Regulatory Services will continue to work with the Development Control section to ensure that air quality is taken into account in the planning development process	Structured communication between Regulatory Services and Development Control on plans potentially affecting air quality	Other measure: Other measure	Implementation	Start date: 2008 Expected end date: 2020 Spatial scale: Whole town or city Source affected: Transport Indicator: Weekly bulletins, listing planning applications issued to Regulatory Services. Target emissions reduction: Unknown

Measure code	Description	Focus	Classification	Status	Other information
Fareham Borough Council_31	To review the existing FBC parking strategy and implement any measures that may result in reduced congestion in the AQMAs	Development of resident parking schemes possibly affecting the AQMAs	Traffic planning and management: Other measure	Implementation	Start date: 2008 Expected end date: 2013 Spatial scale: Whole town or city Source affected: Transport Indicator: Number and location of such schemes Target emissions reduction: Unknown
Fareham Borough Council_33	To enhance the nitrogen dioxide monitoring network by providing continuous nitrogen dioxide monitors in the AQMAs	To provide appropriately located continuous air quality monitors	Other measure: Other measure	Implementation	Start date: 2008 Expected end date: 2012 Spatial scale: Local Source affected: Transport Indicator: To provide appropriately located continuous air quality monitors Target emissions reduction: Continuous nitrogen dioxide monitors installed in both AQMAs
Fareham Borough Council_34	To continue to work in partnership with neighbouring authorities and others for the control of air pollution and continued improvement of air quality e.g. to attend HIOW air quality group	The HIOW air quality officers' group to meet annually as a sub group of the HIOW Environmental Control Advisory Committee (ECAC)	Other measure: Other measure	Implementation	Start date: 2008 Expected end date: 2020 Spatial scale: Whole agglomeration Source affected: Transport Indicator: Minutes of meetings Target emissions reduction: Unknown
Fareham Borough Council_35	To monitor the performance of the AQAP and review actions having regard to the air quality objectives and implement additional actions where necessary	STATUTORY DUTY - AQAP steering group chaired by Executive member meets every 4 months to assess progress of actions	Other measure: Other measure	Implementation	Start date: 2014 Expected end date: 2014 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Fareham Borough Council_36	To continue to educate and enforce in respect of domestic, agricultural and industrial smoke nuisances and dark/black smoke	To respond to complaints of smoke and odour	Public information and Education: Internet	Implementation	Start date: 2008 Expected end date: 2009 Spatial scale: Local Source affected: Commercial and residential sources Indicator: A)Customer service centre to continue to respond automatically to complaints in the first instance where complaint letters are appropriate and(b)Pollution officers to react to more urgent complaints 24 hours a day 365 days a year Target emissions reduction: Limited

Measure code	Description	Focus	Classification	Status	Other information
Fareham Borough Council_37	To monitor as a Council data in respect of NI 194 and implement actions to achieve target set	Whilst NIs 185 and 194 are no longer to be formally reported, the Council is still to report NI 185.	Public procurement: Low emission fuels for stationary and mobile sources	Implementation	Start date: 2008 Expected end date: 2020 Spatial scale: Local Source affected: Other, please specify Indicator: To reduce the Council's target by 20% by 2020 from a 2012 baseline.
Fareham Borough Council_39	To investigate the most effective method of disseminating air quality information to the public and assess the feasibility of employing this method for FBC	To raise awareness of local and national air quality matters	Public information and Education: Internet	Implementation	Target emissions reduction: Limited Start date: 2008 Expected end date: 2020 Spatial scale: Whole town or city Source affected: Transport Indicator: Annual review of information dissemination options in line with UK best practice and discussions with neighbouring authorities. Target emissions reduction: Limited
Fareham Borough Council_40	To promote awareness via the FBC website of other air quality information web sites	To provide an up to date, useful and informative public resource for air quality and to raise awareness of local and national air quality matters.	Public information and Education: Internet	Implementation	Start date: 2008 Expected end date: 2020 Spatial scale: Whole town or city Source affected: Transport Indicator: Annual review of the Council website content in line with accepted UK best practice. Target emissions reduction: Limited
Fareham Borough Council_41	Support locally, national campaigns to raise awareness of air quality, alternative transport choices etc.	To support where appropriate, a national air quality campaign at least once a year via the FBC website	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2008 Expected end date: 2020 Spatial scale: Local Source affected: Transport Indicator: Evidence of this action Target emissions reduction: Unknown
Fareham Borough Council_43	To produce a leaflet on the AQAP and distribute to libraries, GP surgeries etc.	To produce a leaflet on the AQAP and distribute to libraries, GP surgeries etc.	Public information and Education: Leaflets	Implementation	Start date: 2010 Expected end date: 2011 Spatial scale: Whole town or city Source affected: Transport Indicator: To produce a leaflet on the AQAP and distribute to libraries, GP surgeries etc. Target emissions reduction: Unknown

Measure code	Description	Focus	Classification	Status	Other information
Fareham Borough Council_45	To continue to promote energy awareness and efficiency in the Borough	To develop a new Home Energy Efficiency Strategy during 2011 which will contain specific targets	Other measure: Other measure	Implementation	Start date: 2008 Expected end date: 2011 Spatial scale: Whole town or city Source affected: Commercial and residential sources Indicator: New targets and indicators to be developed as part of the new Home Energy Efficiency Strategy 2011 Target emissions reduction: Limited
Fareham Borough Council_46	To reduce car dependency and facilitate transport choice by encouraging alternatives to the car alongside changes in working arrangements through the Smarter Choices regime of the LTP3.	Target to be developed once success of LSTF bid is known. LSTF is now the primary resource mechanism for travel planning projects. Examples such as LTP3 policy objectives such as 7,10,11 &12.	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2008 Expected end date: 2013 Spatial scale: Whole town or city Source affected: Transport Indicator: Target to be developed once success of LSTF bid is known. LSTF is now the primary resource mechanism for travel planning projects. Examples such as LTP3 policy objectives such as 7,10,11 &12. Target emissions reduction: Unknown
Havant Borough Council_1	Local Transport Plan (LTP3, 2011-2031) produced by Transport for South Hampshire (TfSH) [partnership]	Transport Planning; extend use of existing network though Advanced Traffic Management (ATM), hard shoulder running, and local enhancements	Traffic planning and management: Other measure	Planning	Start date: 2011 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: None Target emissions reduction: N/A
Havant Borough Council_2	Car Sharing	Reduction in single occupancy PCU vehicle trips	Other measure: Other measure	Implementation	Start date: 2009 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: None Target emissions reduction: N/A
Havant Borough Council_3	MATISSE smarter working project	Home working, traffic management (reduction in vehicle trips for grocery shopping)	Other measure: Other measure	Implementation	Start date: 2006 Expected end date: 2016 Spatial scale: Whole agglomeration Source affected: Transport Indicator: None Target emissions reduction: N/A
Havant Borough Council_4	Havant Borough Active Travel Strategy	Encourage zero emissions transport & developing infrastructure - Walking Strategy	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2011 Expected end date: 2016 Spatial scale: Whole agglomeration Source affected: Transport Indicator: None Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Havant Borough Council_5	Havant Borough Active Travel Strategy	Encourage zero emissions transport & developing infrastructure (Cycle Network & Cycle Lanes)- Cycling Strategy	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2001 Expected end date: 2016 Spatial scale: Local Source affected: Transport Indicator: None Target emissions reduction: N/A
Havant Borough Council_6	Havant Borough Active Travel Strategy	Use of green infrastructure levy & s106 funding to improve local Cycle Network Infrastructure (and it's contribution to the NCN)	Traffic planning and management: Expansion of bicycle and pedestrian infrastructure	Implementation	Start date: 2001 Expected end date: 2016 Spatial scale: Local Source affected: Transport Indicator: None Target emissions reduction: N/A
Havant Borough Council_7	Integrated Public Transport Travel Planning (Information)	Provision of information to encourage use of public transport (via Havant BC web site)	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2006 Expected end date: 2016 Spatial scale: Whole agglomeration Source affected: Transport Indicator: None Target emissions reduction: N/A
Havant Borough Council_8	Integrated Public Transport Travel Planning (Information)	Provision of information to encourage use of public transport (via Xesphos Website, part HBC/HCC funded)	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2004 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Transport Indicator: None Target emissions reduction: N/A
Havant Borough Council_9	Workplace Travel Planning	SSE Ltd. National Call Centre, and Integrated Public Service Site Transport Planning (Employees)	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2010 Expected end date: 2012 Spatial scale: Whole agglomeration Source affected: Transport Indicator: None Target emissions reduction: N/A
Havant Borough Council_10	Safer Routes to School	School travel Planning - reduction in peak PCU vehicle trips	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2004 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: None Target emissions reduction: N/A
Havant Borough Council_11	Station Travel Planning	Managing station car parking, linking buses, cycling parking (Southern Franchise)	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2004 Expected end date: 2016 Spatial scale: Whole agglomeration Source affected: Transport Indicator: None Target emissions reduction: N/A
Havant Borough Council_12	Development Management	Transportation Assessment and seeking developer contributions for traffic impact mitigation (Policy)	Other measure: Other measure	Implementation	Start date: 2011 Expected end date: 2016 Spatial scale: Local Source affected: Transport Indicator: None Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Havant Borough Council_13	Forward Planning	Encouraging development in sustainable (Accessible) locations, parking allocations policy that responds to accessibility by public transport	Other measure: Other measure	Implementation	Start date: 2011 Expected end date: 2016 Spatial scale: Local Source affected: Transport Indicator: None Target emissions reduction: N/A
Havant Borough Council_14	Supporting Local Shopping	Parking Policy (implemented through planning process) to discourage private (e.g. supermarket) parking policies that discourage linked trips	Other measure: Other measure	Implementation	Start date: 2010 Expected end date: 2016 Spatial scale: Local Source affected: Transport Indicator: None Target emissions reduction: N/A
Havant Borough Council_15	Parking Service Policy	Manage Parking Provision, and Reduce demand for private vehicle parking	Other measure: Other measure	Implementation	Start date: 2010 Expected end date: 2016 Spatial scale: Local Source affected: Transport Indicator: None Target emissions reduction: N/A
Portsmouth City Council_1	VOSA emission testing	CITY WIDE. Undertake 4 emissions tests per year and publish the results on the portair website	Other measure: Other measure	Other	Start date: 2009 Expected end date: 2010 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_2	AQ information	CITY WIDE. Provision of information regarding AQ, including real time monitoring data and information regarding assessments of AQ to enable public awareness of issues and success of actions implemented	Public information and Education: Internet	Evaluation	Start date: 2014 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_3	Promote cycling	CITY WIDE. Work continues - reduction of speed - Cycling strategy being implemented as part of LTP programme. Schemes continue to promote the advantages of cycling as well as ensuring routes and secure storage provisions are enhanced. Raise public awareness of issues relating to AQ.	Traffic planning and management: Encouragement of shift of transport modes	Evaluation	Start date: 2010 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_4	Promote walking	CITY WIDE. Work continues - audit of walking routes commenced - development of 'walking map' linking places of interest. Work continues to improve safety in regional shopping areas with traffic engineers to identify and improve pedestrian crossing facilities. Raise public awareness of issues relating to AQ.	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2010 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
Portsmouth City Council_5	Mile End Cycling Scheme	AQMA 11	Traffic planning and management: Encouragement of shift of transport modes	Other	Start date: 2014 Expected end date: 2013 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_6	Alfred Road Cycling Scheme	OFF AQMA 7 . Advanced cycle stoplines on Bishop Crispian Way and Queen Street at junction of Anglesea Road. New and amended cycle navigation signage linking Marketway to Queen Street (via underpass) to promote route.	Traffic planning and management: Encouragement of shift of transport modes	Evaluation	Start date: 2012 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_7	Safer routes to School/School Crossing Patrol - Minor Improvements	CITY WIDE. New projects added in 2014. Completion expected by January 15	Traffic planning and management: Other measure	Other	Start date: 2014 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_8	Cycle Parking	Installation of cycle parking provision at key destinations across the city.	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2012 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
ortsmouth City Council_9	Hilsea cycle route <85>(Links to Safer Routes to Schools)	WEST of off AQMA3	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2012 Expected end date: 2013 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_10	Community Cycle Hub	Introduction of a cycle hub providing maintenance, training and retail of cycle goods. Cycle hire provision also available.	Traffic planning and management: Expansion of bicycle and pedestrian infrastructure	Implementation	Start date: 2011 Expected end date: 2023 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_11	Brompton Cycle Hire	Provision of bike hire at the park and ride site.	Traffic planning and management: Expansion of bicycle and pedestrian infrastructure	Implementation	Start date: 2013 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_12	Milton Road Shared Cycle Route	Between AQMA 3 and 9	Traffic planning and management: Expansion of bicycle and pedestrian infrastructure	Evaluation	Start date: 2013 Expected end date: 2016 Spatial scale: Local Source affected: Transport Indicator: N/A

Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Portsmouth City Council_13	Paulsgrove Cycle Link to Western active travel corridor	Paulsgrove	Traffic planning and management: Expansion of bicycle and pedestrian infrastructure	Evaluation	Start date: 2012 Expected end date: 2013 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_14	Southwick Hill Road -Cycle Link Improvements, Cosham Area -	Improvements to cycle access to Queen Alexandra Hospital	Traffic planning and management: Expansion of bicycle and pedestrian infrastructure	Evaluation	Start date: 2012 Expected end date: 2013 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_15	Adult Cycle Training	CITY WIDE	Traffic planning and management: Encouragement of shift of transport modes	Other	Start date: 2012 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_16	Eastern Road / Anchorage Road Pedestrian and Cycling Crossing Facilities	Leading to AQMA9. Traffic signal refurbishment and upgrade including MOVA control. New TOUCAN crossing facilities also provides over southern arm (Eastern Rd) and west arm (Anchorage Road).	Traffic planning and management: Expansion of bicycle and pedestrian infrastructure	Implementation	Start date: 2015 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_17	Domestic heating emissions	CITY WIDE. Control of replacement gas fired boilers through building control and private sector housing teams - careful consideration of CHP.	Other measure: Other measure	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: National Source affected: Commercial and residential sources Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_18	Energy saving measures	CITY WIDE. Promotion of energy saving measures leading to reductions in combustion emissions across the city. To be conducted through PSAG. Continued implementation of Portsmouth climate change strategy to reduce energy use for both organisations and housing across the city.	Other measure: Other measure	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: National Source affected: Commercial and residential sources Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_19	Raised Kerbs at Bus Stops	CITY WIDE	Traffic planning and management: Improvement of public transport	Evaluation	Start date: 2012 Expected end date: 2012 Spatial scale: Local Source affected: Transport Indicator: N/A

Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Portsmouth City Council_20	P&S Station Improvements	Improvements to P&S station including secure cycle storage, automatic door to the station front.	Traffic planning and management: Improvement of public transport	Other	Start date: 2011 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_21	Regeneration of North End shopping area	Northern section of AQMA6. Combination of above and complex proposals designed to facilitate regeneration, improved road safety and to improve AQ.	Traffic planning and management: Encouragement of shift of transport modes	Evaluation	Start date: 2009 Expected end date: 2011 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_22	Safer Routes to School Minor Remedial Works	Citywide	Traffic planning and management: Other measure	Evaluation	Start date: 2014 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_23	Pedestrian Crossing Southsea Infant School	N/A	Traffic planning and management: Other measure	Other	Start date: 2014 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_24	Variable message signs	CITY WIDE. Several already in place - further to be rolled at car parks and providing route guidance.	Public information and Education: Other mechanisms	Other	Start date: 2009 Expected end date: 2011 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_25	Signs and Line 2014/15	Small city wide improvements to existing road signage and markings	Traffic planning and management: Other measure	Implementation	Start date: 2014 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_26	Rights of Way/Wayfinding and Signage rationalization 2012/13	CITY WIDE	Traffic planning and management: Other measure	Evaluation	Start date: 2012 Expected end date: 2013 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_27	PJP & On Street Travel Advisors	CITY WIDE	Public information and Education: Other mechanisms	Other	Start date: 2014 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A

Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Portsmouth City Council_28	Variable parking charges / CPZ	CITY WIDE.	Traffic planning and management: Differentiation of parking fees	Other	Start date: 2009 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_29	Bus transport & patronage	CITY WIDE. Increase bus vehicle miles and bus patronage Deliver increased punctuality;	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2009 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_30	Bus transport & patronage	CITY WIDE. Upgrade fleet and improve emission technologies;	Traffic planning and management: Improvement of public transport	Other	Start date: 2009 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_31	Bus transport & patronage	CITY WIDE. Deliver improvements in ticketing, implement public information systems and increase use of website;	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2011 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_32	Bus transport & patronage	CITY WIDE. Continue to work towards improvements to zip/BRT routes - particularly through AQMA 6.	Traffic planning and management: Improvement of public transport	Evaluation	Start date: 2011 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_33	Legible Bus Schemes	Provision of improved and consistent information and branding for bus users.	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2012 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_34	Smart Ticketing	CITY WIDE	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2012 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_35	Smart ticketing	Tipner/City Centre/ Hard	Traffic planning and management: Improvement of public transport	Evaluation	Start date: 2014 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Portsmouth City Council_36	Smart Ticketing - The Hard	West of AQMA12. The Hard	Traffic planning and management: Improvement of public transport	Evaluation	Start date: 2014 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_37	Bus Shelters	CITY WIDE	Traffic planning and management: Improvement of public transport	Evaluation	Start date: 2014 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_38	Public transport initiative I	CITY WIDE. Re-development of The Hard gateway and Portsmouth & Southsea interchange - Sub-regional Hubs. Providing improved links to rail and ferry services and improving pedestrian, cycle links to Gunwharf Quays and city centre principal shopping areas.	Traffic planning and management: Improvement of public transport	Planning	Start date: 2015 Expected end date: 2016 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_39	Public transport initiative II	CITY WIDE. LTP to deliver improved & integrated network of public transport services. Continue to improve transit systems, increase opportunities for interchange between the public transport network & all other modes of transport (further local hub at Portsmouth & Southsea rail station) and promote demand-responsive transport services to sectors & areas with low accessibility.	Traffic planning and management: Improvement of public transport	Planning	Start date: 2009 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_40	Idling engines	All AQMAs. Identification of locations for the introduction of signage at key location where drivers should be encouraged to switch off engines when stationary for more than a minute or 2	Other measure: Other measure	Implementation	Start date: 2009 Expected end date: 2012 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_41	Station Travel Plans	CITY WIDE. Developing travel plans to the city's rail stations to understand travel behaviours and encourage sustainable travel to and from the stations.	Traffic planning and management: Encouragement of shift of transport modes	Evaluation	Start date: 2012 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Portsmouth City Council_42	Personnel Journey Planner (PJP) & On Street Travel Advisors	CITY WIDE. Targeting residents and visitors to inform them of travel options and encourage them to use sustainable travel behaviours.	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2012 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_43	Real Time Passenger Information	CITY WIDE	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2014 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_44	Marketing / Information / Branding	City wide marketing of sustainable travel methods	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2012 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_45	Park and Ride (P&R)	AQMA11. Through redevelopment / regeneration of Tipner and Horsea Island, secure a P&R facility offering circa 1,000 spaces together with a fast low emission bus service running regularly to city centre, Gunwharf and Southsea. Interim solution in operation on Sat and BH	Traffic planning and management: Improvement of public transport	Evaluation	Start date: 2009 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_46	Park & Sail (Pontoon)	Summer holiday service from Park and Ride site via Naval base to Gunwharf Quays including harbour tour. Seasonal park and sail service from Portsmouth International Port to Gunwharf Quays.	Other measure: Other measure	Evaluation	Start date: 2013 Expected end date: 2013 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_47	Tipner P&R RTPI (Real Time Passenger Information)	Citywide program on installing 'real time' passenger information in bus shelters	Traffic planning and management: Improvement of public transport	Other	Start date: 2014 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_48	Freight quality partnership	AQMAs (6, &, & 11). Working closely with freight supplies (particularly local) to ensure the most appropriate routes are undertaken through AQMAs and via PIGY and particularly AQMA 6 (Norway Road - Continental Ferry Port).	Traffic planning and management: Freight transport measure	Other	Start date: 2008 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Portsmouth City Council_49	Bus Priority Improvement Scheme : Isambard Brunel Road	N/A	Traffic planning and management: Improvement of public transport	Evaluation	Start date: 2014 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_50	School travel plans	CITY WIDE. Reduce single-pupil journeys and encourage alternatives to car travel such as route improvements, walking buses, cycle storage. Raise AQ awareness in schools	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2014 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_51	Creation of PCC transport manager	CITY WIDE. In place - January 2010 - ensuring all council vehicles are pooled to maximise sharing; all vehicle purchasing (including improving emissions), rationalisation of the vehicle fleet with the elimination of spare capacity, evaluate the feasibility of social care utilising bus lane	Other measure: Other measure	Evaluation	Start date: 2009 Expected end date: 2010 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_52	Driver Eco driving Training	CITY WIDE	Other measure: Other measure	Implementation	Start date: 2012 Expected end date: 2013 Spatial scale: National Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_53	Anchorage Road Weight Restriction	AQMA10 (REVOKED). T&T approval given to weight restriction measures subject to other junction improvements in the area. Funding yet to be secured for these works.	Other measure: Other measure	Other	Start date: 2012 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_54	Workplace travel plans (WPTP)	CITY WIDE. Work continues - WPTP required as part of planning process	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
Portsmouth City Council_55	Green Travel Awards / School Travel Review Scheme	CITY WIDE	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2010 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
Portsmouth City Council_56	Explore new technology	CITY WIDE. Undertake research into new technologies to reduce levels of NOx and consider their potential use within future strategies	Other measure: Other measure	Preparation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_57	Optimisation of Road Traffic Management Control System	All AQMAs	Traffic planning and management: Other measure	Preparation	Start date: 2013 Expected end date: 2015 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_58	Junction improvements	AQMA 6. Possible improvements to traffic controlled junctions throughout AQMA 6 (all 3 sections). Co-ordination of signal operation through MOVA (or similar).	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2013 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_59	Hampshire Terrace junction with St Michael's gyratory	AQMA 7. St Michael's gyratory. Upgrade pf Toucan crossing on Hampshire Terrace and Cambridge Rd. New technology provided to improve pedestrian facilities while minimising unnecessary delay to general traffic movements.	Traffic planning and management: Other measure	Evaluation	Start date: 2009 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_60	Angles Rd/Marketway Traffic Signal Corridor	East of AQMA 12. Traffic management improvement at lights - SCOOT control and improved linking reducing delay and congestion.	Traffic planning and management: Other measure	Evaluation	Start date: 2014 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_61	Western Road - Northern Parade Improvements	South of AQMA 13. Change of signalisation of junction (with London Road). Speed limit also reduced on Western Way to 50mph.	Traffic planning and management: Other measure	Preparation	Start date: 2014 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_62	Milton Locksway Goldsmith Improvement	North of Revoked AQMA4. Full junction modernisation of existing traffic signals including advanced detection and pedestrian crossings to improve safety and capacity.	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

Measure code	Description	Focus	Classification	Status	Other information
Portsmouth City Council_63	Eastern Road / Fitzherbert Rd / Grove Road	Reinstatement of traffic signals at Sainsbury's access following unsuccessful trial. Junction detection also upgraded and improved linking introduced (MOVA). Pedestrian stage added over Eastern Rd also added in the previous year.	Traffic planning and management: Other measure	Evaluation	Start date: 2012 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_64	Kingston Road / Kingston Crescent Junction Improvement	AQMA6. Full junction refurbishment including MOVA control and enhanced pedestrian facilities.	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
Portsmouth City Council_65	Elm Grove / Albert Road Improvements	East of AQMA5	Traffic planning and management: Other measure	Evaluation	Start date: 2014 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_66	Whale Island Way	Traffic calming speed bumps	Traffic planning and management: Reduction of speed limits and control	Evaluation	Start date: 2013 Expected end date: 2013 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_67	Lennox Road South - Including Villiers Road works	New signage and bollards (to stop footway driving). Villiers re-opened to one-way traffic on a trial basis following the re-opening of Palmerston Rd to all traffic	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2014 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_68	High occupancy vehicle lanes	CITY WIDE. Assess specific routes and consider feasibility of locations. Develop and undertake feasibility study. Implementation linked to TfSH traffic management strategy	Other measure: Other measure	Other	Start date: 2008 Expected end date: 2012 Spatial scale: National Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_69	Traffic control Mile End roundabout	AQMA11. Introduction of measures to improve southbound traffic by introducing signals at Church Street, preventing traffic accessing Church Street from Hope Street. Elimination of 'queue jumping' by making All Saints Street one way (west)	Traffic planning and management: Other measure	Evaluation	Start date: 2009 Expected end date: 2011 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Portsmouth City Council_70	Traffic control southbound M275 slip	AQMAs (6 & 11). Consider feasibility and introduction of priority signalling at M275 slip on to roundabout to prevent / control peak hour queuing, preventing 'queue jumping' and additional associated impacts upon Kingston Crescent and AQMA 6. not really valid anymore as P&R scheme has been introduced	Traffic planning and management: Reduction of speed limits and control	Evaluation	Start date: 2009 Expected end date: 2013 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_71	Tangier Road / Eastern Road Signal Ped (Phase 4)	South of revoked AQMA3	Traffic planning and management: Other measure	Evaluation	Start date: 2014 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_72	Kingston Road / New Road Signal Upgrade (Phase 3)	AQMA6	Traffic planning and management: Other measure	Evaluation	Start date: 2012 Expected end date: 2013 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_73	Gladys Avenue / Corpus Christi 20mph Zone	North of AQMA6	Traffic planning and management: Reduction of speed limits and control	Evaluation	Start date: 2014 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_74	Kirby Road Speed Reduction Measures	East of AQMA6	Traffic planning and management: Reduction of speed limits and control	Evaluation	Start date: 2011 Expected end date: 2012 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_75	Trafalgar Gate Link Road - Modifications to Traffic signals	AQMA11 - Introduction of Princess Royal Way to ease congestion utilising existing Dockyard access	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
Portsmouth City Council_76	Nessus Street Speed Hump & Bollards	One speed bump added to control vehicle speed around children's' play area	Traffic planning and management: Reduction of speed limits and control	Evaluation	Start date: 2014 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Portsmouth City Council_77	Speed Reduction Schemes 2013/14	All None A Roads	Traffic planning and management: Reduction of speed limits and control	Evaluation	Start date: 2013 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_78	Tangier Road Speed Reduction (Phase 1)	Off AQMA3	Traffic planning and management: Reduction of speed limits and control	N/A	Start date: 2011 Expected end date: 2012 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_79	Farlington Avenue Area Speed Reduction Measures	Feeding into AQMA13	Traffic planning and management: Other measure	Implementation	Start date: 2013 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_80	Speed Reduction Schemes 2012/13	CITY WIDE	Traffic planning and management: Reduction of speed limits and control	Evaluation	Start date: 2012 Expected end date: 2013 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_81	Traffic Signal Reconfigurations 2013/14	CITY WIDE - small improvements to traffic signal configurations to improve capacity/delay	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
Portsmouth City Council_82	Traffic Signal Reconfigurations 2014/15	Same as no.132 expect for the next financial year	Traffic planning and management: Other measure	Implementation	Start date: 2014 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_83	Kimbolton Road One way traffic scheme	One-way scheme	Traffic planning and management: Encouragement of shift of transport modes	Planning	Start date: 2005 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Portsmouth City Council_84	Havant Road/Farlington Avenue - Pedestrian crossing addition	West of AQMA12. New pedestrian crossing over Havant Rd at Junction of Farlington Avenue. Pedestrian phase 'walks with traffic' so no impact on queues/delays. Signal detection also upgraded at the same time to provide capacity and delay improvements.	Traffic planning and management: Other measure	Evaluation	Start date: 2005 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Portsmouth City Council_85	Traffic & Pedestrian link Improvements	Traffic signal control units added into unmonitored pedestrian crossings (city wide) to provide increase control and priority facilities to pedestrians/traffic.	Traffic planning and management: Other measure	Evaluation	Start date: 2014 Expected end date: 2014 Spatial scale: Local 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: 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
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 a style 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

Measure code	Description	Focus	Classification	Status	Other information
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
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

Measure code	Description	Focus	Classification	Status	Other information
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