



# Air Quality Plan for tackling roadside nitrogen dioxide concentrations in Nottingham Urban Area (UK0008)

**July 2017** 









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# 1 Introduction

#### 1.1 This document

This document is the Nottingham Urban Area agglomeration zone (UK0008) updated air quality plan for tackling roadside nitrogen dioxide (NO<sub>2</sub>) 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 Nottingham Urban Area agglomeration zone
- Details of NO<sub>2</sub> exceedance situation within the Nottingham 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 Nottingham 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<sub>2</sub> 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  $\mu \mathrm{gm}^{ ext{-3}}$
- The hourly limit value: no more than 18 exceedances of 200  $\mu \mathrm{gm}^{-3}$  in a calendar year

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

#### 1.3 Zone status

The assessment undertaken for the Nottingham Urban Area agglomeration zone indicates that the annual limit value was exceeded in 2015 but is likely to be achieved by 2024 through the introduction of measures included in the baseline. When combined with the measures outlined in the overview document for the UK we expect this zone to be compliant by 2020.

#### 1.4 Plan structure

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

Section 3 then presents the overall picture with respect to NO<sub>2</sub> levels in this agglomeration zone for the 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: Nottingham Urban Area

Zone code: UK0008

Type of zone: agglomeration zone

Reference year: 2015

Extent of zone: Figure 1 shows the area covered by the Nottingham 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. Amber Valley Borough Council
- 2. Ashfield District Council
- 3. Broxtowe Borough Council
- 4. Erewash Borough Council
- 5. Gedling Borough Council
- 6. Nottingham City Council
- 7. Rushcliffe Borough 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 Nottingham Urban Area agglomeration zone (UK0008).

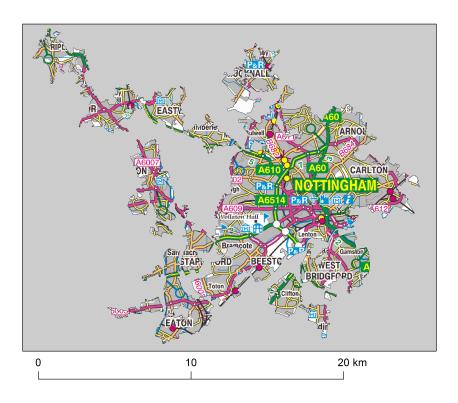
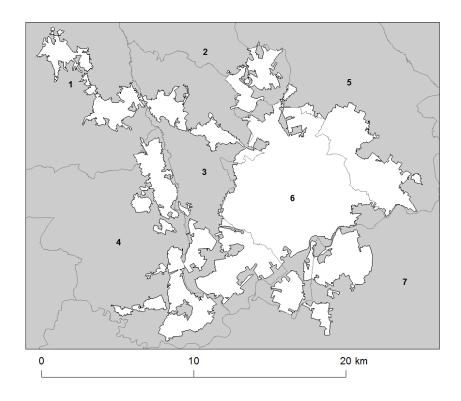


Figure 2: Map showing Local Authorities within the Nottingham Urban Area agglomeration zone (UK0008).



#### 2.2 Assessment details

#### Measurements

NO<sub>2</sub> measurements in this zone were available in 2015 from the following national network monitoring stations (NO<sub>2</sub> data capture<sup>1</sup> for each station in 2015 shown in brackets):

1. Nottingham Centre GB0646A (87%)

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

#### 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:

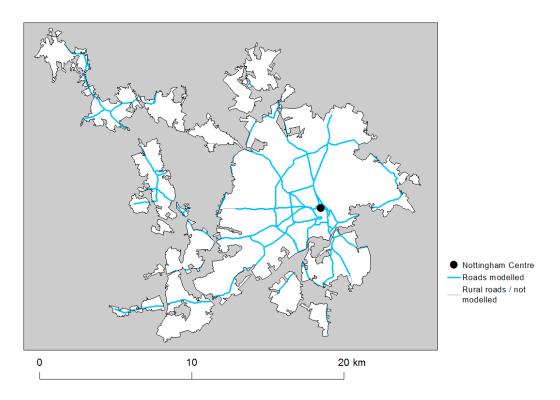
- Total background area within zone (approx): 155 km<sup>2</sup>
- Total population within zone (approx): 599,524 people

#### 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 Nottingham Urban Area (UK0008) agglomeration zone.



## 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/">http://cdr.eionet.europa.eu/gb/eu/</a>.

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  $NO_2$ . These are:

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

Within the Nottingham 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>\_UK0008\_Annual\_1, which covers exceedances of the annual limit value. This exceedance situation is described below.

# 3.2 Reference year: NO<sub>2</sub>\_UK0008\_Annual\_1

The NO<sub>2</sub>\_UK0008\_Annual\_1 exceedance situation covers all exceedances of the annual mean limit value in the Nottingham 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  $NO_2$  concentrations in this exceedance situation for the same time period. This table shows that, in 2015, 21.8 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  $NO_2$  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  $NO_2\_UK0008\_Annual\_1$  exceedance situation (i.e. the source apportionment for all exceeding roads only) in 2015.

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Table 1: Measured annual mean NO $_2$  concentrations at national network stations in NO $_2$ UK0008\_Annual\_1 for 2001 onwards,  $\mu$ gm $^3$  (a). Data capture shown in brackets.

Site name (EOI code)	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Nottingham Centre (GB0646A)	35	35	36	35	33	34	33	33	35	40	36	37	37	34	32
	(85)	(98)	(79)	(91)	(92)	(98)	(97)	(98)	(93)	(99)	(96)	(97)	(96)	(97)	(87)

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

Table 2: Annual mean NO<sub>2</sub> model results in NO<sub>2</sub>\_UK0008\_Annual\_1 for 2001 onwards.

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Road length exceeding (km)	90.2	59.7	87.2	61.1	65.5	52.1	53.5	45.1	43.0	55.5	37.2	36.3	33.6	31.5	21.8
Background exceeding (km <sup>2</sup> )	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum modelled concentration ( $\mu \mathrm{gm}^{\text{-3}}$ ) (a)	66.1	54.0	67.8	61.8	66.1	63.6	61.9	62.4	62.7	69.1	63	62	65	65	60

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

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\_UK0008\_Annual\_1 ( $\mu$ gm<sup>-3</sup>) traffic count point 75216 on the A6514; OS grid (m): 454350, 340050) .

Spatial scale	Component	Concentration at highest road link (a)
Designed heateneous decurses NOv /i a contributions from	Total	7.6
Regional background sources NOx (i.e. contributions from	From within the UK	4.4
distant sources of > 30 km from the receptor).	From transboundary sources (includes shipping and other EU	3.1
	member states)	
	Total	27.2
	From road traffic sources	14.5
	From industry (including heat and power generation)	3.4
	From agriculture	NA
Urban background sources NOx (i.e. sources	From commercial/residential sources	3.7
located within 0.3 - 30 km from the receptor).	From shipping	0.0
	From off road mobile machinery	2.2
	From natural sources	NA
	From transboundary sources	NA
	From other urban background sources	3.4
	Total	121.6
	From petrol cars	11.0
	From diesel cars	47.0
	From HGV rigid (b)	14.3
Local sources NOx (i.e. contributions from sources	From HGV articulated (b)	6.6
< 0.3 km from the receptor).	From buses	14.5
	From petrol LGVs (c)	0.1
	From diesel LGVs (c)	27.6
	From motorcycles	0.4
	From London taxis	0.0
Total NOx (i.e. regional background + urban background + lo	cal components)	156.4
Total NO <sub>2</sub> (i.e. regional background + urban background + loc	cal components)	60

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

<sup>(</sup>b) HGV = heavy goods vehicle

<sup>(</sup>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.

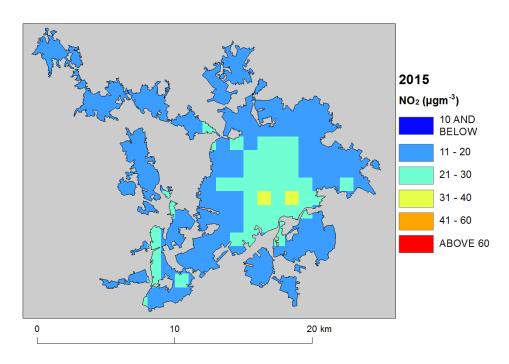
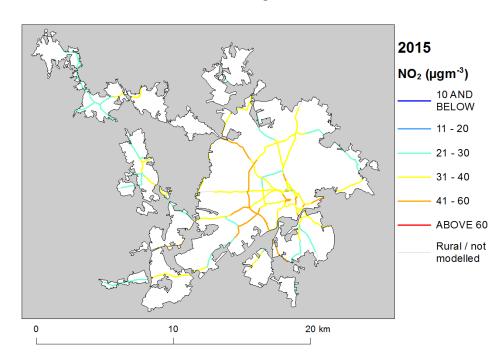


Figure 5: Map of modelled roadside annual mean  $NO_2$  concentrations 2015. Modelled exceedances of the annual limit value are shown in orange and red.



# 4 Measures

#### 4.1 Introduction

This section gives details of measures that address exceedances of the NO<sub>2</sub> limit values within Nottingham 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 47  $\mu$ gm<sup>-3</sup> of NO<sub>X</sub> out of a total of 156.4  $\mu$ gm<sup>-3</sup> of NO<sub>X</sub>. 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, diesel LGVs, rigid HGVs and on one road buses were important sources on the trunk roads with the highest concentrations.

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

#### 4.3 Measures

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

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

Details of European Union measures (e.g. Euro Standards, Fuel Quality Directives, Integrated Pollution Prevention and Control) can be found on the European Commission's website (http://ec.europa.eu/environment/air/index\_en.htm). 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.

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

Nottingham has a successful long-standing strategy to encourage the use of sustainable modes of transport in order to reduce congestion and ensure sustainable growth.

The Nottingham Local Transport Plan's implementation plan for 2014-2017 details the proposed measures to be funded over this time period e.g. improving public transport, walking, cycling and influencing travel behaviour.

The Nottinghamshire Local Transport plan for 2011-2026 details the transport strategy for the whole of the county of Nottinghamshire. One of the plan's goals is to minimise the impacts of transport on people's lives, maximise opportunities to improve the environment and help tackle carbon emissions.

Nottingham's Local Transport Plan's implementation plan for 2014-2017 sets out what programmes will be undertaken during this period. It will build on policies and measures to improving public transport, walking, cycling, highway improvements and measures to influence travel behaviour. The plan will deliver schemes that provide investment in electric buses to complement Better Bus Areas, Green Bus Fund and Local Sustainable Transport Fund programmes.

The County Council supports the development of a low carbon transport system through supporting change to new vehicle technologies and lower carbon fuels; promoting lower carbon transport choices; encouraging a transfer to lower carbon vehicles; and education on lower carbon transport issues.

The promotion of sustainable, active, healthy travel through smarter choices measures and travel planning will be key to encouraging and increasing walking, cycling and public transport use. The provision and maintenance of highway facilities to enable people to walk and cycle, as well as access active leisure pursuits will be considered to support the smarter choices measures and travel planning. The intention is that public transport will play a major role in encouraging sustainable travel through the provision of an affordable, reliable and convenient public transport network.

The Council are considering constructing a fourth crossing over the Trent Bridge that would ease congestion from the A60 and divert traffic to the ring road.

#### 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>\_UK0008\_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>\_UK0008\_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 49  $\mu$ gm<sup>-3</sup>. By 2024, 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 2024 under baseline conditions.

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

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

Table 4: Annual mean NO<sub>2</sub> model results in NO<sub>2</sub>\_UK0008\_Annual\_1.

	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Road length exceeding (km)	21.8	10.3	7.9	5.6	4.1	8.0	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Background exceeding (km²)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum modelled concentration $NO_2$ ( $\mu gm^{-3}$ )	60	57	54	52	49	46	43	41	39	37	35	33	32	31	30
Corresponding modelled concentration NOx ( $\mu$ gm <sup>-3</sup> ) (b)	156	143	135	127	118	109	101	95	89	83	78	73	69	66	63

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

<sup>(</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 2024, the year at which compliance is achieved under baseline conditions. Modelled exceedances of the annual limit value are shown in orange and red.

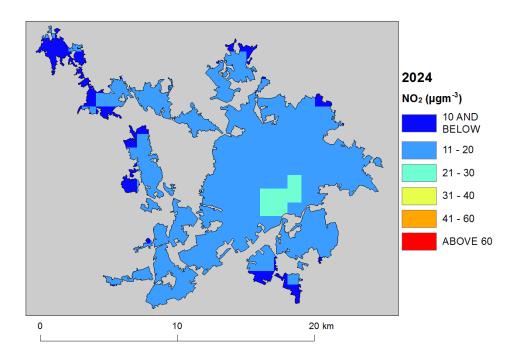


Figure 7: Roadside baseline projections of annual mean  $NO_2$  concentrations in 2024, the year at which compliance is achieved under baseline conditions. Modelled exceedances of the annual limit value are shown in orange and red.

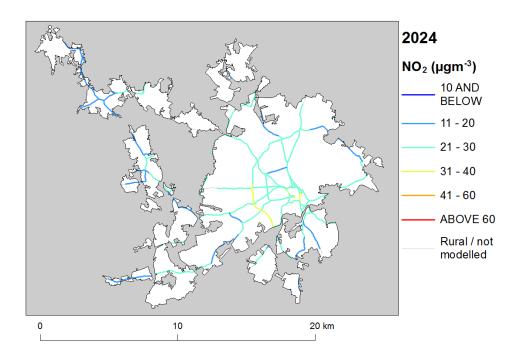


Figure 8: Background baseline projections of annual mean NO<sub>2</sub> concentrations in 2020, 2025 and 2030. 2015 is also included here for reference. Modelled exceedances of the annual limit value are shown in orange and red.

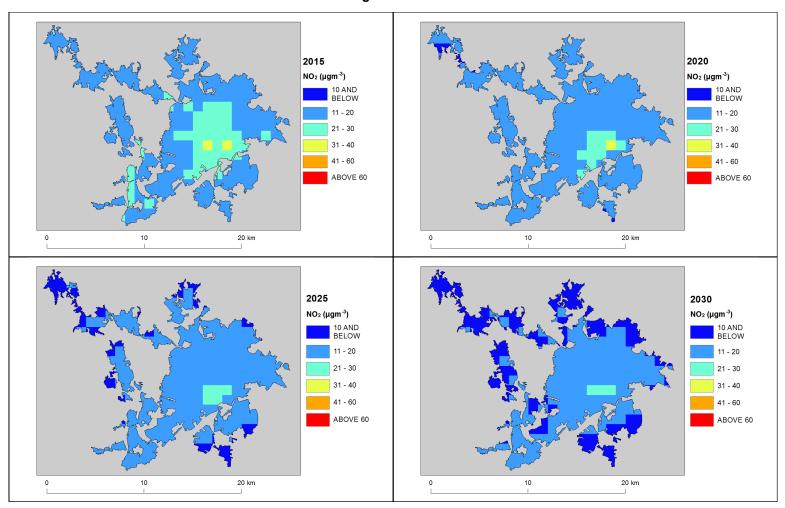
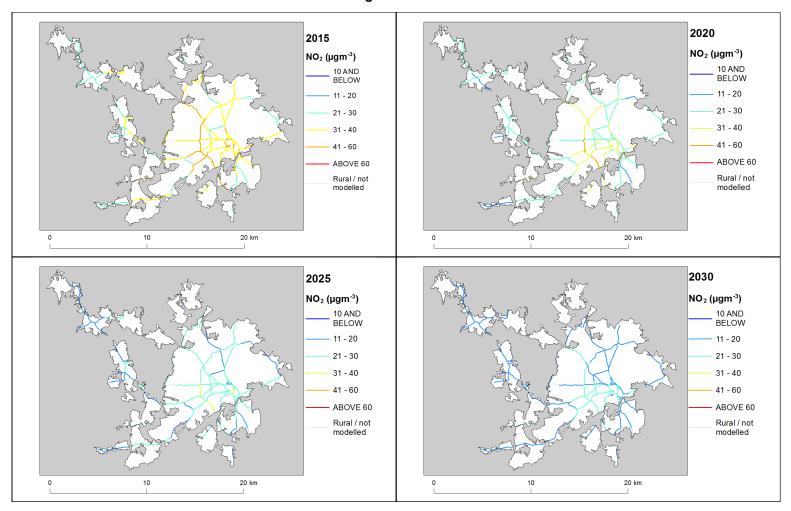


Figure 9: Roadside baseline projections of annual mean NO<sub>2</sub> concentrations in 2020, 2025 and 2030. 2015 is also included here for reference. Modelled exceedances of the annual limit value are shown in orange and red.



# **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.

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

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

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

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

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

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

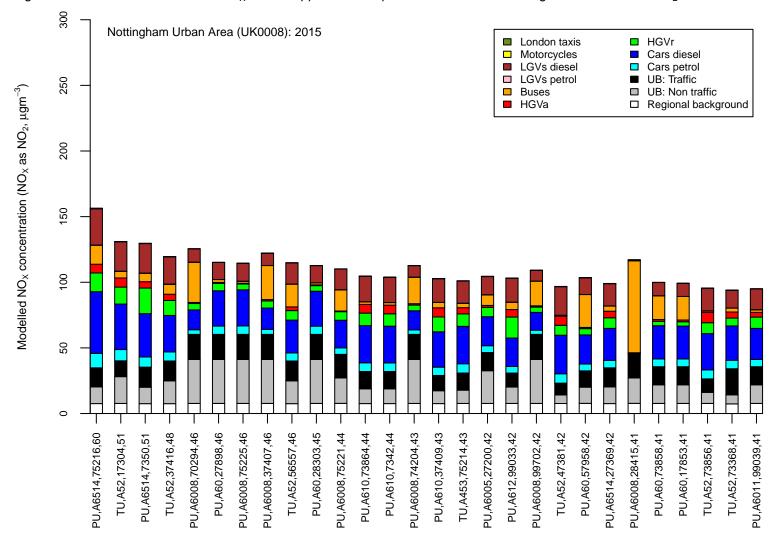
IPR 2013. Guidance on the Commission Implementing Decision laying down rules for Directives 2004/107/EC and 2008/50/EC of the European Parliament and of the Council as regards the reciprocal exchange of information and reporting on ambient air (Decision 2011/850/EU). http://ec.europa.eu/environment/air/quality/legislation/pdf/IPR\_guidance1.pdf

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

# **B** Source apportionment graphs

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Figure B.1: Annual mean roadside NO<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 (μgm<sup>-3</sup>)

# C Tables of measures

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Table C.1 Relevant Local Authority measures within Nottingham Urban Area (UK0008)

Measure code	Description	Focus	Classification	Status	Other information
Broxtowe Borough Council_1	Continue Discussions with Highways England	Liaise and consult with HA with regards to M1 expansion	Traffic planning and management: Encouragement of shift of transport modes	Evaluation	Start date: 2009 Expected end date: 2010 Spatial scale: Whole agglomeration Source affected: Transport Indicator: Diffusion tube data sited along M1 corridor Target emissions reduction: Reduction in line with national annual trends
Broxtowe Borough Council_2	Support the Nottinghamshire Local Transport Plan	Support the County Council with its aim to achieve traffic reduction by improving the infrastructure needed to encourage sustainable travel and reduce unnecessary car use	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2010 Expected end date: 2026 Spatial scale: Whole agglomeration Source affected: Transport Indicator: Diffusion tube data sited along major trunk roads within borough Target emissions reduction: N/a
Broxtowe Borough Council_3	Consider the impact of new developments on air quality	Continue to seek evidence that developers have taken appropriate steps to minimise any increases in air pollution regardless of their location.	Other measure: Other measure	Implementation	Start date: 2008 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: Based on case by case scenario - dependant on site being developed Target emissions reduction: N/a
Broxtowe Borough Council_4	Produce Broxtowe Travel Plan	Detail the Council's commitment to promote sustainable travel to all Employees / Councillors and Visitors	Other measure: Other measure	Evaluation	Start date: 2007 Expected end date: 2012 Spatial scale: Whole agglomeration Source affected: Transport Indicator: Reduction in car journeys for employees / Councillors / Visitors Target emissions reduction: N/a
Broxtowe Borough Council_5	Proactively inspect IPPC permitted processes	Continue to proactively inspect prescribed Part A2 / B processes under the Pollution Prevention and Control Act 1999	Permit systems and economic instruments: Other measure	Implementation	Start date: 2009 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Industry including heat and power production Indicator: Statistics complied to DEFRA Target emissions reduction: N/a
Broxtowe Borough Council_6	Investigate dark/ black smoke allegations at industrial premises	Investigate and take appropriate action to industrial and trade waste fires which produce dark / black smoke under The Clean Air Act 1993	Other measure: Other measure	Implementation	Start date: 2008 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Industry including heat and power production Indicator: Respond to complaints Target emissions reduction: N/a

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Measure code	Description	Focus	Classification	Status	Other information
Broxtowe Borough Council_7	Investigate allegations of smoke nuisance within the borough	Investigate and take appropriate action to smoke nuisance under The Environmental Protection Act 1990	Other measure: Other measure	Implementation	Start date: 2008 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Commercial and residential sources Indicator: Respond to complaints Target emissions reduction: N/a
Broxtowe Borough Council_8	Proactive advice and investigate complaints relating to smoke control areas	Advise and investigate	Other measure: Other measure	Implementation	Start date: 2008  Expected end date: 2030  Spatial scale: Whole agglomeration  Source affected: Commercial and  residential sources  Indicator: Respond to complaints /  requests for information  Target emissions reduction: N/a
Broxtowe Borough Council_9	Advise of sustainable methods of waste disposal	Advise businesses and residents of alternative methods of waste disposal rather than incineration	Public information and Education: Other mechanisms	Implementation	Start date: 2008 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Commercial and residential sources Indicator: Respond to complaints / requests for information Target emissions reduction: N/a
Broxtowe Borough Council_10	Attend meetings organised by the Nottinghamshire Air Quality Steering Group	To regularly meet with group to discuss air quality	Other measure: Other measure	Implementation	Start date: 2008  Expected end date: 2030  Spatial scale: Whole agglomeration  Source affected: Other, please  specify  Indicator: Attendance of meetings  Target emissions reduction: N/a
Broxtowe Borough Council_11	Improve Public Information	Update website with information on air quality	Public information and Education: Internet	Implementation	Start date: 2008  Expected end date: 2030  Spatial scale: Local  Source affected: Commercial and residential sources Indicator: Updating air quality information on website  Target emissions reduction: N/a
Broxtowe Borough Council_12	Raise public awareness	Update website with information on air quality. Make public aware of initiatives with regards to climate change / air quality	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2008 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: Updating air quality information on website. Awareness campaigns Target emissions reduction: N/a

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Measure code	Description	Focus	Classification	Status	Other information
Broxtowe Borough Council_13	Review of Air Quality Diffusion Tube Monitoring Points	To ensure monitoring points comply with current defra guidance, allows effective monitoring of key areas by reviewing those that are no longer accessible and to respond to new developments/expansion of sites	Other measure: Other measure	Evaluation	Start date: 2015 Expected end date: 2030 Spatial scale: Local Source affected: Other, please specify Indicator: N/a Target emissions reduction: N/a
Erewash Borough Council_1	Participate in energy efficiency campaigns to encourage industry, business and when replacing equipment to use low emission technology and provide information on granting schemes where appropriate.	N/A	Public information and Education: Leaflets	Implementation	Start date: 2013  Expected end date: 2015  Spatial scale: Local  Source affected: Commercial and residential sources  Indicator: Energy Efficiency advice to households; numbers of partnership event contributed to.  Target emissions reduction: N/A
Erewash Borough Council_2	Liaise with the Highways Agency on the proposed scheme to widen the M1 motorway.	N/A	Traffic planning and management: Other measure	Implementation	Start date: 2010 Expected end date: 2010 Spatial scale: Local Source affected: Transport Indicator: Participation in Highways Agency Liaison Target emissions reduction: N/A
Erewash Borough Council_3	Act as a point of information for businesses and major fleet operators, individuals and other stakeholders in Erewash Borough Council for cleaner vehicle technologies, national schemes and grant systems for the use of alternative fuels.	N/A	Traffic planning and management: Freight transport measure	Implementation	Start date: 2007 Expected end date: 2007 Spatial scale: Local Source affected: Transport Indicator: Participate in the County Freight Quality Partnership (Derbyshire County Council) Target emissions reduction: N/A
Erewash Borough Council_4	Provide training to Local Authority drivers to minimise emissions.	N/A	Other measure: Other measure	Implementation	Start date: 2014 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: Driving Efficiencies training scheme Target emissions reduction: N/A
Erewash Borough Council_5	Seek Freight Quality Partnerships to include reduction of air quality impact of freight as one of their key objectives.	N/A	Traffic planning and management: Freight transport measure	Implementation	Start date: 2007 Expected end date: 2007 Spatial scale: Local Source affected: Transport Indicator: Participation in County Freight Quality Partnership (Derbyshire County Council) Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Erewash Borough Council_6	Act as a facilitator to freight and public transport operators to encourage maximum take-up of measures in nation programmes for improving fleet emissions.	N/A	Other measure: Other measure	Implementation	Start date: 2007 Expected end date: 2007 Spatial scale: Local Source affected: Transport Indicator: Number of vehicles with improved emission standards Target emissions reduction: N/A
Erewash Borough Council_7	Complete the survey of council employee travel patterns and implement a Council Green Travel Plan to maximise opportunities for pedestrians, cycling, public transport and multiple occupancy journeys	N/A	Traffic planning and management: Encouragement of shift of transport modes	Preparation	Start date: 2007 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: Survey of employee travel patterns Target emissions reduction: N/A
Erewash Borough Council_8	Raise public and business awareness of existing transport choices and links to health through regular participation in campaigns and events.	N/A	Traffic planning and management: Encouragement of shift of transport modes	Preparation	Start date: 2007 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: Number of campaigns Target emissions reduction: N/A
Erewash Borough Council_9	Maximise access to and quality of road travel and public transport information	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2011 Expected end date: 2026 Spatial scale: Local Source affected: Transport Indicator: Various indicators within Local Transport Plan Target emissions reduction: N/A
Erewash Borough Council_10	Extend Green Travel Plan support to all stakeholders	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2011 Expected end date: 2026 Spatial scale: Local Source affected: Transport Indicator: Number of green travel plans implemented Target emissions reduction: N/A
Erewash Borough Council_11	Maximise possibilities for non-road transport modes for freight (e.g. rail).	N/A	Traffic planning and management: Freight transport measure	Implementation	Start date: 2011 Expected end date: 2026 Spatial scale: Local Source affected: Transport Indicator: Numbers of HGV movements taken off the roads Target emissions reduction: N/A
Erewash Borough Council_12	Develop an integrated assessment tool for the region to allow the air quality impact of transport and land-use developments to be made. Use this tool in the planning process where significant change in emission are proposed.	N/A	Traffic planning and management: Other measure	Implementation	Start date: 2011 Expected end date: 2026 Spatial scale: Local Source affected: Transport Indicator: Use of assessment tool Target emissions reduction: N/A

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Measure code	Description	Focus	Classification	Status	Other information
Erewash Borough Council_13	Integrate the Air Quality Action Plan (AQAP) into the Local Transport Plan.	N/A	Traffic planning and management: Other measure	Implementation	Start date: 2011 Expected end date: 2026 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Erewash Borough Council_14	Integrate the AQAP into the Unitary Development Plan, Land Use Plan and Community Plan	N/A	Other measure: Other measure	Implementation	Start date: 2011 Expected end date: 2026 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Erewash Borough Council_15	Ensure continued use of existing mechanisms including supplementary planning guidance and section 106 agreements to manage air quality by assessing impact of new development and building best practice material, techniques and mitigation into the design	N/A	Other measure: Other measure	Implementation	Start date: 2007 Expected end date: 2020 Spatial scale: Local Source affected: Commercial and residential sources Indicator: Number of section 106 agreements Target emissions reduction: N/A
Erewash Borough Council_16	Extend Green Travel Plan support to cover the public and private sector operating in the Borough and region	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2011 Expected end date: 2026 Spatial scale: Local Source affected: Transport Indicator: Number of green travel plans implemented Target emissions reduction: N/A
Erewash Borough Council_17	Participate in energy efficiency campaigns encouraging effective insulation and the use of renewable energy.	N/A	Other measure: Other measure	Implementation	Start date: 2007 Expected end date: 2020 Spatial scale: Local Source affected: Commercial and residential sources Indicator: Energy efficiency advice and event attended. Planning applications for renewable energy. Target emissions reduction: N/A
Erewash Borough Council_18	Raise awareness of sustainable waste management practices for use by residents and businesses within the Borough.	N/A	Public information and Education: Leaflets	Implementation	Start date: 2007 Expected end date: 2020 Spatial scale: Local Source affected: Commercial and residential sources Indicator: % of recycling rate Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Erewash Borough Council_19	Taking Steps to accelerate the take up of cleaner vehicles	N/A	Traffic planning and management: Freight transport measure	Implementation	Start date: 2011 Expected end date: 2026 Spatial scale: Local Source affected: Transport Indicator: Emissions from Erewash Borough Council Fleet Target emissions reduction: N/A
Erewash Borough Council_20	Further prioritising air quality as a key objective which Highways Agency success is measured where there are AQMAs	N/A	Traffic planning and management: Other measure	Implementation	Start date: 2010 Expected end date: 2026 Spatial scale: Local Source affected: Transport Indicator: Participation in Highways Agency Technical Liaison Committee Target emissions reduction: N/A
Gedling Borough Council_1	Park and Ride	The creation of a Park and Ride scheme	Traffic planning and management: Improvement of public transport	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Feasibility study Target emissions reduction: N/A
Gedling Borough Council_2a	Re-routing of freight operators	Restriction of vehicle types using road at certain times of the day.	Traffic planning and management: Other measure	Other	Start date: 2013 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: Feasibility study Target emissions reduction: N/A
Gedling Borough Council_2b	Re-routing of freight operators	Restricting the road as appears on route finders and Satellite Navigation Systems.	Traffic planning and management: Other measure	Other	Start date: 2013 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: Feasibility study Target emissions reduction: N/A
Gedling Borough Council_2c	Re-routing of freight operators	Consider diverting HGVs - Oxclose Lane/Edwards Lane	Traffic planning and management: Other measure	Other	Start date: 2013 Expected end date: 2014 Spatial scale: Whole town or city Source affected: Transport Indicator: Feasibility study Target emissions reduction: N/A
Gedling Borough Council_3a	Traffic control and management	Consideration and installation of SCOOT/MOVA and other traffic signal efficiency improvements, including CCTV at appropriate junctions within the AQMA	Traffic planning and management: Other measure	Other	Start date: 2013 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: Feasibility study Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Gedling Borough Council_3b	Traffic control and management	Nottinghamshire County and City Councils jointly fund the traffic control centre that monitors traffic movement and provides real time traffic control over many traffic signal installations	Traffic planning and management: Other measure	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Whole town or city Source affected: Transport Indicator: Improved journey times Target emissions reduction: N/A
Gedling Borough Council_3c	Traffic control and management	Consideration of bus priority measures at traffic signal junctions	Traffic planning and management: Encouragement of shift of transport modes	Other	Start date: 2012 Expected end date: 2013 Spatial scale: Whole town or city Source affected: Transport Indicator: Increased patronage on public transport Target emissions reduction: N/A
Gedling Borough Council_3d	Traffic control and management	A review of the 24 hour bus lane to consider potential impacts and benefits of changing existing restrictions was undertaken during 2013/14	Traffic planning and management: Other measure	Other	Start date: 2013 Expected end date: 2014 Spatial scale: Whole town or city Source affected: Transport Indicator: Feasibility study Target emissions reduction: N/A
Gedling Borough Council_3e	Traffic control and management	Effective co-ordination of street works to minimise traffic disruption and unnecessary congestion as part of the County Council's network management duty	Traffic planning and management: Other measure	Other	Start date: 2013  Expected end date: 2019  Spatial scale: Whole town or city  Source affected: Transport  Indicator: Improved journey times  Target emissions reduction: N/A
Gedling Borough Council_3f	Traffic control and management	Effective management of incidents to minimise traffic disruption and unnecessary congestion as part of the County Council's network management duty	Traffic planning and management: Other measure	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Whole town or city Source affected: Transport Indicator: Improved journey times Target emissions reduction: N/A
Gedling Borough Council_3g	Traffic control and management	Effective contingency planning to minimise traffic disruption and unnecessary congestion as part of the County Council's network management duty	Traffic planning and management: Other measure	Other	Start date: 2013  Expected end date: 2019  Spatial scale: Whole town or city  Source affected: Transport  Indicator: Improved journey times  Target emissions reduction: N/A
Gedling Borough Council_5a	Parking management and control	Ensure that car parking in and around the AQMA is managed and reviewed via: Civil parking enforcement	Traffic planning and management: Other measure	Other	Start date: 2013  Expected end date: 2019  Spatial scale: Whole town or city  Source affected: Transport  Indicator: Improved journey times  Target emissions reduction: N/A
Gedling Borough Council_6a	Low emission zone	Consider feasibility of a low emission zone	Traffic planning and management: Low emission zones	Other	Start date: 2013 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: Feasibility study Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Gedling Borough Council_7c	Improve links with local planning and Local Development Framework	Co-ordination of land-use planning and transport infrastructure (including through the Local Plan). Development of car parking standards that encourage cycling, walking and public transport use	Traffic planning and management: Encouragement of shift of transport modes	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: N/a Target emissions reduction: N/A
Gedling Borough Council_7d	Improve links with local planning and Local Development Framework	Secure appropriate levels of developer contributions (Section 106 and/or CIL) for use on air quality improvement projects.	Traffic planning and management: Other measure	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Sums collected for AQ projects Target emissions reduction: N/A
Gedling Borough Council_7f	Improve links with local planning and Local Development Framework	Use of planning conditions for Delivery Times, Travel Plans etc.; including enforcement to ensure compliance	Traffic planning and management: Other measure	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: No of application conditioned Target emissions reduction: N/A
Gedling Borough Council_8a	Improving links with local transport strategy	Continue links with both County and City transport planners to ensure AQAP is considered in future transport planning	Traffic planning and management: Other measure	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: N/a Target emissions reduction: N/A
Gedling Borough Council_9b	Target reductions in emissions from buses	Promotion of the benefits of Eco-driving training for drivers	Public procurement: New vehicles, including low emission vehicles	Other	Start date: 2012 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: N/a Target emissions reduction: N/A
Gedling Borough Council_9c	Target reductions in emissions from buses	Ongoing delivery of Quality Bus Partnerships through Gedling Borough. (Mansfield and Nottingham City)	Public procurement: Other measure	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Increased patronage on public transport Target emissions reduction: N/A
Gedling Borough Council_9d	Target reductions in emissions from buses	Encouraging the use of emissions standards when procuring school bus contracts and supported bus services that operate within the AQMA	Public procurement: Other measure	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Feasibility study Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Gedling Borough Council_14c	Communication and education - awareness raising of local air quality issues	Tackling the school run - communication with schools and parents	Public information and Education: Other mechanisms	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Survey
Gedling Borough Council_15b	Travel plans	Nottinghamshire County Council to review travel plan for its sites within or close to the AQMA	Traffic planning and management: Other measure	Other	Target emissions reduction: N/A Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Review of NCC travel plans Target emissions reduction: N/A
Gedling Borough Council_15c	Travel plans	Continue to support the implementation of school travel plans	Traffic planning and management: Other measure	Other	Target emissions reduction: N/A Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Survey Target emissions reduction: N/A
Gedling Borough Council_15d	Travel plans	Work with local businesses/ organisations to encourage the development and implementation of travel plans	Traffic planning and management: Other measure	Other	Start date: 2014 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Outputs from travel plan project Target emissions reduction: N/A
Gedling Borough Council_16a	Promoting travel choices	Undertake personalised travel planning within Gedling borough	Traffic planning and management: Encouragement of shift of transport modes	Other	Start date: 2014 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Outputs from travel plan project Target emissions reduction: N/A
Gedling Borough Council_16b	Promoting travel choices	Establishment of a City Car Club and consideration of extending this into the county	Traffic planning and management: Encouragement of shift of transport modes	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Outputs from city car club Target emissions reduction: N/A
Gedling Borough Council_16c	Promoting travel choices	The promotion and facilitation of car sharing schemes, www.nottinghamshare.com was launched in April 2006.	Traffic planning and management: Encouragement of shift of transport modes	Other	Start date: 2006 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Uptake of scheme Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Gedling Borough Council_16d	Promoting travel choices	Residential Travel Packs, to be issued to all new built homes identified through planning process; promotion of walking, cycling and public transport	Traffic planning and management: Encouragement of shift of transport modes	Other	Start date: 2014 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Development of travel pack Target emissions reduction: N/A
Gedling Borough Council_17a	Public transport	Development of ITSO smartcard ticketing	Traffic planning and management: Other measure	Other	Start date: 2007 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Increased patronage on public transport Target emissions reduction: N/A
Gedling Borough Council_17b	Public transport	Deliver the free countywide off-peak concessionary fare scheme for the over 60s and disabled. Consideration of introduction of concessionary fares for young people	Other measure: Other measure	Other	Start date: 2006 Expected end date: 2019 Spatial scale: Whole town or city Source affected: Transport Indicator: Uptake of scheme Target emissions reduction: N/A
Gedling Borough Council_17c	Public transport	Investigate and publicise web based journey planners. Develop and undertake annual production of marketing literature	Traffic planning and management: Other measure	Other	Start date: 2013  Expected end date: 2019  Spatial scale: Local  Source affected: Transport  Indicator: Improved journey times  Target emissions reduction: N/A
Gedling Borough Council_17d	Public transport	Review, install/ replace flagpoles/ timetable cases along key AQMA corridors	Traffic planning and management: Improvement of public transport	Other	Start date: 2013  Expected end date: 2014  Spatial scale: Local  Source affected: Transport  Indicator: Increased patronage on public transport  Target emissions reduction: N/A
Gedling Borough Council_17e	Public transport	Consider bus provision on the A60 and surrounding area. (Service review)	Traffic planning and management: Improvement of public transport	Other	Start date: 2013 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: Increased patronage on public transport Target emissions reduction: N/A
Gedling Borough Council_17f	Public transport	Install 'real time' bus information along key AQMA corridors	Traffic planning and management: Improvement of public transport	Other	Start date: 2013 Expected end date: 2013 Spatial scale: Local Source affected: Transport Indicator: Increased patronage on public transport Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Gedling Borough Council_17g	Public transport	Consider capacity increases on the GO2 services along the A60 corridor	Traffic planning and management: Other measure	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Increased patronage on public transport Target emissions reduction: N/A
Gedling Borough Council_18a	To encourage members of the community to adopt cycling and walking as alternatives to using private vehicles	Develop and undertake annual cycling promotional marketing campaigns/production of literature	Traffic planning and management: Encouragement of shift of transport modes	Other	Start date: 2013  Expected end date: 2019  Spatial scale: Local  Source affected: Transport Indicator: Improved journey times, increased active travel  Target emissions reduction: N/A
Gedling Borough Council_18b	To encourage members of the community to adopt cycling and walking as alternatives to using private vehicles	Deliver adult and child cycle training	Traffic planning and management: Encouragement of shift of transport modes	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Uptake of scheme Target emissions reduction: N/A
Gedling Borough Council_18c	To encourage members of the community to adopt cycling and walking as alternatives to using private vehicles	Consider the use of advance cycle stop lines at feasible junctions within the AQMA	Traffic planning and management: Encouragement of shift of transport modes	Other	Start date: 2013 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: Improved journey times, increased active travel Target emissions reduction: N/A
Gedling Borough Council_18e	To encourage members of the community to adopt cycling and walking as alternatives to using private vehicles	Develop and undertake annual walking promotional marketing campaigns/production of literature.	Traffic planning and management: Encouragement of shift of transport modes	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Improved journey times, increased active travel Target emissions reduction: N/A
Gedling Borough Council_18f	To encourage members of the community to adopt cycling and walking as alternatives to using private vehicles	Consider walking and cycling infrastructure and facility enhancements	Traffic planning and management: Encouragement of shift of transport modes	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Improved journey times, increased active travel Target emissions reduction: N/A
Gedling Borough Council_19	Ensure that collections around the AQMA occur outside of the rush hour.	Reduce traffic congestion along the AQMA.	Traffic planning and management: Freight transport measure	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Review of collection timetables Target emissions reduction: N/A

Scaling Boldegii GodinoiE0	Continual review of car parking charging, to promote public transport options	review of car parking arrangements.	Culoi incusuro. Culoi incusuro		Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Improved journey times and bus patronage Target emissions reduction: N/A
Gedling Borough Council_21	Ensure sustainable development on vacant sites within and in the vicinity of the AQMA.	Local planning considerations aim to mitigate the cumulative negative air quality impacts of new development.	Other measure: Other measure	Other	Start date: 2013  Expected end date: 2019  Spatial scale: Local  Source affected: Other, please specify Indicator: No. of AQ impact assessments related to AQMA  Target emissions reduction: N/A
Gedling Borough Council_22	Ensure AQAP and AQMA are considered in future planning policy frameworks (Local Plans).	Local planning considerations aim to mitigate the cumulative negative air quality impacts of new development.	Other measure: Other measure	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Ongoing consultation with Core Strategy development (see Section 6) Target emissions reduction: N/A
Gedling Borough Council_23	Co-ordination of land-use planning and transport infrastructure (including through the Local Plan). Development of car parking standards that encourage cycling, walking and public transport use.	Local planning considerations aim to mitigate the cumulative negative air quality impacts of new development.	Other measure: Other measure	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Other, please specify Indicator: N/a Target emissions reduction: N/A
Gedling Borough Council_24	Secure appropriate levels of developer contributions (Section 106 and/or CIL) for use on air quality improvement projects. Use of collected development control contributions to provide cycling, walking and public transport improvements within the AQMA.	Local planning considerations aim to mitigate the cumulative negative air quality impacts of new development.	Other measure: Other measure	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Other, please specify Indicator: Sums collected for air quality projects Target emissions reduction: N/A
Gedling Borough Council_25	Development of an Air Quality Supplementary Planning Document(SPD)	N/A	Other measure: Other measure	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Other, please

Classification

Other measure: Other measure

Status

Other

Other information

Start date: 2013

specify

Indicator: Development of SPD Target emissions reduction: N/A

Measure code

Gedling Borough Council\_20

Description

Parking Management and Control

Focus

Promote public transport through

Measure code	Description	Focus	Classification	Status	Other information
Gedling Borough Council_26	ECOStars Fleet Recognition Scheme. Promotion of the benefits of Eco-driving training for drivers.	Target reduced emissions from buses operating within the AQMA.	Other measure: Other measure	Other	Start date: 2011 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: Scheme membership Target emissions reduction: N/A
Gedling Borough Council_27	ECOStars Fleet Recognition Scheme. Promotion of the benefits of Eco-driving training for drivers.	Target reduced emissions from HGV's and LGV's operating within the AQMA	Other measure: Other measure	Other	Start date: 2011  Expected end date: 2015  Spatial scale: Local  Source affected: Transport Indicator: Scheme membership  Target emissions reduction: N/A
Gedling Borough Council_28	Promotion of low emission vehicles through taxi licensing.	Target reduced emissions from Taxi's operating within the AQMA	Other measure: Other measure	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Review of Taxi Licence criteria Target emissions reduction: N/A
Gedling Borough Council_29	Gedling Borough membership of ECOStars scheme.	Target reduced emissions from Council fleet vehicles and Council contract fleet vehicles operating within AQMA.	Other measure: Other measure	Other	Start date: 2011 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Membership Target emissions reduction: N/A
Gedling Borough Council_30	Ensuring new vehicles procured are cleanest possible.	Target reduced emissions from Council fleet vehicles and Council contract fleet vehicles operating within AQMA.	Other measure: Other measure	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Indictors linked to the GBC Sustainability Strategy and Action Plan Target emissions reduction: N/A
Gedling Borough Council_31	Run Eco-driving training course for officers using own and GBC vehicles for work.	Target reduced emissions from Council fleet vehicles and Council contract fleet vehicles operating within AQMA.	Other measure: Other measure	Other	Start date: 2013 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: Indictors linked to the GBC Sustainability Strategy and Action Plan Target emissions reduction: N/A
Gedling Borough Council_32	Consider alternative fuelled 'pool vehicles'	Target reduced emissions from Council fleet vehicles and Council contract fleet vehicles operating within AQMA.	Other measure: Other measure	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Indictors linked to the GBC Sustainability Strategy and Action Plan Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Gedling Borough Council_33	GBC Green Procurement (emission standards for vehicles making deliveries to the Council).	Target reduced emissions from Council fleet vehicles and Council contract fleet vehicles operating within AQMA.	Other measure: Other measure	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Indictors linked to the GBC Sustainability Strategy and Action Plan Target emissions reduction: N/A
Gedling Borough Council_34	GBC consider installing electric charging points for visitors and staff.	Encourage the uptake of alternative fuels with infrastructure improvements.	Traffic planning and management: Other measure	Other	Start date: 2013 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: Indictors linked to the GBC Sustainability Strategy and Action Plan Target emissions reduction: N/A
Gedling Borough Council_35	Consider a wider network of charging points.	Encourage the uptake of alternative fuels with infrastructure improvements.	Traffic planning and management: Other measure	Other	Start date: 2013 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: Indictors linked to the GBC Sustainability Strategy and Action Plan Target emissions reduction: N/A
Gedling Borough Council_36	Design and erect AQMA signs at various locations	To increase awareness of local air quality issues and encourage change in behaviour that will contribute to improving local air quality.	Public information and Education: Other mechanisms	Other	Start date: 2012 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: Feasibility assessment Target emissions reduction: N/A
Gedling Borough Council_37	Roadside Vehicle Emissions Testing (RVET)	To increase awareness of local air quality issues and encourage change in behaviour that will contribute to improving local air quality.	Other measure: Other measure	Other	Start date: 2013 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: Carry out RVET day Target emissions reduction: N/A
Gedling Borough Council_38	Undertake a publicity campaign to raise awareness of the A60 AQMA.	To increase awareness of local air quality issues and encourage change in behaviour that will contribute to improving local air quality.	Public information and Education: Other mechanisms	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Publication of relevant promotional material Target emissions reduction: N/A

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Measure code	Description	Focus	Classification	Status	Other information
Gedling Borough Council_39	Review/refresh Gedling Borough Council Travel Plan;	To encourage a shift to more sustainable forms of travel, or reducing the need for travel.	Traffic planning and management: Encouragement of shift of transport modes	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: Review GBC travel plan; improved journey times; increased bus patronage; increased active travel Target emissions reduction: N/A
Gedling Borough Council_40	Gedling Borough Council to hold 'Car Free Days' to encourage staff to cycle or walk to work.	To encourage the shift away from the use of private motor vehicles for travelling to more sustainable forms of transport, or reducing the need for travel.	Traffic planning and management: Encouragement of shift of transport modes	Other	Start date: 2013 Expected end date: 2019 Spatial scale: Local Source affected: Transport Indicator: No. of 'car free days' Target emissions reduction: N/A
Nottingham City Council_1	Turning Point Major Integrated Transport Scheme	Redistribution of cross-city traffic movements with restricted access to Milton Street/Lower Parliament Street Area to achieve high level pedestrian and bus priority	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2004 Expected end date: 2006 Spatial scale: Local Source affected: Transport Indicator: Congestion Target emissions reduction: N/A
Nottingham City Council_2	Parksmart	Variable message signing and zonal car park direction signing system to direct traffic to available car park parking availability	Traffic planning and management: Other measure	Implementation	Start date: 2008 Expected end date: 2010 Spatial scale: Local Source affected: Transport Indicator: Congestion Target emissions reduction: < 1ug/m3
Nottingham City Council_3	Statutory Bus Quality Partner-ship Scheme	UK's first City Centre wide statutory quality partnership scheme	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2009 Expected end date: 2010 Spatial scale: Whole town or city Source affected: Transport Indicator: Bus use Target emissions reduction: < 1ug/m3
Nottingham City Council_4	Connecting Eastside - Phase 1	Changes within the Huntingdon Street area and traffic priority around Sneinton Market. Creation of new public square.	Traffic planning and management: Other measure	Implementation	Start date: 2009 Expected end date: 2012 Spatial scale: Local Source affected: Transport Indicator: Congestion Target emissions reduction: N/A
Nottingham City Council_5	Connecting Eastside - Phase 2	Huntingdon St/Lower Parliament St (between Mansfield Road and Southwell Road) to become strategic two-way traffic route with associated public realm improvement package Cranbrook St/Bellar Gate bus priority route and local access	Traffic planning and management: Encouragement of shift of transport modes	Planning	Start date: 2016 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: Congestion Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Nottingham City Council_6	Primary Pedestrian Routes	Increased priority for pedestrians across inner ring road junctions and upgraded routes from City Centre through regeneration areas.	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2006 Expected end date: 2011 Spatial scale: Local Source affected: Transport Indicator: Pedestrian footfall Target emissions reduction: N/A
Nottingham City Council_7	Commuter cycle routes	On road cycle route improvements includes road space reallocation, cycle lanes and advanced stop lines at junctions	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2007 Expected end date: 2011 Spatial scale: Local Source affected: Transport Indicator: Cycling trips Target emissions reduction: < 1ug/m3
Nottingham City Council_8	Big Track	Off road circular cycle route via City Centre. Includes Embankment Link and upgrading of footbridge to accommodate cyclists.	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2006 Expected end date: 2009 Spatial scale: Local Source affected: Transport Indicator: Cycling trips Target emissions reduction: < 1ug/m3
Nottingham City Council_9	Travel Plans	Travel plans and business support package for employers.	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2006 Expected end date: 2011 Spatial scale: Local Source affected: Transport Indicator: Travel plans Target emissions reduction: < 1ug/m3
Nottingham City Council_10	Station Hub	Rail capacity improvements and development of modern transport interchange	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2006 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: Congestion Target emissions reduction: < 1ug/m3
Nottingham City Council_11	NET Phase 2	Tram network extensions to Clifton and Chilwell via Beeston	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2006 Expected end date: 2015 Spatial scale: Whole town or ci Source affected: Transport Indicator: Tram use Target emissions reduction: 1-: ug/m3
Nottingham City Council_12	NET Future Phases	Other tram network extensions linked to sustainable urban extensions	Traffic planning and management: Improvement of public transport	Planning	Start date: 2019 Expected end date: 2030 Spatial scale: Whole town or c Source affected: Transport Indicator: Tram use Target emissions reduction: 2

Measure code	Description	Focus	Classification	Status	Other information
Nottingham City Council_13	Workplace Parking Levy	Employers charged for commuter car parking provision (>10 spaces). Revenue generated to fund significant public transport improvements	Traffic planning and management: Management of parking places	Implementation	Start date: 2006 Expected end date: 2012 Spatial scale: Local Source affected: Transport Indicator: Congestion Target emissions reduction: < 1ug/m3
Nottingham City Council_14	Park and Ride	Expansion of Park and Ride capacity	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2006 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: Public transport use Target emissions reduction: < 1ug/m3
Nottingham City Council_15	A52 Ring Road upgrading	Upgrading of Ring Road Radcliffe to Clifton Bridge as recommended in the A52 MMS	Traffic planning and management: Other measure	Implementation	Start date: 2015 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: Congestion Target emissions reduction: N/A
Nottingham City Council_16	New River Crossing	New Trent River crossing at Radcliffe. Development of alternative traffic routes to the east of the conurbation.	Traffic planning and management: Other measure	Planning	Start date: 2015 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: Congestion Target emissions reduction: 4-5ug/m3
Nottingham City Council_17	Full signalisation of junction	Derby Road/Ring Road junction	Traffic planning and management: Other measure	Implementation	Start date: 2009 Expected end date: 2011 Spatial scale: Local Source affected: Transport Indicator: Congestion Target emissions reduction: < 1ug/m3
Nottingham City Council_18	NET Phase 2	Network extension to Chilwell via Beeston (including Park and Ride at Bardills) includes stop to serve QMC and interchange with local bus services	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2006 Expected end date: 2015 Spatial scale: Whole town or city Source affected: Transport Indicator: Tram use Target emissions reduction: 1ug/m3
Nottingham City Council_19	Ring Road major	Integrated transport scheme to increase junction capacity, improve an orbital bus service, upgrade interchange facilities, improve cycle and footway facilities and provide better parking provision for residents	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2006 Expected end date: 2015 Spatial scale: Whole town or city Source affected: Transport Indicator: Congestion Target emissions reduction: 1ug/m3

Measure code	Description	Focus	Classification	Status	Other information
Nottingham City Council_20	Ring Road bus service capacity upgrade	New larger vehicles to operate 'Medi-link' Ring Road orbital bus service	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2010 Expected end date: 2015 Spatial scale: Whole town or city Source affected: Transport Indicator: Bus use Target emissions reduction: < 1ug/m3
Nottingham City Council_21	QMC Inter-change	Development of bus interchange and in the future tram within the hospital site	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2010 Expected end date: 2017 Spatial scale: Whole town or city Source affected: Transport Indicator: Public transport use Target emissions reduction: < 1ug/m3
Nottingham City Council_22	Bus Priority	Introduction of bus lanes through road space reallocation and other bus priority measures in A6200/A52 and A6005 corridors	Traffic planning and management: Encouragement of shift of transport modes	Planning	Start date: 2011 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: Public transport use Target emissions reduction: < 1ug/m3
Nottingham City Council_23	Cycle Ambition Programme	Cycle network development	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: Cycling trips Target emissions reduction: < 1ug/m3
Nottingham City Council_24	Bus/cycle integration project	Carbon reduction demonstration project involving installation of cycle parking facilities at bus interchange points.	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2009  Expected end date: 2010  Spatial scale: Whole town or city  Source affected: Transport  Indicator: Cycling trips  Target emissions reduction: <  1ug/m3
Nottingham City Council_25	UCycle project	Cycling England national demonstration-	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2008 Expected end date: 2011 Spatial scale: Whole town or city Source affected: Transport Indicator: Cycling trips Target emissions reduction: N/A
Nottingham City Council_26	Travel Plans	Including updating of hospital and University plans	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2006 Expected end date: 2011 Spatial scale: Local Source affected: Transport Indicator: Travel plans Target emissions reduction: 1ug/m

Measure code	Description	Focus	Classification	Status	Other information
Nottingham City Council_27	Workplace Parking Levy	Employers charged for commuter car parking provision (>10 spaces). Revenue generated to fund significant public transport improvements	Traffic planning and management: Management of parking places	Implementation	Start date: 2006 Expected end date: 2012 Spatial scale: Local Source affected: Transport Indicator: Congestion Target emissions reduction: 1ug/m3
Nottingham City Council_28	UCycle project	Cycling England national demonstration	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2008 Expected end date: 2011 Spatial scale: Whole town or city Source affected: Transport Indicator: Cycling trips Target emissions reduction: N/A
Nottingham City Council_29	Travel Plans	Including updating of hospital and University plans	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2006 Expected end date: 2011 Spatial scale: Local Source affected: Transport Indicator: Travel plans Target emissions reduction: 1ug/m3
Nottingham City Council_30	Workplace Parking Levy	Employers charged for commuter car parking provision (>10 spaces). Revenue generated to fund significant public transport improvements	Traffic planning and management: Management of parking places	Implementation	Start date: 2006 Expected end date: 2012 Spatial scale: Local Source affected: Transport Indicator: Congestion Target emissions reduction: 1ug/m3
Nottingham City Council_31	Travel Plans	Including updating of hospital and University plans	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2006 Expected end date: 2011 Spatial scale: Local Source affected: Transport Indicator: Travel plans Target emissions reduction: 1ug/m3
Nottingham City Council_32	Workplace Parking Levy	Employers charged for commuter car parking provision (>10 spaces). Revenue generated to fund significant public transport improvements	Traffic planning and management: Management of parking places	Implementation	Start date: 2006 Expected end date: 2012 Spatial scale: Local Source affected: Transport Indicator: Congestion Target emissions reduction: 1ug/m3
Nottingham City Council_33	Broadmarsh Roadspace Transformation	Changes to traffic priority on Collin Street / Canal Street area and public realm improvements across area surrounding Broadmarsh Shopping Centre	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2017 Expected end date: 2020 Spatial scale: Local Source affected: Transport Indicator: Congestion Target emissions reduction: N/A
Nottingham City Council_34	Nottingham Enterprise Zone Transport Package	Creation of new walking and cycling bridge over rail line,linking the University of Nottinghan to the Nottingham Enterprise Zone	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2015 Expected end date: 2018 Spatial scale: Local Source affected: Transport Indicator: Cycling Trips Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Nottingham City Council_35	Southern Growth Corridor (Eco-Expressway)	Improvements bus lanes, cycle facilities and encouraging electric vehicles along a east-west corridor across the city.	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2015 Expected end date: 2018 Spatial scale: Local Source affected: Transport Indicator: Bus use Target emissions reduction: N/A
Nottingham City Council_36	Nottingham and Derby Access Fund	Package of works to promote sustainable travel, including travel planning and cycle events	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2027 Expected end date: 2021 Spatial scale: Whole town or city Source affected: Transport Indicator: Cycling trips Target emissions reduction: N/A
Nottingham City Council_37	OLEV Go Ultra Low Programme	Package of works to promote electric vehicle uptake	Public procurement: Other measure	Implementation	Start date: 2016 Expected end date: 2020 Spatial scale: Whole town or city Source affected: Transport Indicator: Travel plans Target emissions reduction: N/A
Nottingham City Council_38	Clear Zone Works	Traffic management measures within the City Centre area	Traffic planning and management: Encouragement of shift of transport modes	Planning	Start date: 2016 Expected end date: 2018 Spatial scale: Local Source affected: Transport Indicator: Congestion Target emissions reduction: N/A
Nottingham City Council_39	Red Routes: Main roads in City Centre	Red Routes designated on key roads within city centre area	Traffic planning and management: Encouragement of shift of transport modes	Planning	Start date: 2017 Expected end date: 2020 Spatial scale: Local Source affected: Transport Indicator: Congestion Target emissions reduction: N/A
Nottingham City Council_40	OLEV Taxi Grant	Additional charging infrastructure	Public procurement: Other measure	Planning	Start date: 2017 Expected end date: 2020 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Nottingham City Council_41	Low Emission Bus Fleet	53 additional Gas Buses on NCT routes	Public procurement: Other measure	Planning	Start date: N/A Expected end date: N/A Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_1	A453 widening	Capacity improvement	Traffic planning and management: Other measure	Implementation	Start date: 2013 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
Rushcliffe Borough Council_2	A52 ring road upgrade	Capacity improvement	Traffic planning and management: Other measure	Implementation	Start date: 2013 Expected end date: 2016 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_3	Construction of the East Midlands Parkway station	Reduced congestion/car use	Traffic planning and management: Improvement of public transport	Other	Start date: 2007 Expected end date: 2009 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_4	NET Phase 2	Reduced congestion/car use	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2013 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_5	Encourage operators to take-up cleaner vehicles through partnership working	Cleaner vehicles	Public procurement: Cleaner vehicle transport services	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_6	Park & Ride facilities	Reduced congestion/car use	Traffic planning and management: Improvement of public transport	Other	Start date: 2010 Expected end date: 2010 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_7	Provision of bus infrastructure	Reduced congestion/car use	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_8	Provision of bus priority	Reduced congestion/car use	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2007 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_9	Marketing of public transport	Reduced congestion/car use	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Rushcliffe Borough Council_10	Public transport information	Reduced congestion/car use	Public information and Education: Other mechanisms	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_11	Nottingham City Statutory Quality Partnership (SQPS) for bus operators	Reduced congestion/car use	Traffic planning and management: 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
Rushcliffe Borough Council_12	Public transport service improvements	Reduced congestion/car use	Traffic planning and management: Improvement of public transport	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_13	Integrated ticketing	Reduced congestion/car use	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2003 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_14	Concessionary fare schemes for the over 60s and disabled	Reduced congestion/car use	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_15	Concessionary fares for young people	Reduced congestion/car use	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_16	Introduction of SCOOT/MOVA	Capacity improvement	Traffic planning and management: Other measure	Other	Start date: 2012 Expected end date: 2013 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_17	Traffic control and information	Network management	Traffic planning and management: Other measure	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Rushcliffe Borough Council_18	Co-ordination of streetworks	Network management	Traffic planning and management: Other measure	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_19	Event and incident management	Network management	Traffic planning and management: Other measure	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_20	Contingency planning	Network management	Traffic planning and management: Other measure	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_21	Introduce increasing proportion of bio-fuels to NCC's fleet	Cleaner vehicles	Public procurement: Cleaner vehicle transport services	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_22	RBC fleet and fuel policy	Cleaner vehicles	Other measure: Other measure	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_23	Cycle maps of Greater Nottingham area	Reduced congestion/car use	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_24	Cycle training	Reduced congestion/car use	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_25	Advance cycle stop lines	Reduced congestion/car use	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2014 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
Rushcliffe Borough Council_26	Cycle hub/integration with bus	Reduced congestion/car use	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
Rushcliffe Borough Council_27	Wilford Lane cycle route	Reduced congestion/car use	Traffic planning and management: Expansion of bicycle and pedestrian infrastructure	Other	Start date: 2007 Expected end date: 2008 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_28	Civil parking enforcement	Network management	Traffic planning and management: Other measure	Implementation	Start date: 2008 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_29	VOSA emissions testing	Cleaner vehicles	Other measure: Other measure	N/A	Start date: 2014 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_30	Workplace parking levy	Reduced congestion/car use	Traffic planning and management: Management of parking places	Implementation	Start date: 2012 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_31	Car sharing promotion	Reduced congestion/car use	Other measure: Other measure	Implementation	Start date: 2006 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_32	Introduction of car club	Reduced congestion/car use	Other measure: Other measure	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_33	Marketing of walking and cycling	Reduced congestion/car use	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Rushcliffe Borough Council_34	NCC travel plan	Reduced congestion/car use	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_35	Personalised travel planning	Reduced congestion/car use	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2004 Expected end date: 2016 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_36	RBC travel plan	Reduced congestion/car use	Traffic planning and management: Encouragement of shift of transport modes	N/A	Start date: 2014 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_37	School travel plans	Reduced congestion/car use	Traffic planning and management: Encouragement of shift of transport modes	Other	Start date: 2011 Expected end date: 2011 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_38	Workplace travel plans	Reduced congestion/car use	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_39	City centre to Trent Bridge primary pedestrian route	Reduced congestion/car use	Traffic planning and management: Other measure	Planning	Start date: 2014 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_40	Develop walking map for West Bridgford employees	Reduced congestion/car use	Traffic planning and management: Encouragement of shift of transport modes	Other	Start date: 2007 Expected end date: 2007 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_41	Development control policy	N/A	Other measure: Other measure	Implementation	Start date: 2015 Expected end date: 2030 Spatial scale: Whole agglomeration Source affected: Commercial and residential sources Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Rushcliffe Borough Council_42	Development control contributions	N/A	Other measure: Other measure	Other	Start date: 2014 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_43	Remote home working	Reduced congestion/car use	Other measure: Other measure	Implementation	Start date: 2007 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_44	RBC energy strategy	Energy efficiency	Public procurement: Low emission stationary combustion sources	Implementation	Start date: 2007 Expected end date: 2020 Spatial scale: Whole agglomeration Source affected: Commercial and residential sources Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_45	RBC procurement	Green purchasing	Other measure: Other measure	Implementation	Start date: 2007 Expected end date: 2010 Spatial scale: Local Source affected: Commercial and residential sources Indicator: N/A
Rushcliffe Borough Council_46	RBC EMAS	N/A	Other measure: Other measure	Implementation	Target emissions reduction: N/A Start date: 2007 Expected end date: 2012 Spatial scale: Local Source affected: Commercial and residential sources Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_47	NCC flexible working practices	Reduced congestion/car use	Other measure: Other measure	Implementation	Start date: 2014  Expected end date: 2030  Spatial scale: Whole agglomeration  Source affected: Transport  Indicator: N/A  Target emissions reduction: N/A
Rushcliffe Borough Council_48	Driver training	Vehicle efficiency	Other measure: Other measure	Other	Start date: 2012 Expected end date: 2012 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A

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Measure code	Description	Focus	Classification	Status	Other information
Rushcliffe Borough Council_49	Eco-Stars	Vehicle efficiency	Other measure: Other measure	Implementation	Start date: 2013 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_50	Big track	Reduced congestion/car use	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2006 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Rushcliffe Borough Council_51	HA to undertake a feasibility study for other junction improvements as part of Route Strategy on the A52 (completion early 2015 to investigate improvement schemes from Gamston to A46)	Junction improvement	Traffic planning and management: Encouragement of shift of transport modes	Planning	Start date: 2014 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: Written update supplied by HA annually until completed. Any new measures to be incorporated into this existing AQAP Target emissions reduction: Less than 1 ug/m3
Rushcliffe Borough Council_52	Re-phasing of current lights to give greater priority to A52 Nottingham bound	Junction improvement	Traffic planning and management: Encouragement of shift of transport modes	Planning	Start date: 2014 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: Less than 1 ug/m3
Rushcliffe Borough Council_53	Install scoot/Mova or review operating performance to maximise junction capacity and prioritise A52	Junction improvement	Traffic planning and management: Encouragement of shift of transport modes	Planning	Start date: 2014 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: Less than 1 ug/m3
Rushcliffe Borough Council_54	Install speed limit to reduce emissions	Junction improvement	Traffic planning and management: Encouragement of shift of transport modes	Planning	Start date: 2014 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: Less than 1 ug/m3

Measure code	Description	Focus	Classification	Status	Other information
Rushcliffe Borough Council_55	Ensure Highways Agency consider the AQMA in their policies	Route management	Traffic planning and management: Encouragement of shift of transport modes	Planning	Start date: 2014 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: Written confirmation Target emissions reduction: Less than 1 ug/m3
Rushcliffe Borough Council_56	Integration of AQMA into LTP	Reduce congestion car use	Traffic planning and management: Other measure	Planning	Start date: 2014 Expected end date: 2015 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: Less than 1 ug/m3
Rushcliffe Borough Council_57	Planning policy: air quality guidance for developers amend/update existing guidance	Reducing offsite impacts on amqa	Other measure: Other measure	Planning	Start date: 2014 Expected end date: 2016 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: Less than 1 ug/m3
Rushcliffe Borough Council_58	Planning policy: Ensure AQAP and AQMA are considered in future developments likely to affect the AQMA	Reducing offsite impacts on amqa	Other measure: Other measure	Planning	Start date: 2014 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: Less than 1 ug/m3
Rushcliffe Borough Council_59	Smarter choices:	Reducing traffic source	Traffic planning and management: Encouragement of shift of transport modes	Planning	Start date: 2014 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: Less than 1 ug/m3
Rushcliffe Borough Council_60	Implement policies to ensure mitigation measures are applied where new developments lead to traffic increases in this area. E.g. travel planning, promotion of electric charging points or other emission reduction measures.	Reducing offsite impacts on amqa	Other measure: Other measure	Planning	Start date: 2014 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: Less than 1 ug/m3
Rushcliffe Borough Council_61	Planning policy. Develop a Supplementary Planning Document or update the Air Quality Considerations for Developers guide. New development shall have regard to the guide or any SPD published by RBC.	Reducing offsite impacts on amqa	Other measure: Other measure	Planning	Start date: 2014 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: Less than 1 ug/m3

	Measure code	Description	Focus	Classification	Status	Other information
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