Department for Environment Food & Rural Affairs

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Draft Air Quality Plan for the achievement of EU air quality limit value for nitrogen dioxide (NO_2) in Glasgow Urban Area (UK0024)

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Llywodraeth Cymru
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DOE
Department of the Environment
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The Scottish Government
Riaghaltas na h-Alba

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

air.quality@defra.gsi.gov.uk

Contents

1 Introduction

1.1 This document

This document is the Glasgow Urban Area agglomeration zone (UK0024) updated air quality plan for the achievement of the EU air quality limit values for nitrogen dioxide (NO_2). This is an update to the air quality plan published in September 2011 (http://uk-air.defra.gov.uk/library/no2ten/).

This plan presents the following information:

- General information regarding the Glasgow Urban Area agglomeration zone
- Details of the NO_2 exceedance situation within the Glasgow 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 Glasgow Urban Area agglomeration zone should be read in conjunction with the separate UK overview document. The UK overview document sets out, amongst other things, the authorities responsible for delivering air quality improvements and the national measures that are applied in some or all UK zones. The measures presented in this plan and the accompanying UK overview document show how the UK will ensure that compliance with the NO_2 limit values is achieved in the shortest possible time.

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 μgm^{-3}
- The hourly limit value: no more than 18 exceedances of 200 μgm^{-3} in a calendar year.

The Air Quality Directive stipulates that compliance with the NO_2 limit values will be achieved by 01/01/2010.

1.3 Zone status

The assessment undertaken for the Glasgow Urban Area agglomeration zone indicates that the annual limit value was exceeded in 2013 but is likely to be achieved before 2020 through the introduction of measures included in the baseline.

1.4 Plan Structure

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

Section 3 then presents the overall picture with respect to NO_2 levels in this agglomeration zone for the 2013 reference year of this air quality plan. This includes declaration of exceedance situations within the agglomeration zone and presentation of a detailed source apportionment for each exceedance situation.

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

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

2 General information about the Zone

2.1 Administrative information

Zone name: Glasgow Urban Area
Zone code: UK0024
Type of zone: agglomeration zone
Reference year: 2013
Extent of zone: Figure 1 shows the area covered by the Glasgow 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. City of Glasgow
2. East Dunbartonshire Council
3. East Renfrewshire Council
4. North Lanarkshire Council
5. Renfrewshire Council
6. South Lanarkshire Council
7. West Dunbartonshire 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 Glasgow Urban Area agglomeration zone (UK0024).

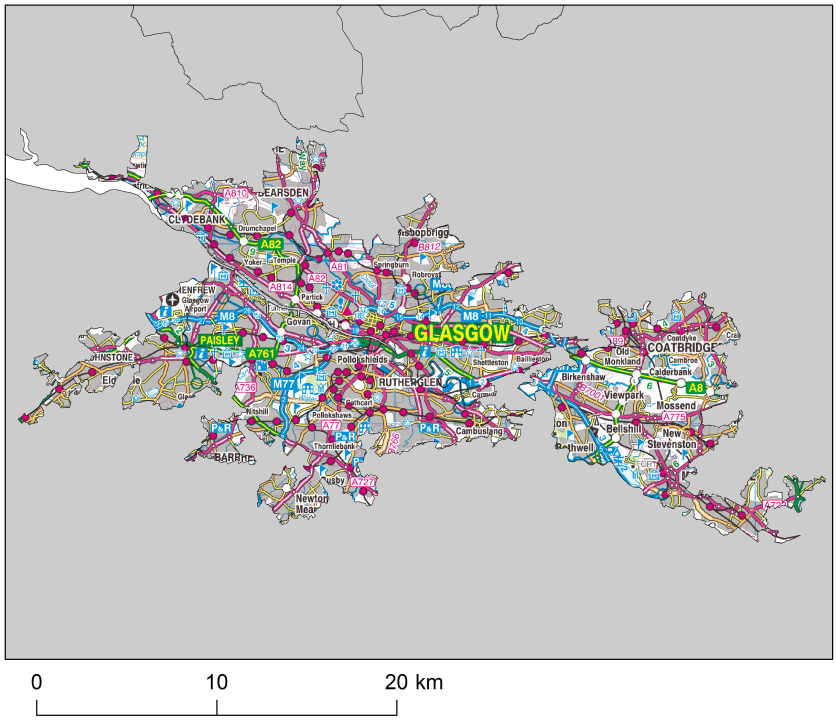
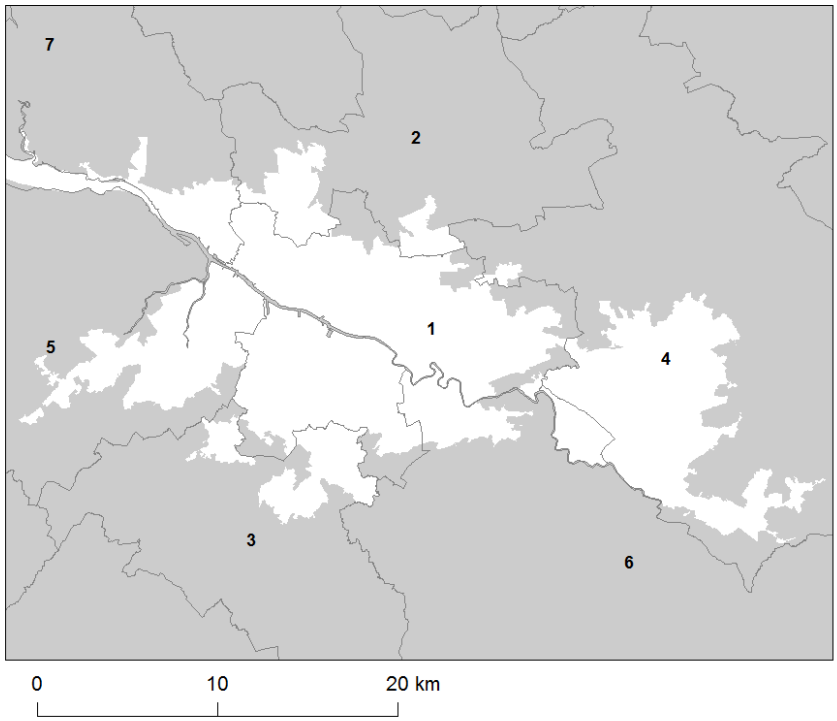


Figure 2: Map showing Local Authorities within the Glasgow Urban Area agglomeration zone (UK0024).



2.2 Assessment details

Measurements

NO_2 measurements in this zone were available in 2013 from the following national network monitoring stations (NO_2 data capture for each station in 2013 shown in brackets):

1. Glasgow Kerbside GB0657A (96%)
2. Glasgow Townhead GB1028A (22%)

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

Modelling

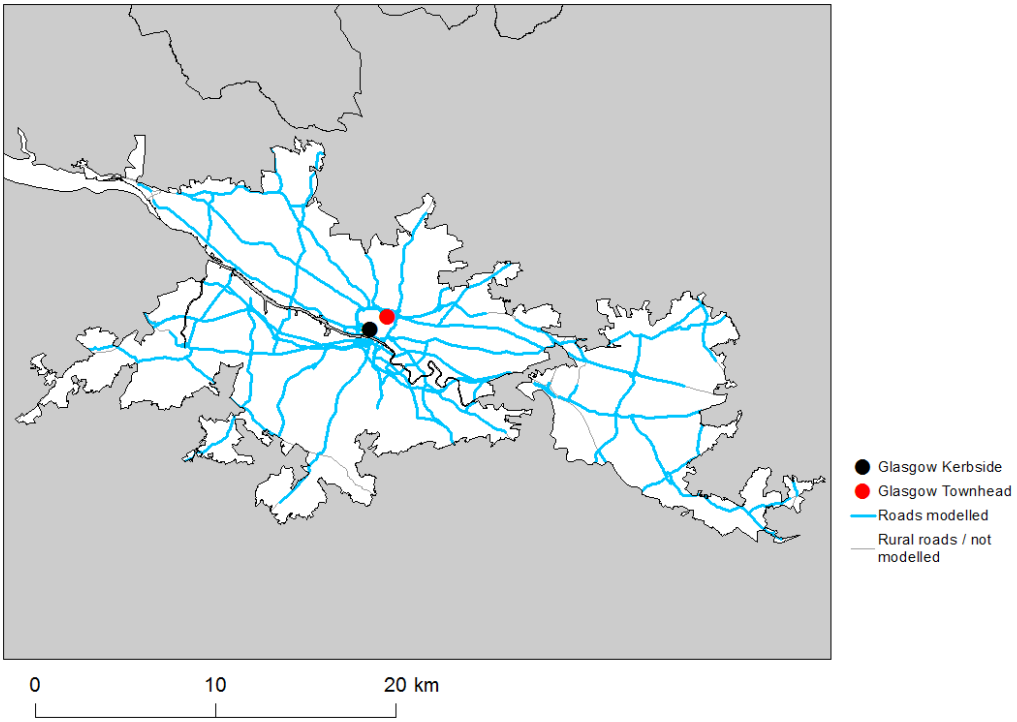
Modelling for the 2013 reference year has been carried out for the whole of the UK. This modelling covers the following extent within this zone:

- Total background area within zone (approx): 367 km^2
- Total population within zone (approx): 1,105,095 people
- Total road length where an assessment of NO_2 concentrations have been made: 340 km in 2013 (and similar lengths in previous years)

Zone maps

Figure 3 presents the location of the NO_2 monitoring stations within this zone for 2013 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 x 1 km^2 resolution.

Figure 3: Map showing the location of the NO_2 monitoring stations with valid data in 2013 and roads where concentrations have been modelled within the Glasgow Urban Area (UK0024) agglomeration zone.



2.3 Reporting Under European Directives

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

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

3 Overall Picture for 2013 Reference Year

3.1 Introduction

There are two limit values for the protection of health for NO_2. These are:

- The annual limit value (annual mean concentration of no more than 40 μgm^{-3})
- The hourly limit value (no more than 18 hourly exceedances of 200 μgm^{-3} in a calendar year)

Within the Glasgow Urban Area agglomeration zone the annual limit value was exceeded in 2013. Hence, one exceedance situation for this zone has been defined, NO_2_UK0024_Annual_1, which covers exceedances of the annual limit value. This exceedance situation is described below.

3.2 Reference year: NO_2_UK0024_Annual_1

The NO_2_UK0024_Annual_1 exceedance situation covers all exceedances of the annual mean limit value in the Glasgow Urban Area agglomeration zone in 2013.

Compliance with the annual limit value in this exceedance situation has been assessed using a combination of air quality measurements and modelling. Table 1 presents measured annual concentrations at national network stations in this exceedance situation since the 1st Daughter Directive (1999/30/EC) came into force in 2001. This shows that there were measured exceedances of the annual limit value at Glasgow Kerbside (GB0657A) in 2013. Table 2 summarises modelled annual mean NO_2 concentrations in this exceedance situation for the same time period. This table shows that, in 2013, 76.2 km of road length was modelled to exceed the annual limit value. There were no modelled background exceedances of the annual limit value. Maps showing the modelled annual mean NO_2 concentrations for 2013 at background and at roadside locations are presented in Figures 4 and 5 respectively. All modelled exceedances of the annual limit value are coloured orange or red in the maps.

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

The modelling carried out for this exceedance situation has also been used to determine the annual mean NOx source apportionment for all modelled locations. Table 3 presents summary source apportionment information in this exceedance situation.

Table 3 summarises the modelled NOx source apportionment for the section of road with the highest modelled NO_2 concentration in this exceedance situation in 2013. This is important information because it shows which

sources need to be tackled at the location with the largest compliance gap in the exceedance situation. It is not possible to calculate an unambiguous source apportionment for annual mean NO_2 concentrations for the reasons discussed in the UK Technical Report[1]. Therefore no NO_2 source apportionment is provided.

Figure B.1 in Annex B presents the annual mean NOx source apportionment for each section of road within the NO_2_UK0024_Annual_1 exceedance situation (i.e. the source apportionment for all exceeding roads only) in 2013. Roads have been grouped into motorways, primary roads and trunk roads in this figure.

[1] Technical report to be finalised for the final plan.

Table 1: Measured annual mean NO_2 concentrations at national network stations in NO2_UK0024_Annual_1 for 2001 onwards, μgm^{-3} (a). Data capture shown in brackets.

Site name (EOI code)	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Glasgow Centre (GB0641A)	34 (86)	32 (95)	39 (43)	36 (88)	33 (96)	31 (96)	31 (92)	35 (77)	42 (91)	44 (98)	34 (96)	32 (61)	
Glasgow City Chambers (GB0452A)	46 (99)	47 (95)	50 (96)	49 (98)	46 (95)	47 (98)	47 (97)	48 (98)	46 (97)	49 (97)	50 (20)		
Glasgow Kerbside (GB0657A)	71 (99)	74 (97)	75 (99)	68 (96)	62 (98)	68 (93)	70 (92)	82 (95)	78 (97)	84 (97)	72 (98)	72 (91)	67 (96)
Glasgow Townhead (GB1028A)													33 (22)

(a) Annual Mean Limit Value = 40 μgm^{-3}

Table 2: Annual mean NO_2 model results in NO_2_UK0024_Annual_1 for 2001 onwards.

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Road length exceeding (km)	160.5	69.6	205.6	150.7	159.7	156.6	124.6	75.9	91.9	141.3	75.3	69.6	76.2
Background exceeding (km^2)	17	0	15	0	0	0	0	0	0	0	1	0	0
Maximum modelled concentration (μgm^{-3}) (a)	64.8	62.2	77.5	73.9	77.9	87.4	85.3	83.1	90.6	97.2	82	83	68

(a) Annual Mean Limit Value = 40 μgm^{-3}

Table 3: Modelled annual mean NOx source apportionment at the traffic count point with the highest modelled concentration in 2013 in NO2_UK0024_Annual_1 (μgm^{-3}) (traffic count point 74419 on the A8; OS grid (m): 269700, 663870).

Spatial scale	Component	Concentration at highest road link (a)
Regional background sources NOx (i.e. contributions from distant sources of > 30 km from the receptor).	Total	3.2
	From within the UK	1.5
	From transboundary sources (includes shipping and other EU member states)	1.7
Urban background sources NOx (i.e. sources located within 0.3 - 30 km from the receptor).	Total	26.0
	From road traffic sources	18.8
	From industry (including heat and power generation)	3.3
	From agriculture	NA
	From commercial/residential sources	1.8
	From shipping	0.1
	From off road mobile machinery	1.1
	From natural sources	NA
	From transboundary sources	NA
	From other urban background sources	0.9
Local sources NOx (i.e. contributions from sources < 0.3 km from the receptor).	Total	160.2
	From petrol cars	7.9
	From diesel cars	37.9
	From HGV rigid	47.6
	From HGV articulated	35.6
	From buses	8.5
	From petrol LGVs	0.4
	From diesel LGVs	22.3
	From motorcycles	0.1
	From London taxis	0.0
Total NOx (i.e. regional background + urban background + local components)		189.3
Total NO_2 (i.e. regional background + urban background + local components)		68

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

Figure 4: Map of modelled background annual mean NO_2 concentrations 2013. Modelled exceedances of the annual limit value are shown in orange and red.

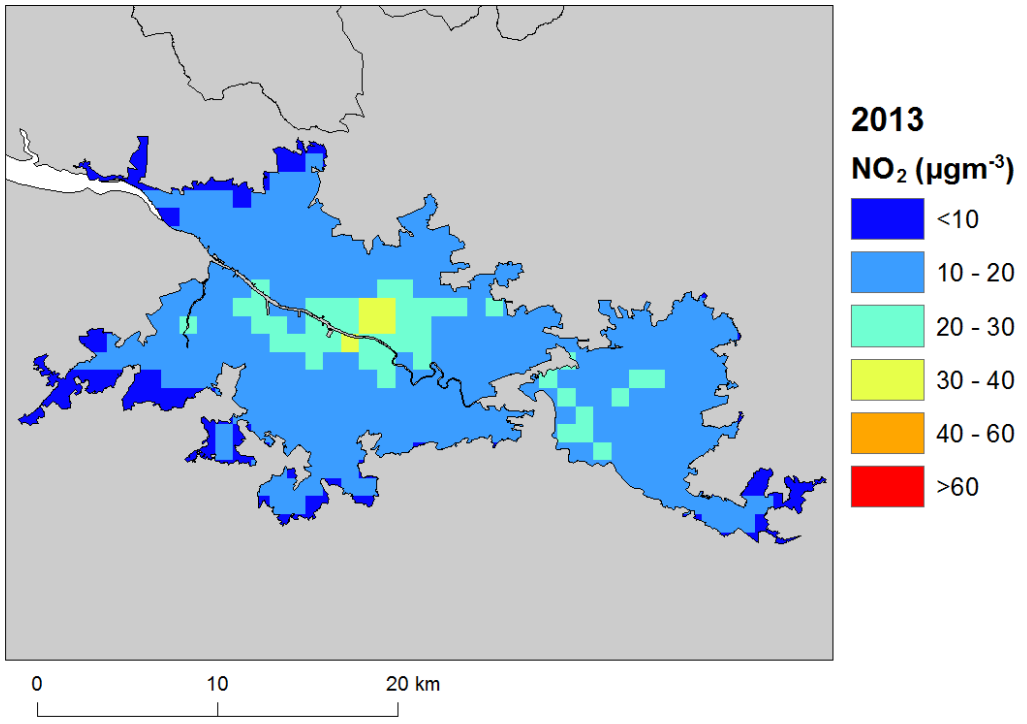
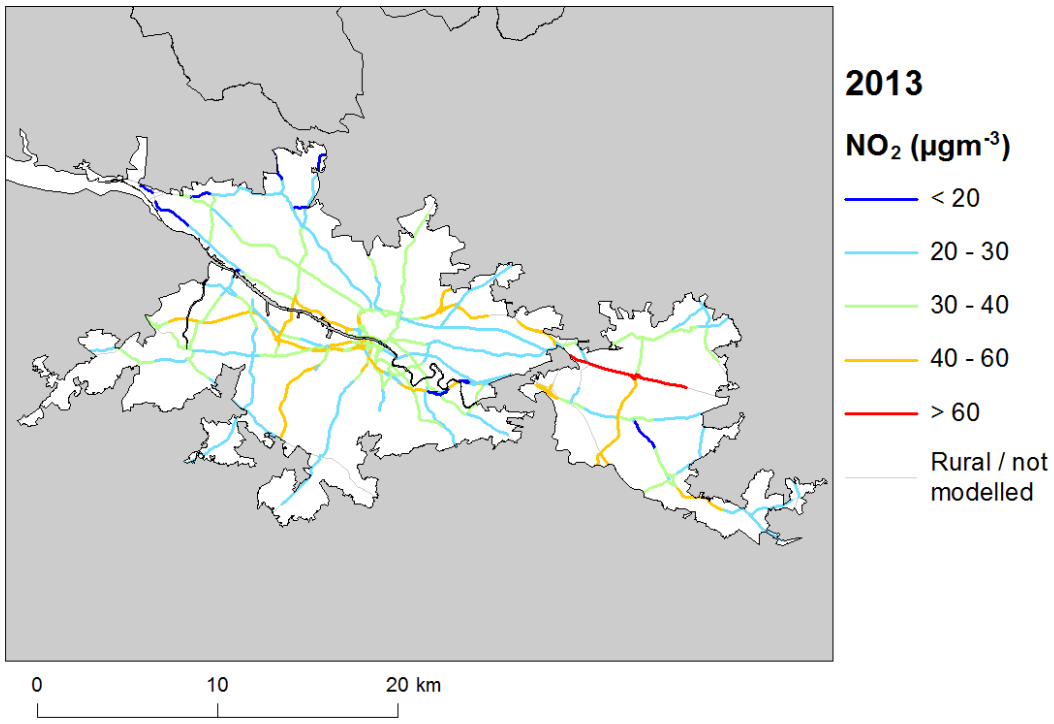


Figure 5: Map of modelled roadside annual mean NO_2 concentrations 2013. Modelled exceedances of the annual limit value are shown in orange and red.



4 Measures

4.1 Introduction

This section (section 4) gives details of measures that address exceedances of the NO_2 limit values within Glasgow 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 rigid HGVs and cars contributing about 25% each of total NOx on some of the roads with the highest concentrations. Cars, articulated HGVs, rigid HGVs and LGVs were important sources on the motorway roads with the highest concentrations in this exceedance situation. Cars and buses were important sources on the primary roads with the highest concentrations. Cars, rigid HGVs, articulated HGVs and LGVs were important sources on the trunk roads with the highest concentrations. For all road links concentrations of NOx from diesel cars were approximately four times greater than NOx emissions from petrol cars. NOx concentrations from petrol LGVs are a small component of total NOx concentrations and less than 2% of total NOx from LGVs.

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

4.3 Measures

Measures potentially affecting NO_2 in this agglomeration zone have been taken and/or are planned at a range of administrative levels. These are:

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

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

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

Activities in the Glasgow Urban Area agglomeration to improve air quality include a focus on cycling, walking, modal shifts away from using cars and retrofitting buses.

The area is intending to expand a programme of vehicle idling enforcement and a roadside emission testing programme is continuing. An emissions strategy is also under consideration to reduce emissions from taxi and private hire vehicles.

A modal shift strategy is also in place that has encouraged car clubs to be set up to reduce the numbers of vehicle trips and a cycling strategy is in place that will encourage a shift away from using private cars. On the public transport front, a bus retro-fit scheme is in place that will fit buses with new exhaust technology to reduce harmful emissions.

To build upon that, workplace travel plans have been implemented as well as school travel plan/walk to a school week. There have been two new park and ride facilities at strategic points to ease congestion caused by rail travellers.

4.4 Measures timescales

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

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

The reference year for this air quality plan is 2013. Hence where measures started and finished before 2013, then the improvement in air quality resulting from these measures will have already taken place before the reference year and the impact of these measures will have been included in the assessment where the measure has had an impact on the statistics used to compile the emission inventory. Many measures started before the reference year and will continue to have a beneficial impact on air quality well beyond the reference year. Hence measures with a start date before 2013 and an end date after 2013 may have an impact on concentrations in the reference year and a further impact in subsequent years. Where the Status column in Annex C is ‘Implementation’, this shows that this measure is already underway or that there is a commitment for this measure to go ahead. Where the Status is ‘Planning’, ‘Preparation’ or ‘Other’ the level of commitment is less clear and it is possible some of these measures may not go ahead.

5 Baseline Model projections

5.1 Overview of model projections

Model projections for 2020, 2025 and 2030, starting from the 2013 reference year described in section 3, have been calculated in order to determine when compliance with the NO_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 2012 (used as a basis for the compilation of the emission inventory) or in the traffic activity projections to

2020 and beyond (used to calculate the emissions projections). It should be recognised that these measures will have a beneficial impact on air quality, even if it has not been possible to quantify this impact here.

5.2 Baseline projections: NO_2_UK0024_Annual_1

Table 4 presents summary results for the baseline model projections for 2020, 2025 and 2030 for the NO_2_UK0024_Annual_1 exceedance situation. This shows that the maximum modelled annual mean NO_2 concentration predicted for 2020 in this exceedance situation is 38 μgm^{-3}. Hence, the model results suggest that compliance with the NO_2 annual limit value is likely to be achieved before 2020 under baseline conditions in this exceedance situation.

Figures 6 and 7 show maps of projected annual mean NO_2 concentrations in 2020, 2025 and 2030 for background and roadside locations respectively. Maps for 2013 are also presented here for reference.

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

Table 4: Annual mean NO_2 model results in NO_2_UK0024_Annual_1.

	2013	2020	2025	2030
Road length exceeding (km)	76.2	0.0	0.0	0.0
Background exceeding (km^2)	0	0	0	0
Maximum modelled concentration NO_2 (μgm^{-3}) (a)	68	38	31	28
Corresponding modelled concentration NOx (μgm^{-3}) (b)	189	88	67	60

(a) Annual Mean Limit Value = 40 μgm^{-3}

(b) NOx is recorded here for comparison with the NOx source apportionment graphs for 2013 presented in Annex B of this plan. Limit values for EU directive purposes are based on NO_2.

Figure 6: Background baseline projections of annual mean NO_2 concentrations in 2020, 2025 and 2030. 2013 is also included here for reference. Modelled exceedances of the annual limit value are shown in orange and red.

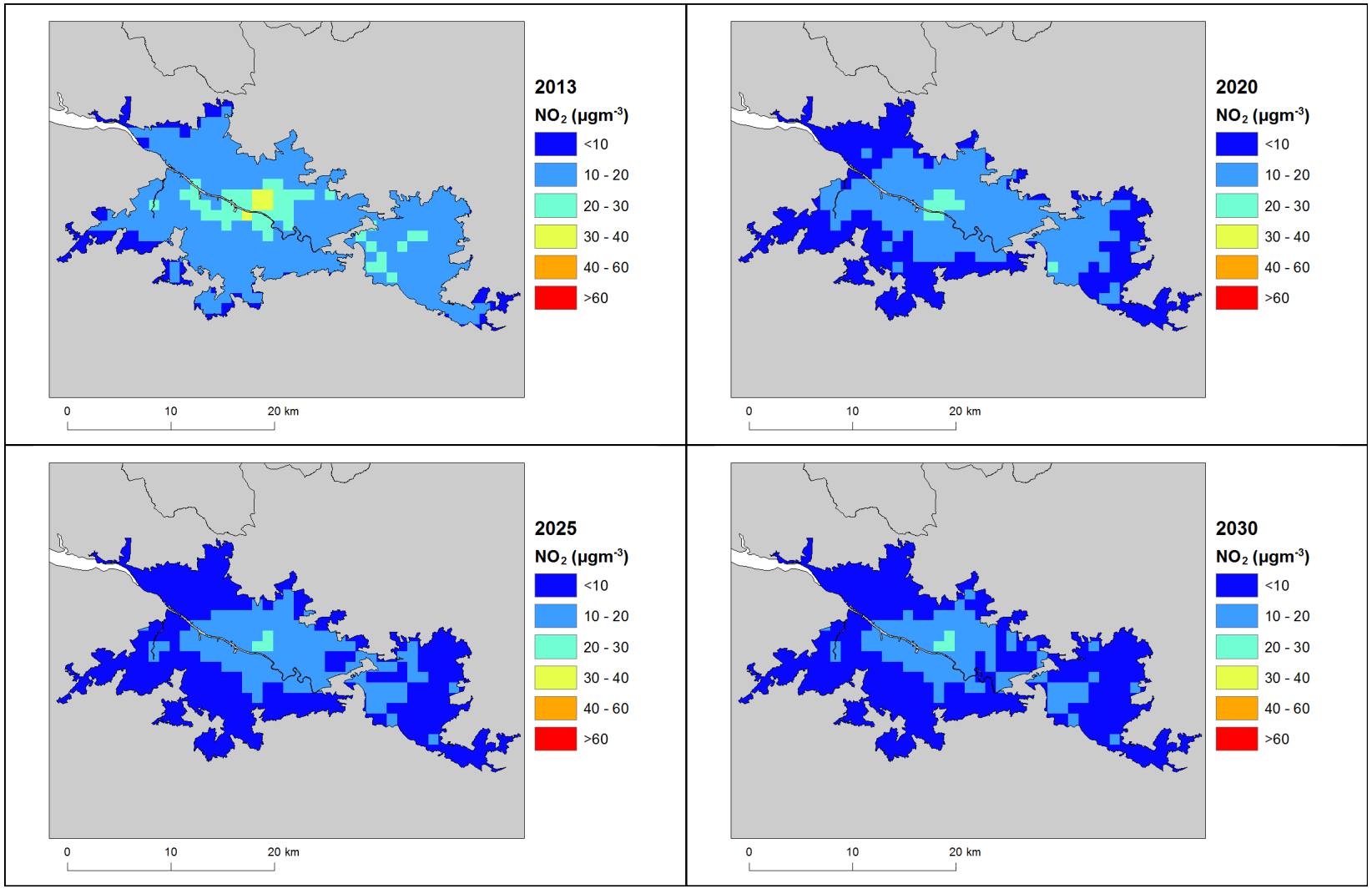
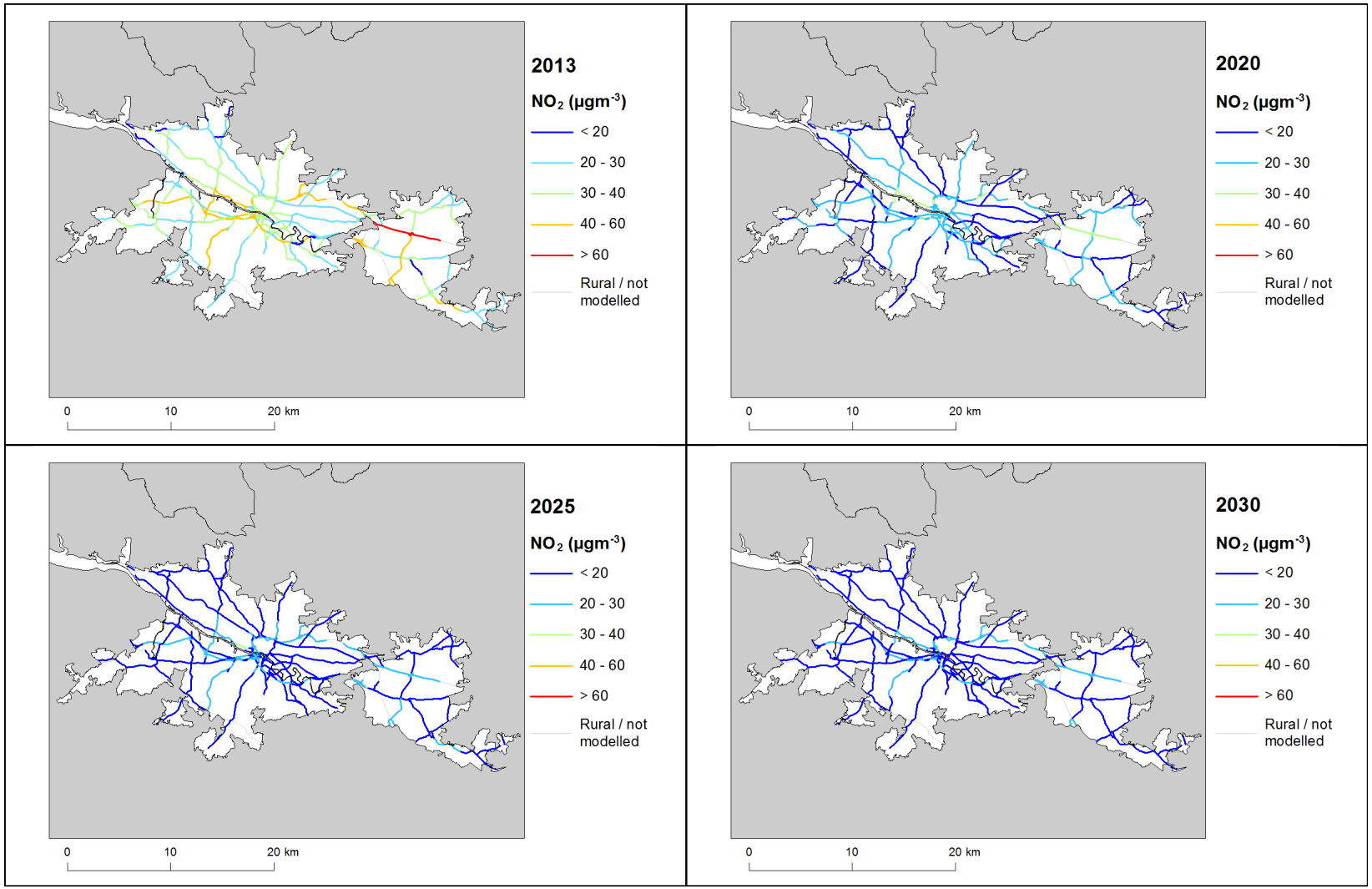


Figure 7: Roadside baseline projections of annual mean NO_2 concentrations in 2020, 2025 and 2030. 2013 is also included here for reference. Modelled exceedances of the annual limit value are shown in orange and red.



Annexes

A References

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

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

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

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

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

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

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

B Source apportionment graphs

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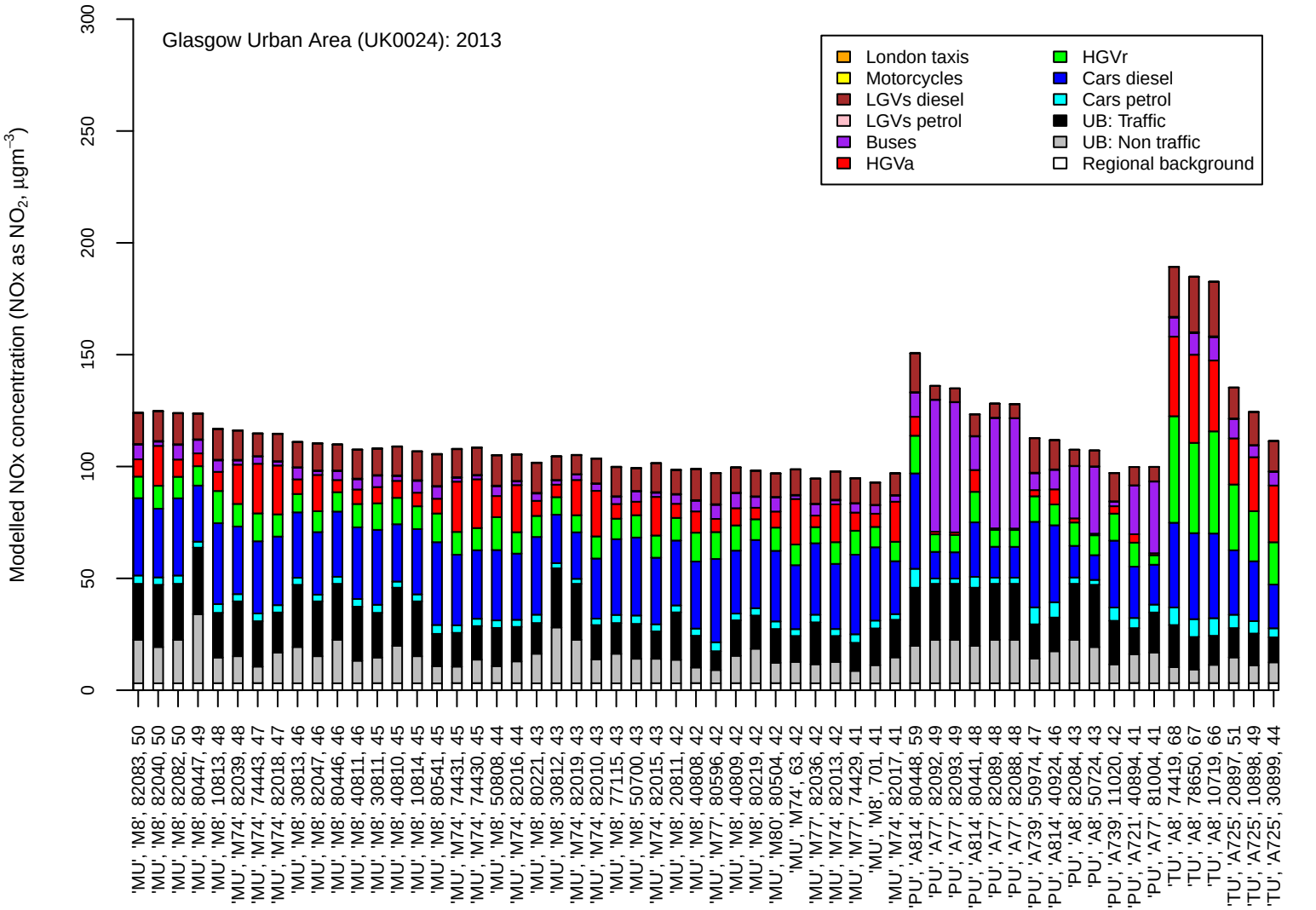
Figure B.1: Annual mean roadside NO_X source apportionment plots for all roads exceeding the annual mean NO_2 limit value in 2013.



C Tables of measures

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Table C.1 Relevant Local Authority measures within Glasgow Urban Area (UK0024)

Measure code	Description	Focus	Classification	Status	Other information
Glasgow City Council_1	Vehicle Idling	Council will expand programme of vehicle idling enforcement	Traffic planning and management: Other measure	Implementation	Start date: 2003 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Glasgow City Council_2	Emission Testing	Council will continue a programme of roadside emission testing	Other measure: Other measure	Implementation	Start date: 2003 Expected end date: 2030 Spatial scale: Whole Town or City Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Glasgow City Council_3	Low Emission Zones	The Council will undertake a detailed feasibility study with a view to introducing LEZs in Glasgow	Traffic planning and management: Low emission zones	Preparation	Start date: 2009 Expected end date: 2030 Spatial scale: Local Source affected: transport Indicator: N/A Target emissions reduction: N/A
Glasgow City Council_4	Cleaner Taxis	Council will prepare an emissions strategy to reduce emissions from taxi and private hire vehicles	Permit systems and economic instruments: Introduction/increase of environment taxes	Other	Start date: 2009 Expected end date: 2014 Spatial scale: Whole Town or City Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Glasgow City Council_5	Council Workplace Travel Plan	Council will prepare a workplace travel plan for all employees	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2011 Expected end date: 2030 Spatial scale: Whole Town or City Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Glasgow City Council_6	Car Clubs	The Council will make on street spaces available for car club vehicles.	Other measure: Other measure	Implementation	Start date: 2010 Expected end date: 2030 Spatial scale: Whole Town or City Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Glasgow City Council_7	Public Service Vehicles	The Council will pursue the use of traffic regulation conditions to control bus emissions within AQMAs	Traffic planning and management: Low emission zones	Implementation	Start date: 2012 Expected end date: 2021 Spatial scale: Whole Town or City Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Glasgow City Council_8	Boiler Emissions	The Council will raise awareness and provide information to assist in energy efficiency in the home and workplace	Other measure: Other measure	Implementation	Start date: 2011 Expected end date: 2030 Spatial scale: Whole Town or City Source affected: Commercial and residential sources Indicator: N/A Target emissions reduction: N/A
Glasgow City Council_9	Planning Guidance	The Council will produce revised planning guidance	Other measure: Other measure	Other	Start date: 2012 Expected end date: 2030 Spatial scale: Local Source affected: Commercial and residential sources Indicator: N/A Target emissions reduction: N/A
Glasgow City Council_10	Air Quality Information	The Council will provide data and information regarding current and longer term air quality monitoring on our web site and at variable message signs throughout the city	Public information and Education: Internet	Implementation	Start date: 2010 Expected end date: 2030 Spatial scale: Whole Town or City Source affected: Other, please specify Indicator: N/A Target emissions reduction: N/A
Glasgow City Council_11	Construction Sites	The Council will produce a code of practice for construction / demolition contractors	Other measure: Other measure	Other	Start date: 2012 Expected end date: 2030 Spatial scale: Local Source affected: Commercial and residential sources Indicator: N/A Target emissions reduction: N/A
Glasgow City Council_12	Fire Reduction	The Council will investigate multi agency strategic level actions aimed at reducing the number of fires and harmful emissions	Public information and Education: Other mechanisms	Other	Start date: 2011 Expected end date: 2011 Spatial scale: Local Source affected: Other, please specify Indicator: N/A Target emissions reduction: N/A
Glasgow City Council_13	Cycling Strategy	Air Quality grants will be sourced for funding cycling improvements in the city. Council initiated a mass automated cycle hire scheme (MACH).	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2011 Expected end date: 2030 Spatial scale: Whole Town or City Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
Glasgow City Council_14	Bus Retro-fit Scheme	Grant funding to retro-fit Buses with new exhaust tech to reduce harmful emissions	Retrofitting: Retrofitting emission control equipment to vehicles	Other	Start date: 2011 Expected end date: 2014 Spatial scale: Whole Town or City Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Glasgow City Council_15	Tree Planting	The Council will investigate the potential for a programme of tree planting as a means of city centre PM10 reduction	Other measure: Other measure	Implementation	Start date: 2012 Expected end date: 2030 Spatial scale: Local Source affected: Other, please specify Indicator: N/A Target emissions reduction: N/A
Glasgow City Council_16	Promote Greener Vehicles	The Council will investigate the potential for reduced rate street parking for electric and hybrid vehicles	Public procurement: Other measure	Implementation	Start date: 2012 Expected end date: 2013 Spatial scale: Whole Town or City Source affected: Transport Indicator: N/A Target emissions reduction: N/A
Glasgow City Council_17	Leading by Example	The Council will demonstrate best practice in the operation of its vehicle fleet	Public procurement: 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
North Lanarkshire Council_1	Purchase and installation of rev-limiters on Council vehicles to ensure more efficient driving and reduced emissions. Initial batch of 30 vehicles to be trialled and thereafter rolled out across Council fleet if successful	N/A	Other measure: Other measure	implementation	Start date: 2013 Expected end date: 2016 Spatial scale: local Source affected: transport Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_2	Implement a programme of emissions diagnostic testing on Council vehicles during servicing and of mobile emissions diagnostic testing where appropriate	N/A	Other measure: Other measure	evaluation	Start date: 2013 Expected end date: 2016 Spatial scale: local Source affected: transport Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_3	purchase and introduction of electric powered minibus for transport for school within AQMA. Performance of vehicle to be assessed with view to future purchasing strategy	N/A	Public procurement: New vehicles, including low emission vehicles	evaluation	Start date: 2013 Expected end date: 2016 Spatial scale: local Source affected: transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
North Lanarkshire Council_4	extension of council pool car fleet by 2015 to reduce private car use for Council business	N/A	Other measure: Other measure	evaluation	Start date: 2013 Expected end date: 2016 Spatial scale: local Source affected: transport Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_5	Introduction of electric powered road sweepers for use in AQMAs	N/A	Public procurement: New vehicles, including low emission vehicles	evaluation	Start date: 2013 Expected end date: 2016 Spatial scale: local Source affected: transport Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_6	introduction of emissions standards to council vehicle procurement policy. By 2014, 50% vehicles to be to Euro 5 standard	N/A	Public procurement: New vehicles, including low emission vehicles	preparation	Start date: 2013 Expected end date: 2016 Spatial scale: local Source affected: transport Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_7	introduction of Automatic Vehicle Logging System (AVLS) in 20% of council vehicles as advanced feasibility study	N/A	Other measure: Other measure	implementation	Start date: 2013 Expected end date: 2016 Spatial scale: local Source affected: transport Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_8	council roll-out of electric vehicles in fleet. Roll-out to be extended following evaluation of first batch performance	N/A	Public procurement: New vehicles, including low emission vehicles	Implementation	Start date: 2013 Expected end date: 2016 Spatial scale: local Source affected: transport Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_9	introduction of electric vehicle charging points in council car parks for use by council and general public	N/A	Public procurement: Other measure	evaluation	Start date: 2013 Expected end date: 2016 Spatial scale: local Source affected: transport Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_10	Memberships of Scotland Transport Emissions partnership (STEP) to ensure air emissions from trunk roads in North Lanarkshire are adequately considered	N/A	Other measure: Other measure	implementation	Start date: 2013 Expected end date: 2016 Spatial scale: local Source affected: transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
North Lanarkshire Council_11	continued emissions testing programme, focused on AQMAs	N/A	Other measure: Other measure	implementation	Start date: 2013 Expected end date: 2016 Spatial scale: local Source affected: transport Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_12	Continued vehicle idling enforcement within AQMAs	N/A	Other measure: Other measure	Implementation	Start date: 2013 Expected end date: 2016 Spatial scale: local Source affected: transport Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_13	undertake continued review of air quality monitoring network to ensure appropriate coverage of council area and identified hotspots	N/A	Traffic planning and management: Other measure	Other	Start date: 2013 Expected end date: 2016 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_14	LAQM included as a standing item on the council's sustainability and climate change group	N/A	Other measure: Other measure	implementation	Start date: 2013 Expected end date: 2016 Spatial scale: local Source affected: Other, please specify Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_15	introduction of programme of upgraded energy provision in schools and council buildings within AQMAs, changeover from HFO to gas and PV	N/A	Low emission fuels for stationary and mobile sources: Shift to installations using low emission fuels	implementation	Start date: 2013 Expected end date: 2016 Spatial scale: local Source affected: Commercial and residential sources Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_16	Council LAQM emission inventory to be extended to cover carbon emissions. Greater linkage between corporate reporting and LAQM	N/A	Other measure: Other measure	evaluation	Start date: 2013 Expected end date: 2016 Spatial scale: local Source affected: Other, please specify Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
North Lanarkshire Council_17	Council will prepare and publish a web-based learning tool on air quality for senior Primary School pupils (P5-7) and roll-out across schools in area	N/A	Public information and Education: Other mechanisms	evaluation	Start date: 2013 Expected end date: 2016 Spatial scale: local Source affected: Other, please specify Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_18	Update guidance for developers on air quality	N/A	Other measure: Other measure	planning	Start date: 2013 Expected end date: 2016 Spatial scale: local Source affected: Other, please specify Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_19	Environmental health represented on town centre improvement programme stakeholder group to ensure redevelopment programmes take cognisance of air quality concerns	N/A	Other measure: Other measure	evaluation	Start date: 2013 Expected end date: 2016 Spatial scale: local Source affected: Other, please specify Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_20	Introduciton of air quality training programme for local authority planners to raise awareness of air quality issues	N/A	Other measure: Other measure	preparation	Start date: 2013 Expected end date: 2016 Spatial scale: local Source affected: Other, please specify Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_21	Council work place travel plan	N/A	Traffic planning and management: Encouragement of shift of transport modes	implementation	Start date: 2013 Expected end date: 2016 Spatial scale: local Source affected: transport Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_22	Cycling promotion initiative	N/A	Traffic planning and management: Encouragement of shift of transport modes	implementation	Start date: 2013 Expected end date: 2016 Spatial scale: local Source affected: transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
North Lanarkshire Council_23	school travel plan/walk to school week	N/A	Traffic planning and management: Encouragement of shift of transport modes	implementation	Start date: 2013 Expected end date: 2016 Spatial scale: local Source affected: transport Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_24	feasibility study in relation to the potential development and introduction of a Statutory Quality Bus Partnership	N/A	Traffic planning and management: Improvement of public transport	preparation	Start date: 2013 Expected end date: 2016 Spatial scale: Whole town or city Source affected: transport Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_25	Investigate potential excessive lay-over times of bus companies in around Muir Street area of Motherwell, adjacent to Motherwell Train Station	N/A	Traffic planning and management: Improvement of public transport	evaluation	Start date: 2013 Expected end date: 2016 Spatial scale: Whole town or city Source affected: transport Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_26	Two new park and ride facilities at strategic points in Motherwell town centre in order to ease congestion caused by rail travellers	N/A	Traffic planning and management: Improvement of public transport	evaluation	Start date: 2013 Expected end date: 2016 Spatial scale: Whole town or city Source affected: transport Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_27	widening of windmillhill street	N/A	Traffic planning and management: Encouragement of shift of transport modes	evaluation	Start date: 2013 Expected end date: 2016 Spatial scale: Whole town or city Source affected: transport Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_28	extension to the existing Airbles Road to form a new access road into the ravenscraig site	N/A	Traffic planning and management: Other measure	other	Start date: 2013 Expected end date: 2016 Spatial scale: Whole town or city Source affected: transport Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_29	proposed dualling of the A723 road to the north of Motherwell	N/A	Traffic planning and management: Other measure	implementation	Start date: 2013 Expected end date: 2016 Spatial scale: Whole town or city Source affected: transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
North Lanarkshire Council_30	work with Strathclyde Partnership for Transport (SPT) to secure funding to take forward proposed junction improvements within the Chapelhall AQMA	N/A	Traffic planning and management: Other measure	preparation	Start date: 2013 Expected end date: 2016 Spatial scale: Whole town or city Source affected: transport Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_31	Detailed Assessment of A73 corridor from Chapehall to Airdri, to identify pinch-points which could be impacting on the AQMA	N/A	Traffic planning and management: Other measure	Other	Start date: 2013 Expected end date: 2016 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_32	introduction of Ecostars Fleet Recognition Scheme	N/A	Other measure: Other measure	Implementation	Start date: 2013 Expected end date: 2016 Spatial scale: national Source affected: transport Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_33	Ongoing monitoring will continue within the Whifflet AQMA. this AQMA will shortly be extended to include the Shawhead area of Coatbridge	N/A	Other measure: Other measure	Other	Start date: 2013 Expected end date: 2016 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_34	Installation of NO2 analyser	N/A	Other measure: Other measure	Other	Start date: 2013 Expected end date: 2016 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_35	optimisation of traffic lights for Stoneyetts Road and Avenuehead Road at Moodiesburn AQMA	N/A	Traffic planning and management: Other measure	evaluation	Start date: 2013 Expected end date: 2016 Spatial scale: local Source affected: transport Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_36	Planning restrictions on land adjacent to the new M80	N/A	Other measure: Other measure	implementation	Start date: 2013 Expected end date: 2016 Spatial scale: local Source affected: transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
North Lanarkshire Council_37	Continue to monitor PM10 concentrations within AQMA at Croy to establish if impact on concentrations from quarry being mothballed	N/A	Other measure: Other measure	Other	Start date: 2013 Expected end date: 2016 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
North Lanarkshire Council_38	extensive liaison with SEPA reagrding conditions to be attached to Croy quarry should operations restart	N/A	Permit systems and economic instruments: Other measure	implementation	Start date: 2013 Expected end date: 2016 Spatial scale: local Source affected: Industry including heat and power production Indicator: N/A Target emissions reduction: N/A
Renfrewshire Council_1	Central Road Refurbishment	Redesign of this road used for buses,taxis and goods vehicles to reduce traffic flows, congestion, idling and ultimately emissions within this immediate area	Traffic planning and management: Other measure	Implementation	Start date: 2009 Expected end date: 2010 Spatial scale: Local Source affected: Transport Indicator: Completed Target emissions reduction: Air Quality levels within Central Road significantly improved following implementation and in 2011, for the first time since monitoring commenced here in Jan 2004, the one hour NO2 objective (the only objective applicable here) was complied with.
Renfrewshire Council_2	Statutory Quality Bus Partnership (SQBP) Scheme	All buses operating within Paisley Town Centre (PTC) - the area of our AQMA - require to have a minimum of Euro 3 engine	Public procurement: Cleaner vehicle transport services	Implementation	Start date: 2011 Expected end date: 2013 Spatial scale: Local Source affected: Transport Indicator: Completed Target emissions reduction: To be reviewed as part of our AQAP Progress Report due 2015
Renfrewshire Council_3	Split Cycle Offset Optimisation Technique (SCOOT) Traffic Management System	This tool assists in the management and control of traffic signals within PTC by responding to fluctuations in traffic flow thereby ultimately reducing congestion where necessary.	Traffic planning and management: Other measure	Evaluation	Start date: 2008 Expected end date: 2014 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: No emission target set

Measure code	Description	Focus	Classification	Status	Other information
Renfrewshire Council_4	Council Fleet Improvements	Reduce unit emissions from all council fleet vehicles through upgrades to Euro 5 standard/retrofitting of vehicles.	Retrofitting: Retrofitting emission control equipment to vehicles	Implementation	Start date: 2009 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: Completed Target emissions reduction: No emission target set
Renfrewshire Council_5	Masternaut Vehicle Tracking for Council Vehichles	Reduce unit emissions from council fleet vehicles through the use of this system which optimises fuel usage & minimises idling.	Traffic planning and management: Freight transport measure	Implementation	Start date: 2010 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: Completed Target emissions reduction: No emission target set
Renfrewshire Council_6	Vehicle Idling Awareness Raising	Awareness raising campaigns in targeted areas of known idling problems aimed at reducing local pollution levels	Traffic planning and management: Other measure	Implementation	Start date: 2011 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: Ongoing measure, dependant on receiving annual grant from Scottish Government Target emissions reduction: No emission target set
Renfrewshire Council_7	Vehicle Emissions Testing of Private Vehicles	Targeting of vehicles within the AQMA to ensure they meet the relevant emission standards	Other measure: Other measure	Implementation	Start date: 2011 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: Ongoing measure, dependant on receiving annual grant from Scottish Government Target emissions reduction: No emission target set
Renfrewshire Council_8	Green Travel Planning Within the Council including Staff Travel Plans & School Travel Plans	Reduce reliance on car and ultimately reduce vehicle numbers/congestion within AQMA	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2008 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: Several different aims set within the Council's Local Transport Stratey 2007 document Target emissions reduction: Not possible to quantify

Measure code	Description	Focus	Classification	Status	Other information
Renfrewshire Council_9	Workplace Travel Plans for Large Employers within Council Area	Reduce reliance on car and ultimately reduce vehicle numbers/congestion within AQMA	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2010 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: None set Target emissions reduction: Not possible to quantify
Renfrewshire Council_10	Awareness Raising of Air Quality (AQ) Issues to General Public	Improve AQ info available on Council website to raise awareness of AQ issues	Public information and Education: Internet	Planning	Start date: 2015 Expected end date: 2015 Spatial scale: Whole town or city Source affected: Other, please specify Indicator: Completion of improvements to council website Target emissions reduction: Not possible to provide quantitative indicators.
Renfrewshire Council_11	Eco Driver Training for Council Staff	Encourage efficient driving from council HGV drivers to reduce local pollution levels	Other measure: Other measure	Implementation	Start date: 2014 Expected end date: 2014 Spatial scale: Whole town or city Source affected: Transport Indicator: Test carried out on all drivers within Community Resources Roads Section Target emissions reduction: Not possible to quantify
Renfrewshire Council_12	Parking Controls within Paisley Town Centre (PTC)	Paisley Town Centre is within a controlled parking zone i.e. there is a charge for parking within the town therefore potentially discouraging cars being brought into centre	Traffic planning and management: Other measure	Implementation	Start date: 2008 Expected end date: 2010 Spatial scale: Local Source affected: Transport Indicator: None set Target emissions reduction: Not possible to quantify

Measure code	Description	Focus	Classification	Status	Other information
Renfrewshire Council_13	Awareness Raising of Air Quality Issues with Council Planners	Various measures i.e. guidance document/GIS updates/AQ training seminar to raise awareness of AQ issues with the Council's Planning officers and to improve ability to manage air quality across council services	Other measure: Other measure	Implementation	Start date: 2014 Expected end date: 2015 Spatial scale: Whole town or city Source affected: Other, please specify Indicator: AQ is considered for all developments where this may be an issue to ensure development proceeds only where AQ will not be adversely affected by the development or new receptors are not brought into an area of AQ exceedences. Target emissions reduction: Not possible to quantify
Renfrewshire Council_14	Construction/Demolition Sites - Dust Mitigation Plans	Implementation of DMPs for all developments of significant scale within or adjacent to an AQMA to avoid worsening of air quality	Other measure: Other measure	Planning	Start date: 2015 Expected end date: 2015 Spatial scale: Whole town or city Source affected: Commercial and residential sources Indicator: DMPs are in place where necessary and requirement monitoring is undertaken by the developer, ensuring plans are followed, minimising fugitive release of dusts . Target emissions reduction: Not possible to quantify
Renfrewshire Council_15	Biomass Strategy/Guidance Document	Adoption of a biomass strategy/guidance document for use by council staff/developers to improve ability to manage potential AQ impacts from biomass and to avoid worsening of AQ	Other measure: Other measure	Preparation	Start date: 2015 Expected end date: 2015 Spatial scale: Whole town or city Source affected: Commercial and residential sources Indicator: Adoption of strategy/guidance document Target emissions reduction: Not possible to quantify
Renfrewshire Council_16	Domestic Emissions & Fuel Consumption Awareness Raising	Improve the energy efficiency of domestic properties and heating systems to reduce amount of energy used per household and ultimately reduce emissions on a local level. The Council has an adopted Fuel Pverty Strategy to target this issue.	Public information and Education: Other mechanisms	Implementation	Start date: 2010 Expected end date: 2015 Spatial scale: Whole town or city Source affected: Commercial and residential sources Indicator: No. of houses meeting standards & measures installed Target emissions reduction: Not possible to quantify

Measure code	Description	Focus	Classification	Status	Other information
Renfrewshire Council_17 Proposed New Measure	Planning Policy & Regeneration Residential Design Guide Strategy	A strategy entitled 'Residential Places' providing advice/guidance for applicants submitting residential proposals which sets out the objectives of sustainable placemaking, design considerations and the process through which high quality designs can be achieved in development proposals. Guidance is given on including low carbon and energy efficiency into residential proposals. there wil lbe a requirement for future developers to consider air quality as part of their proposals.	Other measure: Other measure	Planning	Start date: 2015 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Commercial and residential sources Indicator: To be considered and adopted by Council Board on 10 March 2015 Target emissions reduction: Not possible to quantify
Renfrewshire Council_18 Proposed New Measure	ECO Stars Fleet Recognition Scheme	A scheme to assist fleet operators improve efficiency, reduce fuel consumption and emissions.	Other measure: Other measure	Planning	Start date: 2014 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: Adoption of the scheme within the Council Target emissions reduction: Unknown at present
Renfrewshire Council_19 Proposed New Measure	Council Fleet Electric Vehicls & Charging Infrastructure	Introduction of Electric Vehicles within Council Fleet and associated charging infrastructure throughout the Council area	Public procurement: New vehicles, including low emission vehicles	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: Number of new electric vehicles introduced to fleet. Target emissions reduction: N/A
East Dunbartonshire Council_1	Enforcement of Bus Idling	N/A	Traffic planning and management: Other measure	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Commercial and residential sources Indicator: N/A Target emissions reduction: N/A
East Dunbartonshire Council_2	Green Travel Planning including:Council's Workplace Travel Plan	N/A	Traffic planning and management: Encouragement of shift of transport modes	Evaluation	Start date: 2011 Expected end date: 2015 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
East Dunbartonshire Council_3	Work with other large employers to promote Travel Plans	N/A	Traffic planning and management: Encouragement of shift of transport modes	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Commercial and residential sources Indicator: N/A Target emissions reduction: N/A
East Dunbartonshire Council_4	School Travel Plans	N/A	Traffic planning and management: Encouragement of shift of transport modes	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Commercial and residential sources Indicator: N/A Target emissions reduction: N/A
East Dunbartonshire Council_5	Awareness Raising & Education i.e. more info on Council website, real time air quality levels provided on web/in public places. Presentations by Council Staff / Wardens in schools/communities.	N/A	Public information and Education: Other mechanisms	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Commercial and residential sources Indicator: N/A Target emissions reduction: N/A
East Dunbartonshire Council_6	Eco Driver Training	N/A	Public procurement: Other measure	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Commercial and residential sources Indicator: N/A Target emissions reduction: N/A
East Dunbartonshire Council_7	Parking Controls	N/A	Traffic planning and management: Management of parking places	N/A	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
East Dunbartonshire Council_8	Developments within or impacting on AQMA are reviewed for air quality impacts and where necessary all practical emission mitigation options are considered and implemented. Planning GIS system to have upgrade to include AQMA boundary	N/A	Other measure: Other measure	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Other, please specify Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
East Dunbartonshire Council_9	Introduce Air Quality Guidance for Environmental Health and Planning Officers	N/A	Other measure: Other measure	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Other, please specify Indicator: N/A Target emissions reduction: N/A
East Dunbartonshire Council_10	Construction/Demolition Sites within or close to AQMA – Consider COP to target dust and smoke emissions	N/A	Other measure: Other measure	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Other, please specify Indicator: N/A Target emissions reduction: N/A
East Dunbartonshire Council_11	Council Fleet Improvements i.e. retrofitting with abatement measures/change to 'cleaner fuels'	N/A	Retrofitting: Retrofitting emission control equipment to vehicles	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
East Dunbartonshire Council_12	Tree and wild flowers planting	N/A	Traffic planning and management: Encouragement of shift of transport modes	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Other, please specify Indicator: N/A Target emissions reduction: N/A
East Dunbartonshire Council_13	Eco Stars	N/A	Other measure: Other measure	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
East Dunbartonshire Council_14	Traffic management Mova, Scoot, SCATS	N/A	Traffic planning and management: Other measure	Evaluation	Start date: 2011 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
East Dunbartonshire Council_15	Joint Health Improvement Plan	N/A	Traffic planning and management: Encouragement of shift of transport modes	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Other, please specify Indicator: N/A Target emissions reduction: N/A
East Dunbartonshire Council_16	Taxi Licensing	N/A	Permit systems and economic instruments: Introduction/increase of environment taxes	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
East Dunbartonshire Council_17	Junction improvements at Bearsden Cross – Feasibility Study	N/A	Traffic planning and management: Other measure	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
East Dunbartonshire Council_18	Solar panels on Primary Schools and Council Buildings	N/A	Other measure: Other measure	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Other, please specify Indicator: N/A Target emissions reduction: N/A
East Dunbartonshire Council_19	Biomass Installations	N/A	Other measure: Other measure	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Other, please specify Indicator: N/A Target emissions reduction: N/A
East Dunbartonshire Council_20	Electric Vehicles	N/A	Public procurement: New vehicles, including low emission vehicles	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
East Dunbartonshire Council_21	Parking Controls – additional Yellow lines near schools and hotspots	N/A	Traffic planning and management: Management of parking places	Evaluation	Start date: 2011 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
East Dunbartonshire Council_22	Soft measures – healthy habits	N/A	Traffic planning and management: Encouragement of shift of transport modes	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Other, please specify Indicator: N/A Target emissions reduction: N/A
East Dunbartonshire Council_23	Council - Smart working	N/A	Other measure: Other measure	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
East Dunbartonshire Council_24	Council car sharing – prioritised spaces	N/A	Other measure: Other measure	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
East Dunbartonshire Council_25	Pool cars – electric vehicles	N/A	Public procurement: New vehicles, including low emission vehicles	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
East Dunbartonshire Council_26	Quality Bus/ Bike – Partnership/ Corridors	N/A	Traffic planning and management: Encouragement of shift of transport modes	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
East Dunbartonshire Council_27	Improvements to all bus stops	N/A	Traffic planning and management: Improvement of public transport	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
East Dunbartonshire Council_28	Cycling	N/A	Traffic planning and management: Encouragement of shift of transport modes	Evaluation	Start date: 2011 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
East Dunbartonshire Council_29	Fleet - waste collection is now fortnightly	N/A	Traffic planning and management: Freight transport measure	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Transport Indicator: N/A Target emissions reduction: N/A
East Dunbartonshire Council_30	Green roofs	N/A	Other measure: Other measure	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Other, please specify Indicator: N/A Target emissions reduction: N/A
East Dunbartonshire Council_31	Modal shift(new cycle paths)	N/A	Traffic planning and management: Encouragement of shift of transport modes	Evaluation	Start date: 2011 Expected end date: 2015 Spatial scale: Whole agglomeration Source affected: Other, please specify Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_1	Improving links with Local transport Strategy / Area Transport Plan	Strategic	Other measure: Other measure	Implementation	Start date: 2012 Expected end date: 2023 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_2	Improving air quality links with local Planning and Development Framework	Strategic	Other measure: Other measure	Preparation	Start date: 2013 Expected end date: 2019 Spatial scale: Whole town or city Source affected: Industry including heat and power production Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_3	Integrate Aq with other Council strategies	Strategic	Other measure: Other measure	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
South Lanarkshire Council_4	Develop and adopt an air quality strategy for south lanarkshire	Startegic	Other measure: Other measure	Preparation	Start date: 2013 Expected end date: 2019 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
South Lanarkshire Council_5	Air quality guidance note / supplementary planning document	Strategic	Other measure: Other measure	Preparation	Start date: 2015 Expected end date: 2019 Spatial scale: Whole town or city Source affected: Industry including heat and power production Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_6	Lobby Government for additional national policy	Strategic	Other measure: Other measure	Implementation	Start date: 2012 Expected end date: 2030 Spatial scale: National Source affected: Other, please specify Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_7	Study to assess the potential impact of the M74 and the Raith Interchange works on traffic within the Whirlies AQMA	Measures aimed at optimising how traffic sources transit AQMA	Traffic planning and management: Other measure	Preparation	Start date: 2014 Expected end date: 2016 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_8	Traffic signal optimisation at Lanark and Rutherglen road canyons	Measures aimed at optimising how traffic sources transit AQMA	Traffic planning and management: Other measure	Planning	Start date: 2014 Expected end date: 2017 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_9	Encourage private and public operators to pursue cleaner vehicles and abatement - electric car promotion campaign	Reduce the emissions from sources by technical means	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
South Lanarkshire Council_10	Vehicle emission testing and idling vehicle enforcement	Reduce the emissions from sources by technical means	Other measure: Other measure	Implementation	Start date: 2010 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_11	Development of infrastructure for electric vehicles	Reduce the emissions from sources by technical means	Public procurement: Other measure	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

Measure code	Description	Focus	Classification	Status	Other information
South Lanarkshire Council_12	Continue to target reductions in emissions from the council fleet and contract vehicles	Reduce the emissions from sources by technical means	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
South Lanarkshire Council_13	Travel planning	Reduce emissions from sources by means of encouraging better travel choices / behavioural change	Traffic planning and management: Encouragement of shift of transport modes	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
South Lanarkshire Council_14	Provision of information regarding air quality	Reduce emissions from sources by means of encouraging better travel choices / behavioural change	Public information and Education: Other mechanisms	Implementation	Start date: 2003 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Other, please specify Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_15	Promotion of alternative modes (cycling + walking) include the improvement of cycling and walking infrastructure	Reduce emissions from sources by means of encouraging better travel choices / behavioural change	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2012 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Other, please specify Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_16	Realtime passenger information installed on a number of bus stops within East Kilbride to support uptake of public transport	Reduce emissions from sources by means of encouraging better travel choices / behavioural change	Other measure: Other measure	Implementation	Start date: 2010 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_17	Eco-friendly vehicles for SLC transport fleet	SLC In house initiatives	Other measure: Other measure	Implementation	Start date: 2011 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_18	Walk to school programme and school walking bus	SLC In house initiatives	Other measure: Other measure	Implementation	Start date: 2009 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
South Lanarkshire Council_19	Flexible working system to enable staff to travel to and from work outwith peak travel flow times	SLC In house initiatives	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 1996 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_20	Enhancement of Park and Ride facilities and installation of cycle storage lockers at train stations throughout the district	SLC In house initiatives	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2011 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_21	Installation of black carbon and traffic monitoring cameras at Whirlies roundabout	SLC In house initiatives	Public information and Education: Other mechanisms	Implementation	Start date: 2013 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_22	Increased use of section 75 Town and Country Planning (scotland) Act 1997 agreements to formally bind developers to provide mitigation in areas of poor air quality.	SLC In house initiatives	Other measure: Other measure	Implementation	Start date: 2008 Expected end date: 2030 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_23	Support given to the Scottish Governments Air Quality website through the dissemination of air quality data from sites throughout the District which also supports the ‘know and respond’ text / email alert system warning subscribers of periods of poor air quality	SLC In house initiatives	Public information and Education: Internet	Implementation	Start date: 2013 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Other, please specify Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_24	provision of cycle storage facilities as part of schools modernisation programme	SLC In house initiatives	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2008 Expected end date: 2016 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_25	Support to ‘Give me cycle space’ campaign	SLC In house initiatives	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2014 Expected end date: 2016 Spatial scale: Local Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
South Lanarkshire Council_26	ECO Stars Fleet recognition scheme	SLC In house initiatives	Other measure: Other measure	Implementation	Start date: 2014 Expected end date: 2017 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_27	Biomass accumulator tool - spatial GIS tool to predict accumulated impact of biomass development and help inform planning development decisions	SLC In house initiatives	Other measure: Other measure	Implementation	Start date: 2015 Expected end date: 2017 Spatial scale: Whole town or city Source affected: Industry including heat and power production Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_28	Driver Efficiency Training - fleet drivers	SLC In house initiatives	Other measure: Other measure	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
South Lanarkshire Council_29	Installation of Eco- Monitors within highest emitting vehicles within fleet pool	SLC In house initiatives	Other measure: Other measure	preparation	Start date: 2015 Expected end date: 2017 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_30	Improvements to bus stop infrastructure to promote uptake of this form of public transport	SLC In house initiatives	Other measure: Other measure	Implementation	Start date: 2011 Expected end date: 2030 Spatial scale: Whole town or city Source affected: transport Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_31	Improvement, extension to existing cycle routes and installation of new cycle routes	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2010 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_32	creation of SLC Cycling partnership to promote cycling throughout area including SLC and other external partners	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A

Measure code	Description	Focus	Classification	Status	Other information
South Lanarkshire Council_33	Council sustainability group looking at various sustainable measures including sustainable transport options and promotion	N/A	Other measure: Other measure	Implementation	Start date: 2014 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_34	SLC Active travel plan promotion via paths for all part funding	N/A	Traffic planning and management: Encouragement of shift of transport modes	Planning	Start date: 2015 Expected end date: 2016 Spatial scale: Whole town or city Source affected: transport Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_35	Bike Town initiative for Rutherglen and Cambuslang - part funded via paths for all	N/A	Traffic planning and management: Encouragement of shift of transport modes	Implementation	Start date: 2013 Expected end date: 2030 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_36	SL primary school education workshops promoting sustainable commute options to school	N/A	Traffic planning and management: Encouragement of shift of transport modes	Planning	Start date: 2015 Expected end date: 2016 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_37	Cycle routes awareness campaign -part funded via paths for all	N/A	Traffic planning and management: Encouragement of shift of transport modes	Planning	Start date: 2015 Expected end date: 2016 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A
South Lanarkshire Council_38	Linking communities focusing on Lanark, Larkhall and Carluke - paths for all part funded project looking at walking and cycling infrastructure and promotion in this area.	N/A	Traffic planning and management: Encouragement of shift of transport modes	planning	Start date: 2015 Expected end date: 2016 Spatial scale: Whole town or city Source affected: Transport Indicator: N/A Target emissions reduction: N/A