Air Quality CONSULTANTS

2015 Air Quality Updating and Screening Assessment:

Nuneaton and Bedworth Borough Council

June 2015

Experts in air quality management & assessment

Document Control

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Executive Summary

This report fulfils the requirements of the Local Air Quality Management process as set out in Part IV of the Environment Act (1995), the Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007 and the relevant Policy and Technical Guidance documents.

This document is Nuneaton and Bedworth Borough Council's sixth Updating and Screening Assessment (USA). Results from monitoring undertaken by the Council are presented and sources of air pollution are identified. The USA determines those changes since the last assessment which could lead to the risk of an air quality objective being exceeded.

This Updating and Screening Assessment confirms that, outside of the existing AQMAs, air quality within Nuneaton and Bedworth continues to meet the relevant air quality objectives. There is no requirement to proceed to a Detailed Assessment for any pollutant.

The Updating and Screening Assessment has not identified any significant changes in emissions sources. There have been no new relevant industrial installations and no new significant road, commercial, domestic or fugitive sources of emissions.

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1 Introduction

1.1. Description of Local Authority Area

Nuneaton and Bedworth is the smallest in geographical area (7,898 hectares) of the five districts in Warwickshire, but has the second highest population. The Borough is urban in character containing 3 main settlements: Nuneaton, Bedworth and Bulkington which are separated by narrow areas of countryside. The Borough has a high density of residential properties. This has both advantages and disadvantages; access to services and public transport is very good, but there are social and environmental problems associated with the high population density. The population of the Borough is predicted to grow by 18.8% between 2010 and 2035.

The main source of air pollution in the Borough is traffic emissions from major roads, notably the A444, A47, A5 and M6. An Air Quality Management Area (AQMA) was declared in March 2007 along the A47 Leicester Road in Nuneaton town centre where exceedences of the annual mean objective for nitrogen dioxide (NO_2) were predicted. A second AQMA was declared for nitrogen dioxide in October 2009, encompassing an area of Nuneaton from Midland Road to Corporation Street. Other pollution sources, including commercial, industrial and domestic sources, also make a contribution to background pollution concentrations.

1.2. Purpose of Report

This report fulfils the requirements of the Local Air Quality Management process as set out in Part IV of the Environment Act (1995), the Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007 and the relevant Policy and Technical Guidance documents. The LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether or not the air quality objectives are likely to be achieved. Where exceedences are considered likely, the local authority must then declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) setting out the measures it intends to put in place in pursuit of the objectives.

The objective of this Updating and Screening Assessment is to identify any matters that have changed which may lead to risk of an air quality objective being exceeded. A checklist approach and screening tools are used to identify significant new sources or changes and whether there is a need for a Detailed Assessment. The USA report should provide an update of any outstanding information requested previously in Review and Assessment reports.

1.3. Air Quality Objectives

The air quality objectives applicable to LAQM in England are set out in the Air Quality (England) Regulations 2000 (SI 928), The Air Quality (England) (Amendment) Regulations 2002 (SI 3043), and are shown in Table 1.1. This table shows the objectives in units of

micrograms per cubic metre μg/m^3 (milligrams per cubic metre, mg/m^3 for carbon monoxide) with the number of exceedences in each year that are permitted (where applicable).

Table 1.1: Air Quality Objectives included in Regulations for the purpose of LAQM in England

Pollutant	Air Quality Objective		Date to be achieved by
	Concentration	Measured as	
Benzene	16.25 μg/m^3	Running annual mean	31.12.2003
	5.00 μg/m^3	Running annual mean	31.12.2010
1,3-Butadiene	2.25 μg/m^3	Running annual mean	31.12.2003
Carbon monoxide	10.0 mg/m^3	Running 8-hour mean	31.12.2003
Lead	0.5 μg/m^3	Annual mean	31.12.2004
	0.25 μg/m^3	Annual mean	31.12.2008
Nitrogen dioxide	200 μg/m^3 not to be exceeded more than 18 times a year	1-hour mean	31.12.2005
	40 μg/m^3	Annual mean	31.12.2005
Particles (PM_{10}) (gravimetric)	50 μg/m^3, not to be exceeded more than 35 times a year	24-hour mean	31.12.2004
	40 μg/m^3	Annual mean	31.12.2004
Sulphur dioxide	350 μg/m^3, not to be exceeded more than 24 times a year	1-hour mean	31.12.2004
	125 μg/m^3, not to be exceeded more than 3 times a year	24-hour mean	31.12.2004
	266 μg/m^3, not to be exceeded more than 35 times a year	15-minute mean	31.12.2005

1.4. Summary of Previous Review and Assessments

The conclusions of the First Round of LAQM Review and Assessment, commencing in 1998, were that all AQS objectives were expected to be met and that no AQMAs were required.

Following the outcome of the Second Round Updating and Screening Assessment (USA) in 2003, the Council undertook a Detailed Assessment in 2004, which concluded that there was a potential risk of exceedence of the annual mean nitrogen dioxide objective at receptors adjacent to the Leicester Road Gyratory, based on the limited monitoring data available at that time. Further monitoring and modelling was undertaken to confirm the findings of the Detailed Assessment and the results indicated that there remained a risk of exceedences of the annual mean NO_2 objective at sensitive receptors adjacent to the Leicester Road Gyratory. The area was declared as an AQMA in March 2007 and a continuous monitoring station was installed. A Further Assessment was completed in January 2008.

Nuneaton & Bedworth Borough Council completed the Third Round USA in June 2006, and concluded that a Detailed Assessment was not required for any pollutant. However, subsequent annual Progress Reports indicated, through local monitoring data, that exceedences of the annual mean nitrogen dioxide objective had occurred along Central Avenue in Nuneaton, and a Detailed Assessment was undertaken in 2008. This concluded that there was a potential risk of exceedences of the annual mean objective for nitrogen dioxide and recommended the declaration of a second AQMA. An AQMA covering the Corporation Street to Midland Road area was declared in October 2009. A Further Assessment was completed in 2010.

The 2008 Progress Report indicated that a number of roadside/kerbside monitoring sites may be at risk of exceeding the annual mean objective outside the areas previously assessed. It was therefore recommended that façade-based monitoring be installed at these locations to demonstrate compliance with the objective.

The findings of the Fourth Round USA in 2009 indicated that the objectives were likely to be achieved for all pollutants outside of the existing AQMAs. A Detailed Assessment of PM_{10} was recommended to assess the impact of the following waste transfer facilities: ABS Skips, Midland Road, Nuneaton; Crown Waste, Pool Road, Nuneaton; and Budget Skips and Hammonds Skips on adjoining premises, Colliery Lane, Exhall. A further recommendation made was to commence additional diffusion tube monitoring at Black Bank (at the junction of Colliery Lane and Coventry Road, and the West Coast Main Line).

A further review of the fugitive emissions from waste transfer sites in the Borough was undertaken by the Council following the recommendation that a Detailed Assessment be undertaken. The proposal to undertake a Detailed Assessment was due to the proximity of receptors to the sites and a history of complaints. An investigation into the complaints received regarding air quality issues from the installations was undertaken by the council. This found that complaints received were in relation to ABS Skips only and these were relating to odour

issues and the storage of household waste. Following the 2009 USA ABS Skips relocated part of its operation to an industrial location. There have been no further complaints from any of the noted sites. A Detailed Assessment was thus deemed unnecessary for the waste transfer sites.

In the 2010 Progress Report, no exceedences of the objectives were recorded at relevant receptors outside of the AQMAs. As the recorded nitrogen dioxide level at the 78 Bayton Road diffusion tube monitoring site was close to the annual mean objective, it was recommended that triplicate monitoring be undertaken to increase robustness of results.

The 2011 Progress Report identified one location outside of the existing AQMAs where the annual mean air quality objective for nitrogen dioxide was being exceeded, that being NB13 Watling Street. This site is situated at kerbside so it is not representative of relevant exposure. Other tubes in the area confirmed that objectives were being met at relevant receptors within the area. The potential for a further nitrogen dioxide exceedence was identified at NB36 78 Bayton Road but data capture was limited at this site. It was thus recommended to continue monitoring in 2011 and to review the data to determine if a Detailed Assessment was required. The report also identified possible issues with the data at the continuous monitoring location due to a large increase from previous years' concentrations.

2011 also saw the publication of Nuneaton and Bedworth's current Air Quality Action Plan, which sets out the measures by which the Council aims to achieve compliance with the air quality objectives.

The 2012 Updating and Screening Assessment found there to be no exceedences of the annual mean nitrogen dioxide air quality objective outside of the existing AQMAs, with many sites showing a reduction in concentrations.

Although the annual mean nitrogen dioxide concentrations increased at the majority of diffusion tube monitoring sites in 2012, concentrations outside of the AQMAs were all below the objectives at relevant locations, as confirmed by the 2013 Progress Report.

The 2014 Progress Report showed generally lower concentrations in 2013 than were measured in 2012, with only two locations seeing an exceedence of the annual mean nitrogen dioxide air quality objective, both of which are within the existing AQMAs.

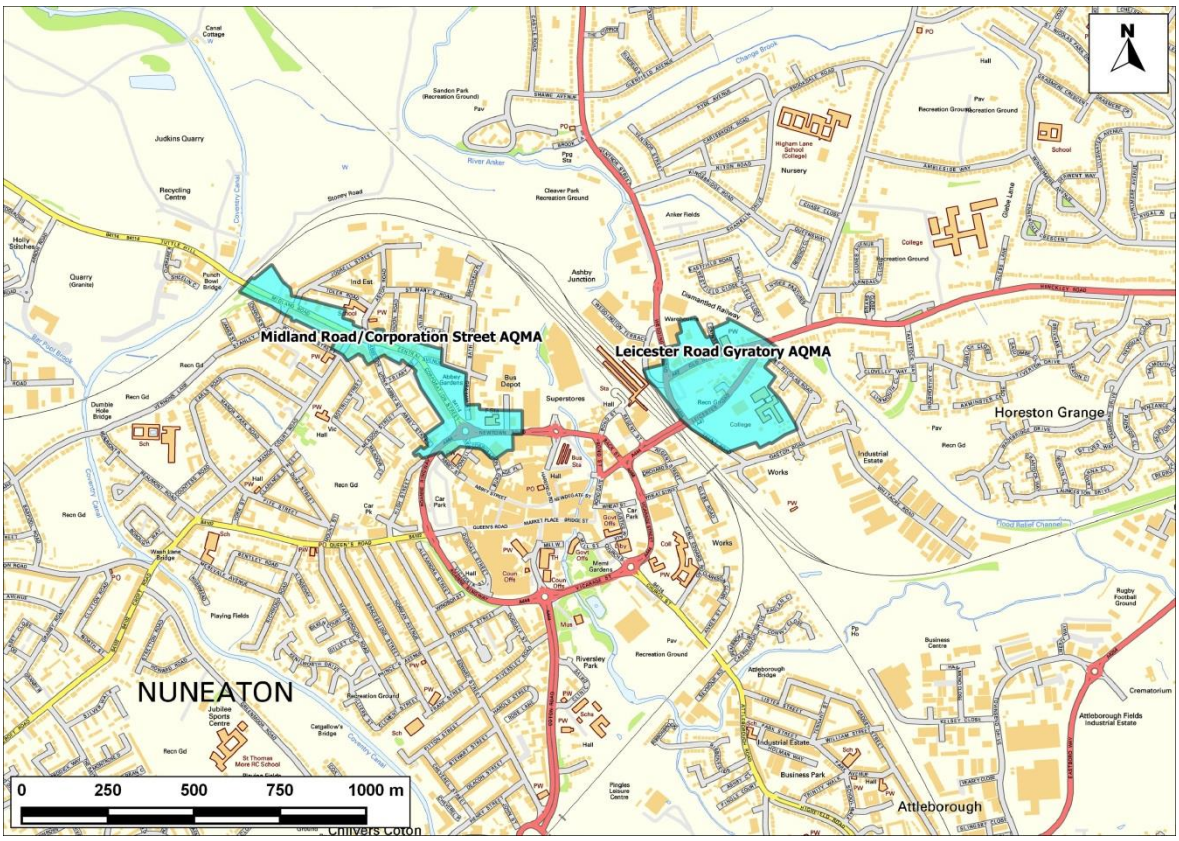

Figure 1.1: Map of AQMA Boundaries

2 New Monitoring Data

2.1. Summary of Monitoring Undertaken

2.1.1. Automatic Monitoring Sites

Nuneaton & Bedworth Borough Council operated one continuous air quality monitoring station within the Borough in 2014. This site was installed in 2007 at the Leicester Road Gyratory, to more accurately assess nitrogen dioxide concentrations in the AQMA. Nitrogen dioxide concentrations are measured using a chemiluminescent analyser. The monitoring station location is shown in Figure 2.1 and details of the station location are provided in Table 2.1. Details of the QA/QC procedure for the site are provided in Appendix A1.

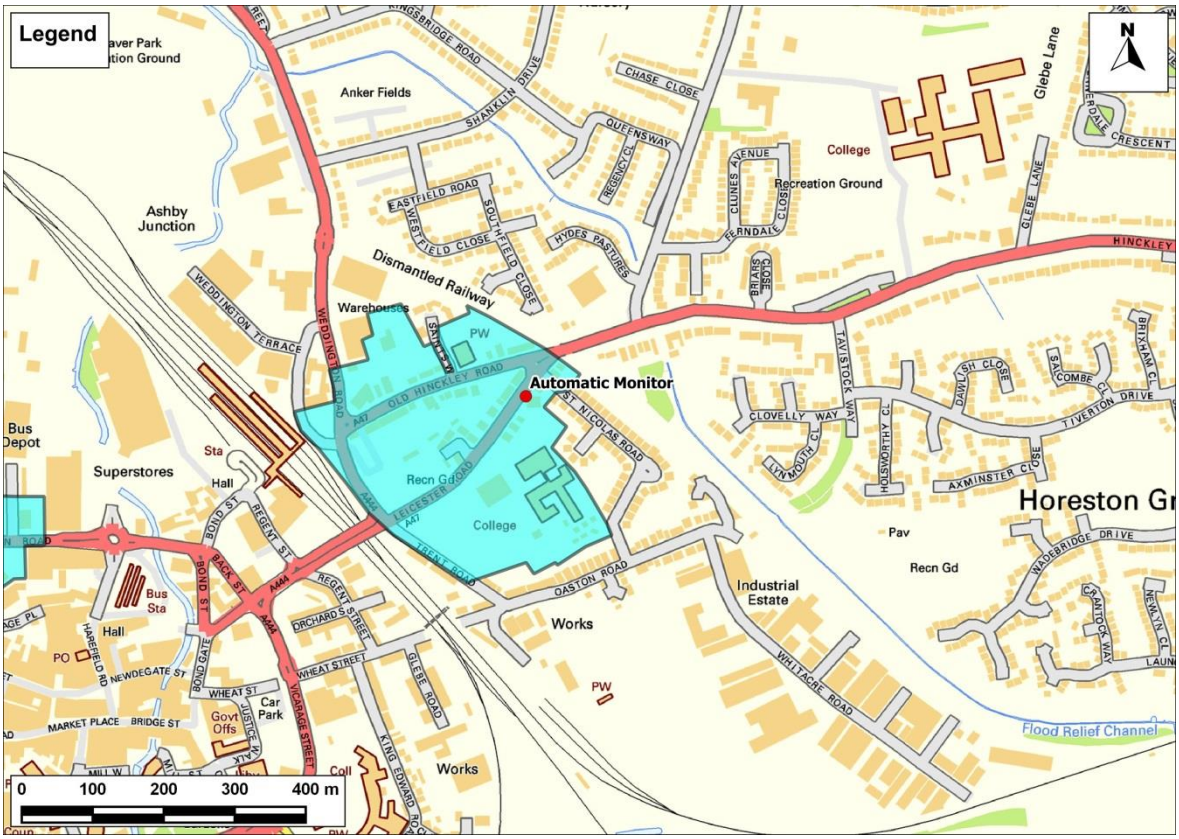

Figure 2.1: Map of Automatic Monitoring Site

Table 2.1: Details of Automatic Monitoring Site

Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	Inlet Height (m)	Pollutants Monitored	In AQMA?	Monitoring Technique	Relevant Exposure? *(distance (m) to relevant exposure)*	Distance to kerb of nearest road	Does this location represent worst-case exposure?
AQM2 Leicester Road (AQMA)	Roadside	436850	292260	1.88	NO_2	Yes	Chemiluminescent Analyser	Y (5 m)	4 m	No

2.1.2. Non-Automatic Monitoring Sites

In 2014, the Council measured nitrogen dioxide concentrations at 37 non-automatic monitoring sites, using passive diffusion tubes. This includes a set of triplicate tubes co-located with the continuous monitoring analyser at the Leicester Road Gyratory. The locations of the monitoring sites are shown in Figures 2.2 to 2.4, with the results of the monitoring shown in Table 2.2.

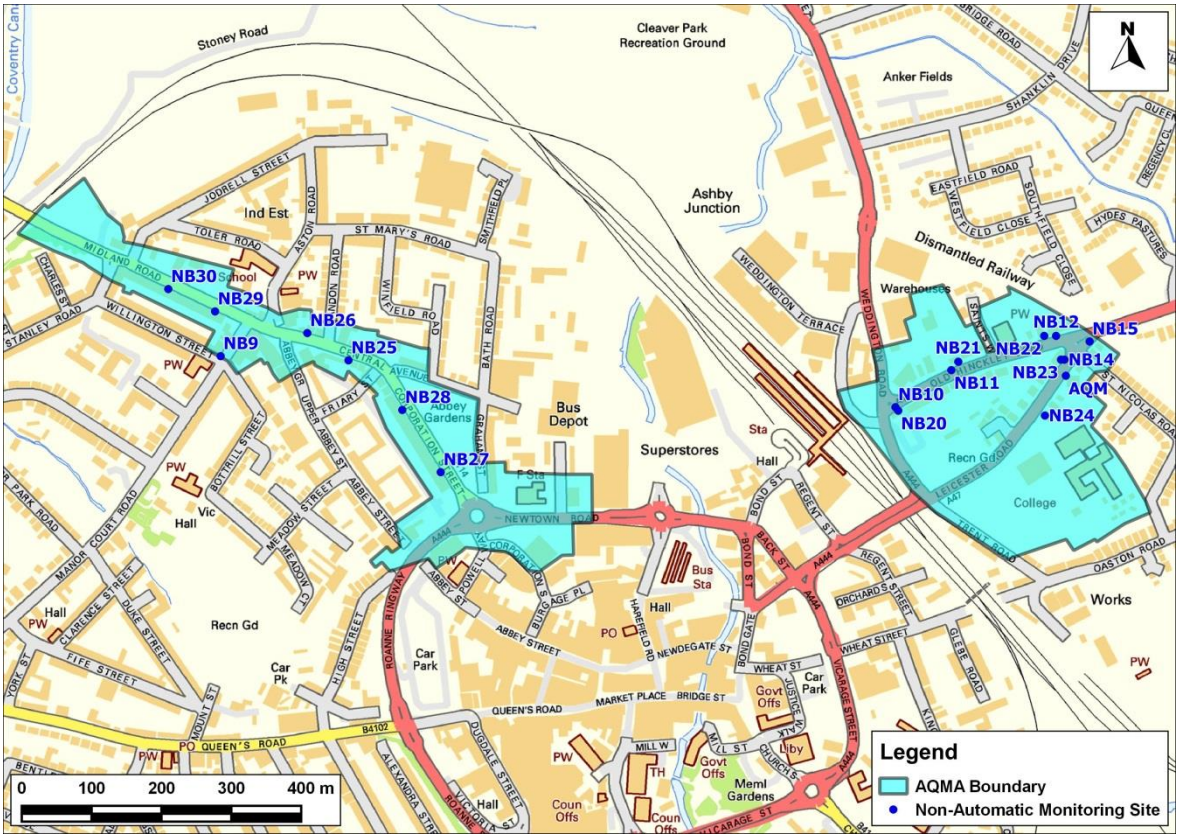

Figure 2.2: Map of Non-Automatic Monitoring Sites inside Nuneaton's AQMAs

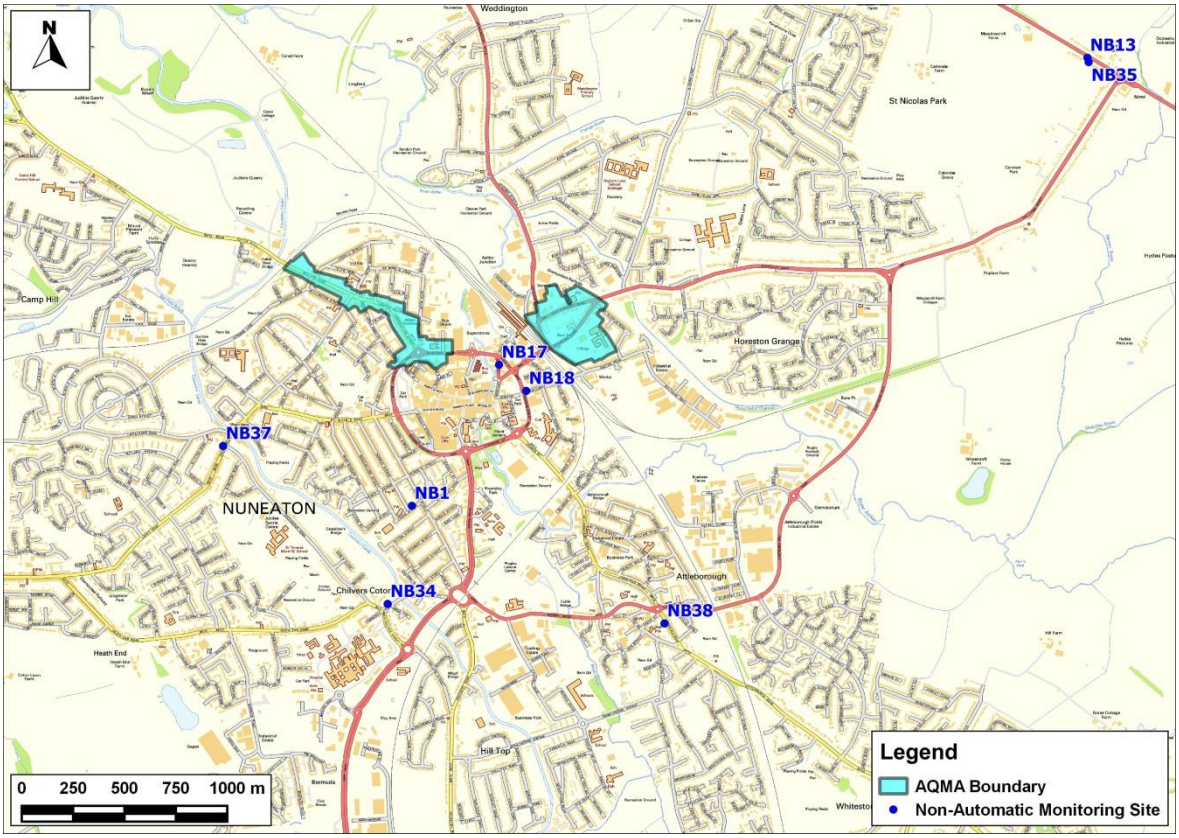

Figure 2.3: Map of Non-Automatic Monitoring Sites in Nuneaton, Outside of AQMAs

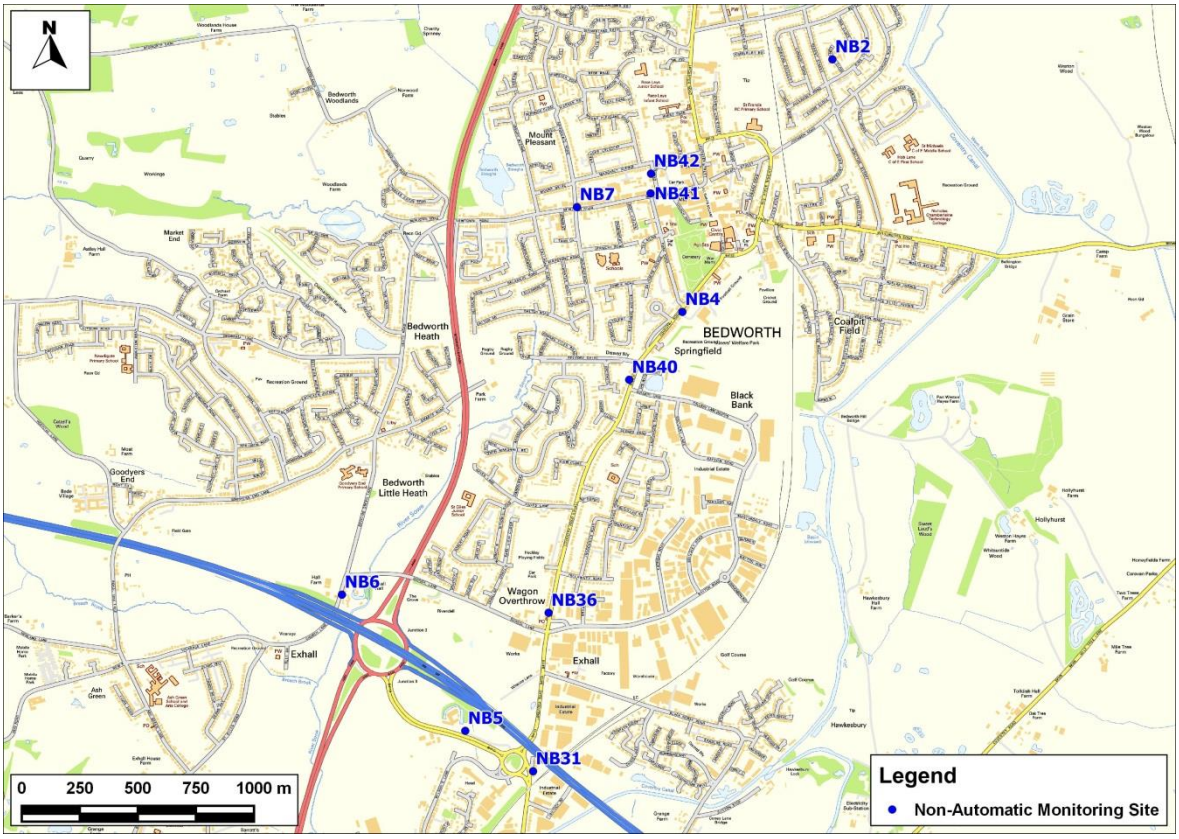

Figure 2.4: Map of Non-Automatic Monitoring Sites in Bedworth

Table 2.2: Details of Non-Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	Monitoring Height (m)	Pollutants Monitored	In AQMA?	Co-located with a Continuous Analyser? (Y/N)	Relevant Exposure? *(distance (m) to relevant exposure)*	Distance to kerb of nearest road	Does this location represent Worst-case exposure?
NB1	Norman Avenue, Nuneaton	Urban Background	435969	291303	2.08	NO_2	No	No	Yes (3 m)	N/A	No
NB2	Conifer Close, Bedworth	Urban Background	436438	287627	2.30	NO_2	No	No	Yes (7.8 m)	N/A	No
NB4	Coventry Road	Roadside	435792	286540	3.12	NO_2	No	No	Yes (0 m)	4.1 m	No
NB5	Mc Donnell Drive	Kerbside	434857	284737	2.28	NO_2	No	No	Yes (0 m)	100 m	No
NB6	Tudor Court	Kerbside	434326	285323	2.88	NO_2	No	No	Yes (0 m)	63.5 m	No
NB7	Newdegate Road	Kerbside	435338	286991	2.53	NO_2	No	No	Yes (8.1 m)	<1 m	Yes
NB9	Manor Court Road	Kerbside	435634	292279	2.6	NO_2	Yes	No	Yes (4.9 m)	<1 m	Yes
NB10	17 Old Hinckley Road	Kerbside	436600	292206	1.85	NO_2	Yes	No	Yes (6.5 m)	<1 m	Yes
NB11	34 Old Hinckley Road	Roadside	436680	292259	2.45	NO_2	Yes	No	Yes (6 m)	4 m	No
NB12	64 Old Hinckley Road	Roadside	436830	292308	2.55	NO_2	Yes	No	Yes (4.1 m)	4.5 m	No
NB13	64 Watling Street	Kerbside	439256	293482	2.11	NO_2	No	No	Yes (14.3 m)	<1 m	Yes
NB14	46 Leicester Road	Roadside	436842	292274	1.58	NO_2	Yes	No	Yes (3.1 m)	1.5 m	No
NB15	Bridge Grove-Leicester Road	Kerbside	436878	292300	2.58	NO_2	Yes	No	No	<1 m	Yes
NB17	Bond Gate	Roadside	436393	291989	2.20	NO_2	No	No	No	1.3 m	Yes
NB18	Wheat Street	Kerbside	436525	291862	2.30	NO_2	No	No	No	<1 m	Yes

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	Monitoring Height (m)	Pollutants Monitored	In AQMA?	Co-located with a Continuous Analyser? (Y/N)	Relevant Exposure? *(distance (m) to relevant exposure)*	Distance to kerb of nearest road	Does this location represent Worst-case exposure?
AQM2	AQM2 Leicester Road (Triplicate)	Roadside	436844	292251	1.88	NO_2	Yes	Yes	Yes (5 m)	4 m	No
NB20	17 Old Hinckley Rd	Roadside	436604	292201	2.55	NO_2	Yes	No	Yes (0 m)	7.1 m	No
NB21	36 Old Hinckley Rd	Roadside	436690	292271	1.73	NO_2	Yes	No	Yes (0 m)	9.6 m	No
NB22	62 Old Hinckley Road	Roadside	436813	292308	2.55	NO_2	Yes	No	Yes (0 m)	8.7 m	No
NB23	46 Leicester Road	Roadside	436837	292274	2.65	NO_2	Yes	No	Yes (0 m)	4.6 m	No
NB24	31 Leicester Road	Roadside	436814	292194	1.77	NO_2	Yes	No	Yes (0 m)	9 m	No
NB25	25 Central Avenue	Roadside	435817	292273	1.75	NO_2	Yes	No	Yes (0 m)	6.8 m	No
NB26	26 Central Avenue	Roadside	435758	292312	1.75	NO_2	Yes	No	Yes (0 m)	3.8 m	No
NB27	90 Corporation Street	Roadside	435949	292113	2.3	NO_2	Yes	No	Yes (0 m)	4.7 m	No
NB28	138 Corporation Street	Roadside	435894	292202	1.55	NO_2	Yes	No	Yes (0 m)	4.7 m	No
NB29	16 Midland Road	Roadside	435626	292343	1.75	NO_2	Yes	No	Yes (0 m)	4.4 m	No
NB30	50 Midland Road	Roadside	435559	292375	2.01	NO_2	Yes	No	Yes (0 m)	4.1 m	No
NB31	376 Longford Road	Roadside	435149	284563	2.08	NO_2	No	No	Yes (0 m)	12.7 m	No
NB34	9 Bull Ring, 4 College St	Roadside	435851	290826	1.68	NO_2	No	No	Yes (0 m)	11.5 m	No
NB35	62 Watling Street	Roadside	439262	293461	1.83	NO_2	No	No	Yes (0 m)	13 m	No
NB36	78 Bayton Road	Roadside	435216	285245	2.56	NO_2	No	No	Yes (0 m)	2.5 m	No
NB37	Jewsons (19 Croft Road)	Roadside	435050	291594	1.75	NO_2	No	No	Yes (0 m)	4.2 m	No

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	Monitoring Height (m)	Pollutants Monitored	In AQMA?	Co-located with a Continuous Analyser? (Y/N)	Relevant Exposure? *(distance (m) to relevant exposure)*	Distance to kerb of nearest road	Does this location represent Worst-case exposure?
NB38	115 Lutterworth Road	Roadside	437198	290731	1.66	NO_2	No	No	Yes (0 m)	21 m	No
NB39	171 Lutterworth Road	Roadside	438352	289910	1.53	NO_2	No	No	Yes (0 m)	19.5 m	No
NB40	25 Black Bank	Roadside	435563	286248	1.73	NO_2	No	No	Yes (0 m)	6 m	No
NB41	61 Mill Street	Roadside	435655	287050	2.00	NO_2	No	No	Yes (0 m)	9.6 m	Yes
NB42	18 George Street	Roadside	435657	287135	1.80	NO_2	No	No	Yes (0 m)	8.3 m	Yes

2.2. Comparison of Monitoring Results with AQ Objectives

2.2.1. Nitrogen Dioxide

There are two AQS Objectives for nitrogen dioxide, namely:

- the annual mean of 40µg/m^3; and
- the 1-hour mean of 200µg/m^3, not to be exceeded more than 18 times a year.

Automatic Monitoring Data

The Council monitored nitrogen dioxide at one automatic monitoring location during 2014. The site is managed, and the data collected and ratified by We Care 4 Air (or Supporting U, prior to November 2014). The monitoring data are shown in Tables 2.3 and 2.4. Data are not available for 2010 and 2011 due to an instrument fault.

Results for 2014 indicate that both the annual mean objective and the 1-hour objective for nitrogen dioxide were met at the continuous monitoring location.

Figure 2.5 shows the trend in annual mean nitrogen dioxide concentrations between 2012 and 2014. There is no obvious, consistent trend, either upwards or downwards.

Table 2.3: Results of Automatic Monitoring of Nitrogen Dioxide: Comparison with Annual Mean Objective (2012 – 2014)

Site ID	Site Type	Within AQMA?	Valid Data Capture 2014 %	Annual Mean Concentration µg/m^3		
				2012	2013	2014
AQM2	Roadside	Yes	98.9	39.6	33.5	37.7
Objective				**40**		

Table 2.4: Results of Automatic Monitoring for Nitrogen Dioxide: Comparison with 1-hour mean Objective (2010 – 2014)

Site ID	Site Type	Within AQMA?	Valid Data Capture 2014 (%)	Number of Exceedences of Hourly Mean (200 µg/m^3)		
				2012 [a]	2013	2014
AQM2	Roadside	Yes	98.9	0 (121.7)	0	0
Objective				**18**		

[a] If the period of valid data was less than 90%, the 99.8th percentile of hourly means is shown in brackets

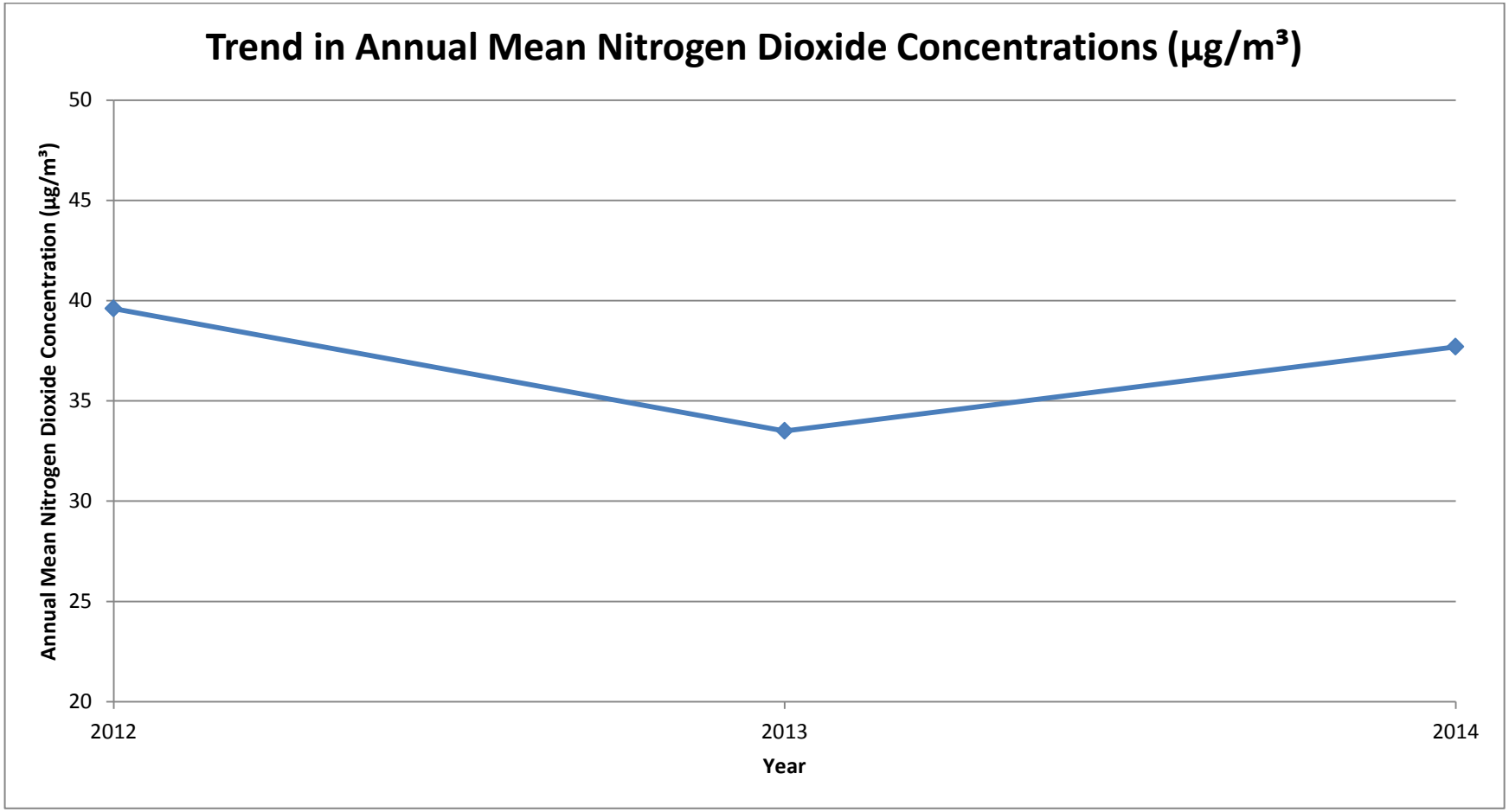

Figure 2.5: Trend in Annual Mean Nitrogen Dioxide Concentrations at the Leicester Road Automatic Monitoring Site

Diffusion Tube Monitoring Data

The nitrogen dioxide diffusion tube data from 2014 are summarised in Table 2.5. The full dataset (including monthly mean values) is included in Appendix A2. Results over the past five years are presented in Table 2.6, while trends over the past five years are presented in Figure 2.6.

Data capture for 2014 was good, with none of the sites requiring annualisation.

For the 2014 dataset, using the National Bias Adjustment Factor, there were three sites where the annual mean Air Quality Objective was exceeded, all of which are located within the existing AQMA. The national factor is used in preference to the local factor as it is derived from a larger dataset, thus providing a more robust calculation with less uncertainty.

NB29 and NB30 are located at the façade of relevant receptors. NB11 (34 Old Hinckley Road), however, is not. The annual mean concentration has therefore been "distance corrected" to estimate concentrations at the façade, with the result presented in Table 2.7. When the distance correction is applied the annual mean concentration is slightly below the objective, indicating no exceedence at the relevant receptor. The background concentration from site NB1 was used in the calculation.

All three of the sites have measured exceedences in previous years. The measured concentration at NB11 was slightly lower in 2014 than in 2013, but the measured concentrations at NB29 and NB30 were both higher in 2014 than they were in 2013.

There are no sites where the annual mean is greater than 60 µg/m^3, thus it is unlikely that the hourly mean objective will be exceeded at any of the monitoring sites.

Sites NB41 and NB42 were installed in 2012 to monitor the impacts of the new Tesco development (through increased traffic flows in the area). Results over the past three years have shown annual mean nitrogen dioxide concentrations to be consistently below the objective.

If the Local Bias Adjustment Factor was used, the number of sites showing an exceedence of the annual mean objective would have increased to twelve, with four of these being located outside of the existing AQMAs.

Table 2.5: Results of Nitrogen Dioxide Diffusion Tubes in 2014

Site ID	Site Type	Within AQMA?	Triplicate or Co-located Tube?	Data capture 2014 (months)	Confirm if data has been distance corrected (Y/N)	2014 Annual mean concentration (μg/m^3) (Local Bias Adjustment factor = 1.11)	2014 Annual mean concentration (μg/m^3) (National Bias Adjustment factor = 0.91)
NB1	Urban Background	No	No	12 months	No	24.3	19.9
NB2	Urban Background	No	No	11 months	No	24.1	19.7
NB4	Roadside	No	No	11 months	No	39.7	32.4
NB5	Kerbside	No	No	11 months	No	38.1	31.2
NB6	Kerbside	No	No	12 months	No	**41.3**	33.7
NB7	Kerbside	No	No	12 months	No	**42.1**	34.4
NB9	Kerbside	Yes	No	12 months	No	37.9	31.0
NB10	Kerbside	Yes	No	12 months	No	36.7	30.0
NB11	Roadside	Yes	No	12 months	No	**51.8**	**42.4**
NB12	Roadside	Yes	No	12 months	No	**43.1**	35.3
NB13	Kerbside	No	No	12 months	No	**45.7**	37.4
NB14	Roadside	Yes	No	12 months	No	**45.8**	37.5
NB15	Kerbside	Yes	No	12 months	No	34.9	28.6
NB17	Roadside	No	No	12 months	No	**40.1**	32.8
NB18	Kerbside	No	No	12 months	No	37.8	30.9
AQM2	Roadside	Yes	Triplicate and Co-located	12 months	No	38.2 [a]	31.2 [a]
NB20	Roadside	Yes	No	12 months	No	33.8	27.6
NB21	Roadside	Yes	No	11 months	No	37.4	30.6
NB22	Roadside	Yes	No	12 months	No	30.9	25.2
NB23	Roadside	Yes	No	11 months	No	**40.6**	33.2
NB24	Roadside	Yes	No	11 months	No	27.8	22.8

Site ID	Site Type	Within AQMA?	Triplicate or Co-located Tube?	Data capture 2014 (months)	Confirm if data has been distance corrected (Y/N)	2014 Annual mean concentration (µg/m^3) (Local Bias Adjustment factor = 1.11)	2014 Annual mean concentration (µg/m^3) (National Bias Adjustment factor = 0.91)
NB25	Roadside	Yes	No	12 months	No	38.0	31.1
NB26	Roadside	Yes	No	11 months	No	35.1	28.7
NB27	Roadside	Yes	No	12 months	No	**45.5**	37.2
NB28	Roadside	Yes	No	12 months	No	**44.6**	36.5
NB29	Roadside	Yes	No	11 months	No	**50.8**	**41.6**
NB30	Roadside	Yes	No	12 months	No	**50.0**	**40.9**
NB31	Roadside	No	No	12 months	No	**41.8**	34.2
NB34	Roadside	No	No	12 months	No	35.2	28.8
NB35	Roadside	No	No	12 months	No	30.3	24.8
NB36	Roadside	No	No	12 months	No	**42.8**	35.0
NB37	Roadside	No	No	12 months	No	38.6	31.6
NB38	Roadside	No	No	12 months	No	34.9	28.6
NB39	Roadside	No	No	12 months	No	23.0	18.8
NB40	Roadside	No	No	10 months	No	34.0	27.8
NB41	Roadside	No	No	12 months	No	38.4	31.4
NB42	Roadside	No	No	11 months	No	37.2	30.4
Objective						**40**	

[a] This is the average of the three diffusion tubes installed at this location.

Table 2.6: Results of Nitrogen Dioxide Diffusion Tubes (2010 to 2014)

Site ID	Site Type	Within AQMA?	Annual Mean Concentration (adjusted for bias) µg/m^3				
			2010 (Bias Adjustment Factor = 0.92)	2011 (Bias Adjustment Factor = 0.89)	2012 (Bias Adjustment Factor = 0.97)	2013 (Bias Adjustment Factor = 0.92)	2014 (Bias Adjustment Factor = 0.91)
NB1	Urban Background	No	21.0	21.0	22.7	21	19.9
NB2	Urban Background	No	22.9	21.8	24.3	20.5	19.7
NB4	Roadside	No	36.1	35.1	34.7	35.5	32.4
NB5	Kerbside	No	33.8	31.0	34.0	33.2	31.2
NB6	Kerbside	No	34.6	34.7	36.2	34.0	33.7
NB7	Kerbside	No	35.7	33.0	36.2	33.5	34.4
NB9	Kerbside	Yes	33.7	31.1	31.5	30.6	31.0
NB10	Kerbside	Yes	36.3	31.5	33.3	33.8	30.0
NB11	Roadside	Yes	**41.0**	**43.4**	**46.6**	**43.1**	**42.4**
NB12	Roadside	Yes	39.4	35.4	36.0	35.8	35.3
NB13	Kerbside	No	**42.8**	36.3	38.4	37.0	37.4
NB14	Roadside	Yes	**40.3**	**41.1**	39.8	35.0	37.5
NB15	Kerbside	Yes	31.5	30.7	33.2	31.5	28.6
NB17	Roadside	No	38.0	36.1	39.1	35.9	32.8
NB18	Kerbside	No	38.9	37.9	38.9	34.3	30.9
AQM2	Roadside	Yes	37.0 [a]	35.1 [a]	36.2 [a]	33.6 [a]	31.2 [a]
NB20	Roadside	Yes	30.6	29.8	29.8	29.6	27.6
NB21	Roadside	Yes	33.1	32.9	32.3	29.6	30.6
NB22	Roadside	Yes	28.3	28.4	28.9	24.8	25.2
NB23	Roadside	Yes	36.8	35.2	35.7	31.4	33.2
NB24	Roadside	Yes	30.4	26.7	28.9	31.4	22.8

Site ID	Site Type	Within AQMA?	Annual Mean Concentration (adjusted for bias) µg/m^3				
			2010 (Bias Adjustment Factor = 0.92)	2011 (Bias Adjustment Factor = 0.89)	2012 (Bias Adjustment Factor = 0.97)	2013 (Bias Adjustment Factor = 0.92)	2014 (Bias Adjustment Factor = 0.91)
NB25	Roadside	Yes	34.3	34.5	36.9	25.0	31.1
NB26	Roadside	Yes	33.7	30.3	33.4	31.1	28.7
NB27	Roadside	Yes	**42.7**	39.5	**44.3**	37.4	37.2
NB28	Roadside	Yes	38.9	39.3	**41.8**	37.1	36.5
NB29	Roadside	Yes	**44.0**	**41.8**	**45.8**	**40.7**	**41.6**
NB30	Roadside	Yes	**43.1**	**42.5**	**46.0**	37.8	**40.9**
NB31	Roadside	No	37.2	32.8	36.2	37.1	34.2
NB34	Roadside	No	30.1	28.1	31.7	29.8	28.8
NB35	Roadside	No	28.0	26.1	28.2	26.2	24.8
NB36	Roadside	No	**41.0**	35.1	39.1	38.1	35.0
NB37	Roadside	No	36.0	31.6	33.2	32.0	31.6
NB38	Roadside	No	31.8	28.6	33.9	29.6	28.6
NB39	Roadside	No	23.0	22.5	21.8	20.7	18.8
NB40	Roadside	No	30.7	27.9	30.3	27.6	27.8
NB41	Roadside	No	-	-	35.2	34.8	31.4
NB42	Roadside	No	-	-	29.2	28.7	30.4
Objective			**40**				

[a] This is the average of the three diffusion tubes installed at this location.

Table 2.7: Fall-off with Distance Correction of Relevant Sites Exceeding the Nitrogen Dioxide Annual Mean Objective in 2014

Site ID	Site Type	Within AQMA?	Distance to Relevant Exposure (m)	Distance to kerb of nearest road (m)	2014 Annual Mean Concentration (µg/m^3) (National Bias Adjustment factor = 0.91)	Distance Corrected 2014 Annual Mean Concentration (µg/m^3)
NB11	Roadside	Yes	6	4	**42.4**	36.6

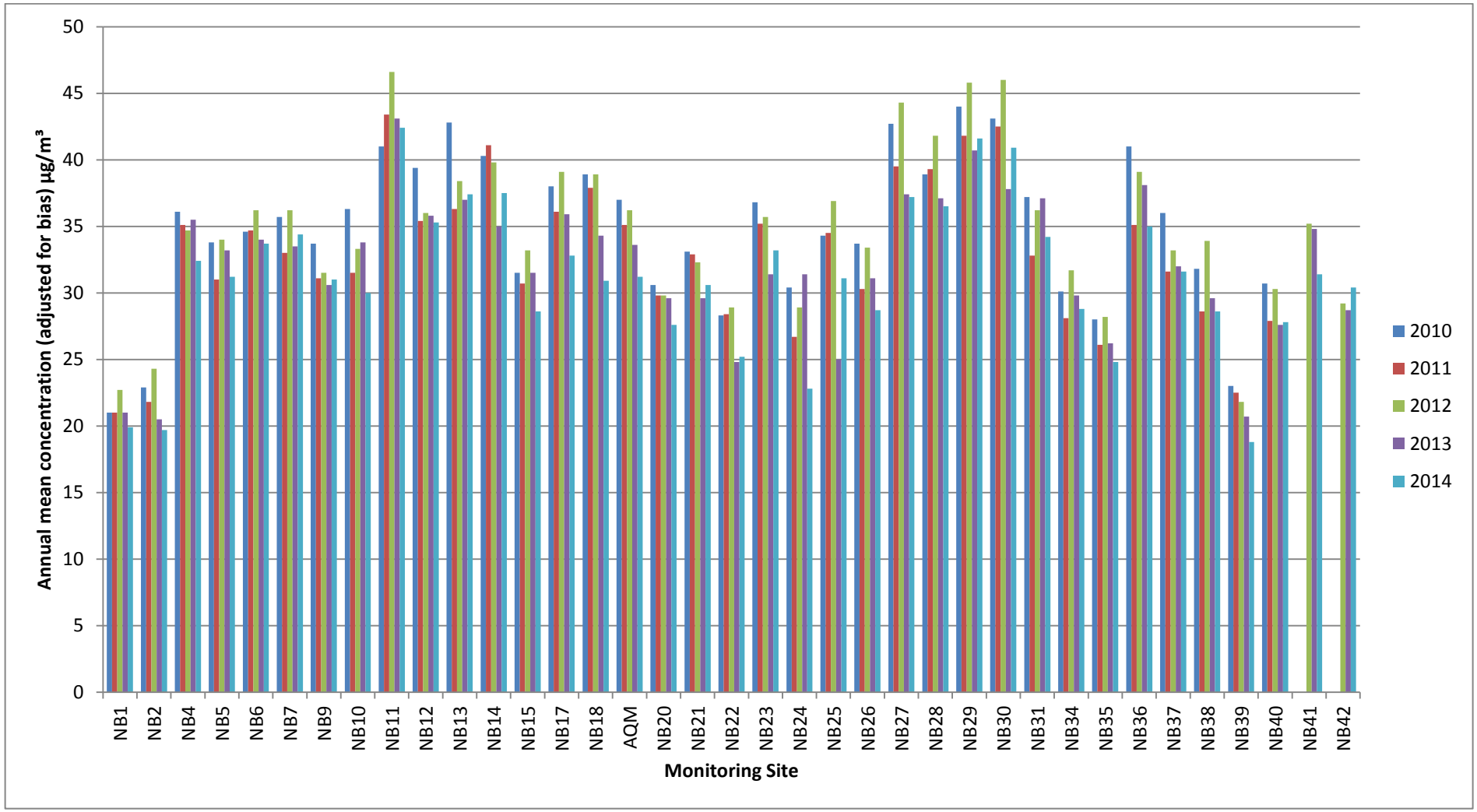

Figure 2.6: Trends in Annual Mean Nitrogen Dioxide Concentrations Measured at Diffusion Tube Monitoring Sites

2.2.2. PM_{10}

No monitoring of PM_{10} was undertaken in Nuneaton and Bedworth in 2014.

2.2.3. Sulphur Dioxide

No monitoring of sulphur dioxide was undertaken in Nuneaton and Bedworth in 2014.

2.2.4. Benzene

No monitoring of benzene was undertaken in Nuneaton and Bedworth in 2014.

2.2.5. Other pollutants monitored

No monitoring for other pollutants was undertaken in Nuneaton and Bedworth in 2014.

2.2.6. Summary of Compliance with AQS Objectives

Nuneaton and Bedworth Borough Council has examined the results from monitoring in the borough in 2014. Concentrations outside of the existing AQMAs are all below the objectives at relevant locations, therefore there is no need to proceed to a Detailed Assessment.

3 Road Traffic Sources

LAQM requires local authorities to consider the following:

- Narrow congested streets with residential properties close to the kerb;
- Busy streets where people may spend one hour or more close to traffic;
- Roads with a high flow of buses and/or HGVs;
- Junctions;
- New roads constructed since the last Updating and Screening Assessment;
- Roads with significantly changed traffic flows; and
- Bus or coach stations.

Planning consents have been granted for a number of housing developments off The Long Shoot in Nuneaton, which could potentially impact upon road traffic flows in the Leicester Road Gyratory AQMA. Applications for sites with more than 100 dwellings were supported by air quality assessments. All assessments predicted a 'Negligible' impact on nitrogen dioxide concentrations within the AQMA, and confirmed that the developments would not create any new AQMAs, thus no further assessment is required.

A proposal for up to 260 dwellings off Plough Hill Road in Nuneaton was not subject to an air quality assessment; background concentrations of nitrogen dioxide in the area are low, and the development is not near to, or expected to impact upon, any AQMAs.

The impacts of the developments under construction on the existing AQMAs will be considered further in the next round of review and assessment through monitored concentrations.

Nuneaton and Bedworth Borough Council confirms that, from the above categories, there have been no new or newly identified road traffic sources which have not been considered in previous rounds of review and assessment.

4 Other Transport Sources

LAQM requires local authorities to consider the following:

- Airports;
- Locations where diesel or stream trains are regularly stationary for periods of 15 minutes or more, with relevant exposure within 15m;
- Locations with a large number of movements of diesel locomotives and long term relevant exposure within 30m; and
- Shipping ports.

Nuneaton and Bedworth Borough Council confirms that, from the above categories, there have been no new or newly identified 'other transport' sources which have not been considered in previous rounds of review and assessment.

5 Industrial Sources

LAQM requires local authorities to consider the following:

- Industrial Installations: new or proposed;
- Industrial installations: existing where emissions have increased substantially or relevant exposure introduced;
- Major fuel storage depots;
- Petrol stations; and
- Poultry farms.

Nuneaton and Bedworth Borough Council confirms that, from the above categories, there have been no new or newly identified industrial sources which have not been considered in previous rounds of review and assessment.

6 Commercial and Domestic Sources

LAQM requires local authorities to consider the following:

- Biomass combustion plant – individual installations;
- Areas where the combined impact of several biomass combustion sources may be relevant; and
- Areas where domestic solid fuel burning may be relevant.

Nuneaton and Bedworth Borough Council confirms that, from the above categories, there have been no new or newly identified commercial or domestic sources which have not been considered in previous rounds of review and assessment.

7 Fugitive or Uncontrolled Sources

LAQM requires local authorities to consider the following:

- Landfill sites;
- Quarries;
- Unmade haulage roads on industrial sites;
- Waste transfer stations; and
- Any other potential sources of fugitive particulate emissions.

Nuneaton and Bedworth Borough Council confirms that, from the above categories, there have been no new or newly identified fugitive or uncontrolled sources which have not been considered in previous rounds of review and assessment.

8 Conclusions and Proposed Actions

8.1. Conclusions from New Monitoring Data

Nuneaton and Bedworth Borough Council has examined the results from monitoring in the borough in 2014. The results indicate that exceedences of the nitrogen dioxide annual mean objective continue to be measured within the two existing AQMAs. There are no measured exceedences outside of the existing AQMAs, thus there is no need to undertake a Detailed Assessment.

8.2. Conclusions from Assessment of Sources

The USA has not identified any significant changes in emissions sources within Nuneaton and Bedworth other than those covered in previous review and assessment reports.

8.3. Proposed Actions

There is no need for further work at this stage.

Changes to the LAQM process are currently being considered by Defra. It is anticipated that, by 2016, the LAQM process will have been revised, with further guidance produced for local authorities to follow. Nuneaton and Bedworth Borough Council will keep up-to-date with any changes to the LAQM process and produce a report in 2016 which complies with the guidance at that time.

9 Appendices

A1 Appendix A: QA:QC Data

Bias Adjustment Factor from Local Co-location Study

A bias adjustment factor has been calculated from the local 2014 co-location study at the Leicester Road automatic monitor, as shown below. Nuneaton & Bedworth Borough Council's network of diffusion tubes are supplied and analysed by Gradko International. They are prepared using 20% triethanolamine (TEA) in water. The diffusion tube monitoring period below is for all three of the triplicate tubes and the annual mean is the average of the three. The annual mean presented below does not relate to a calendar year, instead to the year of diffusion tube monitoring undertaken (8th January 2014 to 7th January 2015).

Table A1.1: Bias Adjustment Factor from Local Co-location Study

Site Name	Site Type	Within AQMA?	Auto Data Capture (%)	DT [a] Periods (months)	Annual Mean (µg/m^3)		DT Mean CV [b] (%)	Bias
					DT	Auto		
AQM2 Leicester Road	Roadside	Y	98.9	12	34.1	37.9	4.4	1.11

[a] DT = Diffusion Tube

[b] CV = Coefficient of Variation, i.e. precision of diffusion tube replicates. If the average CV is >10%, the survey is considered poor overall.

Diffusion Tube Bias Adjustment Factors

A database of bias adjustment factors determined from Local Authority co-location studies throughout the UK has been collated by the LAQM Helpdesk. The National Diffusion Tube Bias Adjustment Factor Spreadsheet (Version 03/15) was used to obtain an overall adjustment factor of 0.91 from the input data shown in the following screen shot. This overall factor is based on 16 co-location studies where the tube preparation method and analysis laboratory used (Gradko International, 20% TEA in water) were the same as those used by Nuneaton & Bedworth Borough Council.

National Diffusion Tube Bias Adjustment Factor Spreadsheet

Spreadsheet Version Number: 03/15

Follow the steps below in the correct order to show the results of relevant co-location studies
Data only apply to tubes exposed monthly and are not suitable for correcting individual short-term monitoring periods
Whenever presenting adjusted data, you should state the adjustment factor used and the version of the spreadsheet
This spreadhseet will be updated every few months: the factors may therefore be subject to change. This should not discourage their immediate use.

This spreadsheet will be updated at the end of June 2015
LAQM Helpdesk Website

The LAQM Helpdesk is operated on behalf of Defra and the Devolved Administrations by Bureau Veritas, in conjunction with contract partners AECOM and the National Physical Laboratory.

Spreadsheet maintained by the National Physical Laboratory. Original compiled by Air Quality Consultants Ltd.

Step 1: Select the Laboratory that Analyses Your Tubes from the Drop-Down List

If a laboratory is not shown, we have no data for this laboratory.

Step 2: Select a Preparation Method from the Drop-Down List

If a preparation method is not shown, we have no data for this method at this laboratory.

Step 3: Select a Year from the Drop-Down List

If a year is not shown, we have no data[2]

Step 4: Where there is only one study for a chosen combination, you should use the adjustment factor shown with caution. Where there is more than one study, use the overall factor[3] shown in blue at the foot of the final column.

If you have your own co-location study then see footnote[4]. If uncertain what to do then contact the Local Air Quality Management Helpdesk at LAQMHelpdesk@uk.bureauveritas.com or 0800 0327953

Analysed By[1]	Method (To scale your selection, choose [All] from the pop-up list)	Year[5] (To scale your selection, choose [All])	Site Type	Local Authority	Length of Study (months)	Diffusion Tube Mean Conc. (Dm) (µg/m³)	Automatic Monitor Mean Conc. (Cm) (µg/m³)	Bias (B)	Tube Precision[6]	Bias Adjustment Factor (A) (Cm/Dm)
Gradko	20% TEA in water	2014	UC	Belfast City Council	11	33	32	5.6%	G	**0.95**
Gradko	20% TEA in water	2014	R	Borough Council of King's Lynn & West Norf	12	29	21	37.7%	G	**0.73**
Gradko	20% TEA in water	2014	R	Brighton & Hove City Council	12	55	48	15.2%	G	**0.87**
Gradko	20% TEA in water	2014	R	Brighton & Hove City Council	11	60	57	6.2%	G	**0.94**
Gradko	20% TEA in water	2014	R	Cheshire West and Chester	11	40	40	-1.0%	G	**1.01**
Gradko	20% TEA in water	2014	R	Dudley MBC	12	36	31	18.1%	G	**0.85**
Gradko	20% TEA in water	2014	UB	Dudley MBC	12	26	23	11.2%	G	**0.90**
Gradko	20% TEA in water	2014	R	Dudley MBC	12	41	35	15.2%	G	**0.87**
Gradko	20% TEA in water	2014	R	Dudley MBC	12	52	60	-12.6%	G	**1.14**
Gradko	20% TEA in water	2014	R	Gateshead Council	10	35	32	10.8%	G	**0.90**
Gradko	20% TEA in water	2014	R	Gateshead Council	12	36	36	-0.1%	G	**1.00**
Gradko	20% TEA in water	2014	R	Gateshead Council	12	34	32	6.4%	G	**0.94**
Gradko	20% TEA in water	2014	UB	Luton Borough Council	9	36	37	-4.0%	G	**1.04**
Gradko	20% TEA in water	2014	KS	Marylebone Road Intercomparison	12	115	80	42.8%	G	**0.70**
Gradko	20% TEA in water	2014	R	Monmouthshire County Council	10	42	38	10.1%	G	**0.91**
Gradko	20% TEA in water	2014	R	NOTTINGHAM CITY COUNCIL	12	44	39	14.9%	G	**0.87**
Gradko	20% TEA in water	2014		**Overall Factor[3] (16 studies)**				**Use**		**0.91**

Figure A1.1: National Diffusion Tube Bias Adjustment Factor Spreadsheet

Discussion of Choice of Factor to Use

The bias adjustment factor applied to all 2014 data was 0.91. The applied bias adjustment factor has been calculated using the national diffusion tube bias adjustment factor spreadsheet version 03/15. The national factor is used in preference to the local factor as it is derived from a larger dataset, thus providing a more robust calculation with less uncertainty.

QA/QC of automatic monitoring

The Leicester Road automatic monitoring site is maintained by We Care 4 Air (Supporting U prior to November 2014), who service the site and undertake monthly LSO visits. They also download and ratify the data monthly.

QA/QC of diffusion tube monitoring

The diffusion tubes are supplied and analysed by Gradko International using the 20% triethanolamine (TEA) in water method. Gradko International participates in the Annual Field Inter-Comparison Exercise and, until March 2014, participated in the Workplace Analysis Scheme for Proficiency (WASP) inter-comparison scheme for nitrogen dioxide diffusion tube analysis. From April 2014, the WASP scheme was combined with the STACKS scheme to form the new AIR scheme, which Gradko International participates in. The AIR scheme is an independent analytical proficiency-testing scheme operated by LGC Standards and supported by the Health and Safety Laboratory (HSL). The Gradko International laboratory follows the procedures set out in the Harmonisation Practical Guidance and is UKAS accredited.

From January to March 2014 the laboratory scored 100% in the WASP scheme and from April 2014 to February 2015 scored 100% in the AIR scheme. This implies that 100% of results submitted by Gradko International for all recent rounds were determined as satisfactory. In 2014, the tube precision for nitrogen dioxide Annual Field Inter-Comparison for Gradko International using the 20% TEA in water method was ‘good’ for the results from all 16 participating local authorities.

A2 Appendix 2: Monthly Diffusion Tube Measurements

Table A2.1: Monthly non-automatic nitrogen dioxide monitoring results - unadjusted raw data (time-weighted average)

Site ID	Site Type	NO_2 concentrations by month (2014) (µg/m^3)												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
NB1	Urban Background	28.7	23.5	23.5	21.5	19.0	17.0	16.8	14.9	21.3	23.2	25.9	26.2	21.9
NB2	Urban Background	28.2	27.6	24.0	20.1	18.2	15.6	14.5	15.8	20.1	21.3	31.8	0.0	21.6
NB4	Roadside	39.1	34.8	38.1	36.1	31.0	32.2	30.2	0.0	29.6	34.4	39.5	46.1	35.7
NB5	Kerbside	33.2	36.4	43.2	35.4	31.3	28.4	29.8	0.0	36.3	31.6	34.8	36.0	34.2
NB6	Kerbside	41.0	40.4	42.3	36.3	33.9	29.3	27.3	35.5	31.3	40.1	43.7	43.5	37.1
NB7	Kerbside	44.6	40.5	44.0	37.7	33.5	33.7	30.1	31.6	35.0	31.7	49.0	40.8	37.8
NB9	Kerbside	38.8	37.2	34.6	30.5	31.7	30.5	26.5	22.6	29.0	28.1	54.2	40.3	34.0
NB10	Kerbside	36.2	32.2	35.7	37.1	30.7	32.5	29.5	24.4	30.1	33.6	42.8	30.3	33.0
NB11	Roadside	48.3	53.0	45.3	47.5	44.4	44.2	35.6	36.3	41.0	39.1	68.4	50.9	46.5
NB12	Roadside	50.9	44.8	44.8	36.1	30.7	34.8	30.6	26.1	33.0	39.4	39.7	52.9	38.8
NB13	Kerbside	44.4	34.8	46.2	41.1	36.0	41.5	40.1	32.5	41.8	34.7	57.3	38.9	41.1
NB14	Roadside	40.0	44.7	38.7	39.8	41.0	32.3	32.0	33.5	34.5	43.9	58.6	51.7	41.2
NB15	Kerbside	34.6	38.0	37.3	28.7	25.6	28.9	24.3	25.2	32.0	29.9	39.1	31.5	31.4
NB17	Roadside	36.3	37.1	42.5	36.2	31.4	40.7	31.4	27.3	36.0	31.5	42.5	37.2	36.1
NB18	Kerbside	44.3	39.1	37.4	34.3	30.2	34.9	25.4	31.5	16.3	40.2	33.6	42.6	34.0
AQM2	Roadside	40.2	42.0	40.6	33.5	32.1	31.4	26.6	28.6	30.4	32.6	39.4	34.3	34.3
NB20	Roadside	34.7	29.3	34.7	31.7	25.0	30.4	25.9	23.2	27.3	28.8	38.7	32.7	30.3
NB21	Roadside	36.8	35.9	35.9	33.9	29.2	28.7	0.0	26.3	29.0	36.7	38.6	38.9	33.6
NB22	Roadside	32.0	29.7	31.3	23.6	24.8	22.9	20.2	20.7	24.7	29.2	41.0	30.3	27.7
NB23	Roadside	41.5	42.1	38.7	32.4	30.3	30.5	24.7	30.6	31.5	37.5	58.6	0.0	36.5
NB24	Roadside	27.6	28.1	27.0	24.9	25.4	21.6	19.7	21.2	24.8	23.2	31.1	0.0	25.0

Site ID	Site Type	NO_2 concentrations by month (2014) ($\mu g/m^3$)												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
NB25	Roadside	35.0	37.1	30.0	32.2	31.5	30.4	27.5	30.4	31.6	40.2	44.5	37.4	34.1
NB26	Roadside	34.0	28.1	36.4	33.0	30.4	33.0	29.7	27.8	30.8	29.7	0.0	33.1	31.5
NB27	Roadside	39.3	38.5	45.6	44.6	41.9	40.3	40.0	39.1	38.9	40.1	40.0	42.2	40.8
NB28	Roadside	42.6	45.4	45.0	44.8	38.8	34.7	30.7	37.6	38.2	41.4	40.9	42.0	40.1
NB29	Roadside	57.2	44.7	52.8	46.1	49.9	38.5	42.0	44.6	39.0	31.7	0.0	56.2	45.7
NB30	Roadside	55.2	46.4	41.5	42.9	46.0	39.0	39.8	40.1	40.7	49.0	49.1	49.5	44.9
NB31	Roadside	34.9	32.6	37.8	36.6	36.2	41.9	41.1	31.4	40.6	35.8	43.5	35.6	37.6
NB34	Roadside	38.7	34.6	35.4	31.2	29.7	25.5	25.3	24.2	27.2	35.4	37.3	35.1	31.6
NB35	Roadside	30.5	28.3	29.5	26.8	24.8	25.2	22.9	21.1	27.5	27.1	33.5	28.0	27.2
NB36	Roadside	49.3	40.4	44.2	41.2	38.4	33.4	33.7	36.5	31.4	38.4	41.2	36.5	38.5
NB37	Roadside	36.0	29.5	37.4	35.4	32.4	34.6	32.3	30.7	37.6	32.0	37.3	38.7	34.7
NB38	Roadside	32.9	33.9	33.1	31.8	30.4	30.3	27.6	26.2	29.8	27.9	36.2	35.2	31.4
NB39	Roadside	23.9	21.1	24.9	20.2	17.8	15.6	16.9	14.3	21.4	15.2	27.8	26.5	20.7
NB40	Roadside	36.8	33.7	34.8	30.1	32.5	26.4	24.7	25.4	29.8	32.4	0.0	0.0	30.6
NB41	Roadside	32.7	34.0	39.7	38.7	31.5	27.2	32.6	28.0	34.5	31.4	44.9	37.0	34.5
NB42	Roadside	35.6	34.6	35.6	34.2	29.2	36.2	23.1	0.0	28.4	30.3	44.5	34.0	33.4

A3 Appendix 3: Air Quality Action Plan Review/Progress

Table A3.1: Air Quality Action Plan Progress

Measure No.	Measure	Lead Authority	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date	Progress in Last 12 Months	Estimated Completion Date
AQAP1	N&BBC will work in partnership with WCC to identify and bring forward traffic management improvements in Nuneaton town centre, particularly where they will benefit the two AQMAs.	WCC / N&BBC	Preparation / implementation of strategy. Number of meetings between N&BBC and WCC about traffic improvement measures in AQMAs. Number of measures implemented or started	1-2 µg/m^3	Traffic modelling has been undertaken in 2014 to identify the nature and scale of highway improvements within the town centre. Option testing will be based on the spatial proposals set out in the Borough Plan.	A strategic highway assessment has been carried out in relation to the Borough Plan. This work has identified a number of key highway improvements that will be required to mitigate the traffic impact of future developments in the area.	2012 - 2016
AQAP2	N&BBC will work in partnership with WCC to identify measures to reduce the impact of HGV movements within the area.	WCC / N&BBC	Draft document by N&BBC of identified measures to reduce HGV movements Number of measures approved by WCC Number of measures implemented/started	0.2 – 0.5 µg/ m^3	The county-wide Lorry Map is kept under regular review by the County Council. The presence of important 'A' and 'B' roads such as the A444 and B4114 within the AQMAs mean that it is difficult to direct HGV and HDV traffic away from them.	The Lorry Map continues to be widely available to help HGV drivers plan routes as effectively as possible.	ongoing

Measure No.	Measure	Lead Authority	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date	Progress in Last 12 Months	Estimated Completion Date
AQAP3	N&BBC will work in partnership with WCC and Sustrans to deliver further improvements for pedestrians and cyclists within the area.	WCC / N&BBC / Sustrans	Identification of areas, routes for pedestrians and cyclists paths Meters of paths improved / developed for pedestrians and cyclists in Nuneaton particularly in AQMAs.	0.2 – 0.5 µg/ m^3	Ongoing improvements through the LTP and as key development sites come forward.	Weddington Walk cycle improvements are now complete. The cycle improvements provide a high quality route from Weddington to the MIRA site. Besides this, WCC and Sustrans are working together on an electronic cycle mapping program that will be used to identify new cycle routes in relation to land developments.	ongoing

Measure No.	Measure	Lead Authority	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date	Progress in Last 12 Months	Estimated Completion Date
AQAP4	N&BBC will work in partnership with WCC, public transport operators, DfT Rail and Network Rail to implement better integration of public transport in Nuneaton, including improvements for bus, rail and community transport infrastructure and services.	WCC / N&BBC / public transport operators / DfT Rail / Network Rail	Produce strategy for integrating public transport modes No. of improvement Schemes implemented/started Improvement in passenger numbers using public transport.	0.2 – 0.5 µg/ m^3	A number of Quality Bus Corridors (QBCs) are planned during the LTP3 period (i.e. 2011-2026), including an Inter-Urban QBC between Nuneaton-Hinckley-Leicester (service 48) and a QBC between Nuneaton and the Tamworth boundary (service 765). Rail improvements are being delivered between Bedworth and Coventry as part of the NUCKLE rail scheme. Phase 1.1 of NUCKLE includes the delivery of new stations at Bermuda and Ricoh Arena with delivery expected in summer 2015. NUCKLE 1.2 is intended to be completed by May 2017. This phase will see the increase in train frequencies to two trains per hour between Coventry-Bedworth-Nuneaton.	Reductions in LTP funding have meant that the introduction of further QBC schemes has been delayed for the foreseeable future. To date, progress includes platforms on both sides of the railway lines at Ricoh Arena complete with platform shelters and ticket machines. Station platforms are currently being constructed at Bermuda.	2017

Measure No.	Measure	Lead Authority	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date	Progress in Last 12 Months	Estimated Completion Date
AQAP5	N&BBC will work in partnership with WCC to increase uptake and implementation of School and Workplace Travel Plans (STP and WTP), particularly where they are likely to impact on AQMAs.	WCC / N&BBC	Number of new travel plans in place. WTP: Increase proportion of working population covered STP: Decrease proportion of car school journeys increase car sharing	0.2 – 0.5 µg/ m^3	Ongoing as opportunities arise, and through the development process.	New employment sites have a duty to develop and implement workplace travel plans through the planning process.	ongoing
AQAP6	N&BBC will continue to develop, implement and monitor its Travel Plan policy. As part of the implementation of this plan, N&BBC will explore the potential for operation of a Car Club in Nuneaton	N&BBC	Reduction on the number of car journeys.	0 - 0.2 µg/ m^3	Travel Plan Policy in place. Implementation and ongoing monitoring arrangements to be agreed via the N&BBC Environmental Sustainability Strategy Group	On-going monitoring of the travel plan policy	ongoing

Measure No.	Measure	Lead Authority	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date	Progress in Last 12 Months	Estimated Completion Date
AQAP7	i) N&BBC will include planning policies in its Borough Plan that seek to improve air quality, to improve sustainable transport links and to secure travel plan agreements. ii) N&BBC will identify, as a part of the Borough Plan Infrastructure Delivery Plan specific pieces of infrastructure required within the AMQA or that could relieve the AQMA. These can then be prioritised alongside the Borough's other infrastructure demands for external funding and developer contributions/CIL iii) N&BBC will encourage developers to take part in pre-application discussions to ensure air quality is considered when formulating a planning application. Developers should ensure good design as a part of their proposals and actively endorse travel planning to minimise and mitigate the impacts of new development upon the AQMA. Where appropriate development proposals should be accompanied by Air Quality Assessments	N&BBC	i) and ii) Adoption of Borough Plan and Infrastructure Delivery Plan iii) Increased number of pre-application discussions and planning applications taking account of air quality and sustainable transport issues.	0 - 0.2 µg/ m^3	i) and ii) Draft Borough Plan and Infrastructure Delivery Plan underway. iii) Development control officers aware of air quality issues in order to advise developers. Air Quality Officer involved in pre-apps and consultations.	i) currently being prepared ii) currently awaiting the Borough Plan decision iii) this is now an adopted practice	ongoing

Measure No.	Measure	Lead Authority	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date	Progress in Last 12 Months	Estimated Completion Date
AQAP8	N&BBC will continue to work with WCC and other partners to deliver improvements in emissions standards, where practicable.	N&BBC / WCC / Public transport operators	Number of new / improved vehicles within fleets	1-2 µg/ m^3	Deployment of newer, cleaner vehicles as part of the QBC and QBI initiatives	WCC continue to support bus operators to provide new, cleaner, lower emission vehicles where feasible. Due to a reduction in LTP funding, WCC are unable to progress the introduction of newer vehicle via the QBC initiatives. Bus company Stagecoach are continuing to invest and renew their fleet of vehicles, which should have a positive impact on emission levels.	ongoing
AQAP9	N&BBC will make details of the air quality measures and annual progress reports available on its Website to ensure accessibility to the consultation and implementation process.	N&BBC	Availability of recently published reports on the website	0 µg/ m^3	To be uploaded to website at the appropriate time	Reports are available on the council website	ongoing

Measure No.	Measure	Lead Authority	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date	Progress in Last 12 Months	Estimated Completion Date
AQAP10	N&BBC will continue to work in partnership with WCC and the Warwickshire District Authorities on air quality and travel awareness campaigns to raise the profile of air quality in the Borough and County-wide.	N&BBC / WCC / Warwick-shire local authorities	Number of campaigns implemented	0 - 0.2 µg/m^3	WCC actively promotes sustainable travel modes via the following: • WCC car share databasehttps://carsharewarwickshire.liftshare.com/default.asp • Nuneaton Cycle Guide available in hard-copy and online • public transport maps and timetables available in hard-copy and online • Choose How You Move Facebook page https://www.facebook.com/ChooseMoveWarks - providing up-to-date information on WCC transport schemes and events • Warwickshire Direct website www.warwickshire.gov.uk/travel - providing all bus, travel and transport information • Pedal and Ride events – offering free bike registration to encourage cycling • WCC also liaises with British Cycling to promote Breeze Rides and Ride Social events to promote cycling		ongoing

Measure No.	Measure	Lead Authority	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date	Progress in Last 12 Months	Estimated Completion Date
AQAP11	N&BBC will continue the commitment to undertake local air quality monitoring within the Borough to ensure a high standard of data is achieved to assess against air quality objectives.	N&BBC	Number monitoring sites - % data capture	0 µg/ m^3	Monitoring continues across the Borough – data capture for 2014 was good at all passive locations and at the continuous site above 90%		ongoing
AQAP12	N&BBC will continue to proactively enforce industrial control and nuisance legislation to minimise pollutant emissions from these sources in the Borough.	N&BBC	compliance levels of permitted industrial processes	0 - 0.2 µg/ m^3	The Borough Council continue a high rate of inspections of industrial installations		ongoing

Measure No.	Measure	Lead Authority	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date	Progress in Last 12 Months	Estimated Completion Date
AQAP13	N&BBC will continue to work together with partners to promote and implement energy efficiency measures in the Borough	N&BBC	Council's energy efficiency figures Number of consultations provided for energy	0 - 0.2 µg/ m^3	The Community Energy Saving Programme started in 2012 and saw the completion in 2013 of external wall insulations (EWI), boiler replacements to 410 council owned properties.139 private properties also benefited from the EWI work in 2012, and a further 46 properties in 2013. In 2013 Rockwarm did EWI works to 108 properties in Bede ward in Bedworth. They have also insulated a further 100 properties around the Borough where people are eligible for funding towards EWI work or where the property has electric or coal heating. They have also continued to insulate cavity walls and lofts around the Borough.	In 2014, via the programme, 60 properties had increased loft insulation, 30 had cavity wall insulation, 270 received A rated gas boilers and central healing insulation, and a further 43 properties received new high performance double glazed windows and external wall insulation	ongoing