2015 Updating and Screening Assessment for
Forest of Dean District Council

In fulfillment of Part IV of the
Environment Act 1995
Local Air Quality Management

July 2015

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Executive Summary

Monitoring has not identified any exceedences either within or outside of the existing AQMA in the Forest of Dean District in 2014. This is the first year since 2005, that the NO_2 objective has not been breached at the relevant locations within the district. Revocation of the AQMA is being considered following next year's round of monitoring.

There are no road traffic sources of concern within Forest of Dean District Council's administrative area.

There are no other transport sources of concern within Forest of Dean District Council's administrative area.

There are no industrial sources of concern within Forest of Dean District Council's administrative area.

There are no commercial or domestic sources of concern within Forest of Dean District Council's administrative area.

There are no fugitive or uncontrolled sources of concern within Forest of Dean District Council's administrative area.

No new or significantly changed sources have been identified within the district.

The Updating and Screening Assessment has not identified the need for a Detailed Assessment within the district.

Lydney Air Quality Management Area (AQMA) was declared in July 2010, with a subsequent Further Assessment submitted to DEFRA in June 2011. Lydney Air Quality Draft Action Plan will be submitted to DEFRA at the end of 2015. Lydney Air Quality Action Plan Progress Reports will be submitted annually as from 2016 as part of the annual review and assessment reports.

In April 2016, a Progress Report which forms part of the Local Air Quality Management (LAQM) will be submitted to DEFRA. If the NO_2 diffusion tube results exhibit concentrations below the national objectives, it may be possible to revoke the AQMA in 2016.

The monitoring programme comprising existing NO_2 diffusion tube monitoring sites is reviewed on a continuous basis, and if considered necessary, changes are undertaken, either by relocating existing diffusion tube sites, or adding new monitoring sites.

Table of contents

List of Tables

List of Figures

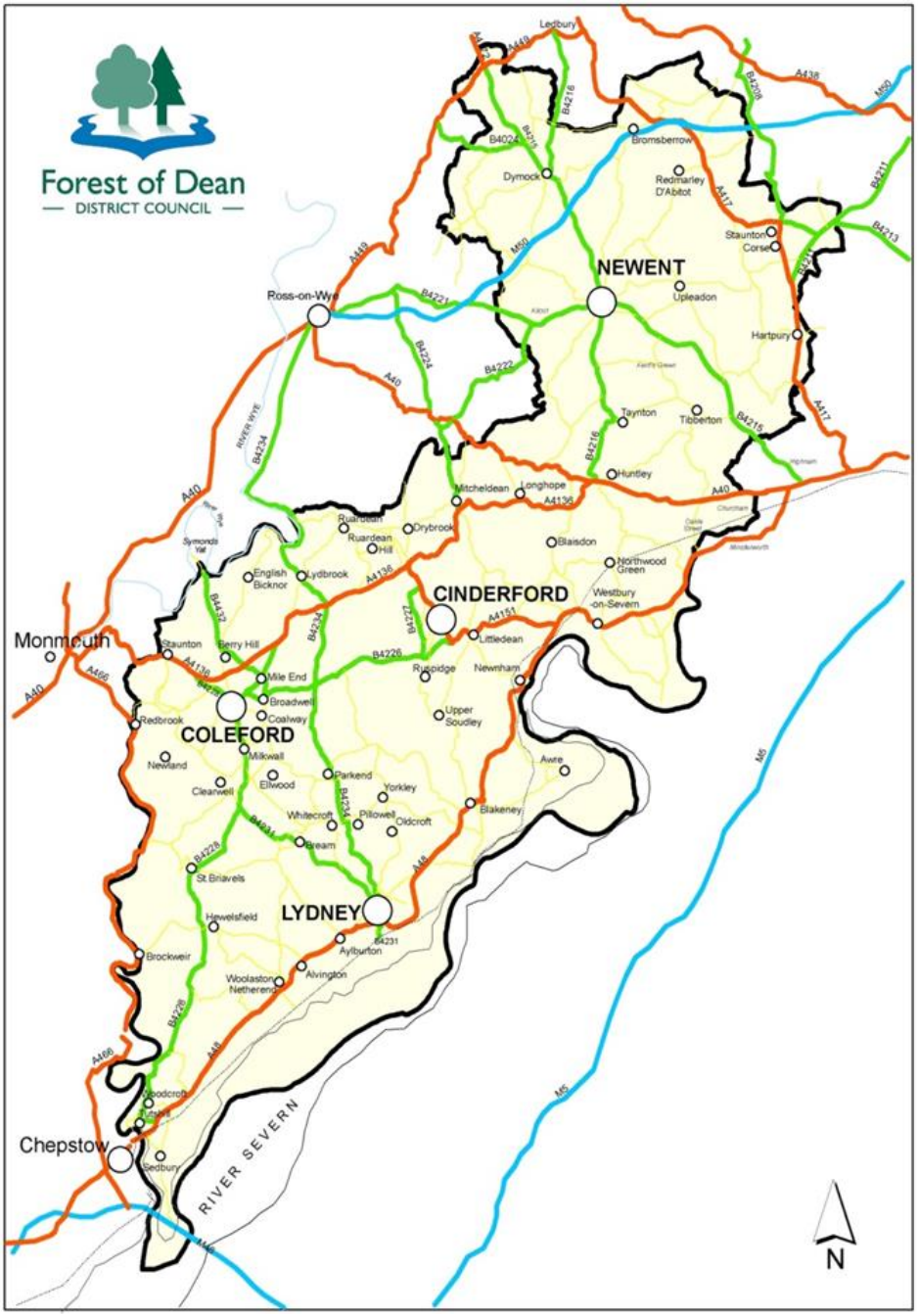
Appendices

1 Introduction

1.1 Description of Local Authority Area

The Forest of Dean is a rural community situated in Gloucestershire. The district is made up of four major towns (Lydney, Coleford, Cinderford and Newent) surrounded by numerous villages, with the remainder of the district comprising of wooded areas and open space. The main industry is manufacturing and primary industry with many light engineering firms. The population is just over 80,000 with approximately 32,000 households. The main routes through the District include the M50 in the north of the District and numerous A-roads (e.g. A48 and the A40) (see map - Figure 1.1).
There are no major industrial areas within the district or close-by that significantly impact on air quality. The industries within the district that emit any of the prescribed pollutants are not located close to relevant public exposure. The scale on which they operate does not produce emissions that significantly affect local air quality.

Figure 1.1 – Forest of Dean



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 a 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 $\mu g/m^3$ (milligrammes 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 $\mu g/m^3$	Running annual mean	31.12.2003
	5.00 $\mu g/m^3$	Running annual mean	31.12.2010
1,3-Butadiene	2.25 $\mu g/m^3$	Running annual mean	31.12.2003
Carbon monoxide	10.0 mg/m^3	Running 8-hour mean	31.12.2003
Lead	0.5 $\mu g/m^3$	Annual mean	31.12.2004
	0.25 $\mu g/m^3$	Annual mean	31.12.2008
Nitrogen dioxide	200 $\mu g/m^3$ not to be exceeded more than 18 times a year	1-hour mean	31.12.2005
	40 $\mu g/m^3$	Annual mean	31.12.2005
Particles (PM_{10}) (gravimetric)	50 $\mu g/m^3$, not to be exceeded more than 35 times a year	24-hour mean	31.12.2004
	40 $\mu g/m^3$	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 Forest of Dean District Council has previously undertaken the following review and assessment reports:

Round 2

1. Updating and Screening Assessment 2003 (USA 2003)[1]
2. Progress Report 2004 (PR 2004)[2]
3. Progress Report 2005 (PR2005)[3]

Round 3

1. Updating and Screening Assessment 2006 (USA 2006)[4]
2. Progress Report 2007 (PR 2007)[5]
3. Detailed Assessment 2009 (DA 2009)[6]

Round 4

1. Updating and Screening Assessment 2009 (USA 2009)[7]
2. Progress Report 2010 (PR 2010)[8]
3. Progress Report 2011 (PR2011)[9]

Round 5

1. Updating and Screening Assessment 2012 (USA 2012)[10]
2. Progress Report 2013 (PR 2013)[11]
3. Progress Report 2014 (PR2014)[12]

[1] Updating and Screening Assessment 2003 (Report), Forest of Dean District Council
[2] Progress Report 2004, Forest of Dean District Council
[3] Progress Report 2005, Forest of Dean District Council
[4] Updating and Screening Assessment 2006 (Report), Forest of Dean District Council
[5] Progress Report 2007, Forest of Dean District Council
[6] Detailed Assessment 2009 (Report), Forest of Dean District Council http://www.fdean.gov.uk/media/Assets/PestControl-FoodSafety/documents/Pollution/Detailed_Assessment_Lydney_2008.pdf
[7] Updating and Screening Assessment 2009 (Report), Forest of Dean District Council http://www.fdean.gov.uk/media/Assets/PestControl-FoodSafety/documents/Pollution/Forest_of_Dean_Air_Quality_Updating_and_Screening_Assessment_2009.pdf
[8] Progress Report 2010, Forest of Dean District Council http://www.fdean.gov.uk/media/Assets/PestControl-FoodSafety/documents/Pollution/Forest_of_Dean_Air_Quality_Progress_Report_2010.pdf
[9] Progress Report 2011, Forest of Dean District Council http://www.fdean.gov.uk/media/Assets/PestControl-FoodSafety/documents/Pollution/Forest_of_Dean_Air_Quality_Progress_Report_2011.pdf
[10] Updating and Screening Assessment 2012 (Report), Forest of Dean District Council http://www.fdean.gov.uk/media/Assets/EP-Licensing/documents/Air%20Quality/FoD_USA_2012.pdf
[11] Progress Report 2013, Forest of Dean District Council http://www.fdean.gov.uk/media/Assets/EP-Licensing/documents/Air%20Quality/FoD_PR2013.pdf
[12] Progress Report 2014, Forest of Dean District Council http://www.fdean.gov.uk/media/Assets/EP-Licensing/documents/Air%20Quality/FoD_PR_2014.pdf

Conclusions of Updating and Screening Assessment 2009

Three sites in the town of Lydney exceeded the nitrogen dioxide annual mean objective of 40µg/m^3. These sites will be within the proposed Lydney Air Quality Management Area to be declared shortly (end of 2009, beginning of 2010). There are no issues for any other pollutants.

There are no road traffic sources of concern within Forest of Dean District Council's administrative area.

There are no other transport sources of concern within Forest of Dean District Council's administrative area.

There are no industrial sources of concern within Forest of Dean District Council's administrative area.

There are no commercial or domestic sources of concern within Forest of Dean District Council's administrative area.

There are no fugitive or uncontrolled sources of concern within Forest of Dean District Council's administrative area.

At the end of 2009, beginning of 2010, the Lydney AQMA will be declared for exceedences of the nitrogen dioxide annual mean objective. A Further Assessment and Air Quality Action Plan will be developed in 2010/11. In April 2010 a Progress Report which forms part of the Local Air Quality Management (LAQM) will be submitted.

Conclusions of Progress Report 2010

There are four diffusion tube location sites (Ref. LYD01, LYD03, LYD05 and LYD06) within the Forest of Dean District where the annual mean objective of 40µg/m^3 for NO_2 was exceeded in 2009. These locations are all within the Lydney AQMA, which will be declared in July 2010.

NO_2 levels identified in Newnham–on-Severn suggest that there may be a need for further monitoring in this area. The calculated NO2 annual mean concentration of 37.9µg/m^3 is within 10% of the annual mean objective. It is considered that two further diffusion tube sites will be added to the monitoring round in 2010.

The Forest of Dean District Council will continue to monitor the results from the three NO_2 diffusion tube locations in Newnham-on-Severn and if deemed necessary, will undertake a Detailed Assessment for NO_2 when required.

The levels of NO_2 at all other locations within the District in 2009 are generally comparable with levels from the previous two years.

It is considered that no other pollutants are at levels, which will exceed the air quality objectives.

There are a number of planning developments that have been approved within the District and they are at various stages in their development. These include:

- Land at St Whites Farm, St Whites Road, Cinderford, Gloucestershire - Erection of 169 dwellings with associated garaging/parking facilities. Construction of new vehicular and pedestrian accesses.
- Land South Of Lakeside Avenue, Tutnalls, Lydney, Gloucestershire – Erection of 200 residential units.
- Land South Of Onslow Road, Newent - Erection of 141 dwellings with associated car parking, private amenity space, public open space, landscaping and two vehicular accesses from Onslow Road.

None of these developments have been identified as likely to have an adverse impact on air quality in their area.

The Forest of Dean District Council monitors sites in Whitecroft and St Briavels for SO_2 and O_3, respectively. The results from the diffusion tube analysis would indicate that the levels are in no way comparable to their air quality objectives and therefore, will not be monitored after July 2010.

Monitoring of Gloucestershire's most recent LTP2 targets shows that, whilst there is still work to be done and difficult issues to tackle, sound progress is being made towards providing a safe and sustainable transport system (Annual Progress Reports to the Gloucestershire Local Transport Plans 2009).

Conclusions of Progress Report 2011

There are five locations where the annual mean objective of 40$\mu g/m^3$ for NO_2 was exceeded in 2010 - High Street (Ref. LYD01, LYD03 and LYD04), Hill Street (Ref. LYD06) and Bream Road (Ref. LYD09). These locations are all within the Lydney AQMA, which was declared in July 2010.

NO_2 levels in Newnham–on-Severn identified in Progress Report 2010 suggested that there may be a need for further monitoring in this area. In 2010, further diffusion tube sites were established.

The Forest of Dean District Council will continue to monitor the results from the four NO_2 diffusion tube locations in Newnham-on-Severn and if deemed necessary, will undertake a Detailed Assessment for NO_2.

The levels of NO_2 at all other locations within the District in 2010 are generally comparable with levels from the previous two years and there are no significant changes in concentrations.

It is considered that no other pollutants are at levels which will exceed the air quality objectives.

There are a number of planning developments that have been approved within the District and they are at various stages in their development. These include:

- Land at Angel Farm, Newland Street, Coleford, Gloucestershire, GL16 8NA – Erection of 100 residential units.
- Land at St Whites Farm, St Whites Road, Cinderford, Gloucestershire - Erection of 169 dwellings with associated garaging/parking facilities. Construction of new vehicular and pedestrian accesses.
- Land South Of Lakeside Avenue, Tutnalls, Lydney, Gloucestershire – Erection of 200 residential units.
- Land South Of Onslow Road, Newent - Erection of 141 dwellings with associated car parking, private amenity space, public open space, landscaping and two vehicular accesses from Onslow Road.

None of these developments have been identified as likely to have an adverse impact on air quality in their area.

The Local transport Plan 'The Gloucestershire Local Transport Plan 2011-2026' (LTP3)[13], to be published April 2011, addresses national transport priorities at the local level and has aligned these to four main themes, which are:-

- A greener, healthier Gloucestershire;
- Sustainable Economic Growth;
- A safer, securer transport system;
- Good access to services.

An updated draft version of 'A County-wide Air Quality Strategy for Gloucestershire (May 2010)[14] has been produced.

[13] The Gloucestershire Local Transport Plan 2011-2026' (LTP3), http://www.gloucestershire.gov.uk/ltp3
[14] A County-wide Air Quality Strategy for Gloucestershire (May 2010)

Figure 1.2 - Map of Lydney AQMA Boundaries

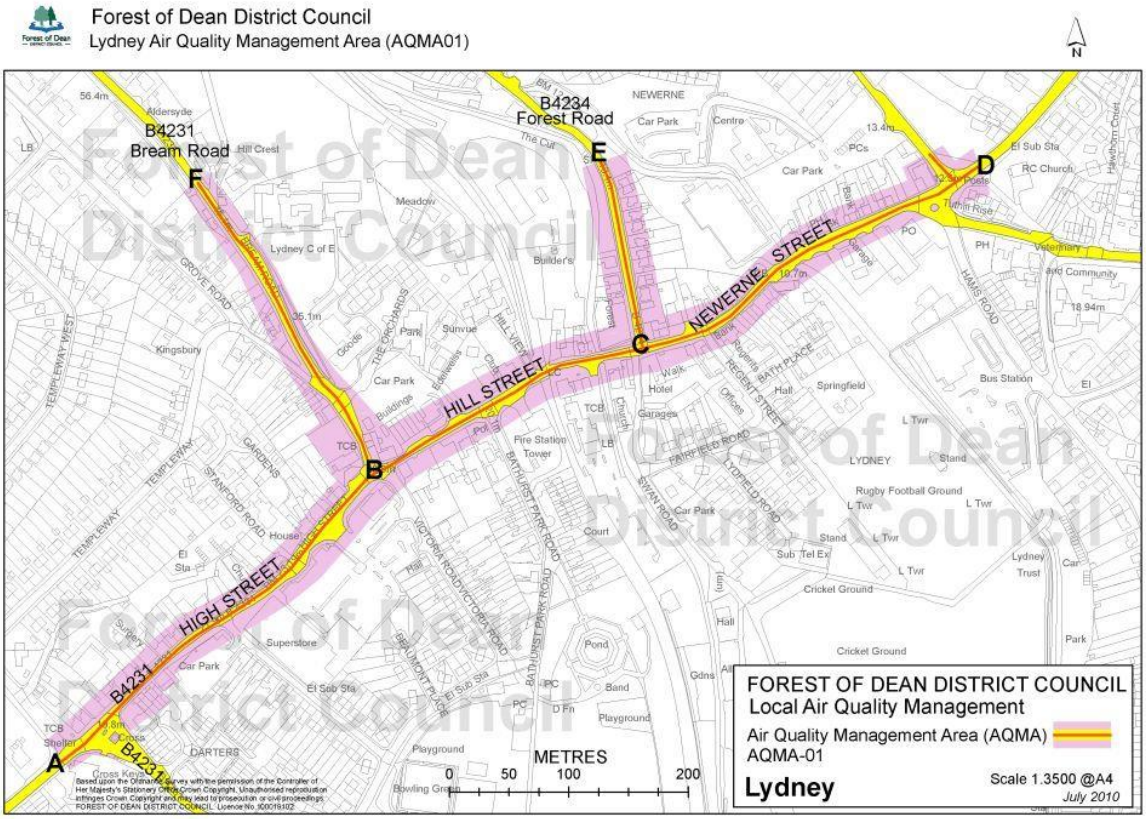


Figure 2 – Lydney Air Quality Management Area boundary[15]

The area shown on the above map (Figure 1.2) outlined is designated as an Air Quality Management Area (the designated area). The designated area in Lydney incorporates roads affronting residential properties in High Street, Hill Street and Newerne Street from Temple Way junction (A) to Albert Street Junction (D); and Bream Road from High Street junction (B) to approximately 75m past the entrance to Lydney C of E Primary School (F); and Forest Road from Hill Street (C) to just past 17 Forest Road (E).

This area is designated in relation to a likely breach of the nitrogen dioxide (annual mean) objective as specified in the Air Quality Standards Regulations 2007.

Lydney AQMA was declared July 2010. A Further Assessment was submitted to DEFRA in June 2011.

[15] Detailed Assessment 2009 (Report), Forest of Dean District Council
http://www.fdean.gov.uk/media/Assets/PestControl-FoodSafety/documents/Pollution/Detailed_Assessment_Lydney_2008.pdf

Conclusions of Updating and Screening Report 2012[16]

Monitoring has not identified any exceedences at relevant locations outside Lydney Air Quality Management Area (AQMA).

Three sites in the town of Lydney exceeded the nitrogen dioxide annual mean objective of 40µg/m^3. These sites are within the Lydney Air Quality Management Area which was declared in July 2010. There are no issues for any other pollutants.

There are no road traffic sources of concern within Forest of Dean District Council's administrative area.

There are no other transport sources of concern within Forest of Dean District Council's administrative area.

There are no industrial sources of concern within Forest of Dean District Council's administrative area.

There are no commercial or domestic sources of concern within Forest of Dean District Council's administrative area.

There are no fugitive or uncontrolled sources of concern within Forest of Dean District Council's administrative area.

No new or significantly changed sources have been identified within the district.

The Updating and Screening Assessment has not identified the need for a Detailed Assessment within the district.

Lydney Air Quality Management Area (AQMA) was declared in July 2010, with a subsequent Further Assessment submitted to DEFRA in June 2011. Lydney Air Quality Draft Action Plan will be submitted to DEFRA at the beginning of 2013.

Lydney Air Quality Action Plan Progress Reports will be submitted annually as from 2014 as part of the annual review and assessment reports.

In April 2013 a Progress Report which forms part of the Local Air Quality Management (LAQM) will be submitted to DEFRA.

Monitoring programme - existing nitrogen dioxide diffusion tube monitoring sites are reviewed on a continuous basis, and if considered necessary, changes are undertaken, either by relocating existing diffusion tube sites, or adding a monitoring site.

[16] Updating and Screening Assessment 2012, http://www.fdean.gov.uk/media/Assets/EP-Licensing/documents/Air%20Quality/FoD_USA_2012.pdf

Conclusions of Progress Report 2013[17]

There are seven locations where the annual mean objective of 40μg/m^3 for NO_2 was exceeded in 2012 - High Street (LYD01, LYD03 and LYD04), Hill Street (LYD06/13/14), Newerne Street (LYD08) and Bream Road (LYD08, LYD09). These locations are all within the Lydney AQMA, which was declared in July 2010.

The annual levels of NO_2 at all other locations within the District in 2012 are generally comparable with levels from the previous three years, however there was a slight increase of the annual levels in 2012 as compared with 2011.

Forest of Dean District Council has examined the concentrations from all monitoring locations. Concentrations of NO_2 outside of the Lydney AQMA are all below the objective at relevant locations; therefore, there is no need to proceed to a Detailed Assessment at this stage.

It is considered that no other pollutants are at levels which will exceed the air quality objectives.

There are a number of planning developments that have been approved within the District and are at various stages in their development. There are also two supermarket planning developments that have not been approved and pending within the District.

The Forest of Dean District Council will continue to closely monitor the districts NO_2 diffusion tube concentrations, and if deemed necessary, will undertake a Detailed Assessment for NO_2.

Lydney AQMA-01 was declared in July 2010, and a Further Assessment was undertaken July 2011. An Action Plan for Lydney AQMA is currently being developed.

The Forest of Dean District Council has reviewed and updated certain monitoring locations by making them more representative of the impacts of traffic in those areas.

In 2014 (Round 5), Progress Report will be undertaken. Progress Reports are required in the intervening years between the three-yearly Updating and Screening Assessment reports. Their purpose is to maintain continuity in the Local Air Quality Management process.

[17] Progress Report 2013, Forest of Dean District Council, http://www.fdean.gov.uk/media/Assets/EP-Licensing/documents/Air%20Quality/FoD_PR2013.pdf

Conclusions of Progress Report 2014[18]

There are two locations where the annual mean objective of 40µg/m^3 for NO_2 was exceeded in 2013 - High Street (LYD01), and Hill Street (Triplicates -LYD06/13/14). These locations are all within the Lydney AQMA, which was declared in July 2010, however, the annual mean for these two sites were all lower than the 2012 results.

The annual levels of NO_2 at all other locations within the District in 2013 are generally comparable with levels from the previous four years, however there was a decrease at every site from the levels in 2012. Overall, there was a decrease of 13.7% between the 2013 and 2012 results.

Forest of Dean District Council has examined the concentrations from all monitoring locations. Concentrations of NO_2 outside of the Lydney AQMA are all below the objective at relevant locations; therefore, there is no need to proceed to a Detailed Assessment at this stage.

It is considered that no other pollutants are at levels which will exceed the air quality objectives.

There are a number of planning developments that have been approved within the District at various stages in their development. Some of these developments have had Air Quality assessments undertaken but have been judged to have a negligible effect on Air Quality in their respective areas.

The Forest of Dean District Council will continue to closely monitor the districts NO_2 diffusion tube concentrations, and if deemed necessary, will undertake a Detailed Assessment for NO_2.

Lydney AQMA was declared in July 2010, and a Further Assessment was undertaken July 2011. An Action Plan for Lydney AQMA is currently being developed and the draft should be submitted by the end of 2014.

The Forest of Dean District Council has reviewed and updated certain monitoring locations by making them more representative of the impact of traffic in those areas.

In 2015, an ‘Air Quality Updating and Screening Assessment’ will be undertaken which will review Air Quality results from the years 2012-2014 and take note of all potential sources that could have detrimental effect on Air Quality in the District.

[18] Progress Report 2014, Forest of Dean District Council, http://www.fdean.gov.uk/media/Assets/EP-Licensing/documents/Air%20Quality/FoD_PR_2014.pdf

2 New Monitoring Data

2.1 Summary of Monitoring Undertaken

2.1.1 Automatic Monitoring Sites

Forest of Dean District Council does not undertake any continuous monitoring within its administrative area.

2.1.2 Non-Automatic Monitoring Sites

The Forest of Dean District Council has been undertaking NO_2 monitoring with diffusion tubes at 30 sites in 2014 (Appendix E - Map of monitoring locations). The diffusion tubes were supplied and analysed by Gradko Environmental Services (QA/QC[21] data can be found in Appendix D). Tubes were prepared using 50µl of 20% Triethanolamine in Water. The tube preparation and subsequent analysis follow the procedures in the harmonised "Practical Guidance" document[22]. All diffusion tubes are stored, handled and exposed in accordance with the relevant guidance. All diffusion tubes have a monthly exposure period.

Where necessary diffusion tubes with less that 75% (nine months) data has been annualised using the methodology outlined in Box 3.2 of the Technical Guidance (LAQM.TG(09) . There have been no sites with less than 9 months of data capture; therefore no sites have been annualised.

The Forest of Dean District Council does not undertake any co-location studies; so bias adjustment factors were obtained from the National Bias Adjustment Factor Spreadsheet (Version 03/12) (Appendix D).

2012 – 0.97 for 34 studies

2013 – 0.95 for 36 studies

2014 – 0.91 for 16 studies

Table 2.1 shows non-automatic (diffusion tube) monitoring sites for 2014.

Figure 2.1 Map(s) of Non-Automatic Monitoring Sites (if applicable)

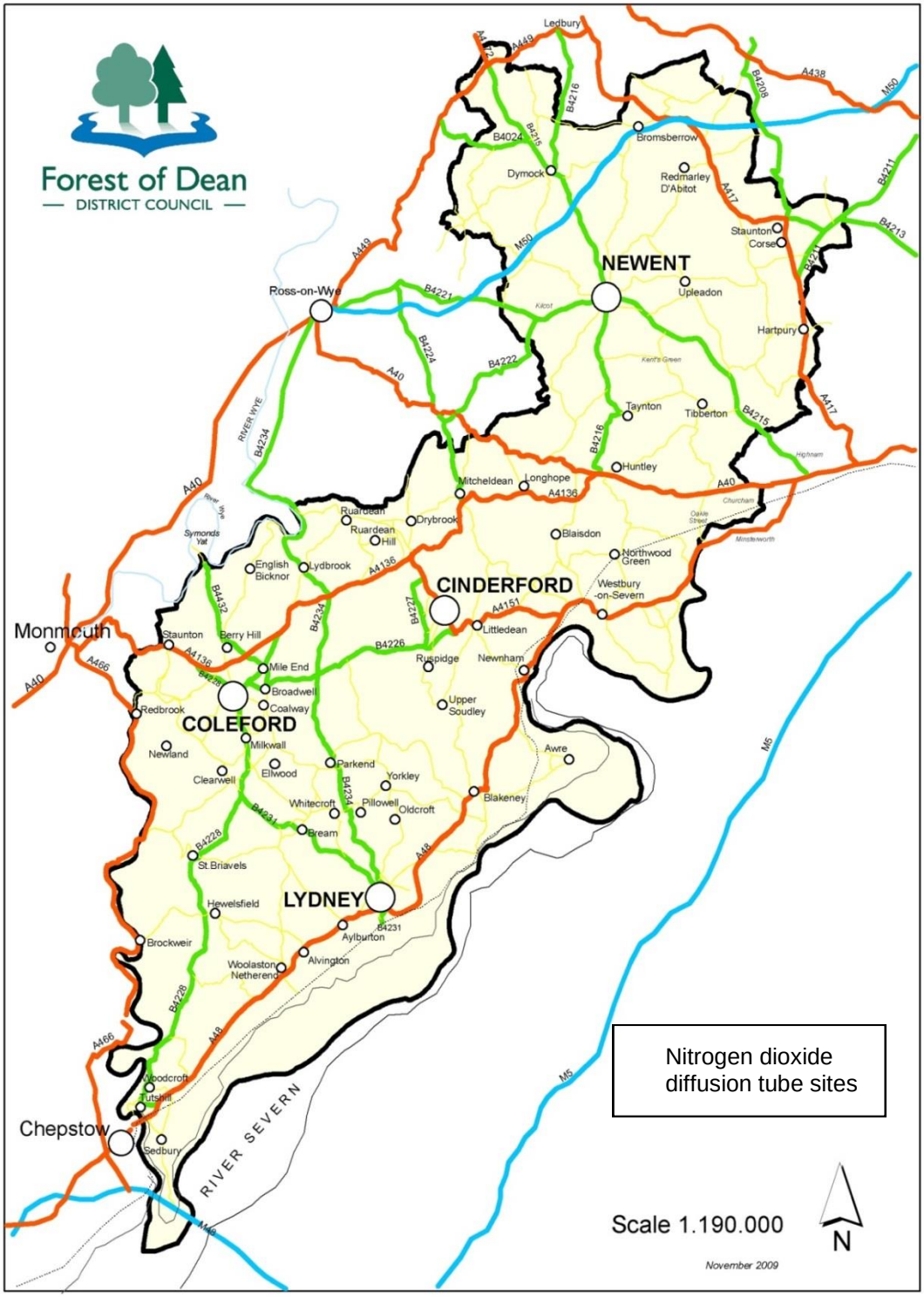


Table 2.1 Details of Non-Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Reference	Y OS Grid Reference	Pollutants Monitored	In AQMA?	Relevant Exposure?	Distance to Kerb of Nearest Road (m)	Worst-Case Exposure?
CIN01	Cinderford – St Whites Terrace	Roadside	365458	212855	NO_2	No	Y (<1m)	4m	Yes
CIN02	Cinderford – Berisford Court	Urban Centre	365814	214014	NO_2	No	Y (2m)	1m	Yes
CIN03	Cinderford – Bottom High St	Roadside	365291	214732	NO_2	No	Y (2<1m)	1m	Yes
COL01	Coleford –Gloucester Road	Suburban	357629	210787	NO_2	No	Y (<1m)	2m	Yes
COL02	Coleford – Market Place	Suburban	357553	210757	NO_2	No	Y (<1m)	7m	Yes
COL03	Coleford – Old Vicarage Court	Suburban	357742	210580	NO_2	No	Y (<1m)	7m	Yes
HUN02	Huntley - The Red Lion junction	Roadside	372198	219359	NO_2	No	N (<1m)	1m	Yes
LYD01	Lydney – Top High St	Roadside	363142	203074	NO_2	Yes	Y (<1m)	2m	Yes
LYD02	Lydney – Newerne Street	Urban Centre	363523	203261	NO_2	Yes	Y (<1m)	4m	Yes
LYD03	Lydney – Mid High St	Suburban	363025	202964	NO_2	Yes	Y (<1m)	1m	Yes
LYD04	Lydney – Bottom High St	Suburban	362964	202909	NO_2	Yes	Y (<1m)	1m	Yes
LYD05	Lydney - Regents Arcade	Urban Centre	363443	203206	NO_2	Yes	Y (1m)	1m	Yes
LYD06	Lydney – Bream Junction (Triplicate 1of3)	Suburban	363189	203110	NO_2	Yes	N (1m)	1m	Yes
LYD08	Lydney – Mid Bream Road	Roadside	363107	203217	NO_2	Yes	Y (<1m)	2m	Yes
LYD09	Lydney – Top Bream Road	Kerbside	363046	203322	NO_2	Yes	Y (<1m)	<1m	Yes
LYD10	Lydney – Old Chip Shop, Forest Road	Roadside	363405	203237	NO_2	Yes	Y (<1m)	2m	Yes
LYD11	Lydney – Forest Road	Kerbside	363391	203337	NO_2	Yes	Y (<1m)	<1m	Yes
LYD12	Lydney –Newerne Street	Urban Centre	363607	203322	NO_2	Yes	Y (<1m)	2m	Yes
LYD13	Lydney – Bream Junction (Triplicate 2of3)	Suburban	363189	203110	NO_2	Yes	N (1m)	1m	Yes
LYD14	Lydney – Bream Junction (Triplicate 3of3)	Suburban	363189	203110	NO_2	Yes	N (1m)	1m	Yes
LYD15	Lydney – Highfield Lane	Suburban	364087	204137	NO_2	Yes	N (1m)	1m	Yes
MIT01	Mitcheldean –The Merrin	Roadside	366483	218277	NO_2	No	Y (2m)	1m	Yes
NAI01	Nailbridge – Crossroads	Roadside	364555	216226	NO_2	No	N (<1m)	1m	Yes
NEW01	Newent – opposite Clifton House, High Street	Suburban	372058	226159	NO_2	No	N (1m)	1m	Yes
NEW02	Newent – Church Street	Urban Centre	372288	225852	NO_2	No	Y (<1m)	2m	Yes
NOS02	Newnham-on-Severn - High St	Roadside	369038	211590	NO_2	No	Y (<1m)	2m	Yes
NOS03	Newnham-on-Severn - High St	Roadside	369135	211870	NO_2	No	Y (<1m)	3m	Yes
NOS04	Newnham-on-Severn - High St	Roadside	369200	211929	NO_2	No	Y (<1m)	3m	Yes
NOS05	Newnham-on-Severn - High St	Roadside	369040	211679	NO_2	No	Y (<1m)	12m	Yes
WOS01	Westbury-on-Severn - High St - bus stop	Roadside	371649	214054	NO_2	No	N (5m)	2m	Yes

2.2 Comparison of Monitoring Results with Air Quality Objectives

2.2.1 Nitrogen Dioxide

Diffusion Tube Monitoring Data

Table 2.2 indicates that all locations are below the annual mean objective of 40μg/m^3 for NO_2 in 2014.

None of the sites are close to an annual mean of 60μg/m^3 suggesting that there are no concerns for the 1-hour objective. Forest of Dean District Council will not be undertaking a Detailed Assessment for NO_2 in 2015.

Table 2.2 Results of Nitrogen Dioxide Diffusion Tubes in 2014

Site ID	Location	Site Type	Within AQMA?	Triplicate or Collocated Tube	Data Capture 2014 (Number of Months or %)	Data annualised/ Distance corrected (Y/N)	Annual mean concentration (Bias Adjustment factor = 0.91) 2014 (μg/m^3)
CIN01	Cinderford – St Whites Terrace	Roadside	N	N	12 months	N/N	21.2
CIN02	Cinderford – Berisford Court	Urban Centre	N	N	12 months	N/N	23.4
CIN03	Cinderford – Bottom High St	Roadside	N	N	12 months	N/N	22.7
COL01	Coleford –Gloucester Road	Suburban	N	N	11 months	N/N	32.1
COL02	Coleford – Market Place	Suburban	N	N	11 months	N/N	21.6
COL03	Coleford – Old Vicarage Court	Suburban	N	N	12 months	N/N	22.3
HUN02	Huntley - The Red Lion junction	Roadside	N	N	12 months	N/N	20.5
LYD01	Lydney – Top High St	Roadside	Y	N	12 months	N/N	38.0
LYD02	Lydney – Newerne Street	Urban Centre	Y	N	12 months	N/N	20.7
LYD03	Lydney – Mid High St	Suburban	Y	N	12 months	N/N	35.6
LYD04	Lydney – Bottom High St	Suburban	Y	N	10 months	N/N	34.5
LYD05	Lydney - Regents Arcade	Urban Centre	Y	N	12 months	N/N	33.7
LYD06	Lydney – Bream Junction (Triplicate 1of3)	Suburban	Y	Y	12 months	N/N	38.6
LYD08	Lydney – Mid Bream Road	Roadside	Y	N	12 months	N/N	38.1
LYD09	Lydney – Top Bream Road	Kerbside	Y	N	12 months	N/N	36.9
LYD10	Lydney – Old Chip Shop, Forest Road	Roadside	Y	N	11 months	N/N	22.7
LYD11	Lydney – Forest Road	Kerbside	Y	N	12 months	N/N	16.2
LYD12	Lydney –Newerne Street	Urban Centre	Y	N	12 months	N/N	28.8
LYD13	Lydney – Bream Junction (Triplicate 2of3)	Suburban	Y	Y	12 months	N/N	36.8
LYD14	Lydney – Bream Junction (Triplicate 3of3)	Suburban	Y	Y	12 months	N/N	38.2
LYD15	Lydney – Highfield Lane	Suburban	N	N	12 months	N/N	10.7
MIT01	Mitcheldean –The Merrin	Roadside	N	N	12 months	N/N	27.2
NAI01	Nailbridge – Crossroads	Roadside	N	N	12 months	N/N	29.8
NEW01	Newent – opposite Clifton House, High Street	Suburban	N	N	12 months	N/N	22.4
NEW02	Newent – Church Street	Urban Centre	N	N	12 months	N/N	23.7
NOS02	Newnham-on-Severn - High St	Roadside	N	N	12 months	N/N	28.3
NOS03	Newnham-on-Severn - High St	Roadside	N	N	12 months	N/N	26.7
NOS04	Newnham-on-Severn - High St	Roadside	N	N	11 months	N/N	29.9
NOS05	Newnham-on-Severn - High St	Roadside	N	N	12 months	N/N	24.1
WOS01	Westbury-on-Severn - High St - bus stop	Roadside	N	N	11 months	N/N	19.1

Table 2.3 Results of Nitrogen Dioxide Diffusion Tubes (2010 to 2014)

Site ID	Monitoring Location	Site Type	Within AQMA?	Annual mean concentration (adjusted using bias assessment factor*) μg/m^3				
				2010 (0.85)*	2011 (0.89)*	2012 (0.97)*	2013 (0.95)*	2014 (0.91)*
CIN01	Cinderford – St Whites Terrace	Roadside	N	27.8	22.8	25.1	23.5	21.2
CIN02	Cinderford – Berisford Court	Urban Centre	N	24.4	22.5	26.0	23.8	23.4
CIN03	Cinderford – Bottom High St	Roadside	N	26.5	21.7	25.0	23.5	22.7
COL01	Coleford –Gloucester Road	Suburban	N	36.5	35.4	37.8	34.0	32.1
COL02	Coleford – Market Place	Suburban	N			25.8	23.6	21.6
COL03	Coleford – Old Vicarage Court	Suburban	N			29.0	24.0	22.3
HUN02	Huntley - The Red Lion junction	Roadside	N	25.6	20.2	26.0	22.1	20.5
LYD01	Lydney – Top High St	Roadside	Y	**46.4**	**40.8**	**49.7**	**41.4**	38.0
LYD02	Lydney – Newerne Street	Urban Centre	Y	23.9	22.8	24.7	21.0	20.7
LYD03	Lydney – Mid High St	Suburban	Y	**46.9**	39.2	**45.1**	37.1	35.6
LYD04	Lydney – Bottom High St	Suburban	Y	**40.7**	34.6	**44.1**	38.2	34.5
LYD05	Lydney - Regents Arcade	Urban Centre	Y	39.8	38.2	**42.5**	34.3	33.7
LYD06	Lydney – Bream Junction (Triplicate 1of3)	Suburban	Y	**46.6**	**41.5**	**45.7**	**40.8**	38.6
LYD08	Lydney – Mid Bream Road	Roadside	Y	39.7	39.6	**44.5**	37.3	38.1
LYD09	Lydney – Top Bream Road	Kerbside	Y	**46.0**	**44.6**	**47.5**	34.8	36.9
LYD10	Lydney – Old Chip Shop, Forest Road	Roadside	Y	31.9	26.3	30.0	26.9	22.7
LYD11	Lydney – Forest Road	Kerbside	Y	24.8	16.5	20.3	17.8	16.2
LYD12	Lydney –Newerne Street	Urban Centre	Y		32.0	36.0	31.7	28.8
LYD13	Lydney – Bream Junction (Triplicate 2of3)	Suburban	Y		**40.1**	**46.4**	**40.5**	36.8
LYD14	Lydney – Bream Junction (Triplicate 3of3)	Suburban	Y		39.0	**44.3**	**40.3**	38.2
LYD15	Lydney – Highfield Lane	Suburban	N			15.5	11.1	10.7
MIT01	Mitcheldean –The Merrin	Roadside	N	31.5	26.2	31.7	28.1	27.2
NAI01	Nailbridge – Crossroads	Roadside	N	35.0	35.4	37.1	30.6	29.8
NEW01	Newent – opposite Clifton House, High Street	Suburban	N	27.4	22.3	24.3	24.0	22.4
NEW02	Newent – Church Street	Urban Centre	N	28.4	26.2	27.9	24.9	23.7
NOS02	Newnham-on-Severn - High St	Roadside	N	35.7	32.2	33.8	30.1	28.3
NOS03	Newnham-on-Severn - High St	Roadside	N	30.0	32.1	31.1	27.1	26.7
NOS04	Newnham-on-Severn - High St	Roadside	N	37.3	30.4	35.5	28.2	29.9
NOS05	Newnham-on-Severn - High St	Roadside	N	35.4	26.1	27.9	25.6	24.1
WOS01	Westbury-on-Severn - High St - bus stop	Roadside	N	27	23.6	24.3	21.4	19.1

Table 2.3 shows results of nitrogen dioxide diffusion tube concentrations over a five year period between 2010 and 2014. Results do not indicate any significant trends.

2.2.2 PM_{10}

Forest of Dean District Council has not undertaken any PM10 monitoring within its administrative area since the Updating and Screening Assessment in 2009.

2.2.3 Sulphur Dioxide

The Forest of Dean District Council has not undertaken any sulphur dioxide monitoring within its administrative area since the Updating and Screening Assessment in 2009.

2.2.4 Benzene

Forest of Dean District Council has not undertaken any benzene monitoring within its administrative area since the Updating and Screening Assessment in 2009.

2.2.5 Other pollutants monitored

The Forest of Dean District Council has not undertaken any other pollutant monitoring within its administrative area since the Updating and Screening Assessment in 2009.

Carbon Monoxide - Forest of Dean District Council has not undertaken any carbon monoxide monitoring within their administrative area since the Updating and Screening Assessment in 2009.

Lead - Forest of Dean District Council has not undertaken any lead monitoring within its administrative area since the Updating and Screening Assessment in 2009.

1,3-Butadiene - Forest of Dean District Council has not undertaken any 1,3-Butadiene monitoring within its administrative area since the Updating and Screening Assessment in 2009.

2.2.6 Summary of Compliance with AQS Objectives

Forest of Dean District Council has examined the results from monitoring in the district. Concentrations are all below the objectives at relevant locations, therefore there is no need to proceed to a Detailed Assessment.

3 Road Traffic Sources

Emissions from road traffic are the most significant source of influence on air quality within Forest of Dean District. Previous reviews have established that levels of NO_2 may be of concern and, therefore, nitrogen dioxide diffusion tube monitoring takes place at 30 sites throughout the district. There are no roads within the district with a significant percentage of buses or HGVs.

3.1 Narrow Congested Streets with Residential Properties Close to the Kerb

Concentrations of NO_2 are often higher where traffic is slow moving, with stop/start driving, and where buildings on either side reduce dispersion - Section A.1 of Box 5.3 of LAQM.TG(09).

There are no new areas that meet the criteria, however, the NO_2 monitoring network addresses any other areas of concern.

Forest of Dean District Council confirms that there are no new/newly identified congested streets with a flow above 5,000 vehicles per day and residential properties close to the kerb, that have not been adequately considered in previous rounds of Review and Assessment.

3.2 Busy Streets Where People May Spend 1-hour or More Close to Traffic

There are some street locations where individuals may regularly spend 1-hour or more, for example, streets with many shops and streets with outdoor cafes and bars - Section A.2 of Box 5.3 of TG(09). Having reviewed potential locations within Forest of Dean Council's administrative area, no busy streets of concern have been identified since the last round of Updating and Screening Assessment in 2012 where people may spend 1-hour or more close to traffic.

Forest of Dean District Council confirms that there are no new/newly identified busy streets where people may spend 1 hour or more close to traffic.

3.3 Roads with a High Flow of Buses and/or HGVs.

Levels of NO_2 and PM_{10} need to be considered where there is an unusually high proportion of buses and/or HGVs - Section A.3 of Box 5.3 of LAQM TG(09). Having reviewed potential locations within Forest of Dean Council's administrative area, no locations of concern have been identified since the last round of Updating and Screening Assessment in 2012.

Forest of Dean District Council confirms that there are no new/newly identified roads with high flows of buses/HDVs.

3.4 Junctions

Levels of NO_2 and PM_{10} need to be considered at busy junctions due to the combined impact of traffic emissions from more than one road and the resultant higher emissions due to stop/start driving. - Section A.4 of Box 5.3 of TG(09). Having reviewed potential locations within Forest of Dean District Council's administrative area, no busy junctions of concern have been identified since the last round of Updating and Screening Assessment in 2012.

Forest of Dean District Council confirms that there are no new/newly identified busy junctions/busy roads.

3.5 New Roads Constructed or Proposed Since the Last Round of Review and Assessment

Levels of NO_2 and PM_{10} need to be considered for newly constructed or proposed roads - Section A.5 of Box 5.3 of LAQM TG(09).

Having reviewed potential locations within Forest of Dean District Council's administrative area, one new spine road has been proposed since the last round of Updating and Screening Assessment in 2012. This road is part of a large planning application (P0663/14/OUT) for a site to comprise a housing development, a college, a hotel, office buildings and a spine road.

An air quality assessment was undertaken as part of an Environmental Impact Assessment and the Environmental Statement for the development concluded that the local emission sources associated with the proposed development would have a

neglible effect on existing roadside receptors, have a negligible effect on existing receptors within Cinderford and the surrounding area, and have a negligible effect on regional emissions of greenhouse gases and local air quality pollutants.
No exceedances of the national objectives have been predicted for NO_2 or PM_{10}.

Forest of Dean District Council has assessed new/proposed roads meeting the criteria in Section A.5 of Box 5.3 in TG(09), and concluded that it will not be necessary to proceed to a Detailed Assessment.

3.6 Roads with Significantly Changed Traffic Flows

Levels of NO_2 and PM_{10} need to be considered for any roads where there has been a "large" increase in traffic flow. An increase of more than 25% is considered "large" - Section A.6 of Box 5.3 of LAQM.TG(09). Having reviewed traffic flow data within Forest of Dean District Council's administrative area, no roads with a large increase in traffic flow have been identified since the last round of Updating and Screening Assessment in 2012.

Forest of Dean District Council confirms that there are no new/newly identified roads with significantly changed traffic flows.

3.7 Bus and Coach Stations

Levels of NO_2, both the annual mean and the 1-hour objective, must be considered for bus stations or sections of bus stations that are not enclosed, and where there is relevant exposure, including at nearby residential properties. - Section A.7 of Box 5.3 of LAQM.TG(09). Forest of Dean District Council has no bus or coach station that meets the assessment criteria.

Forest of Dean District Council confirms that there are no relevant bus stations in the Local Authority area.

4 Other Transport Sources

4.1 Airports

Levels of NO_2 from airports must be considered as aircraft are potentially significant sources of Nitrogen Oxides (NO_X) emissions, especially during take-off - Section B.1 of Box 5.4 of LAQM TG(09). Forest of Dean District Council has no airports within their administrative area.

Forest of Dean District Council confirms that there are no airports in the Local Authority area.

4.2 Railways (Diesel and Steam Trains)

Stationary locomotives, both diesel and coal fired, can give rise to high levels of SO_2 close to the point of emission. Recent evidence suggests that moving diesel locomotives, in sufficient numbers, can also give rise to high NO_2 concentrations close to the track. These two potentially significant sources are considered separately below - Section B.2 of Box 5.4 of LAQM.TG(09).

4.2.1 Stationary Trains

Measurements were made on the Council's GIS mapping system to establish that there are no relevant exposure sites within 15m of the track at Lydney Junction station. Trains are also not regularly stationary for 15 minutes or more. There are no relevant exposure sites within 15m of the track of the Dean Forest Railway, which is a privately owned railway, operating steam and diesel locomotives. The railway operates from Lydney to Parkend.

Forest of Dean District Council confirms that there are no locations where diesel or steam trains are regularly stationary for periods of 15 minutes or more, with potential for relevant exposure within 15m.

4.2.2 Moving Trains

Forest of Dean District does not include any of the rail lines with a heavy traffic of diesel passenger trains, as listed in Table 5.1 of TG(09). Nor is Forest of Dean District Council one of the authorities listed in Table 2 of the 'Guidance on Assessing Emissions from Railway Traffic'[19] document.

Forest of Dean District Council confirms that there are no locations with a large number of movements of diesel locomotives, and potential long-term relevant exposure within 30m.

4.3 Ports (Shipping)

Large ships generally burn oils with a high Sulphur content in their main engines (bunker oils). If there are sufficient movements in a port they can give rise to a sufficient number of 15-minute periods above 266 µg/m^3, as to exceed the 15-minute objective for SO_2. Forest of Dean District Council has no commercial ports within the administrative area.

Forest of Dean District Council confirms that there are no ports or shipping that meet the specified criteria within the Local Authority area.

[19] Guidance on Assessing Emissions from Railway Locomotives, 2009; http://laqm.defra.gov.uk/documents/Railway_Locomotives_100209.pdf

5 Industrial Sources

5.1 Industrial Installations

Although industrial sources are unlikely to make a significant local contribution to annual mean concentrations they may be significant in terms of the short-term objectives, especially if there is an impact from several sources. All of the regulated pollutants need to be considered, although those most at risk of requiring further work are SO_2, NO_2, PM_{10} and Benzene – Section C.1 of Box 5.5 of LAQM.TG(09).

5.1.1 New or Proposed Installations for which an Air Quality Assessment has been Carried Out

There are no new or proposed installations for which an air quality assessment was, or would be required.

Forest of Dean District Council confirms that there are no new or proposed industrial installations for which planning approval has been granted within its area or nearby in a neighbouring authority.

5.1.2 Existing Installations where Emissions have Increased Substantially or New Relevant Exposure has been Introduced

There are no existing installations with substantially increased emissions and none with any new relevant exposure introduced.

Forest of Dean District Council confirms that there are no industrial installations with substantially increased emissions or new relevant exposure in their vicinity within its area or nearby in a neighbouring authority.

5.1.3 New or Significantly Changed Installations with No Previous Air Quality Assessment

There are no new or significantly changed installations with no previous air quality assessments.

Forest of Dean District Council confirms that there are no new or proposed industrial installations for which planning approval has been granted within its area or nearby in a neighbouring authority.

5.2 Major Fuel (Petrol) Storage Depots

Major petrol fuel depots could emit sufficient benzene to put the national objective at risk of being exceeded, especially if combined with higher levels from nearby busy roads – Section C.2 of Box 5.5 of LAQM TG(09). There are no major fuel (petrol) storage depots within the Local Authority area.

There are no major fuel (petrol) storage depots within the Local Authority area.

5.3 Petrol Stations

Petrol stations could emit sufficient benzene to put the national objective at risk of being exceeded, especially if combined with higher levels from nearby busy roads - Section C.3 of Box 5.5 of LAQM TG(09). Forest of Dean District Council has considered busy roads as defined and all petrol stations located on them. None have relevant exposure within 10 metres of the pumps.

Forest of Dean District Council confirms that there are no petrol stations meeting the specified criteria**.**

5.4 Poultry Farms

There is the potential for localised exceedences of the PM_{10} objectives associated with emissions from certain large poultry farms - Section C.4 of Box 5.5 of LAQM TG(09). There is one such farm which is permitted by the Environment Agency: Stone End Farm, Churcham, where 900,000 Chicken broilers are reared within units with mechanically, side-ventilated housing. This is above the criteria of 400,000 birds, however there are no relevant exposures within 100m of the units – see Appendix C.

Forest of Dean District Council confirms that there are no poultry farms meeting the specified criteria.

6 Commercial and Domestic Sources

6.1 Biomass Combustion – Individual Installations

Biomass burning can lead to an increase in PM_{10} emissions, due to the process of combustion – aerosol formation from volatile materials distilled from the wood is also an issue. Compared to conventional gas-burning, biomass burning can also result in an increase in the overall NO_X emissions due to the fuel-derived portion that is not present in gas combustion - Section D.1a of Box 5.8 LAQM.TG(09). Forest of Dean District Council has received several enquiries regarding the necessity for consideration of biomass boilers under the Clean Air Act 1993. All such boilers were below 50kW.

Forest of Dean District Council confirms that there are no biomass combustion plant in the Local Authority area.

6.2 Biomass Combustion – Combined Impacts

There is the potential that many small biomass combustion installations (including domestic solid-fuel burning), whilst individually acceptable, could in combination lead to unacceptably high PM_{10} concentrations, particularly in areas where PM_{10} concentrations are close to or above the objectives. The impact of domestic biomass combustion in most areas is thought to be small at the time of writing, but could become more important in future - Section D.1b of Box 5.8 LAQM.TG(09). There are only a few isolated biomass boilers within Forest of Dean District Council. There are no areas that would meet the criteria as set out in the Technical Guidance LAQM.TG(09). 'Technical Guidance: Screening assessment for biomass boilers'[20] was also consulted.

Forest of Dean District Council confirms that there are no biomass combustion plant in the Local Authority area.

[20] Technical Guidance: Screening assessment for biomass boilers Report to the Department of Environment, Food and Rural Affairs and the Devolved Administrations, ED48673005/R2655,Issue Number 1, July 2008; http://uk-air.defra.gov.uk/reports/cat18/0806261519_methods.pdf

6.3 Domestic Solid-Fuel Burning

There is the potential in areas where significant coal burning takes place for exceedences of the objectives for SO_2 to occur - Section D.2 of chapter 5 LAQM.TG(09). Having reviewed potential locations within Forest of Dean Council's administrative area, no areas of significant coal burning have been identified since the last round of Updating and Screening Assessment in 2012.

Forest of Dean District Council confirms that there are no areas of significant domestic fuel use in the Local Authority area.

7 Fugitive or Uncontrolled Sources

Potentially elevated levels of PM_{10} can arise from the fugitive emissions from a range of sources including quarrying, stone cutting, gravel extraction and wind-blown dust from stockpiles and dusty surfaces - Section E of Box 5.10 LAQM.TG(09).

Having reviewed potential locations within Forest of Dean District Council's administrative area, no locations of concern have been identified since the last round of Updating and Screening Assessment in 2012.

Forest of Dean District Council confirms that there are no potential sources of fugitive particulate matter emissions in the Local Authority area.

8 Conclusions and Proposed Actions

8.1 Conclusions from New Monitoring Data

Monitoring has not identified any exceedences either within, or outside of, the existing AQMA in the Forest of Dean District in 2014. This is the first year since 2005, that the NO_2 objective has not been breached at the relevant locations within the district. Revocation of the AQMA is being considered following next year's round of monitoring.

No Detailed assessment is required as this stage.

8.2 Conclusions from Assessment of Sources

There are no road traffic sources of concern within Forest of Dean District Council's administrative area.

There are no other transport sources of concern within Forest of Dean District Council's administrative area.

There are no industrial sources of concern within Forest of Dean District Council's administrative area.

There are no commercial or domestic sources of concern within Forest of Dean District Council's administrative area.

There are no fugitive or uncontrolled sources of concern within Forest of Dean District Council's administrative area.

No new or significantly changed sources have been identified within the district.

8.3 Proposed Actions

The Updating and Screening Assessment has not identified the need for a Detailed Assessment within the district.

Lydney Air Quality Management Area (AQMA) was declared in July 2010, with a subsequent Further Assessment[21] submitted to DEFRA in June 2011. Lydney Air Quality Draft Action Plan will be submitted to DEFRA at the end of 2015. Lydney Air Quality Action Plan Progress Reports will be submitted annually as from 2016 as part of the annual review and assessment reports.

[21] Lydney Air Quality Management Area Further Assessment, June 2011
http://www.fdean.gov.uk/media/Assets/EP-Licensing/documents/FoD_FA_2011.pdf

In April 2016, a Progress Report which forms part of the Local Air Quality Management (LAQM) will be submitted to DEFRA. If the NO_2 diffusion tube results exhibit concentrations below the national objectives, it may be possible to revoke the AQMA in 2016.

The monitoring programme comprising existing NO_2 diffusion tube monitoring sites is reviewed on a continuous basis, and if considered necessary, changes are undertaken, either by relocating existing diffusion tube sites, or adding monitoring sites.

9 References

Updating and Screening Assessment 2003, Forest of Dean District Council [1]

Progress Report 2004, Forest of Dean District Council [2]

Progress Report 2005, Forest of Dean District Council [3]

Updating and Screening Assessment 2006, Forest of Dean District Council [4]

Progress Report 2007, Forest of Dean District Council [5]

Detailed Assessment 2009 (Report), Forest of Dean District Council http://www.fdean.gov.uk/media/Assets/PestControl-FoodSafety/documents/Pollution/Detailed_Assessment_Lydney_2008.pdf [6]

Updating and Screening Assessment 2009 (Report), Forest of Dean District Council http://www.fdean.gov.uk/media/Assets/PestControl-FoodSafety/documents/Pollution/Forest_of_Dean_Air_Quality_Updating_and_Screening_Assessment_2009.pdf [7]

Progress Report 2010, Forest of Dean District Council http://www.fdean.gov.uk/media/Assets/PestControl-FoodSafety/documents/Pollution/Forest_of_Dean_Air_Quality_Progress_Report_2010.pdf [8]

Progress Report 2011, Forest of Dean District Council http://www.fdean.gov.uk/media/Assets/PestControl-FoodSafety/documents/Pollution/Forest_of_Dean_Air_Quality_Progress_Report_2011.pdf [9]

Updating and Screening Assessment 2012 (Report), Forest of Dean District Council http://www.fdean.gov.uk/media/Assets/EP-Licensing/documents/Air%20Quality/FoD_USA_2012.pdf [10]

Progress Report 2013, Forest of Dean District Council http://www.fdean.gov.uk/media/Assets/EP-Licensing/documents/Air%20Quality/FoD_PR2013.pdf [11]

Progress Report 2014, Forest of Dean District Council http://www.fdean.gov.uk/media/Assets/EP-Licensing/documents/Air%20Quality/FoD_PR_2014.pdf [12]

The Gloucestershire Local Transport Plan 2011-2026' (LTP3), http://www.gloucestershire.gov.uk/ltp3 [13]

A County-wide Air Quality Strategy for Gloucestershire (May 2010) [14]

Detailed Assessment 2009 (Report), Forest of Dean District Council http://www.fdean.gov.uk/media/Assets/PestControl-FoodSafety/documents/Pollution/Detailed_Assessment_Lydney_2008.pdf (15)

Updating and Screening Assessment, http://www.fdean.gov.uk/media/Assets/EP-Licensing/documents/Air%20Quality/FoD_USA_2012.pdf (16)

Progress Report 2013, Forest of Dean District Council, http://www.fdean.gov.uk/media/Assets/EP-Licensing/documents/Air%20Quality/FoD_PR2013.pdf (17)

Progress Report 2014, Forest of Dean District Council, http://www.fdean.gov.uk/media/Assets/EP-Licensing/documents/Air%20Quality/FoD_PR_2014.pdf (18)

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Lydney Air Quality Management Area Further Assessment, June 2011http://www.fdean.gov.uk/media/Assets/EP-Licensing/documents/FoD_FA_2011.pdf (21)

Summary of Laboratory Performance in WASP NO2 Proficiency Testing Scheme for Rounds 108-115. http://laqm.defra.gov.uk/documents/WASP-NO2-Scheme-for-Rounds-105-113-(April-2009---June-2011).pdf (22)

Summary of Laboratory Performance in WASP NO2 Proficiency Testing Scheme for Rounds 108-115. http://laqm.defra.gov.uk/documents/LAQM-WASP-Rounds-117-124-(April-2012--March-2014)-NO2-report.pdf (23)

Appendices

Appendix A: QA/QC Data

Appendix B: Diffusion Tube Monitoring Sites

Appendix C: List of Permitted Installations

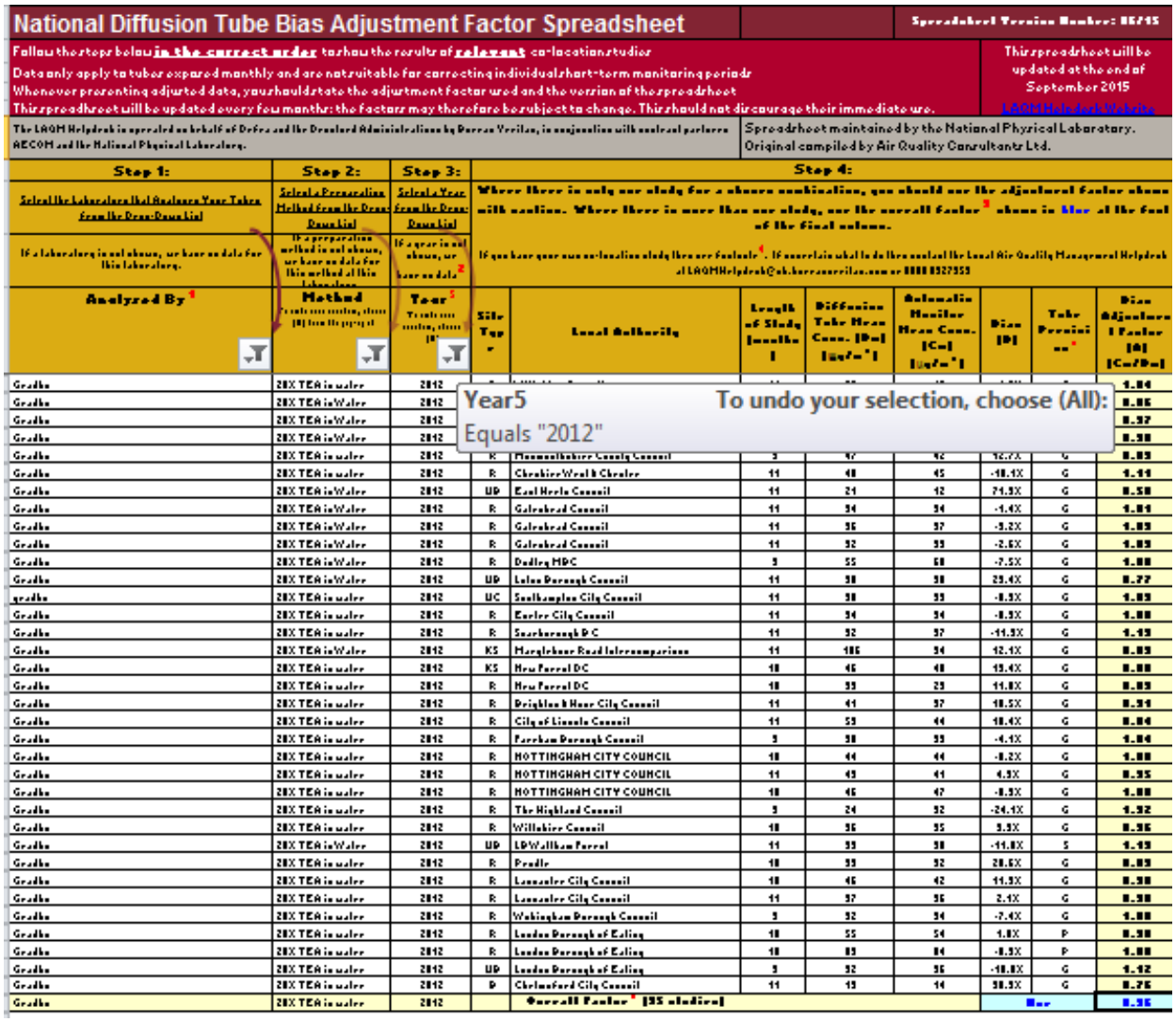
Appendix A: QA/QC Data

Diffusion Tube Bias Adjustment Factors

The NO_2 diffusion tubes were supplied and analysed by Gradko Internationsl Ltd in the years 2012-2014.

Tubes were prepared using 50µl of 20% triethanolamine in water. The tube preparation and subsequent analysis follow the procedures in the harmonised "Practical Guidance" document. All diffusion tubes are stored, handled and exposed in accordance with the relevant guidance. They are exposed for one month.

Forest of Dean District Council does not undertake any co-location studies; so bias adjustment factors were obtained from the National Bias Adjustment Factor Spreadsheet.



National Diffusion Tube Bias Adjustment Factor Spreadsheet

Spreadsheet Version Number: 03/13

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 spreadsheet 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 September 2015

The LAQM Helpdesk is operated on behalf of Defra and the Devolved Administrations by Ricardo-AEA, in conjunction with sub-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 Section 4[4]. If you are unsure what to do then contact the Local Air Quality Management Helpdesk at LAQMHelpdesk@uk.bureauveritas.com or 0800 0327953

Analysed By[1]	Method	Year[5]	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	2012	R	Gloucestershire County Council	3	47	42	12.7%	G	0.89
Gradko	20% TEA in water	2012	R	Cheshire West & Chester	11	48	45	-10.1%	G	0.91
Gradko	20% TEA in water	2012	UB	East Herts Council	11	21	12	71.3%	G	0.58
Gradko	20% TEA in water	2012	R	Gateshead Council	11	34	34	-1.4%	G	0.84
Gradko	20% TEA in water	2012	R	Gateshead Council	11	35	37	-5.2%	G	0.83
Gradko	20% TEA in water	2012	R	Gateshead Council	11	32	33	-2.5%	G	0.83
Gradko	20% TEA in water	2012	R	Dudley MBC	3	55	50	-7.5%	G	0.88
Gradko	20% TEA in water	2012	UB	Luton Borough Council	11	38	30	23.4%	G	0.77
gradko	20% TEA in water	2012	UC	Southampton City Council	11	38	33	-8.5%	G	0.83
Gradko	20% TEA in water	2012	R	Exeter City Council	11	34	34	-8.5%	G	0.88
Gradko	20% TEA in water	2012	R	Scarborough B C	11	32	37	-11.5%	G	0.45
Gradko	20% TEA in water	2012	KS	Margidunum Road Intercomparison	11	185	34	12.4%	G	0.83
Gradko	20% TEA in water	2012	KS	New Forest DC	10	45	40	13.4%	G	0.88
Gradko	20% TEA in water	2012	R	New Forest DC	10	33	29	11.8%	G	0.83
Gradko	20% TEA in water	2012	R	Brighton & Hove City Council	11	41	37	10.5%	G	0.91
Gradko	20% TEA in water	2012	R	City of Lincoln Council	11	53	44	18.4%	G	0.84
Gradko	20% TEA in water	2012	R	Fareham Borough Council	3	38	33	-4.1%	G	0.84
Gradko	20% TEA in water	2012	R	NOTTINGHAM CITY COUNCIL	10	44	44	-8.2%	G	0.88
Gradko	20% TEA in water	2012	R	NOTTINGHAM CITY COUNCIL	11	43	41	4.3%	G	0.95
Gradko	20% TEA in water	2012	R	NOTTINGHAM CITY COUNCIL	10	45	47	-8.5%	G	0.88
Gradko	20% TEA in water	2012	R	The Highland Council	3	24	32	-24.1%	G	0.92
Gradko	20% TEA in water	2012	R	Wiltshire Council	10	36	35	3.3%	G	0.96
Gradko	20% TEA in water	2012	UB	LB Waltham Forest	11	33	30	-11.8%	S	0.43
Gradko	20% TEA in water	2012	R	Preston	10	33	32	28.5%	G	0.89
Gradko	20% TEA in water	2012	R	Lancaster City Council	10	45	42	11.3%	G	0.98
Gradko	20% TEA in water	2012	R	Lancaster City Council	11	37	35	2.4%	G	0.98
Gradko	20% TEA in water	2012	R	Wokingham Borough Council	3	32	34	-7.4%	G	1.00
Gradko	20% TEA in water	2012	R	London Borough of Ealing	10	55	54	1.8%	P	0.98
Gradko	20% TEA in water	2012	R	London Borough of Ealing	10	83	84	-0.5%	P	1.00
Gradko	20% TEA in water	2012	UB	London Borough of Ealing	3	32	35	-10.8%	G	1.12
Gradko	20% TEA in water	2012	R	Chelmsford City Council	11	13	14	10.5%	G	0.76
Gradko	20% TEA in water	2012		Overall Factor[3] (35 studies)				Mean		0.95

Year5 Equals "2012"

To undo your selection, choose (All):

Bias adjustment 2012 (Version 03/13)

National Diffusion Tube Bias Adjustment Factor Spreadsheet

Spreadsheet Version Number: 06/15

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 spreadsheet 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 September 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 make your selection, choose (All) from the pop-up list	Year[2] To make 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[5]	Bias Adjustment Factor (A) (Cm/Dm)
Gradko	20% TEA in water	2013	R	Cheshire West and Chester	12	39	41	-4.4%	G	1.05
Gradko	20% TEA in Water	2013	R	Dudley MBC	12	38	31	23.1%	G	0.81
Gradko	20% TEA in Water	2013	UB	Dudley MBC	10	25	25	-1.7%	G	1.02
Gradko	20% TEA in Water	2013	R	Dudley MBC	11	41	39	5.4%	G	0.95
Gradko	20% TEA in water	2013	R	East Herts Council	10	35	30	19.4%	G	0.84
Gradko	20% TEA in water	2013	R	Fareham Borough Council	9	34	34	2.0%	G	0.98
Gradko	20% TEA in water	2013	R	Fareham Borough Council	12	42	45	-6.2%	G	1.07
Gradko	20% TEA in water	2013	R	Gateshead Council	11	34	37	-8.7%	G	1.10
Gradko	20% TEA in water	2013	R	Gateshead Council	11	35	33	6.3%	G	0.94
Gradko	20% TEA in water	2013	R	Gateshead Council	10	33	32	2.1%	G	0.98
Gradko	20% TEA in water	2013	R	Borough Council of King's Lynn & West Norfolk	12	29	26	12.5%	G	0.89
Gradko	20% TEA in water	2013	R	Gedling Borough Council	10	37	35	7.2%	G	0.93
Gradko	20% TEA in water	2013	R	The Highland Council	12	24	21	14.1%	G	0.88
Gradko	20% TEA in Water	2013	R	Dudley MBC	12	52	59	-12.0%	P	1.14
Gradko	20% TEA in water	2013	R	NOTTINGHAM CITY COUNCIL	12	43	44	-2.2%	G	1.02
Gradko	20% TEA in water	2013	R	NOTTINGHAM CITY COUNCIL	10	41	39	6.4%	G	0.94
Gradko	20% TEA in water	2013	R	NOTTINGHAM CITY COUNCIL	11	43	42	1.9%	G	0.98
Gradko	20% TEA in water	2013	R	Brighton & Hove City Council	11	62	60	1.9%	G	0.98
Gradko	20% TEA in water	2013	R	Brighton & Hove City Council	11	41	30	37.5%	G	0.73
Gradko	20% TEA in water	2013	KS	Marylebone Road Intercomparison	12	101	81	25.8%	G	0.80
Gradko	20% TEA in Water	2013	R	Brighton & Hove City Council	9	54	45	19.6%	G	0.84
Gradko	20% TEA in water	2013	R	Wiltshire Council	12	40	36	10.1%	G	0.91
Gradko	20% TEA in water	2013	R	Wiltshire Council	11	41	37	11.6%	G	0.90
Gradko	20% TEA in water	2013	R	Wiltshire Council	12	39	49	-20.0%	G	1.25
Gradko	20% TEA in water	2013	R	Breckland Council	12	32	33	-3.3%	G	1.03
Gradko	20% TEA in water	2013	R	City of Lincoln Council	12	43	43	0.5%	G	0.99
Gradko	20% TEA in water	2013	R	Monmouthshire County Council	12	41	34	19.0%	G	0.84
Gradko	20% TEA in water	2013	R	Lancaster City Council	12	44	40	9.9%	G	0.91
Gradko	20% TEA in water	2013	R	Lancaster City Council	12	36	34	6.1%	G	0.94
Gradko	20% TEA in water	2013	UB	Luton Borough Council	12	36	33	7.1%	G	0.93
Gradko	20% TEA in water	2013	R	Pendle	12	35	38	-8.7%	P	1.10
Gradko	20% TEA in water	2013	R	North Ayrshire Council	12	32	32	-0.1%	G	1.00
Gradko	20% TEA in water	2013	KS	New Forest DC	11	46	40	13.4%	G	0.88
Gradko	20% TEA in water	2013	R	New Forest District Council	11	34	28	19.4%	G	0.84
Gradko	20% TEA in water	2013	UB	southampton city council	12	30	30	-0.5%	G	1.00
Gradko	20% TEA in water	2013	UC	Belfast City Council	11	33	31	6.3%	G	0.94
Gradko	20% TEA in water	2013		Overall Factor[3] (36 studies)				Use		0.95

Bias adjustment 2013 (Version 09/14)

e Bias Adjustment Factor Spreadsheet — **Spreadsheet Version Number: 06/15**

ler to show the results of **relevant** co-location studies
nd are not suitable for correcting individual short-term monitoring periods
ould state the adjustment factor used and the version of the spreadsheet
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 September 2015
LAQM Helpdesk Website

efra and the Devolved Administrations by Bureau Veritas, in conjunction with contract oratory.

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

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

Method — To see your selection, choose [All] from the pop-up list	Year[5] — To see 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)
20% TEA in water	2014	UC	Belfast City Council	11	33	32	5.6%	G	**0.95**
20% TEA in water	2014	R	Borough Council of King's Lynn & West Norfolk	12	29	21	37.7%	G	**0.73**
20% TEA in water	2014	R	Brighton & Hove City Council	12	55	48	15.2%	G	**0.87**
20% TEA in water	2014	R	Brighton & Hove City Council	11	60	57	6.2%	G	**0.94**
20% TEA in water	2014	R	Cheshire West and Chester	11	40	40	-1.0%	G	**1.01**
20% TEA in water	2014	R	Dudley MBC	12	36	31	18.1%	G	**0.85**
20% TEA in water	2014	UB	Dudley MBC	12	26	23	11.2%	G	**0.90**
20% TEA in water	2014	R	Dudley MBC	12	41	35	15.2%	G	**0.87**
20% TEA in water	2014	R	Dudley MBC	12	52	60	-12.6%	G	**1.14**
20% TEA in water	2014	R	Gateshead Council	10	35	32	10.8%	G	**0.90**
20% TEA in water	2014	R	Gateshead Council	12	36	36	-0.1%	G	**1.00**
20% TEA in water	2014	R	Gateshead Council	12	34	32	6.4%	G	**0.94**
20% TEA in water	2014	UB	Luton Borough Council	9	36	37	-4.0%	G	**1.04**
20% TEA in water	2014	KS	Marylebone Road Intercomparison	12	115	80	42.8%	G	**0.70**
20% TEA in water	2014	R	Monmouthshire County Council	10	42	38	10.1%	G	**0.91**
20% TEA in water	2014	R	NOTTINGHAM CITY COUNCIL	12	44	39	14.3%	G	**0.87**
20% TEA in water	2014	R	Bedford Borough Council	12	38	39	-2.7%	G	**1.03**
20% TEA in water	2014	R	City of Lincoln Council	12	45	38	16.8%	G	**0.86**
20% TEA in water	2014	R	East Herts Council	11	37	33	14.5%	G	**0.87**
20% TEA in water	2014	R	Lancaster City Council	11	36	38	-4.0%	G	**1.04**
20% TEA in water	2014	R	Wokingham Borough Council	12	40	37	9.3%	G	**0.91**
20% TEA in water	2014		**Overall Factor[3] (21 studies)**				**Use**		**0.91**

Bias adjustment 2014 (Version 06/15)

QA/QC of Diffusion Tube Monitoring

Summary of Laboratory Performance in WASP NO_2 Proficiency Testing Scheme for Rounds 117-124[22].
Reports are prepared by HSL for BV/NPL on behalf of Defra and the Devolved Administrations.

Background
The Workplace Analysis Scheme for Proficiency (WASP) is an independent analytical proficiency-testing (PT) scheme, operated by LGC Standards and supported by the Health and Safety Laboratory (HSL). WASP offers a number of test samples designed to test the proficiency of laboratories undertaking analysis of chemical pollutants in workplace and ambient air. One such sample is the WASP NO_2 test sample type that is distributed to participants on a quarterly basis.

WASP NO_2 PT forms an integral part of the UK NO_2 Network's QA/QC, and is a useful tool in assessing the analytical performance of laboratories supplying diffusion tubes to Local Authorities for use in the context of Local Air Quality Management (LAQM). With consent from the participating laboratories, HSL provides summary proficiency testing data to the LAQM Helpdesk for hosting on the web-pages at http://laqm.defra.gov.uk/diffusion-tubes/qa-qc-framework.html .

Defra and the Devolved Administrations advise that diffusion tubes used for Local Air Quality Management should be obtained from laboratories that have demonstrated satisfactory performance in the WASP scheme.

For this reason, although WASP remains an independent proficiency-testing scheme, laboratory performance in WASP is also assessed by NPL in conjunction with separate data from the Field Intercomparison Exercise carried out at Marylebone Road, Central London. The information is used to help the laboratories to identify if they have problems and may assist devising measures to improve their performance. This forms part of work for Defra and the Devolved Administrations under the Local Air Quality Management Services Contract.

This information will be updated on a quarterly basis following completion of each WASP PT round. The posting of reports to schedule is dependent on the laboratories sending their results promptly to HSL.

WASP NO_2 PT Scheme overview

Purpose of scheme
The WASP performance testing scheme uses artificially spiked Palmes type diffusion tubes to test each participating laboratory's analytical performance on a quarterly basis. Such tubes are not designed to test other parts of the measurement system e.g. sampling. Every quarter, roughly January, April, July and October each year, each laboratory receives four diffusion tubes doped with an amount of nitrite, known to HSL, but not the participants. At least two of the tubes are usually duplicates, which enables precision, as well as accuracy, to be assessed. The masses of nitrite on the spiked tubes are different each quarter, and reflect the typical analytical range encountered in actual NO_2 ambient monitoring in the UK when using such diffusion tubes.

[22] Summary of Laboratory Performance in WASP NO2 Proficiency Testing Scheme for Rounds 108-115. http://laqm.defra.gov.uk/documents/WASP-NO2-Scheme-for-Rounds-105-113-(April-2009---June-2011).pdf

Preparation of test samples
Diffusion tubes are spiked using a working nitrite solution prepared from a stock solution. The concentration of this stock solution is initially assayed using a titrimetric procedure. All steps in the subsequent test sample production process, involving gravimetric and volumetric considerations, are undertaken using calibrated instruments employing traceable standards. As an additional cross check, 12 spiked
Palmes tubes are picked at random from each spike loading level and submitted to a third party laboratory which is accredited to ISO 17025 to undertake this analysis using an ion chromatographic procedure.

In summary, the tube spiking precision is calculated to be better than 0.5 %, expressed as a standard deviation, and this is derived from repeat gravimetric checking of the pipette device used to spike the test samples. The calculated spike values, derived from titrimetric, gravimetric and volumetric considerations, are found to be typically within ± 3 % of results obtained by the third party laboratory using an ion chromatographic analytical procedure.

Scheme operation
The participants analyse the test samples and report the results to HSL. HSL assign a performance score to each laboratory's result, based on how far their results deviate from the reference values for each test samples. The reference values are best estimates of the levels of nitrite doped onto the test sample tubes. At the completion of the round, laboratories receive a report detailing how they have performed and how their results relate to those of their peers.

Performance scoring
Changes to Scoring System as reported on the LAQM website The z-score system is used by HSL to assess the performance of laboratories participating in the WASP NO_2 scheme. Information on the interpretation of the zscore is provided below.

It was proposed however that HSL would migrate to an alternative scoring scheme, which is commonly used elsewhere in their WASP scheme for other PT services. In anticipation of this proposed migration, laboratory summary performance, previously reported on the LAQM website, has been based upon this WASP scoring system.

HSL has decided, upon review, to maintain the z-score system, primarily due to the fact that it is a more readily understandable scoring system when viewed by a wider audience. Hence, going forward, laboratory summary performance, to be reported on the LAQM website, will be based upon this z-score system.

Key changes to the scoring system include:

- All monthly performance scores are reported and the previous WASP scoring system, which allowed the lowest performing,
- The use of the z-score allows new entrants or those leaving the WASP scheme to be assessed as the score is not based on a rolling performance indicator,
- All results from UK laboratories participating in the WASP scheme are now reported (previously laboratories that did not demonstrate satisfactory
performance were not included).

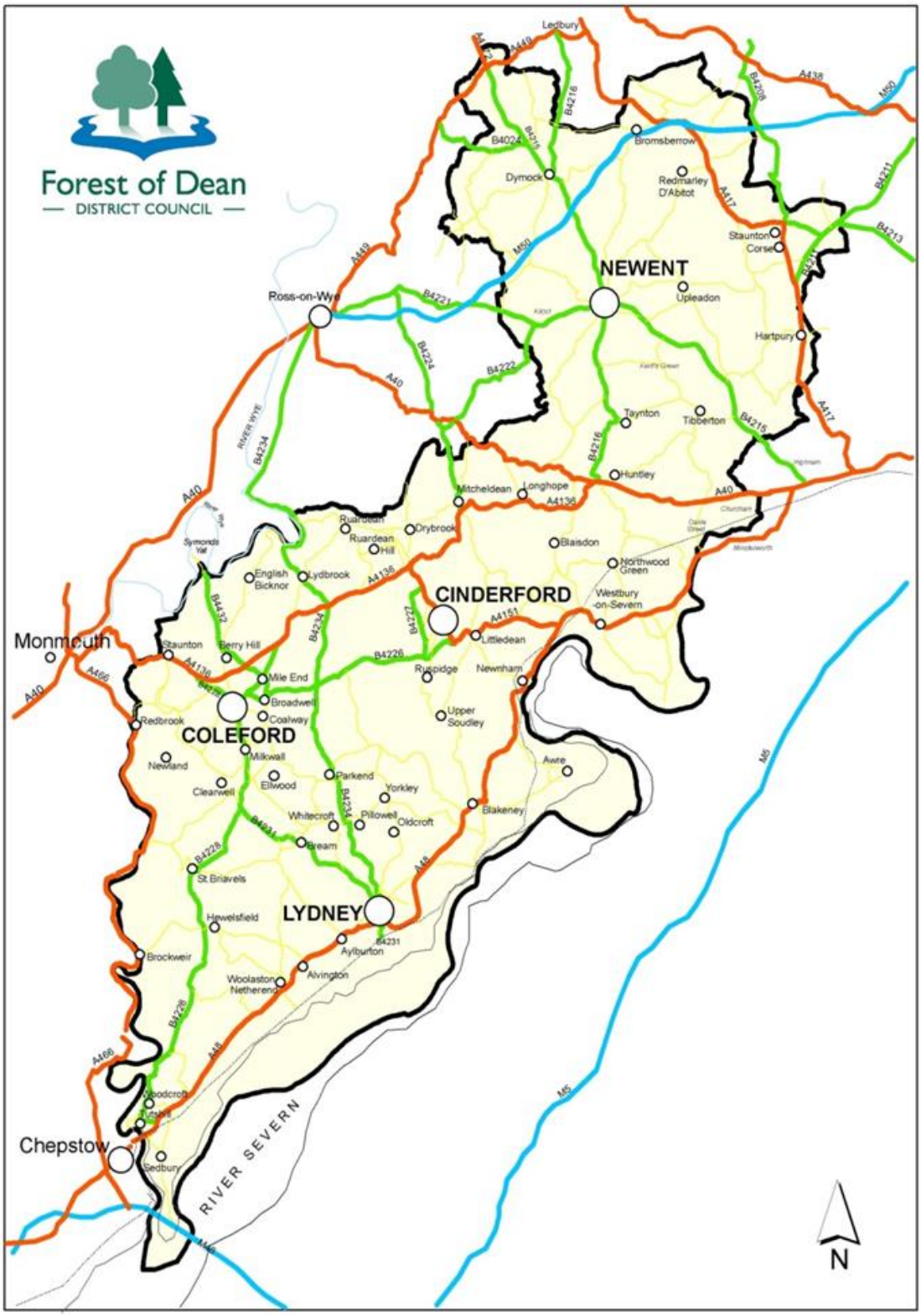
The following table[23] lists those UK laboratories undertaking LAQM activities that have participated in recent HSL WASP NO_2 PT rounds and the percentage (%) of results

[23] Summary of Laboratory Performance in WASP NO2 Proficiency Testing Scheme for Rounds 108-115. http://laqm.defra.gov.uk/documents/LAQM-WASP-Rounds-117-124-(April-2012--March-2014)-NO2-report.pdf

submitted which were subsequently determined to be satisfactory based upon a z-score of < ± 2 as defined above.

	WASP R117 April - June 2012	WASP R118 July - Sep 2012	WASP R119 Oct - Dec 2012	WASP R120 Jan - Mar 2013	WASP R121 April - June 2013	WASP R122 July - Sep 2013	WASP R123 Oct - Dec 2013	WASP R124 Jan - Mar 2014
Gradko	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Appendix B: Diffusion Tube Monitoring Sites



Appendix C: Lists of Permitted Installations

Part A(1) Installations

Environmental Agency permitted installations involving Part A1 prescribed activities regulated under Environmental Permitting (England & Wales) Regulations 2007

Permit	Company Name/Address	Description
XP3039GG	BASF Metals Recycling Ltd Valley Road Cinderford Gloucestershire GL14 2PB	S4.2(A)(1)(b) Unless falling within another Section of this Schedule, any manufacturing activity which is likely to result in the release into the air of any hydrogen halide (other than the manufacture of glass or the coating, plating or surface treatment of metal) or which is likely to result in the release into the air or water of any halogen or any of the compounds mentioned in paragraph (a)(vi) (other than the treatment of water). S2.2A(1)(e) Recovering any of the following elements if the activity may result in their release into the air: gallium; indium; palladium; tellurium; thallium and S5.1(A)(1)(e) Unless carried out as part of any other activity in this Part, the incineration of non-hazardous waste in a plant which is not an incineration plant or a co-incineration plant but which has a capacity of 1 tonne or more per hour.
ZP3036LK	Freemans of Newent Ltd Town Farm Gloucester Road Newent Gloucestershire GL18 1HP	S6.8 A (1) (b) Slaughtering animals at plant with a carcass production capacity of more than 50 tonnes per day and S5.3 A(1) (c) (ii) Disposal of non-hazardous waste in a facility with a capacity of more than 50 tonnes per day by - physico-chemical treatment, not being treatment specified in any paragraph other than paragraph D9 in Annex IIA to Council Directive 75/442/EEC, which results in final compounds or mixtures which are discarded by means of any of the operations numbered D1 to D12 in that Annex (for example, evaporation, drying, calcination, etc) (D9).
BV1305IV	Surotech International Ltd Hafner House 11 Newent Business Park Gloucester Road Newent Gloucestershire GL18 1DZ	S4.1 A(1) (a) (iii) Producing organic chemicals such as organic compounds containing sulphur, such as sulphides, mercaptans, sulphonic acids, sulphonates, sulphates and sulphones and sulphur heterocyclics and (viii) plastic material, such as polymers, synthetic fibres and cellulose based fibres. S4.2 A(1) (a) (iv) Producing inorganic chemicals such as (iv) salts, such as ammonia chloride, potassium chlorate, potassium carbonate, sodium carbonate, perborate, silver nitrate, cupric acetate, ammonia phosphomolybdate and (c) Unless falling within any other Section of the Schedule any manufacturing activity involving the use of hydrogen cyanide or hydrogen sulphide.
BP3236LC	Glatfelter Lydney Ltd, Lydney Paper Mill, Church Road, Lydney, Gloucestershire GL15 5EJ	6.1 A(1) (a) Producing, in industrial plant pulp from timber or other fibrous materials and S6.1 A(1)(b) producing in industrial plant paper and board where the plant has a production capacity of more than 20 tonnes per day.
AP3731SA	Pressroom Products Ltd Crucible Close Mushet Industrial Park Coleford, Gloucestershire GL16 8RE	Section 5.4 Part A(1)(a) Recovery of waste; by distillation of oil/organic solvent.
BK9326IX	SmithKline Beecham Plc Royal Forest Factory Coleford Gloucestershire GL16 8JB	Section 6.8 A(1)(d)(ii) – Treating and processing materials intended for the production of food products from vegetable raw materials at plant with a finished production capacity of more than 300 tonnes per day. Section 5.3 A(1)(c)(ii) - Disposal of non-hazardous waste in a facility with a capacity of more than 50 tonnes per day by - physico-chemical treatment, not being treatment specified in any paragraph other than paragraph D9 in Annex IIA to Council Directive 75/442/EEC, which results in final compounds or mixtures which are discarded by means of any of the operations numbered D1 to D12 in that Annex (for example, evaporation, drying, calcination, etc.) (D9).

Poultry Farms

Premises	Type of Farm	No. of Birds	Type of ventilation
Ploddy House Poultry Unit, Newent, Gloucestershire	Turkey broilers	52,000	Side vents
Cherry Rock Poultry Unit, Hartpury, Gloucestershire	Chicken broilers	270,000	Side vents
Woolaston Court Poultry Unit, Woolaston, Gloucestershire	Pullets	92,000	Roof vents
Cottrells Barn Poultry Unit, Mitcheldean, Gloucestershire	Pullets	64,000	Half roof & half side vents
Treetops Poultry Unit, Bream, Gloucestershire	Chicken broilers	318,000	Side vents
St Briavels & Severn View, St Briavels, Gloucestershire	Chicken layers	100,000 – caged	Side vents
		13,000 free range	Side vents
Roads Farm, St Briavels, Gloucestershire	Chicken layers	146,000 - caged	Side vents
Hill Farm, Lydney, Gloucestershire	Chicken broilers	110,000	Side vents
Stone End Farm, Churcham, Gloucestershire	Chicken broilers	900,000	Side vents

Part A(2) Installations

Local Authority Pollution Prevention and Control (LAPPC) permitted installations involving Part 2A prescribed activities regulated under the Environmental Permitting (England & Wales) Regulations 2007

Permit	Company Name/Address	Description
PPC(A2)3	Broadmoor Brickworks, Whimsey I.E. Cinderford, Gloucestershire	Manufacture of Heavy Clay Goods (Bricks)
PPC(A2)4	Coleford Brick & Tile, Royal Forest of Dean Brickworks, Cinderford, Gloucestershire	Manufacture of Heavy Clay Goods (Bricks)
PPC(A2)19/92	J D Norman Lydney Ltd, Tutnalls, Lydney, Gloucestershire	Ferrous Metal Foundry

Part B Installations

Local Authority Pollution Prevention and Control (LAPPC) permitted installations involving Part B prescribed activities regulated under the Environmental Permitting (England & Wales) Regulations 2007.

Permit No.	Company Name & Address	Description
PVR/08	Abbotswood Garage, Cinderford, 133, Lower High St, Cinderford, Gloucestershire GL14 2TD	PVR
PVR/04	Alvington Service Station, Main Road, Lydney, Gloucestershire GL15 6BE	PVR
PPC/54	Bardon Concrete, Clearwell Quarries Ltd, Stowe, St. Briavels, Lydney, Gloucestershire, GL15 6QW	Bulk Use of Cement
PPC/67	Beeches Garage, Edge End Road, Mile End, Coleford, Gloucestershire, GL16 7DA	Waste Oil Burner
PPC/32	Berwin Industrial Polymers Ltd, Church Road, Lydney, Gloucestershire. GL15 5FG	Rubber Processes
PPC/43	Bituchem Ltd, Birchwood Close, Forest Vale Industrial Estate. Cinderford, Gloucestershire. GL14 2YH	Roadstone Coating & Bitumen/Tar Processes
PPC/20	Bituchem Ltd, Birchwood Close, Forest Vale Industrial Estate, Cinderford, Gloucestershire. GL14 2YH	Roadstone Coating & Bitumen/Tar Processes
PPC/16	Breedon Aggregates, Clearwell Quarry, Stowe Green, St. Briavels, Lydney, Gloucestershire. GL15 6QW	Quarry Processes/ Roadstone Coating
PVR/05	Brierley Service Station, High Street, Brierley, Gloucestershire. GL17 9DL	PVR
PPC(A2)03	Broadmoor Brickworks Ltd, Whimsey Industrial Estate. Cinderford, Gloucestershire. GL14 3JA	Manufacture of Heavy Clay Goods (Bricks)
PPC/51	Buckland Agricultural, Court Farm Workshops Huntley Road, Tibberton, Gloucestershire. GL19 3AF	Waste Oil Burner
PPC/56	C.G. Perrett Plant and Construction, The Leechpool, Bream Road, Lydney, Gloucestershire. GL15 5JW	Mobile Crushing and Screening Plant
PPC/62	Thoni-Alutec, Cannop Foundry, Valley Road, Cinderford, Gloucestershire. GL14 2NX	Ferrous & Non Ferrous Metal Foundry
PPC/01	Cavendish Dry Cleaners Ltd, 4 Cavendish Buildings, Hill Street, Lydney, Gloucestershire. GL15 5HD	Dry Cleaning
PVR/17	Chaxhill Service Station, SRN Services UK Ltd., Chaxhill Services, Westbury-on-Severn, Gloucestershire. GL14 1QW	PVR
PVR/18	Cinderford MOT and Service Centre, Steam Mills Road, Cinderford, Gloucestershire. GL14 3HY	PVR
PPC(A2)04	Coleford Brick & Tile Ltd, Royal Forest of Dean Brickworks, Cinderford, Gloucestershire. GL14 3JJ	Manufacture of Heavy Clay Goods (Bricks)
PPC/48	Crematoria Management Ltd., Yew Tree Brake, Cinderford, Gloucestershire. GL14 3HU	Cremation of human remains
PVR/07	Cross Hands Garage, Corse, Hartpury, Gloucestershire. GL19 3BU	PVR

Permit No.	Company Name & Address	Description
PPC/58	Dean Mowers Ltd, Central Garage, Blakeney, Gloucestershire. GL15 4EB	Waste Oil Burner
PVR/09	Elton Service Station, Elton Road,Elton, Newnham GL14 1JQ	PVR
PPC/66	FAB Recycling Ltd, Broadmoor Road, Cinderford, Gloucestershire. GL14 2YL	Waste Oil Burner
PPC(A2)19	Federal Mogul Camshaft Castings Ltd, Tutnalls, Lydney, Gloucestershire. GL15 5PX	Ferrous Metal Foundary
PPC/10	Forest Auto Salvage Ltd, Valley Road, Cinderford, Gloucestershire. GL14 2PH	Waste Oil Burner
PPC/65	Forest of Dean Express Asphalt, Stowe, St. Briavels, Gloucestershire. GL15 6QN	Roadstone Coating
PPC/40	Formpave Ltd, Tufthorn Avenue, Coleford, Gloucestershire. GL16 8PR	Bulk use of Cement
PVR/10	General Garage, Ross Road, Huntley, Gloucestershire. GL19 3EA	PVR
PPC/68	Grouphomesafe Ltd., Unit 8, Newent Business Park, Newent, Gloucestershire. GL18 1DZ	Di-isocyanate process
PPC/42	Hanson Aggregates (Drybrook Quarry) Ltd. Hawthorns, Drybrook, Gloucestershire GL17 9BT	Quarry Processes
PVR/11	Highleadon Filling Station, Newent, Gloucestershire. GL18 1HJ	PVR
PPC/69	Hope Cement, Coleford Concrete Plant, Stowfield Quarry, Scowles Pitch, Coleford	Bulk use of cement
PVR/02	Lower Lane Superstop, Simon Smith Group, Lower Lane Superstop, Lower Lane, Berry Hill, Coleford, Gloucestershire. GL16 8QQ	PVR
PPC/39	Lydney Newspace Ltd, Unit 30, Lydney Industrial Estate, Harbour Road, Lydney, GL15 4EJ	Coating of Metal and Plastic
PPC/55	Milbury Precast, Lydney Industrial Estate, Harbour Road, Lydney, Gloucestershire. GL15 4EJ	Bulk Use of Cement
PVR/16	Mitcheldean Garage, New Road, Mitcheldean, Gloucestershire. GL17 0BX	PVR
PPC/63	Mitcheldean MOT Centre, Gloucester Road, Mitcheldean, Gloucestershire. GL17 0DS	Waste Oil Burner
PVR/12	Motorhouse Service Station, Crucible Close, Mushet Industrial Park, Coleford, Gloucestershire. GL16 8RE	PVR
PVR/06	Newent Self-Serve, Meridian Service Station, Gloucester Road, Newent, Gloucestershire. GL18 1HR	PVR
PPC/53	Newspace Containers Ltd New Dunn Works, Coleford, Gloucestershire. GL16 8JD	Coating of Metal and Plastic
PPC/31	Nobel Foods Ltd, Clearwell Farm, The Rocks, Clearwell, Gloucestershire. GL16 8JR	Animal Feed Compounding
PPC/25	P & J Loveridge, 157 High Street, Cinderford, Gloucestershire. GL14 2TF	Waste Oil Burner

Permit No.	Company Name & Address	Description
PPC/57	Paul Jones Motors, Spout Lane, Coleford, Gloucestershire. GL16 8DP	Waste Oil Burner
PPC/50	Rackham Housefloors Ltd, Forest Vale Industrial Estate, Cinderford, Gloucestershire. GL14 2YT	Bulk Use of Cement
PPC/38	Rothdean Haulage, Station Street, Cinderford, Gloucestershire. GL14 2LG	Respraying of Road Vehicles
PPC/05	Severn Valley Woodworks Ltd, Church Lane, Northwood Green, Westbury on Severn, Gloucestershire. GL14 1ND	Timber and Wood Based Products
PPC/37	Staunton Service Station, Staunton, Coleford, Gloucestershire. GL16 8PA	Respraying of Road Vehicles
PVR/14	Steam Mills Garage, Steam Mills, Cinderford, Gloucestershire. GL14 3JD	PVR
PPC/14	Lafarge Tarmac, Stowfield Quarry, Staunton Road, Coleford, Gloucestershire. GL16 8NS	Quarry Processes/Roadstone Coating/Cement
PVR/15	Tesco Stores Ltd, High Street, Lydney, Gloucestershire, GL15 5TH	PVR
PVR/01	Thompson & Thompson, Cross Hands Garage, Lydney, Gloucestershire. GL15 4LH	PVR