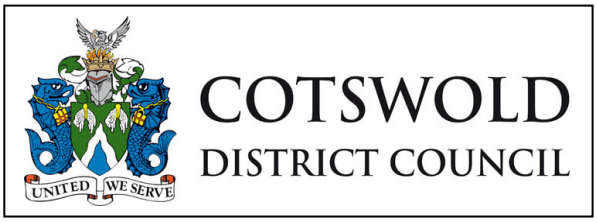

2011 Air Quality Progress Report for

Costwold District Council

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

Date July 2011

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Executive Summary

This Progress Report for 2011 is the next stage of round 4 Review and Assessment for reporting on air quality required of local authorities. It considers Technical Guidance (LAQM.TG (09)) issued by DEFRA and the Devolved Administrations.

Cotswold District Council maintained nineteen diffusion tube monitoring sites for nitrogen dioxide across the district in 2010. They are representative of relevant exposure and relate to emissions from traffic. The sites include nine single unique sites and the others are to provide further data on sites at Thames Street Lechlade and within the Air Quality Management Area (AQMA), at the Air Balloon Roundabout junction Birdlip.

Continuous automatic monitoring for nitrogen dioxide is continuing within the AQMA and a second continuous automatic analyser has been installed in Thames Street Lechlade for nitrogen dioxide. A detailed assessment for Lechlade was not completed due to insufficient data being available.

Results in Bridge Street Fairford indicate there is no need to carry out a details assessment the annual mean was 37.60 $\mu m^{3,}$ below the nation objective. The annual mean at Fosse Cottage Stow on the Wold exceeds the national objective at 41.52 μm^3. It is thought that this may relate to road works in the area and apart from continuing to monitor no further action will be taken in these locations at this time.

The conclusion from this Progress Report is that there are no new areas within Cotswold District Council that require a detailed assessment to be carried out.

The public are currently being consulted on the Draft Action Plan for Birdlip LAQMA. The consultation period closes on the 30 September 2011 and the final version will be published and submitted by December 2011.

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1 Introduction

1.1 Description of Local Authority Area

Cotswold District Council is predominantly a rural area, geographically the largest of the Gloucestershire local authorities and crossed by three main traffic routes:

- A419/A417, which is a trunk road crossing from northwest to southeast;
- A429 southwest to northeast; and
- A40 which crosses the district west to east.

These roads mainly pass through countryside, bypassing most of the main towns, apart from the A429 that passes through the outskirts of Stow-on-the-Wold and Moreton-in-Marsh. Large portions of the District are classified as an area of outstanding natural beauty.

There are no industrial areas within the district or close by that make a significant 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 contribute significantly to the air quality.

1.2 Purpose of Progress Report

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.

They are not intended to be as detailed as Updating and Screening Assessment Reports, or to require as much effort. However, if the Progress Report identifies the risk of exceedence of an Air Quality Objective, the Local Authority (LA) should undertake a Detailed Assessment immediately, and not wait until the next round of Review and Assessment.

1.3 Air Quality Objectives

The air quality objectives applicable to Local Air Quality Management (LAQM) **in England** are set out in the Air Quality (England) Regulations 2000 (SI 928) and the Air Quality (England) (Amendment) Regulations 2002 (SI 3043). They are shown in Table 1.1. This table shows the objectives in units of microgram's per cubic metre $\mu g/m^3$ (for carbon monoxide the units used are milligram's per cubic metre, mg/m^3). Table 1.1 includes the number of permitted exceedences in any given year (where applicable).

Table 1.1 Air Quality Objectives included in Regulations for the purpose of Local Air Quality Management in England.

Pollutant	Concentration	Measured as	Date to be achieved by
Benzene	16.25 $\mu g/m^3$	Running annual mean	31.12.2003
	5.00 $\mu g/m^3$	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	Maximum daily 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 $\mu g/m^3$, not to be exceeded more than 24 times a year	1-hour mean	31.12.2004
	125 $\mu g/m^3$, not to be exceeded more than 3 times a year	24-hour mean	31.12.2004
	266 $\mu g/m^3$, not to be exceeded more than 35 times a year	15-minute mean	31.12.2005

1.4 Summary of Previous Review and Assessments

Cotswold District Council has submitted the required reports to the satisfaction of DEFRA. Round 1 and Round 2 of Review and Assessment did not identify any air quality issues. The following table summarises the outcome of Round 3 Review and Assessment. Round 4 reported on the general monitoring that has continued for nitrogen dioxide. Further reports have been submitted in relation to the Local Air Quality Management Area declared at Birdlip. Exceedance of the national object was identified in Lechlade and a chemiluminescence analyser has been installed in 2011 to undertake a further assessment of the situation.

Table 1.2: Summary of Previous Review and Assessment

Report Submitted	Outcome
Updating and Screening 2006	Diffusion tube monitoring carried out for NO_2 and Benzene. No new issues identified. Monitoring continued for NO_2 at the Air Balloon roundabout junction of the A417 at Birdlip in relation to potential exceedance identified.
Detailed Assessment 2007 for nitrogen dioxide (NO_2) at A417 junction	Automatic monitoring undertaken of NO_2 and dispersion modelling carried out at Birdlip confirmed need to declare AQMA.
Progress Report 2007	No new issues. Monitoring for NO_2 continued with no changes.
Declaration of Local Air Quality Management Area April 2008	Exceedance of nitrogen dioxide related to road traffic emissions. Long term level from modelling 52.2µg/m^3 annual mean this exceeds the Air Quality Objective of 40µg/m^3 as annual mean. This is a major trunk route with a high number of HGV's where there are residential properties close by. See Figure 1. Further Assessment will be submitted 2010 and Action Plan will be also be submitted in 2010.
Round 4 Updating and Screening 2009	Monitoring of NO2 continued across the district. Continuous monitoring using a chemiluminescence analyser is positioned within the Air Quality Management area at Birdlip. A Further Assessment was submitted 2010 for this site and an Action Plan will be consulted on.
Progress Report 2010	This report identified a need to progress to a detailed assessment for Thames Street Lechlade. Due to a lack of data it was not possible to produce a subsequent report. The area is a narrow congested street with slow moving traffic. A chemiluminescence analyser is being installed to carry out further monitoring.

Figure 1.1 Map of AQMA Boundaries

2 New Monitoring Data

2.1 Summary of Monitoring Undertaken

2.1.1 Automatic Monitoring Sites

Automatic monitoring has continued for nitrogen dioxide using a chemiluminescence analyser within the AQMA at Birdlip. This monitoring commenced in January 2009.

The analyser was installed and commissioned by the supplier. Routine calibrations are undertaken in keeping with QA/QC controls; calibration checks are undertaken least every 4 weeks. These checks are carried by out Cotswold District Council officers in accordance with the supplier's procedures. Calibration checks include replacing the filter and running checks using supplied gases at known concentrations. The supplier services the analyser at six-month intervals. Diffusion tubes were co-located with the analyser.

Data

The raw data from the analyser is collected by modem and uploaded to the Enviro-technology services website. www.airqualitydata.com/cgi-bin/sites.cgi?1006

The raw data is ratified using the calibration data downloading the data to an excel spreadsheet template. Where the data has been short term it as been adjusted using guidance in TG(09) (section 2.2.1 below)

Figure 2.1 Map of Automatic Monitoring Site at the Air Balloon Junction within the AQMA

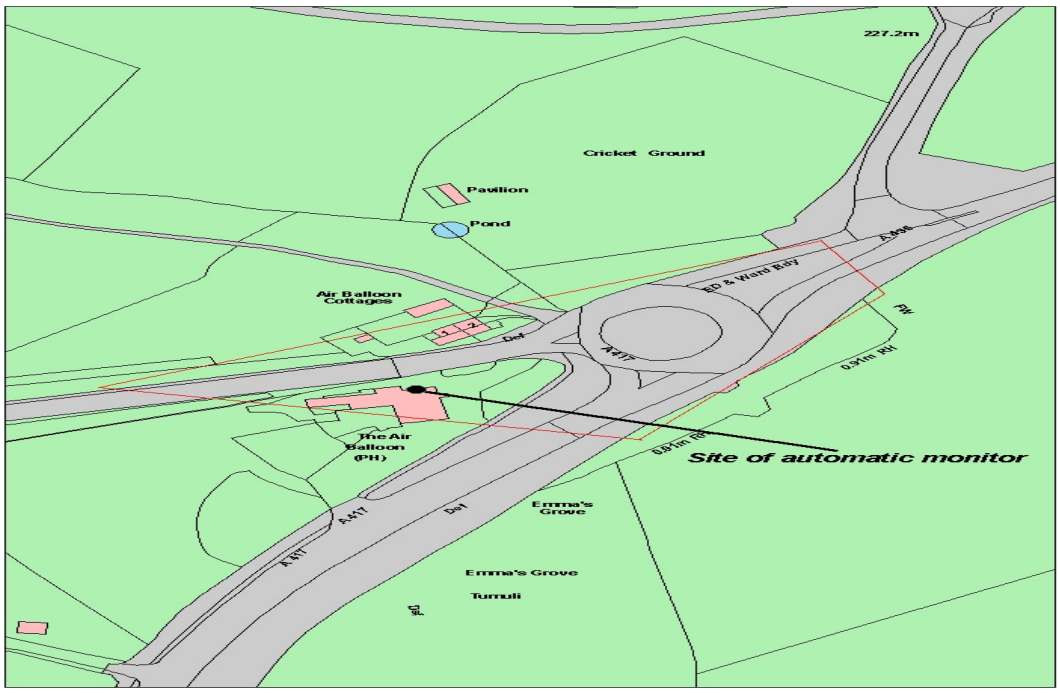


Table 2.1 Details of Automatic Monitoring Site

Site Name	Site Type	OS Grid Ref		Pollutants Monitored	Monitoring Technique	In AQMA?	Relevant Exposure? (Y/N with distance (m) to relevant exposure)	Distance to kerb of nearest road (N/A if not applicable)	Does this location represent worst-case exposure?
Air Balloon Roundabout A417 Junction	Roadside	X393439	Y216093	NO_2	Chemiluminescence	Y	Y(<1m)	8.3m	Y

2.1.2 Non-Automatic Monitoring Sites

Non-Automatic Monitoring

Cotswold District Council has maintained nineteen sites for monitoring nitrogen dioxide by diffusion tubes. All sites relate to emissions from traffic and are sited where there is relevant public exposure, in accordance with guidance in TG (09). Details of the sites are given below, see table 2.2.

Calculation of the 2010 bias adjustment factor

Cotswold District Council's diffusion tubes are supplied and analysed by Bristol Scientific Services and utilise 20% TEA in water. A national bias adjustment factor has been applied. A bias adjustment factor of 0.85 for 2010 was estimated from seven studies using the published Bias Adjustment Factors Spreadsheet (v04/11).. Although in many cases, using an overall correction factor derived from as many co-location studies as possible will provide the 'best estimate' of the 'true' annual mean concentration, it is important to recognise that there will still be uncertainty associated with this bias adjusted annual mean. One analysis has shown that the uncertainty for tubes bias adjusted in this way is ± 20% (at 95% confidence level). This compares with a typical value of ± 10% for chemiluminesence monitors subject to appropriate quality checks

Where necessary any short term data has been adjusted to determine an annual mean.

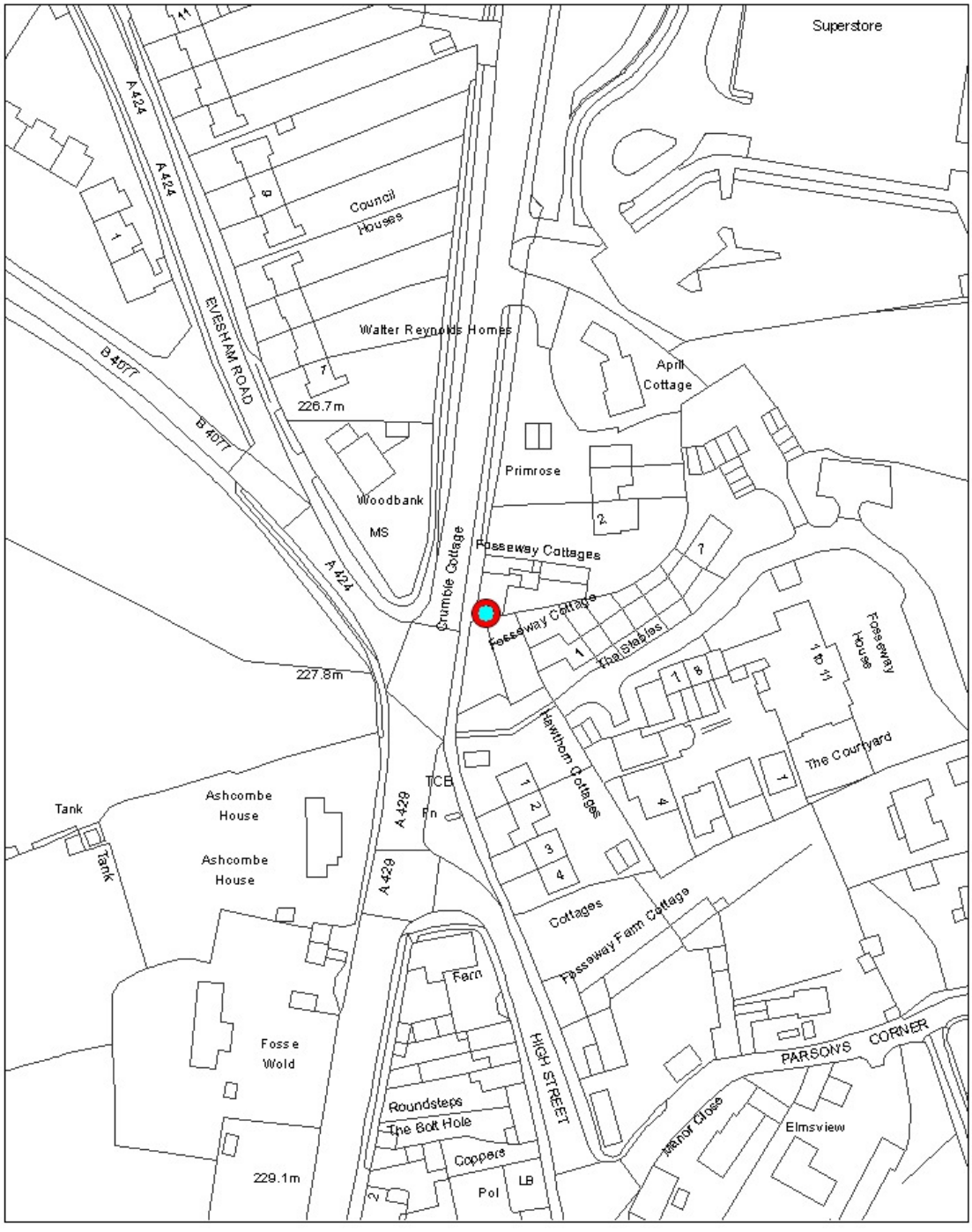
QA/QC of diffusion tube monitoring

Cotswold District Council's diffusion tubes are supplied and analysed by Bristol Scientific Services and utilise 20% TEA in water. The tube preparation and subsequent analysis follow the procedures in the harmonised "Practical Guidance" document. The laboratory participates in the WASP scheme and its performance is classified as good.

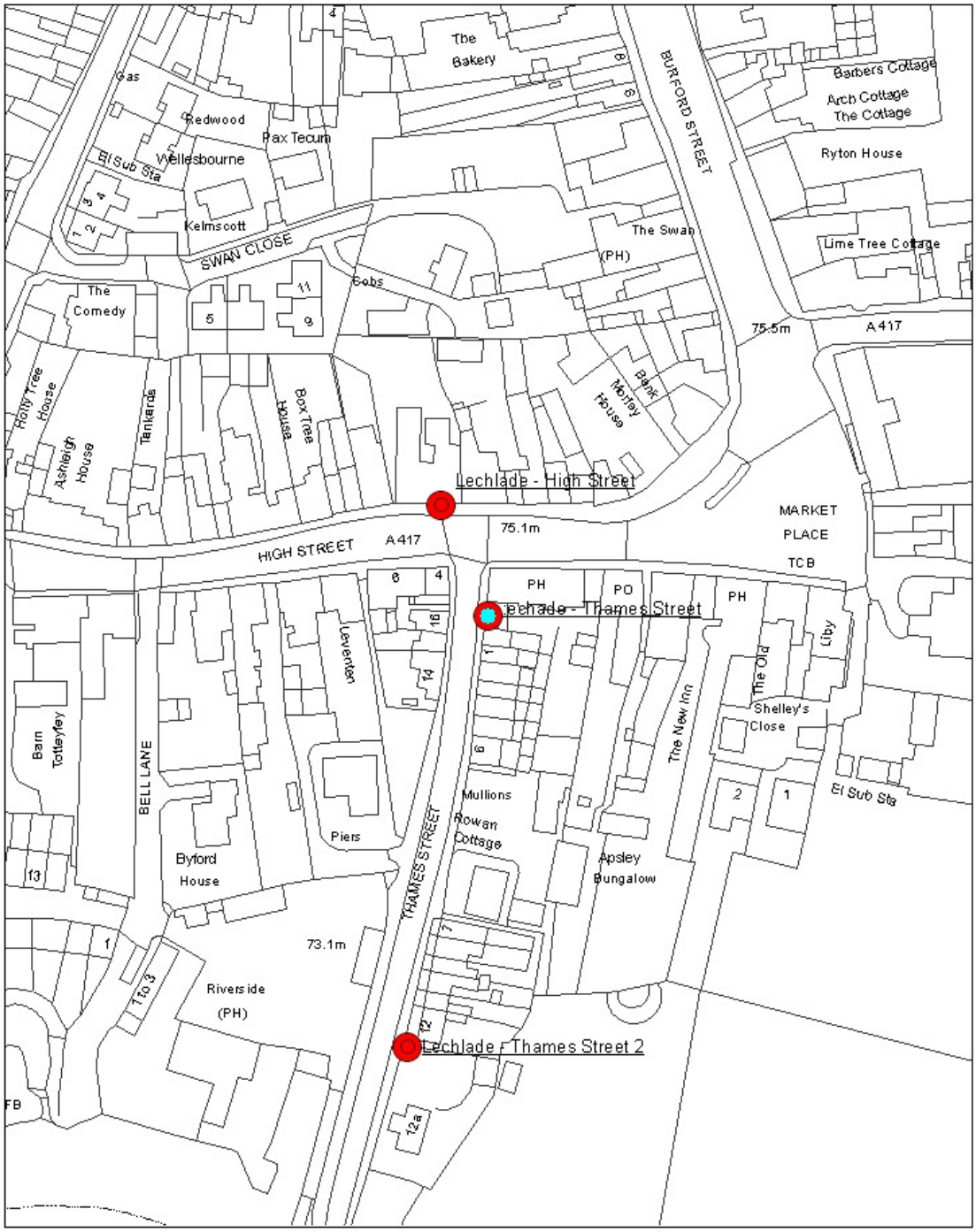
Bristol Scientific Services laboratory follows the procedures set out in the Harmonisation Practical Guidance Procedures under the DEFRA practical guidance.

Figure 2.2 Maps of Non-Automatic Monitoring Sites

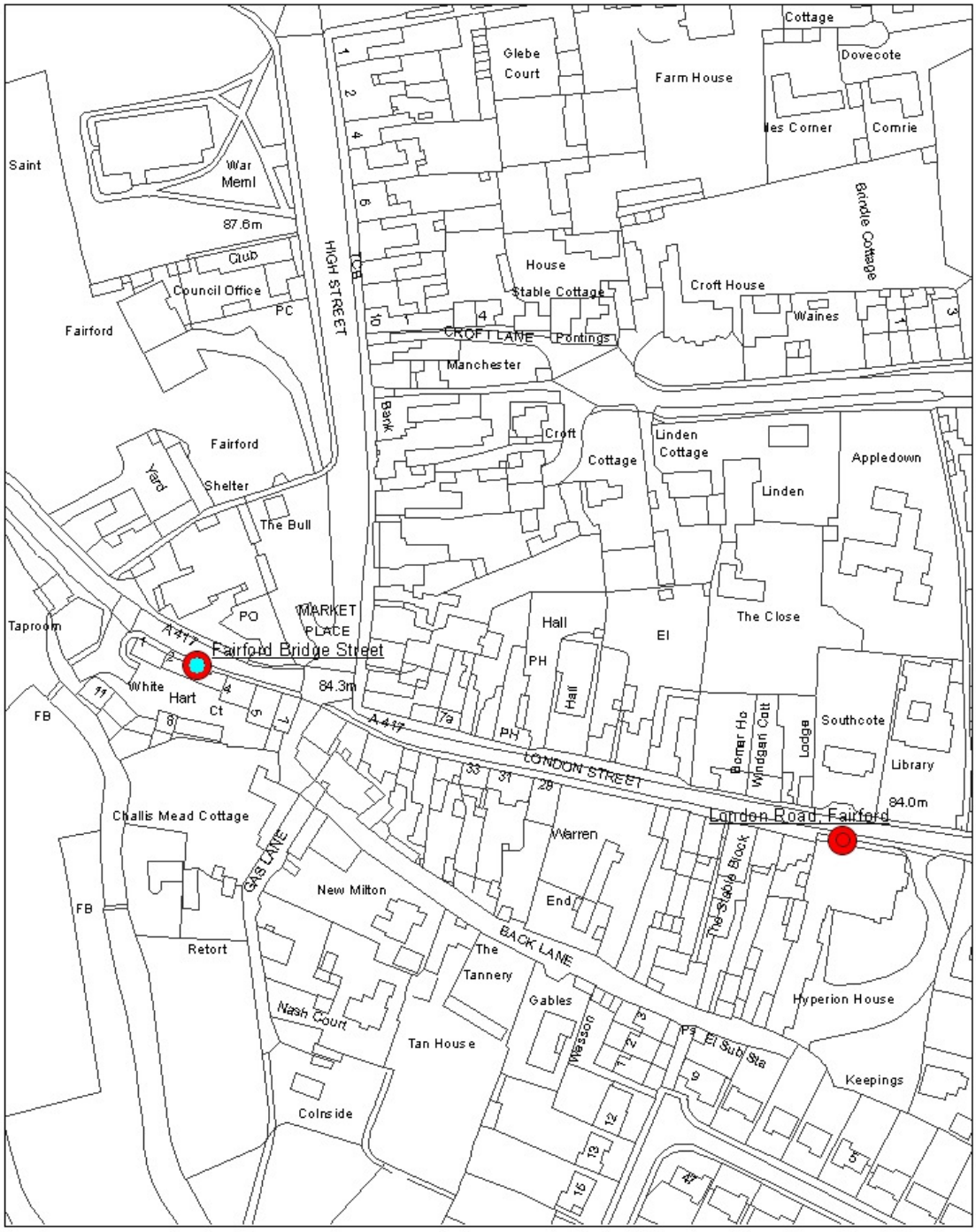
Site ID: 2 Stow in the Wold – Fosseway Cottage



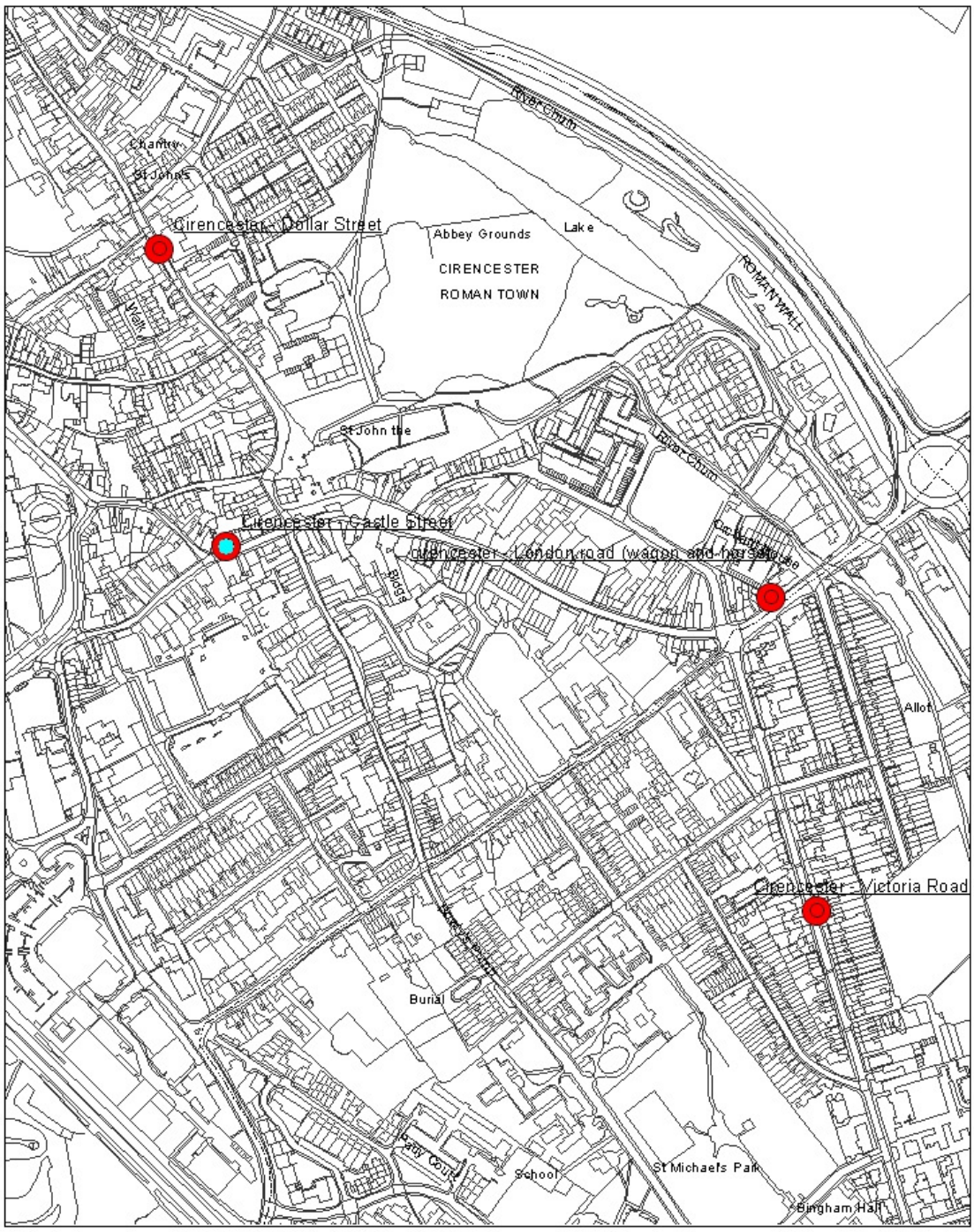
Site ID: 4, 5, 6 Lechlade



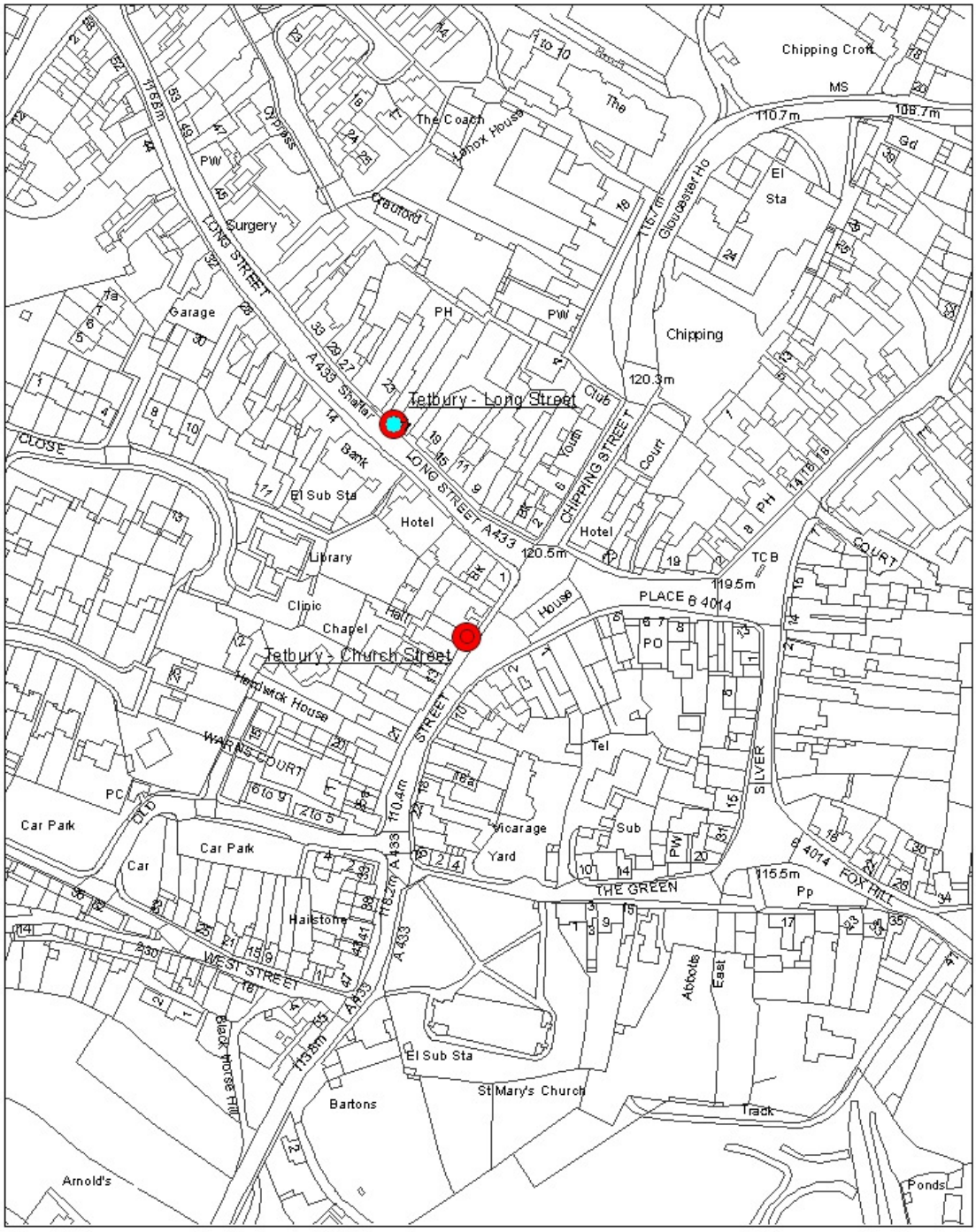
Site ID: 7, 8 Fairford



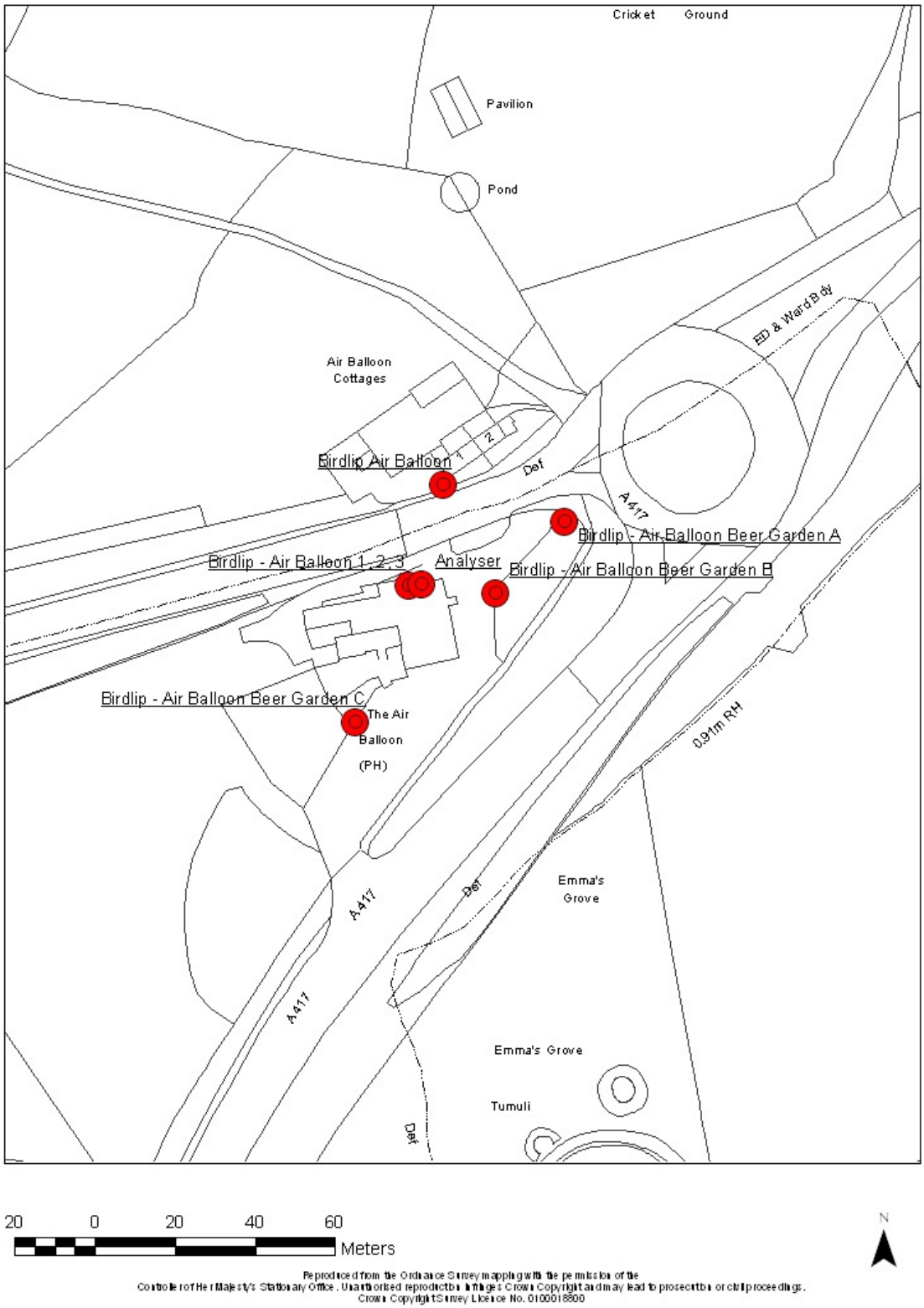
Site ID: 9,10,11,12 Cirencester



Site ID: 13, 14 Tetbury



Site ID: 15,16,17,18,19,29,21 and analyzer, Air Balloon Birdlip



Site ID: 22 Stow Lodge

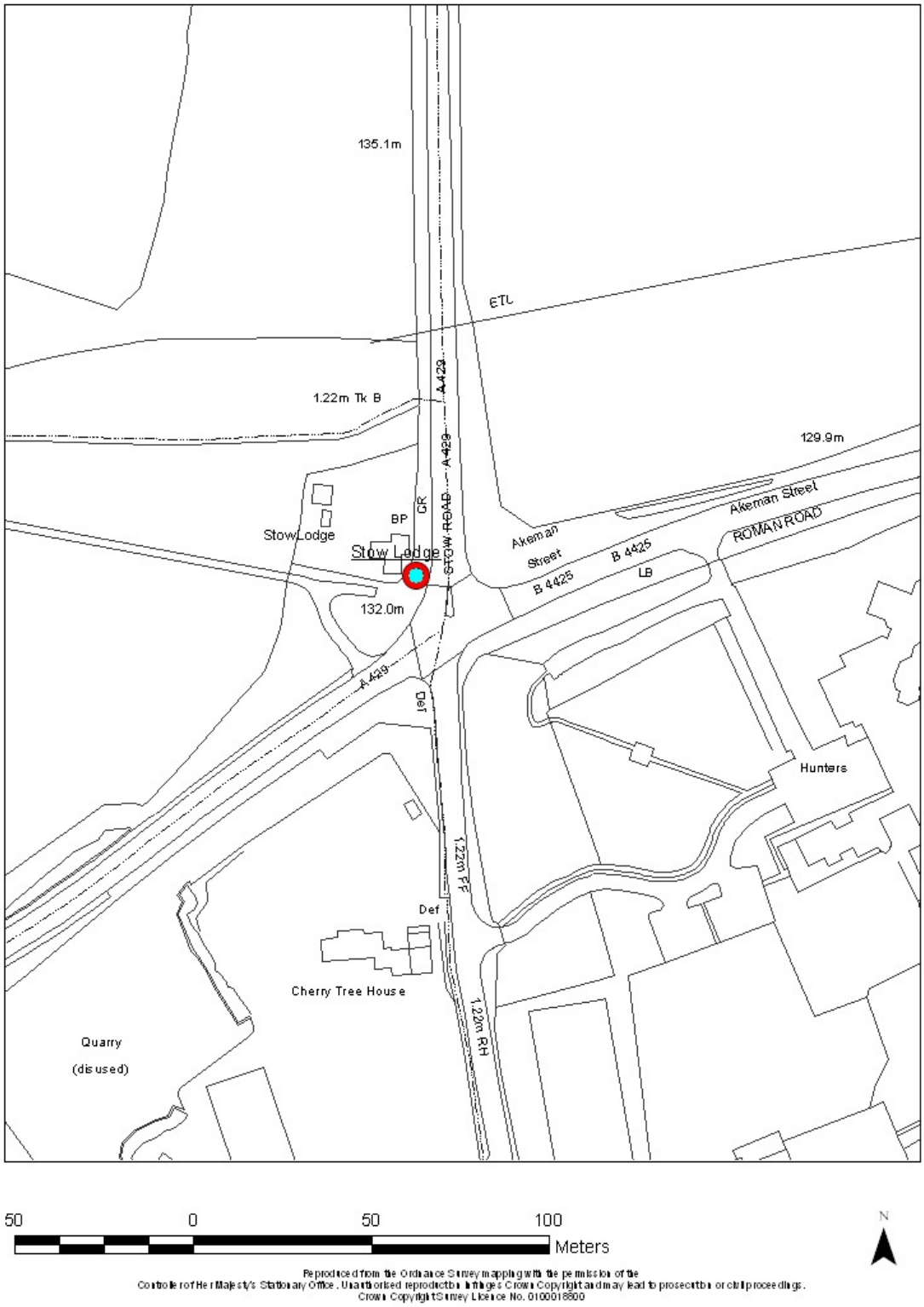


Table 2.2 Details of Non- Automatic Monitoring Sites

Site Name	ID	Site Type	OS Grid Ref x	y	Pollutants Monitored	In AQMA?	Relevant Exposure? (Y/N with distance (m) to relevant exposure)	Distance to kerb of nearest road (N/A if not applicable)	Worst-case Location?
Stow-in-the Wold - Fosseway Cottage	2	Roadside	419079	226054	NO2	N	y (1m)	3m	N
Lechlade - Thames Street	4	Kerbside	421378	199506	NO2	N	y	0.5m	Y
Lechlade - Thames Street 2	5	Kerbside	421359	199404	NO2	N	y(<1m)	0.5m	Y
Lechlade – High Street	6	Kerbside	421367	199532	NO2	N	y(<1m)	0.5m	Y
Fairford - London Rd	7	Kerbside	415378	200949	NO2	N	y (<1m)	<1m	Y
Fairford - Bridge St	8	Kerbside	415167	201004	NO2	N	y (1m)	1m	Y
Cirencester - Castle Street	9	Kerbside	402222	202010	NO2	N	y(1m)	1m	Y
Cirencester - London Rd (Wagon/Horses)	10	Kerbside	402735	201962	NO2	N	y (<1m)	<1m	Y
Cirencester- Dollar Street	11	Kerbside	402159	202290	NO2	N	y(2m)	1m	Y
Tetbury - Long Street	13	Kerbside	389007	193197	NO2	Y	y(1m)	1m	Y
Tetbury - Church St	14	Kerbside	389034	193110	NO2	N	y(1m)	1m	Y
Birdlip Air Balloon	15	Kerbside	393446	216118	NO2	N	y(1m)	1m	Y
Birdlip - Air Balloon 1	16	Kerbside	393459	216124	NO2	Y	y(1m)	4m	Y
Birdlip - Air Balloon 2	17	Kerbside	393459	216124	NO2	Y	y(1m)	4m	Y
Birdlip - Air Balloon 3	18	Kerbside	393459	216124	NO2	Y	y(1m)	4m	Y
Birdlip - Air Balloon, beer garden A	19	Kerbside	393476	216109	NO2	Y	y(1m)	14m	Y
Birdlip - Air Balloon, beer garden B	20	Kerbside	393459	216091	NO2	Y	y(5m)	1m	Y
Birdlip - Air Balloon, beer garden C	21	Kerbside	393424	216059	NO2	Y	y22m	22m	Y
Stow Lodge	22	Kerbside	403943	202961	NO2	N	y(5m)	0.5m	N

2.2 Comparison of Monitoring Results with Air Quality Objectives

Cotswold District Council carried out monitoring of NO_2 using both diffusion tubes at 19 locations in 2010 and a chemiluminesence analyzer sited within the LAMQA.

All sites relate to emissions from traffic and are sites where there is relevant exposure and identified using guidance inTG(09).

2.2.1 Nitrogen Dioxide

Automatic Monitoring Data

Cotswold District Council maintains one automatic monitoring site that has been operational since January 2009. The chemiluminesence analyser is situated within the LAQMA at the Air Balloon roundabout Birdlip.

The data from the monitoring site has been scrutinised and is inconsistent with the data gathered from the diffusion tubes at the same site and so has not yet been put in the public domain. This data will be considered further.

Table 2.3 Results of Automatic Monitoring for Nitrogen Dioxide: Comparison with 1-hour Mean Objective

Site ID	Location	Within AQMA?	Relevant public exposure? Y/N	Data Capture for monitoring period [a] %	Data Capture for full calendar year 2010 [b] %	Number of Exceedences of hourly mean (200 µg/m^3)		
						2008 [c]	2009 [c]	2010
	Air Balloon	y	y	100	100	n/a	0	**22**

This shows 4 exceedances of the hourly objective over the year, the objective is up to 18 in 12 months.

Diffusion Tube Monitoring Data

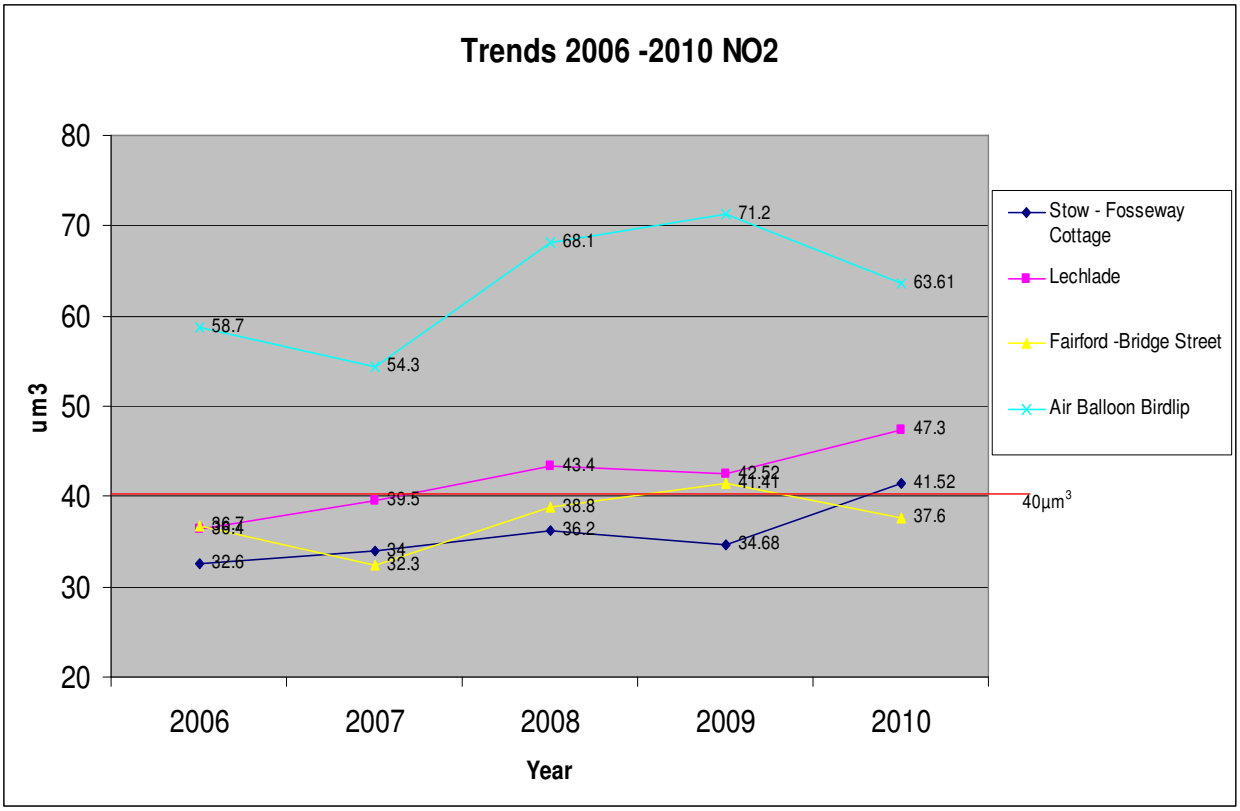
The annual mean results are shown in table 2.4 below. Where there was short term data capture the figures have been adjusted in accordance with guidance in TG (09).

Table 2.4 Results of Nitrogen Dioxide Diffusion Tubes

		Within AQMA?	Data Capture for monitoring period[a] %	Data Capture for full calendar year 2009[b] %	Annual mean concentrations (µg/m^3) 2008 [,d]	2009 [c]	2010
2	Stow-in-the Wold - Fosseway Cottage	N	100	100	36.2	34.68	41.52
4	Lechlade - Thames Street	N	100	100	43.4	42.52	47.30
5	Thames Street 2	N	100	100	n/a	38.50	24.76
6	Lechlade High Street	N	92	100	n/a	42.77	39.26
7	Fairford - London Rd	N	83	100	33.1	33.80	29.93
8	Fairford - Bridge St	N	83	100	38.8	41.38	37.60
9	Cirencester - Castle Street	N	100	100	35.2	25.03	34.69
10	Cirencester - London Rd (Wagon/Horses)	N	100	100	35.2	36.75	23.52
11	Cirencester- Dollar Street	N	100	100	24.5	24.17	39.08
13	Tetbury - Long Street	N	100	100	32.5	33.81	23.52
14	Tetbury - Church St	N	100	100	37	34.98	39.14
15	Birdlip Air Balloon	N	100	100	**68.1**	**71.02**	**63.61**
22	Stow Lodge	N	83	100	34.1	35.85	35.49

[a] i.e. data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.
[b] i.e. data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%.)
[*] "annualised" data - in Box 3.2 of TG(09),

Figure 2.3 Four year trends in Annual Mean Nitrogen Dioxide Concentration



This chart shows the annual mean values over 5 years from 2006 to 2010 at the sites where the level is close to or exceeding the national objective.

Site ID 2 Stow – Fosseway Cottage the level here have been consistent until 201 when there has been a significant increase. This is thought to be related to road works in the area.

Site ID 4 Lechlade – Thames Street indicates a gradual increase in the level. Further monitoring is being undertaken with an increase in diffusion tubes and a chemiluminesence analyser. This will be reported on after six months monitoring early in 2012.

Site ID 8 Fairford – Bridge Street the annual mean has been consistently variable over a small range under the national objective and 2010 the mean has fallen back to within the range of previous years. It is thought that the increase may have been due to a temporary increase in traffic activity. Cotswold District council has not proceeded to a detailed assessment for this area but has added a second diffusion tube to the area.

Site ID 15 Air Balloon - Birdlip this is within the LAQMA and shows the levels to have remained high as expected with increasing traffic flows as this is a strategic trunk route.

Table 2.5 Diffusion tube results for 2010

Site	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Bias
	Net NO2												Average	Adjusted
	µg/m³													
Stow-in-theWold - Fosseway Cottage	43.2	43.7	50.5	55.4	48.0	53.4	47.8	45.1	45.3	48.4	53.2	52.1	48.8	41.52
Lechlade - Thames Street	56.3	54.7	63.2	62.0	54.1	58.9		47.5	49.9	53.2	54.3	58.1	55.7	47.30
Lechlade - Thames Street 2	36.8	32.2	36.9	25.8	24.9	24.8	21.2	22.7	21.8	29.6	35.1	37.7	29.1	24.76
Lechlade - High St	49.9	48.0	52.8	49.1		48.5	35.4	38.0	39.8	47.5	52.8	46.1	46.2	39.26
Fairford - London Rd	44.4	35.5	35.4		29.7	30.7	33.7	27.5	35.3	34.9	36.0	44.1	35.2	29.93
Fairford - Bridge St	47.0	43.3	55.1	38.9	41.4	43.0	39.0	32.3	39.4	49.2	52.8	50.2	44.3	37.66
Cirencester - Castle Street	48.1	47.9	50.3	36.7	42.9	40.5	26.9	30.8	30.2	41.3	45.8	48.4	40.8	34.69
Cirencester - London Rd (Waggon/Horses)	51.5	47.6	46.3		50.0	45.3	35.3	42.8	39.6	49.2	49.8	48.3	46.0	39.08
Cirencester- Dollar Street	36.6	30.0	33.6	23.7	24.3	23.8	19.5	20.9	22.3	29.2	31.3	36.9	27.7	23.52
Tetbury - Church St	49.0	45.1	46.5	41.6	42.1	47.5	41.3	45.1	36.8	44.9	55.8	56.9	46.0	39.14
Tetbury - Long Street	45.6	38.1	41.8	32.9	32.9	37.3	33.2	31.6	36.6	38.4	37.1	42.8	37.4	31.77
Birdlip - Air Balloon	64.3	72.3	89.2	64.3	69.6	67.8	95.5	68.4	85.6	93.1	63.3	64.6	74.8	63.61
Birdlip - Air Balloon 1	47.9	57.6	52.6	62.1	65.3	61.0	46.4	52.8	56.9	53.9	60.0	54.1	55.9	47.49
Birdlip - Air Balloon 2	49.4	49.3	50.3	66.4	67.3	59.8	47.2	53.5	54.0	55.8	58.1	54.2	55.5	47.14
Birdlip - Air Balloon 3	52.7	57.8	56.9	60.7	56.7	55.3	45.1	57.1	56.6	52.0	55.6	51.0	54.8	46.57
Birdlip - Air Balloon, beer garden A	55.8	64.8	61.9	59.6		2.5	0.5						40.8	34.72
Birdlip - Air Balloon, beer garden B	39.0	42.2	39.8	43.3	38.0	39.4	28.5	34.4	35.8	35.8	37.0	32.7	37.2	31.60
Birdlip - Air Balloon, beer garden C	40.9	49.5	41.6	39.3	40.6	35.6	28.8	34.5	38.4	40.7	52.8	32.7	39.6	33.67
Stow Lodge	39.8	35.6	47.7	35.7		45.4	36.4	38.9	42.8	50.2	44.9		41.8	35.49

2.2.2 PM_{10}

Cotswold District Council does not carry out any PM10 monitoring. The Council's Updating and Screening Assessment 2009 did not identify any issues with this pollutant.

2.2.3 Sulphur Dioxide

Cotswold District Council does not carry out any sulphur dioxide monitoring. The Council's Updating and Screening Assessment 2009 did not identify any issues with this pollutant.

2.2.4 Benzene

Screening Assessment 2009 did not identify any issues with this pollutant.

2.2.5 Other pollutants monitored

No other pollutants are monitored in Cotswold District Council's area.

2.2.6 Summary of Compliance with AQS Objectives

Cotswold District Council has examined the results from monitoring in the district Concentrations outside of the AQMA are all below the objectives at relevant locations, therefore there is no need to proceed to a Detailed Assessment for any new areas. Lechlade will be considered further.

New Local Developments

2.3 Road Traffic Sources

Cotswold District Council confirms that there are no new or newly identified local developments which may have an impact on air quality within the Local Authority area.

Cotswold District Council confirms that all the following have been considered –

- **Road traffic sources**
- **Other transport sources**
- **Industrial sources**
- **Commercial and domestic sources**
- **New developments with fugitive or uncontrolled sources.**

Local / Regional Air Quality Strategy

In 2004 a County-wide Air Quality Strategy for Gloucestershire was developed by the six local authorities in Gloucestershire under the Gloucestershire Pollution Group; which includes Cotswold District Council; together with the County and the University of the West of England's Air Quality Research Group (AQMRC). The strategy was adopted by the council and published in 2004. This document is currently under review and being updated. The main objectives of the county strategy included:

- Working toward maintaining the national air quality objectives.
- Continue working towards reducing ozone concentrations.
- Comply with the LAQM timetable regarding the submission of reports.
- Provide a framework for designating, revoking and amending AQMAs within Gloucester and for developing AQAPs.
- Review and seek to improve the key structures and mechanisms in place regionally to deliver air quality improvements.
- Ensure that air quality is a key objective in all future LTPs.
- Review and reduce the main constraints to improving air quality.
- Reduce air pollution inline with the underlying principles of the European Ambient Air Quality Framework Directive (96/62/EC).
- Maintain good air quality and prevent the deterioration of air quality.
- Reduce emissions of CO2 emitted by road transport.
- Consider subsequent reviews of the Strategy in conjunction with annual reviews of the LTP.

This document is available on the council's website:
http://www.cotswold.gov.uk/media/documents/Environmental%20protection/Gloucestershire_Air_Quality_Strategy_.pdf

Planning Applications

All applications for Planning Approval are scrutinised for their possible impact on Air Quality. The number of applications for Planning Approval within The area of Cotswold district Council remains buoyant, however none have been identified which are likely to have a significant impact on Air Quality within the district.

3 Air Quality Planning Policies

There is no Supplementary Planning Guidance (SPG) to address air quality matters currently available to the District, although the authority has made use of the SPG on Planning and Air Quality produced by the Bristol, Gloucestershire and Somerset (BG&S) Environment Protection Committee in 2001.

4 Local Transport Plans and Strategies

Gloucestershire County Council has recently published the 3rd Local Transport Plan (LTP3) for 2011-26. The LTP3 recognises the need to work with district authorities over air quality issues related to traffic, particularly where there exists LAQMAs. In the Cotswold's district the area of the AQMA at Air Balloon Roundabout is highlighted as it is a major trunk route and an area of high traffic congestion and the plan commits to assisting with the Action Plan for this area.

The plan also seeks to encourage green travel including supporting an increase in railway traffic and other measures that will help reduce traffic congestion. Policies are also included to ensure that for any new developments the transport network is developed sufficiently to cope with the increased number of trips that new occupiers will take.

5 Climate Change Strategies

Cotswold District Council has identified Lower Carbon Emissions as a council priority as stated in the council's Corporate Strategy. The delivery of this priority is primarily supported by addressing the council's own emissions and domestic emissions.

The council has committed to a 25% reduction in carbon dioxide from its own operations by 2015. The actions required to achieve this reduction are outlined in the Climate Change and Carbon Management Plan and combine a mixture of technical, behavioural and procedural solutions. Alongside this the council has signed up to the national 10:10 campaign to reduce carbon emissions by 10% during 2010.

Warm and Well is the mainstay of the Council's efforts to improve domestic energy efficiency. The scheme offers grants and discounts to provide an incentive for the installation of loft and cavity-wall insulation and heating systems/boilers. This scheme is commissioned by a partnership of the Gloucestershire District Authorities, along with South Gloucestershire Council and the Primary Care Trust. The scheme is managed on a daily basis by staff from the Severn Wye Energy Agency (SWEA) who are heavily involved with work in this field.

The annual report provides an excellent summary of scheme performance and shows that 927 properties were improved in the Cotswold District between 2001 and 2008; this produced a CO2 saving of over 5,000 tonnes. The latest figures for 2009/10 stated that 400 properties had so far been improved in the District.

Cotswold District Council is taking part in the Target 2050 Low Carbon Homes project. The aim is to develop 5 exemplar homes in each participating district that will showcase the low carbon improvements that can be made to 'hard to treat homes' (e.g. solid walls, no mains gas). Applications were invited from residents looking to give their homes a low carbon makeover and willing to invest some of their own money and a significant amount of time into demonstrating what can be achieved.

6 Implementation of Action Plans

The Action Plan for the LAQMA at Birdlip is at the time of writing the subject of public consultation. It is anticipated that it will be adopted by Cotswold District Council and published by December 2011. Local elections and other factors have delayed the progression of this document.

Conclusions from New Monitoring Data

There have been few changes in the sites that have been monitored the increase in numbers of diffusions tubes deployed is in relation to the additional monitoring within the AQMA and the need to undertake further monitoring at Thames Street Lechlade for a Detailed Assessment. This Detailed Assessment was identified in the Updating and Screening Report 2009 and is currently being undertaken.

No new areas of concern have been identified that will at this moment be taken to a Detailed Assessment. However a close watch will be kept at site 7 Bridge Street Fairford where the annualised result is close to the annual mean objective. (41.38 $\mu g/m^3$)

7 Conclusions and Proposed Actions

7.1 Conclusions from New Monitoring Data

There have been a few changes in the sites that have been monitored since 2009. The following sites have been re deployed as it was considered that the results had been consistently low as can be seen in the chart below, and there had been no changes in the areas likely to affect the pollution levels. The following sites are no longer being monitored

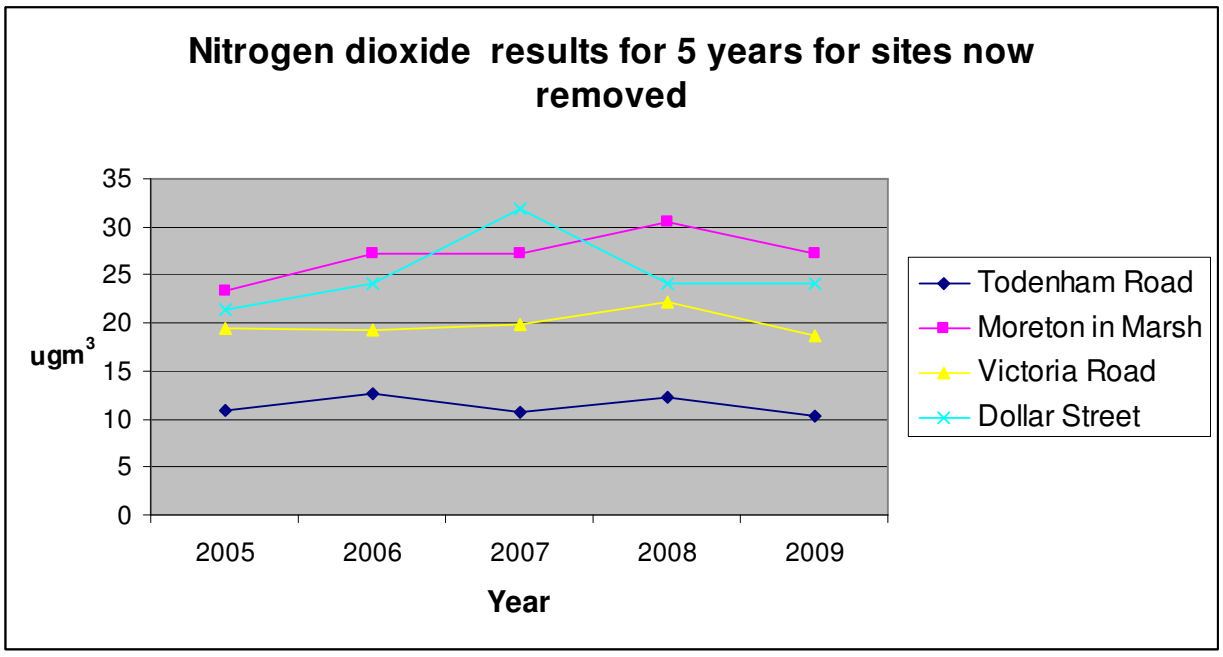
Todenham Road – background site

Moreton in Marsh kerbside

Victoria Road Cirencester - kerbside

Dollar Street- kerbside

Figure 2.4 Five year results for removed sites



These tubes have been deployed in Thames Street to give additional data1 a Detailed Assessment.

No new areas of concern have been identified that will at this moment be taken to a Detailed Assessment.

7.2 Proposed Actions

Cotswold District Council will continue to monitor for nitrogen dioxide throughout the district where there is relevant public exposure in accordance with guidance issued.

A chemiluminescence analyser was installed in June 2011 to under take real time monitoring in Thames Street. The monitoring will be reported in after six months monitoring has been completed. New sites for diffusions tubes in Thames Street are also in place.

Action Plan for the Air Balloon Roundabout Birdlip is currently is currently being consulted on and will be adopted and published by December 2011.

An Updating and Screening report will be submitted in 2012.

8 References

- Technical Guidance (LAQM.TG (09)) issued by Defra and the Devolved Administrations.
- Gloucestershire Air Quality Strategy 2004
- Gloucestershire County Council Local Transport Plan 3