Air Quality Progress Report 2007

A Report produced by Wycombe District Council 2006

written by Claire Spendley

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Executive Summary

The UK Government published its strategic policy framework for air quality management in 1995 establishing national strategies and policies on air quality, which culminated in the Environment Act, 1995[1]. The Air Quality Strategy provides a framework for air quality control through air quality management and air quality standards. These and other air quality standards[2] and their objectives[3] have been enacted through the Air Quality Regulations in 1997 and 2000 and the Air Quality (Amendment) Regulations 2002. The Environment Act 1995 requires Local Authorities to undertake an air quality review. In areas where the air quality objective is not anticipated to be met, Local Authorities are required to establish Air Quality Management Areas to improve air quality.

Following the outcome of our latest Detailed Assessment for Nitrogen Dioxide (NO_2)[4] for the High Street in West Wycombe Village. It was decided that a second AQMA was not currently declared but that an increased level of monitoring in the area was required.

This current report focuses on all of the seven major air pollutants that are outlined in the air quality strategy[5], with particular consideration given to any major developments or changes since the previous USA report[6].

This report concludes that there is no further need to carry out detailed assessments for any of the pollutants detailed in the national objectives. There is no proposed current change in the AQMA as a result of these results and no need for further monitoring has been highlighted.

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1. Introduction

The aim of this report is to give an account of the current status of air quality in the Wycombe District. This includes the reporting of the latest monitoring results with consideration also given to new developments in the district and then essentially to compare these findings to the current government objectives to highlight any possible exceedences.

This report however is only concerned with the monitoring data from 2006, progress on the action plan will commence in the next scheduled report in 2008.

In Wycombe's 2006 USA the need was identified for a more detailed assessment in the West Wycombe area as nitrogen dioxide levels were found to be close to breeching the air quality objective.

The detailed assessment submitted in 2007 concluded that it was not necessary at this stage to declare a second AQMA in the West Wycombe area. It was however recommended that additional monitoring of nitrogen dioxide levels is carried out in the area. These recommendations have been implemented and the results of which are detailed in this report.

2. Relevant Documentation Used

This report takes into account the guidance in LAQM. TG (03)[7], published January 2003, LAQM. PRG (03)[8] published January 2004, LAQM. PGA (05)[9] published March 2005.

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3. The UK Air Quality Strategy

The Air Quality strategy for England, Scotland Northern Ireland and Wales was published in January 2000 (DETR 2000)[5]. This uses national air quality standards against which to measure and assess local air quality. The strategy also provides the means by which air quality objectives and their achievement timescales can be met.
The table below illustrates the national air quality objectives including the relevant timescales for these.

The Environment Act (1995)[1] provides the legal framework for requiring LA's to review air quality and for implementation of an AQMA. In this respect the current report will be concerning the levels of all of the 7 pollutants listed in the table below.

Table 1
The Air Quality (England) Regulations 2000 (as amended)[7]

Pollutant	Air Quality Objective		Date to be achieved by
	Concentration	Measured as	
Benzene	5.00 ug/m3	annual mean	31/12/2010
1, 3 Butadiene	2.25 ug/m3	running annual mean	31/12/2003
Carbon Monoxide	10.0 ug/m3	maximum daily running 8 - hour mean	31/12/2003
Lead	0.5 ug/m3 0.25 ug/m3	annual mean annual mean	31/12/2004 31/12/2008
Nitrogen Dioxide	200 ug/m3 not be be exceeded more then 18 times a year 40 ug/m3	1 - hour mean annual mean	31/12/2005 31/12/2005
Particulate Matter PM10	50 ug/m3 not to be exceeded more than 35 times a year 40 ug/m3	24 - hour mean annual mean	31/12/2004 31/12/2004
Sulpher Dioxide	350 ug/m3 not to be exceeded more than 24 times a year	1 - hour mean	31/12/2004
	125 ug/m3 not to be exceeded more than 3 times a year	24 - hour mean annual mean	31/12/2004
	266 ug/m3 not to be exceeded more than 35 times a year	15 - minute mean	31/12/2005

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4. Monitoring

Monitoring assists in demonstrating whether air quality objectives (AQO'S) are being met and in assessing whether there is a significant risk of air quality strategy objectives being exceeded at a relevant location.

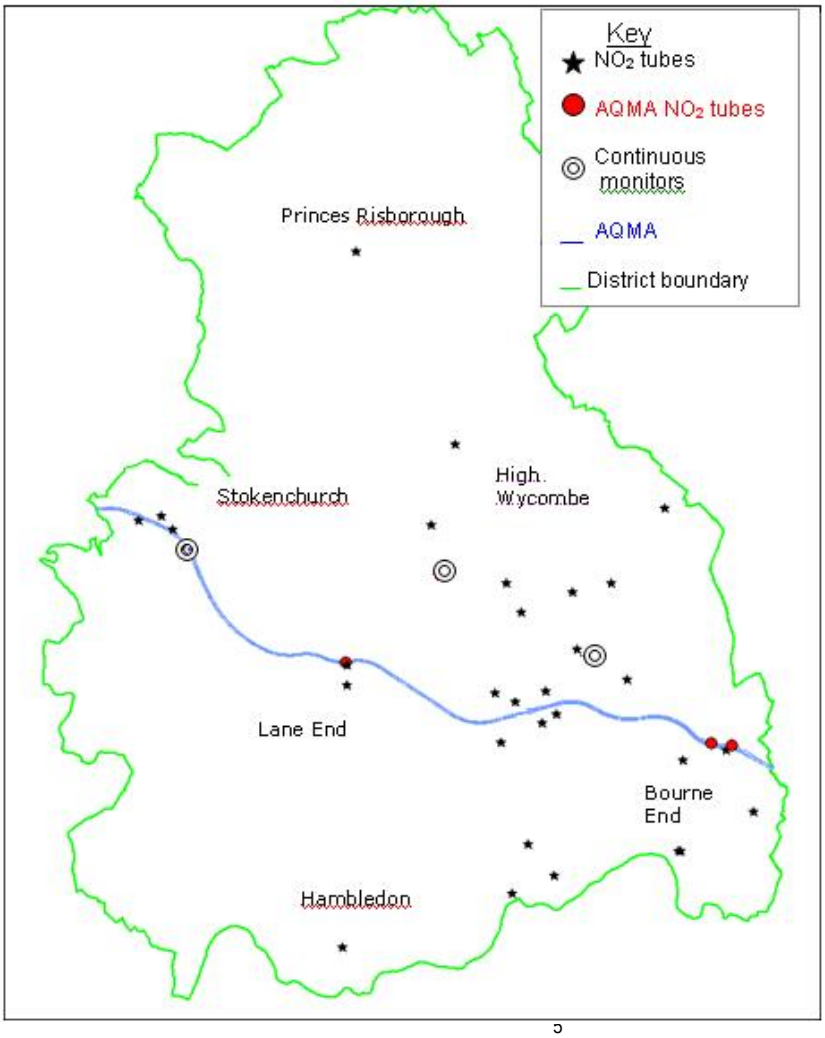
4.1 NITROGEN DIOXIDE

Wycombe District Council continues to monitor air quality in the District via a network of passive diffusion tubes alongside 3 continuous air quality stations. The advantage of diffusion tube monitoring is that it requires a low cost low maintenance monitoring regime which also allows for an increased number of locations to be monitored. The continuous monitors however, provide a far more accurate portrayal of real time data rather than period data, but is a costly and time consuming way of measuring air pollution.
The locations of all the tubes and air quality stations can be seen in figure 1, with the specific locations for additional tubes located since the previous progress report found in figures 2, 3 and 4. Figure 1 also highlights the location of our most recent continuous air quality station located in the West Wycombe area following the recommendations form our latest USA report.

Our current diffusion tube network for Nitrogen Dioxide consists of 37 tube locations, 3 of which are collocated with our continuous monitoring stations, 4 of which are within the AQMA and 33 are situated outside of the current AQMA.

As reported on in the recent USA there is unlikely to be any significant impact on Wycombe's air quality from other Districts.

Figure 1: Monitoring location map for Wycombe District



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Additional Diffusion Tubes in the Handy Cross area

These 10 new tube locations were installed in June 2004 in various locations surrounding the Handy cross Junction in order to monitor the changes in air quality before during and after the change in road layout.

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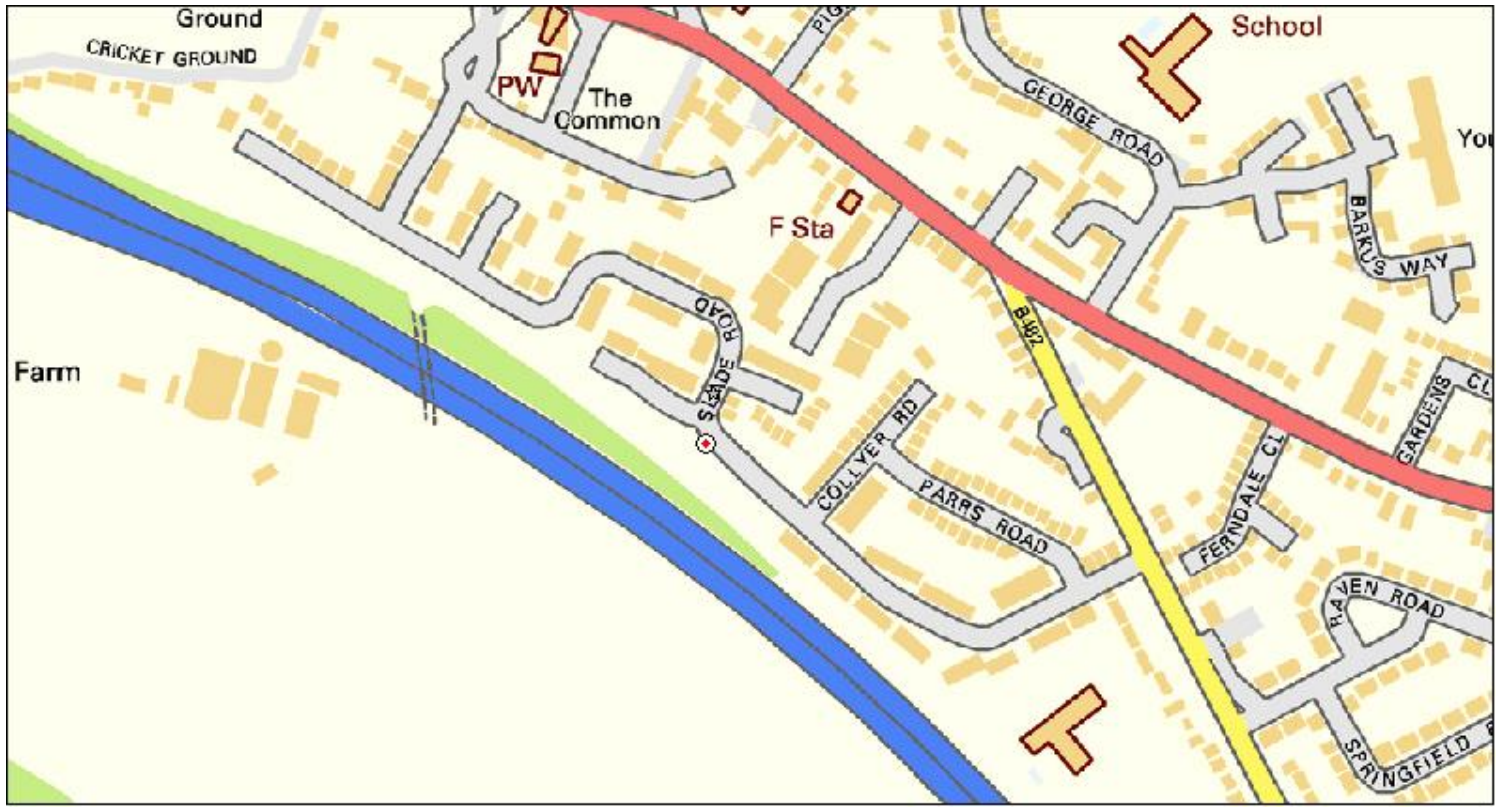
Additional Diffusion Tubes in the Stokenchurch area



The additional tube in the Stokenchurch area in order to provide further monitoring close to the AQMA along the M40 in this area in light of the findings from the tubes in Marcourt Road.

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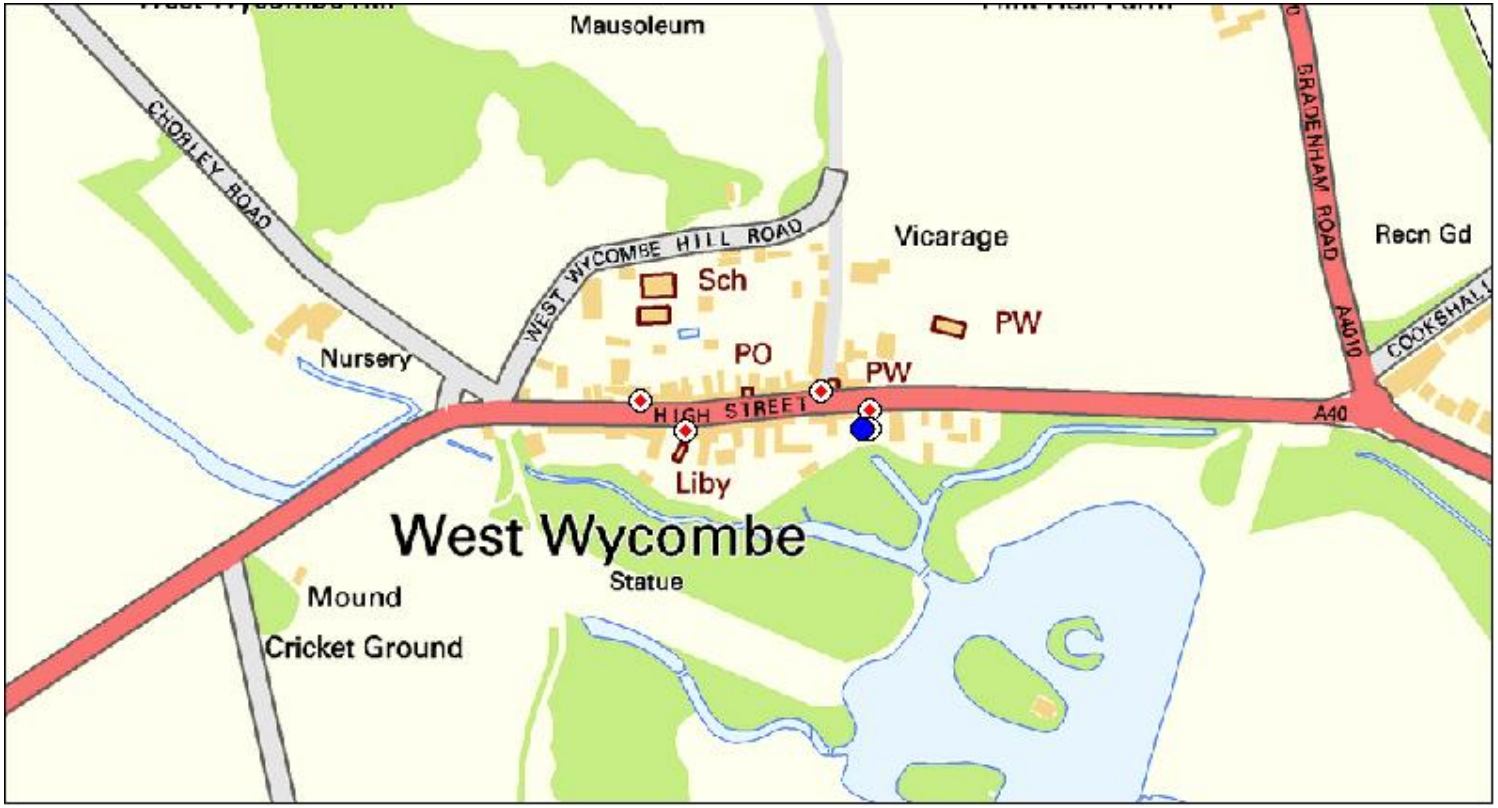
Additional Diffusion Tubes in the West Wycombe area



Additional tubes were sited along the main high street in West Wycombe along with a continuous monitoring station as a result of the recommendations from the recent detailed assessment, which highlighted a possible breach in the air quality objectives in the future.

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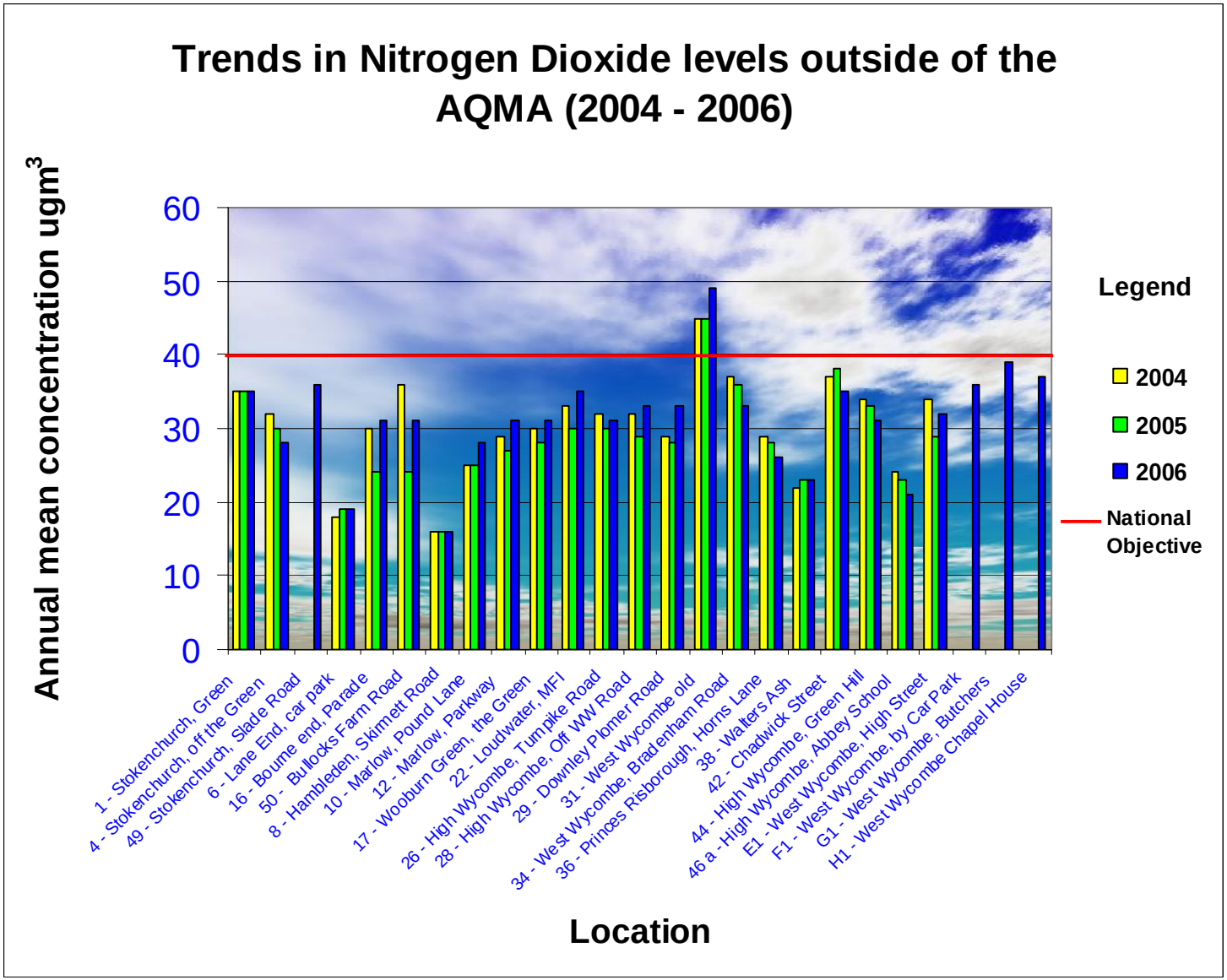
Monitoring Outside of the AQMA



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Wycombe Abbey Continuous Monitoring Data

Data scaled and corrected by AQ Data Services

POLLUTANT	NO	NO_2	NO_X
Number Very High	-	0	-
Number High	-	0	-
Number Moderate	-	0	-
Number Low	-	8867	-
Maximum 15-minute mean	668.5 µg m^{-3}	175.5 µg m^{-3}	816 µg m^{-3}
Maximum hourly mean	615.6 µg m^{-3}	175.1 µg m^{-3}	757.1 µg m^{-3}
Maximum running 8-hour mean	270.1 µg m^{-3}	139.2 µg m^{-3}	372.3 µg m^{-3}
Maximum running 24-hour mean	190.6 µg m^{-3}	110.2 µg m^{-3}	289.2 µg m^{-3}
Maximum daily mean	183.4 µg m^{-3}	101.0 µg m^{-3}	281.2 µg m^{-3}
Average	12.6 µg m^{-3}	30.2 µg m^{-3}	43 µg m^{-3}
Data capture	99.7 %	99.7 %	98.9 %

West Wycombe Continuous Monitoring Data

These data are provisional from 06/10/2006 and may be subject to further quality control

POLLUTANT	NO_2
Number Very High	0
Number High	0
Number Moderate	0
Number Low	2070
Maximum 15-minute mean	101 µg m^{-3}
Maximum hourly mean	78 µg m^{-3}
Maximum running 8-hour mean	69 µg m^{-3}
Maximum running 24-hour mean	51 µg m^{-3}
Maximum daily mean	49 µg m^{-3}
Average	21 µg m^{-3}
Data capture	99.1 %

All mass units are at 20'C and 1013mb

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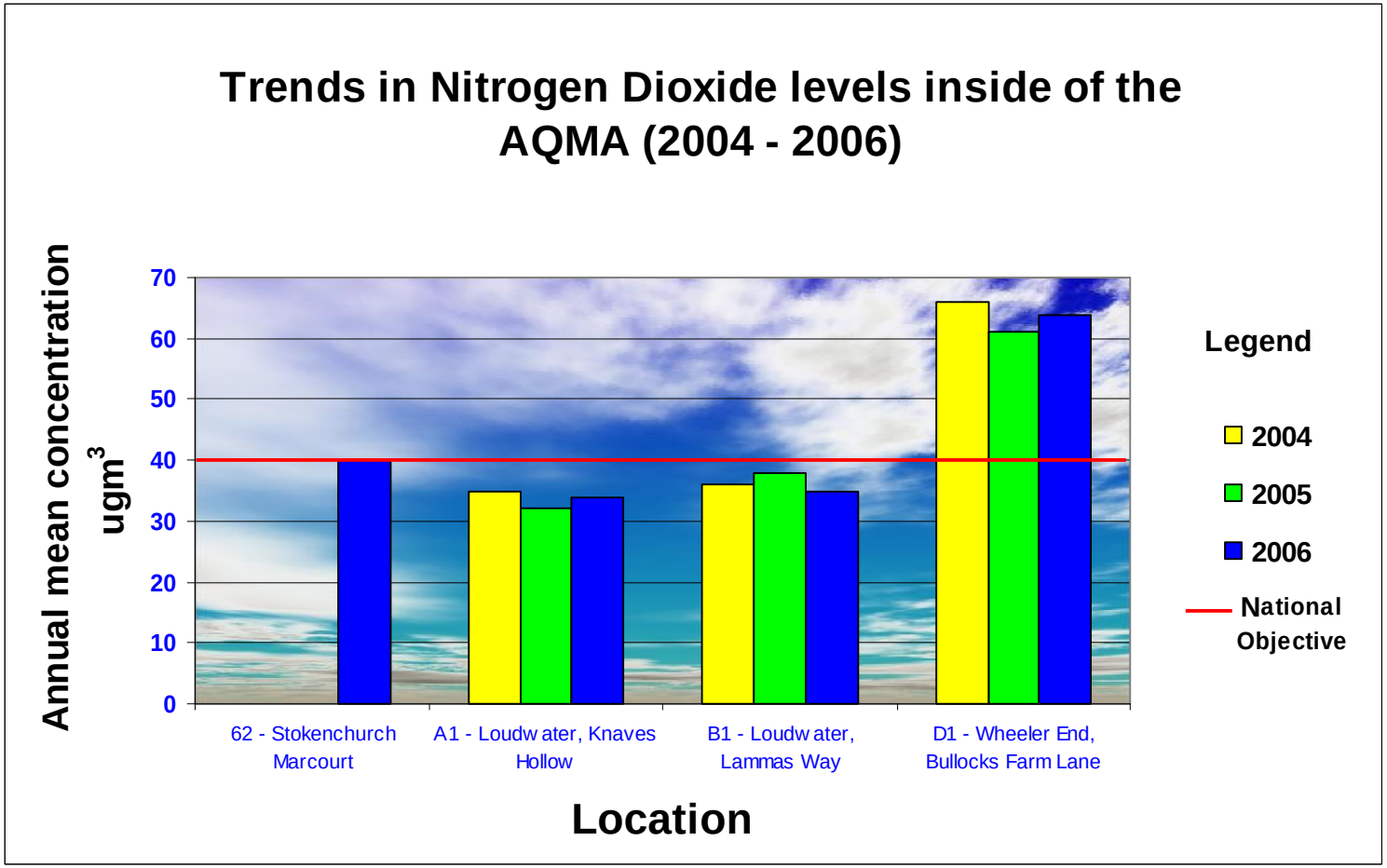
Monitoring Inside of the AQMA



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Wycombe Stokenchurch Continuous Monitoring Data

These data have been fully ratified by AEA Energy & Environment

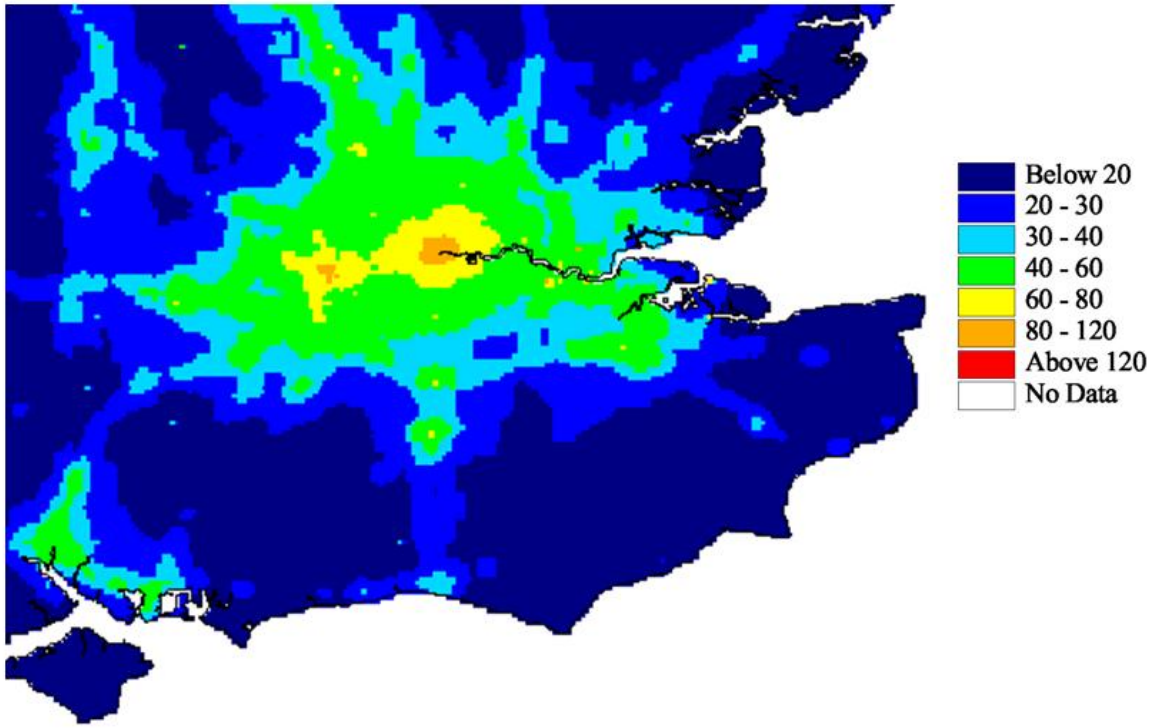
POLLUTANT	NO	NO_2	NO_X
Number Very High	-	0	-
Number High	-	0	-
Number Moderate	-	0	-
Number Low	-	7372	-
Maximum 15-minute mean	546 µg m^{-3}	151 µg m^{-3}	976 µg m^{-3}
Maximum hourly mean	386 µg m^{-3}	134 µg m^{-3}	705 µg m^{-3}
Maximum running 8-hour mean	159 µg m^{-3}	112 µg m^{-3}	318 µg m^{-3}
Maximum running 24-hour mean	121 µg m^{-3}	82 µg m^{-3}	263 µg m^{-3}
Maximum daily mean	106 µg m^{-3}	80 µg m^{-3}	230 µg m^{-3}
Average	31 µg m^{-3}	37 µg m^{-3}	85 µg m^{-3}
Data capture	98.9 %	84.2 %	84.2 %

All mass units are at 20'C and 1013mb
NO_X mass units are NO_X as NO_2

Annual Background NO_2 Concentration

The background map[10] of NO_2 presented below, illustrates the general trend in NO_2 across the South East region and highlights the Wycombe District as having levels varying between 20 – 60 ugm^3.

Estimated annual mean background NOx concentration, 2005 (ugm-3 as NO2)



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Assessment of Results

The results show that there is no uniform trend in NO_2 across the District or within the AQMA itself, and looking at previous data sets we can see that this has also been the case in the past. As surmised in previous reports this is likely to be the result of variations in the local topography alongside variations in the levels of developments from area to area which ultimately both directly affect the natural dispersion of airborne pollutants.

In many instances where diffusion tubes have been situated in the same locations for over 5 years, the results have consistently indicated that there fails to be an NO_2 problem there. Where there is no reason to predict any changes in these locations it may be more useful and cost effective to relocate some of these tubes in new locations throughout the District. Therefore during 2007 Wycombe Distrcit Council will review the siting of NO_2 tubes throughout the District.

The recent detailed assessment that was carried out in the West Wycombe area concluded that it would be premature to declare an AQMA at that point in time given the limited data. It was recommended that further monitoring was carried out in the area. The results of this illustrate there is currently one exceedance of the objectives in this area seen by one of the NO_2 diffusion tubes, the rest were found to agree with the recently sited continuous monitoring station which shows no current exceedances.

The increase in NO_2 levels from 2005 to 2006 in West Wycombe highlighted by the diffusion tube survey could be as a result of the new traffic lights that were installed in the Eastern end of the village causing increased volumes of queuing traffic, however this can not be said for certain.

All other monitoring locations outside of the AQMA fell within the national objective for NO_2 and were not seen to be vastly different from the results obtained in previous years.

The findings from within the AQMA highlighted one area of exceedance at Bullocks Farm Lane which showed a yearly average of 64 ugm^3. This site is located 1m from the motorway carriageway and 42m from the nearest sensitive receptor.
All other sites within the AQMA including the continuous monitoring station were seen to meet the air quality objective, and were found to correlate closely with data from past years.

Future Predictions

Future annual NO_2 levels can be estimated using the measured results for 2006 combined with the equation below; sourced from DEFRA's latest technical guidance.[7]

Current Data X {Correction Factor (2007 or 2010) / Correction Factor 2006}

The table below illustrates these predicted results for 2007 based on the continuous monitoring data. Future predictions basedon the diffusion tube data can be found in the appendicies.

Year	Stokenchurch NO_2 (ugm_3)	West Wycombe NO_2 (ugm_3)	Abbey School NO_2 (ugm_3)
2005	38	-	23
2006	37	21	30
2007	35.4	20.3	29.1
2010	32.6	18.5	26.4

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4.2 MONITORING OF PM_{10}

Wycombe District Council undertakes PM_{10} monitoring using a tapered element oscillating microbalance (TEOM) in our background monitoring station located in the grounds of Wycombe Abbey school and in our air quality hotspot in West Wycombe. The main identified source of PM_{10} in the District remains as road traffic emissions as other possible sources were discounted in the 2003 USA.

Wycombe Abbey 01/01/06 – 31/12/06

POLLUTANT	PM_{10}	GR_{10}
Number Very High	0	-
Number High	0	-
Number Moderate	110	-
Number Low	8594	-
Maximum 15-minute mean	929 µg m^{-3}	1208 µg m^{-3}
Maximum hourly mean	290 µg m^{-3}	377 µg m^{-3}
Maximum running 8-hour mean	113 µg m^{-3}	147 µg m^{-3}
Maximum running 24-hour mean	66 µg m^{-3}	85 µg m^{-3}
Maximum daily mean	59 µg m^{-3}	77 µg m^{-3}
Average	20 µg m^{-3}	27 µg m^{-3}
Data capture	99.4 %	99.4 %

West Wycombe 06/10/06 – 31/12/06

These data are provisional from 06/10/2006 and may be subject to further quality control

POLLUTANT	PM_{10}	GR_{10}
Number Very High	0	-
Number High	0	-
Number Moderate	0	-
Number Low	2036	-
Maximum 15-minute mean	92 µg m^{-3}	120 µg m^{-3}
Maximum hourly mean	64 µg m^{-3}	83 µg m^{-3}
Maximum running 8-hour mean	49 µg m^{-3}	63 µg m^{-3}
Maximum running 24-hour mean	43 µg m^{-3}	56 µg m^{-3}
Maximum daily mean	43 µg m^{-3}	56 µg m^{-3}
Average	15 µg m^{-3}	20 µg m^{-3}
Data capture	98.1 %	98.1 %

PM_{10} is measured with a TEOM instrument. GR_{10} is the PM_{10} data converted to 'Indicative Gravimetric Equivalent' units using a conversion factor of 1.3 All mass units are at 20'C and 1013mb

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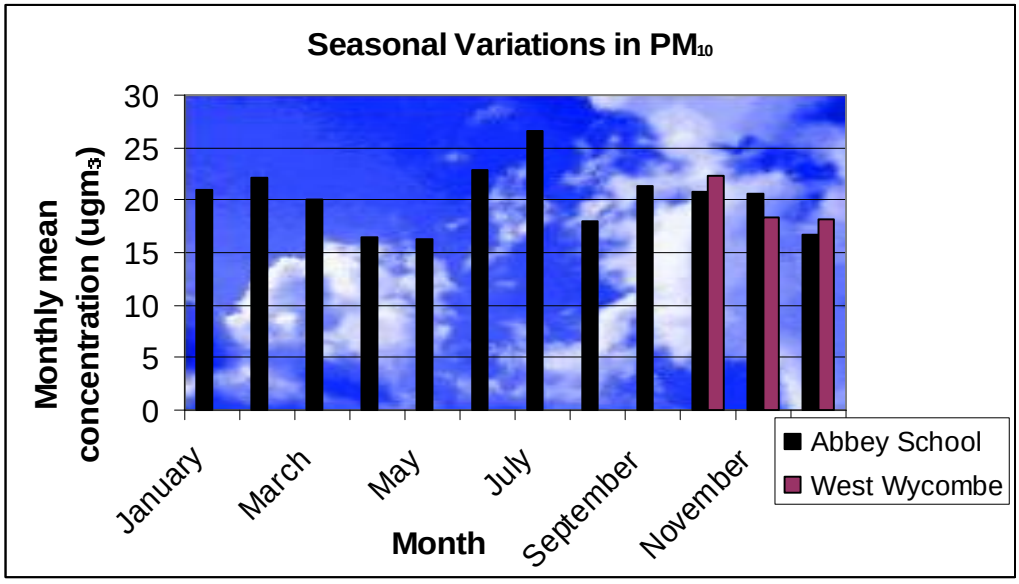
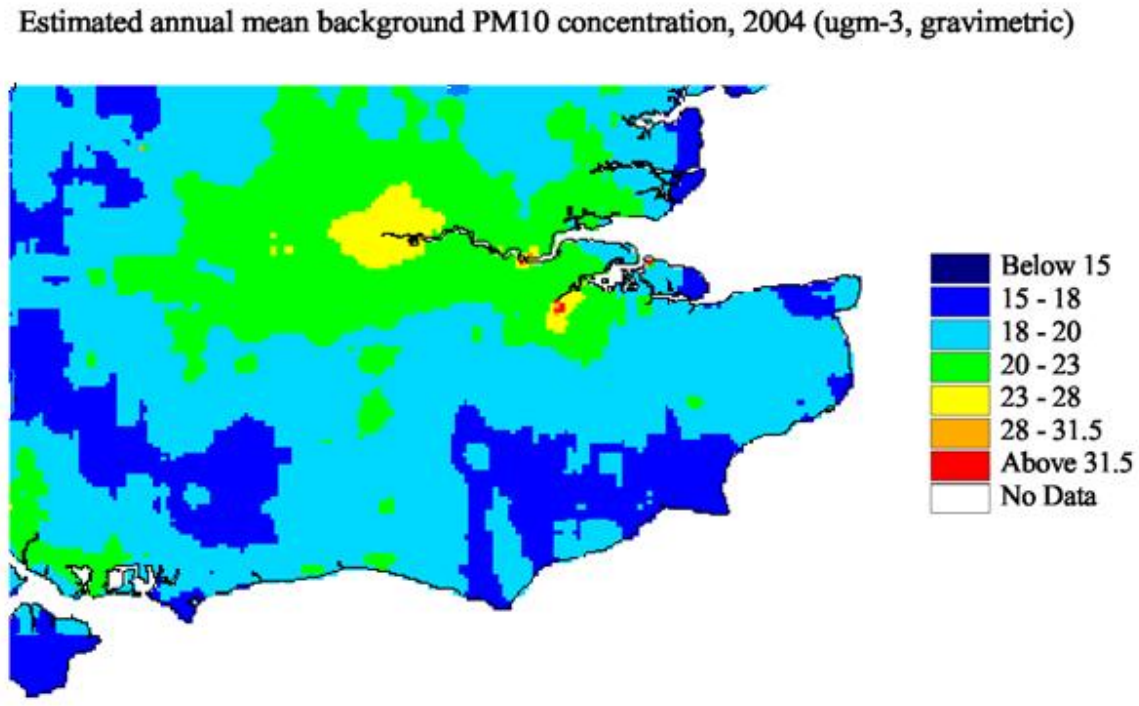
The graph below illustrates the annual variation in PM_{10} results for both our background and road side PM_{10} sites.



Below is a background map[10] of PM_{10} levels, illustrating the trends across the South East region, highlighting levels in the Wycombe District to range between 20 – 23 ugm^3.



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Assessment of Results

The graphs for our monitoring sites illustrate no PM_{10} exceedances were seen throughout 2006. This follows expectations for our Abbey site due to the remote nature of the site and lack of obvious sources. Our West Wycombe site is much closer to a traffic hotspot and was seen to mirror these results for the months that it was in operation last year.
Our results were also found to fall within the estimated annual background concentrations despite being slightly elevated from previous years.
These results alongside the lack of new significant sources indicate there are not likely to be PM_{10} exceedances throughout the District.

Future Predictions

Future annual PM_{10} levels can be estimated using the measured results for 2006 combined with the equation below; sourced from DEFRA's latest technical guidance.[7] (assuming that all PM_{10} is from primary sources).

Current Data (assumed all primary PM_{10}) X {Correction Factor (2007or 2010) / Correction Factor 2006}

Year	Abbey School PM_{10} (ugm_3)	West Wycombe PM_{10} (ugm_3)
2005	16.3	-
2006	20.3	19.6
2007	19.8	19.2
2010	18.6	18.0

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4.3 MONITORING OF SO_2

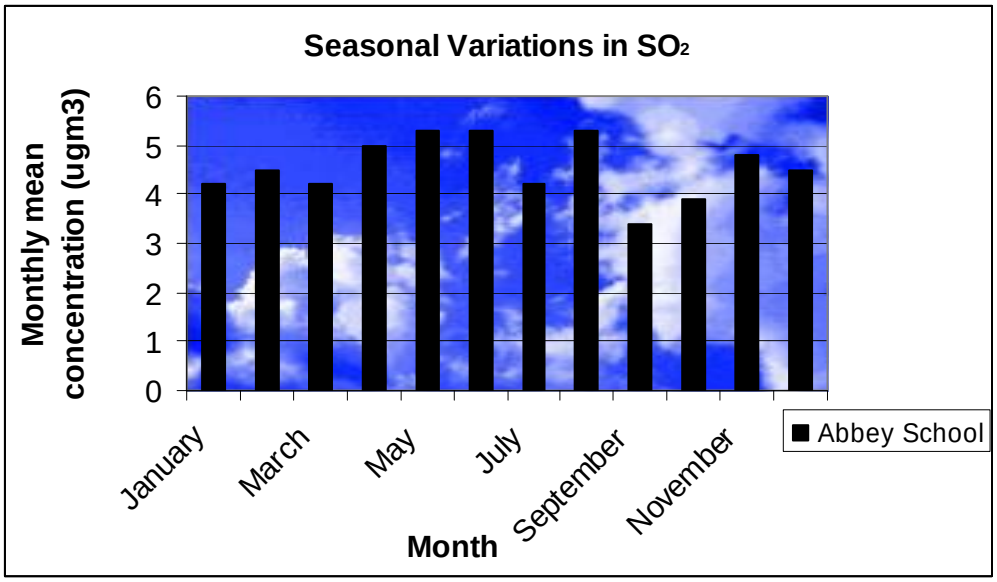
In the previous detailed assessment[6] no significant SO_2 sources were reported in the District and all levels were found to be within the national objectives. Sulphur Dioxide is currently being monitored in Wycombe Abbeys continuous monitoring station.

The table below illustrates SO_2 results for our background site.

POLLUTANT	SO_2
Number Very High	0
Number High	0
Number Moderate	0
Number Low	34499
Maximum 15-minute mean	48 µg m^{-3}
Maximum hourly mean	43 µg m^{-3}
Maximum running 8-hour mean	16 µg m^{-3}
Maximum running 24-hour mean	13 µg m^{-3}
Maximum daily mean	12 µg m^{-3}
Average	5 µg m^{-3}
Data capture	99.1 %

All mass units are at 20'C and 1013mb

The graph below illustrates the annual variation in SO_2 results for our background site.



The table below highlights the yearly SO2 variation seen at the Abbey site.

Year	Abbey School SO_2 (ugm_3)
2005	3.3
2006	4.6

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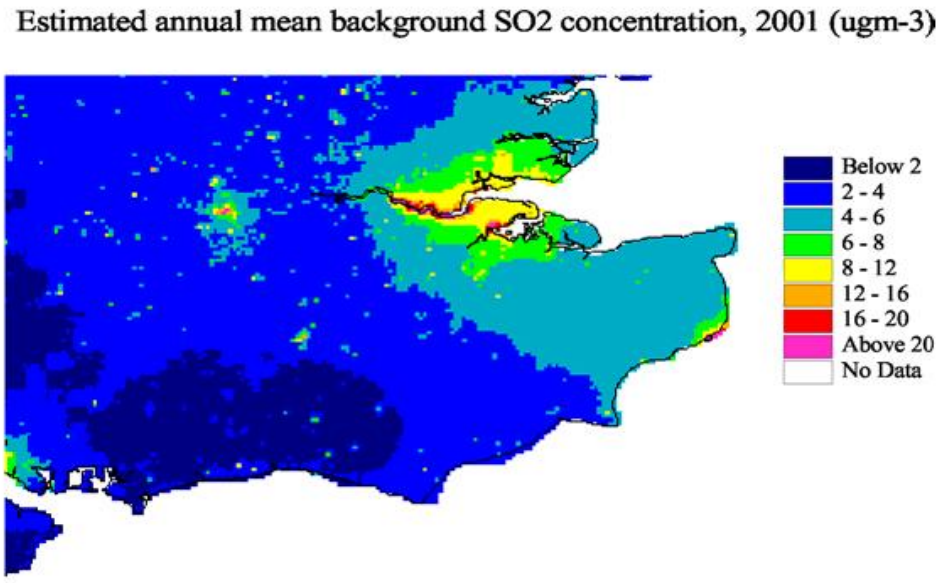
Below is a background map[10] of SO_2 levels, illustrating the trends across the South East region, highlighting levels in the Wycombe District to range between 2 – 6 ugm^3.



Assesment of Results

Our results were found to fall within the estimated annual background concentrations despite being slightly elevated from previous years.
No exceedances of the objectives have been identified with all results falling well below national objectives.
These results alongside the lack of new significant sources indicate there are not likely to be SO_2 exceedances throughout the District.

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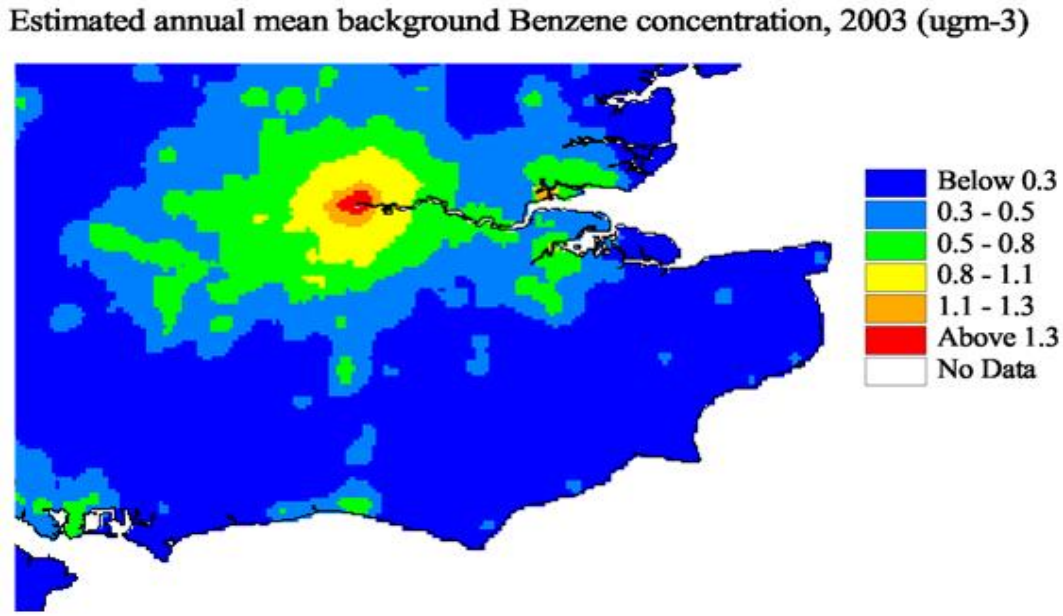
4.4 MONITORING OF BENZENE

The technical guidance[7] specifies that local authorities need only undertake a detailed assessment for road traffic sources in relation to the 2010 objective If benzene levels exceed 2ugm^3 or the annual daily traffic flow exceeds 80,000, 120,000 and 140,000 on single dual and motorways respectively.

The national survey and monitoring that was undertaken in Wycombe in 1998 failed to identify levels of Benzene that exceeded the national objective of 5ugm^3. This was further demonstrated in Wycombe's stage 1 assessment[11] which concluded there was no further need to monitor benzene in the District. The current main source of benzene in the District is from petrol station forecourts who do not have vapour recovery systems, the number of these has not altered since the last USA[6].

Below is a background map[10] of benzene levels, illustrating the trends across the South East region, highlighting levels in the Wycombe District to range between 0.3 – 0.8 ugm^3.



Assessment of Results

The monitoring undertaken in Wycombe suggest that pollution levels fell within 2003 objectives and predictions up until 2010 do not suggest any likely exceedances of the new UK objectives. On this basis and in accordance with the LAQM (TG 03)[7] no further assessment is necessary for benzene emissions as there has been no significant changes in benzene sources in the District in 2006 and it can be reported with high confidence that the national objective for benzene was not exceeded in Wycombe District in 2006.

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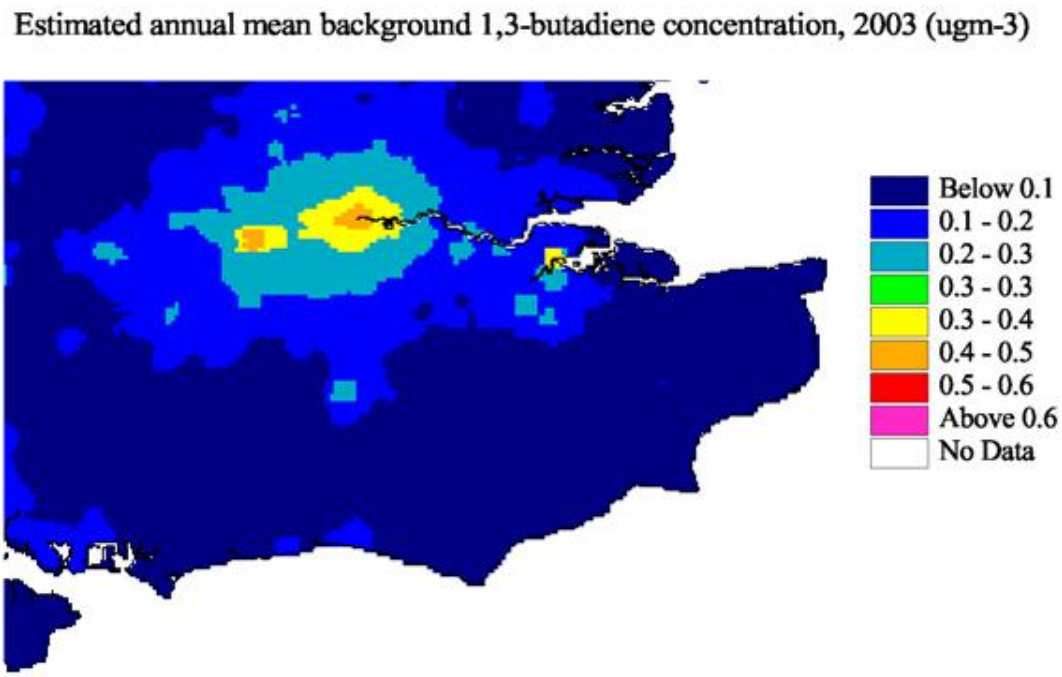
4.5 MONITORING OF 1,3 BUTADIENE

The conclusion from the previous USA has indicated that the risk of exceedance after the first round review and assessment was negligible and no further assessment was necessary. The main source of 1,3 butadiene in the District is from vehicle exhaust emissions.

Below is a background map[10] of 1,3 butadiene levels, illustrating the trends across the South East region, highlighting levels in the Wycombe District to range between 0.1 – 0.3 ugm^3.



Assessment of Results

Based on the fact that no significant changes in possible butadiene emissions have occurred in the District since the last USA[6] report, it can be said with high confidence that the national objective was not exceeded in 2006 and there remains little risk of the objective for 1,3 butadiene being exceeded in Wycombe in the near future.

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4.6 MONITORING OF CARBON MONOXIDE

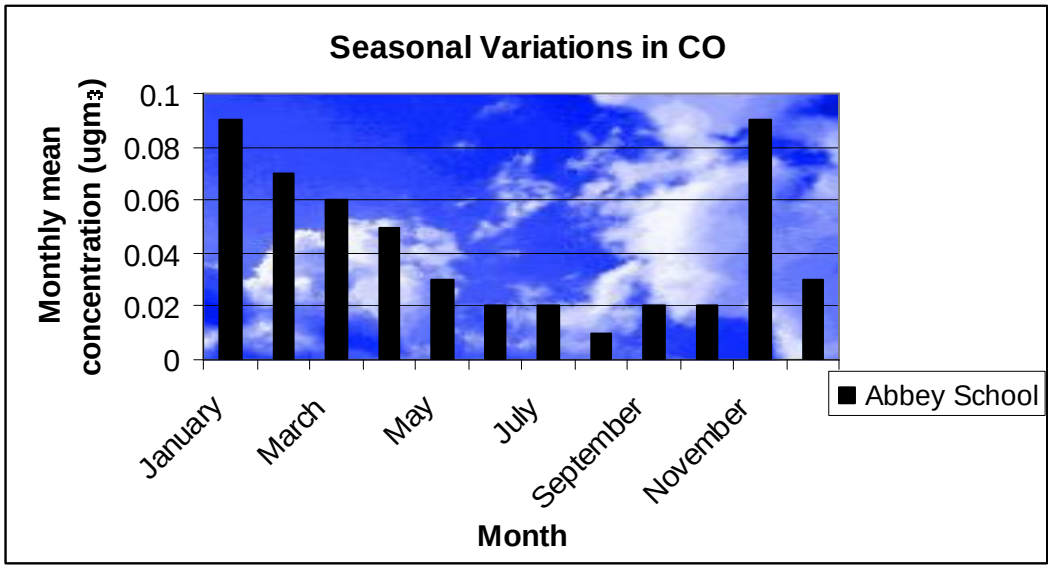
The pollutant Carbon Monoxide (CO) continues to be monitored in our Abbey monitoring site using real time continuous monitoring techniques. The results of which are illustrated in the graph below. Conclusions from previous assessments have failed to identify any significant CO levels or sources within the District and objective levels have been continually met.

The table below illustrates the annual summaries for Carbon Monoxide at the Abbey school site.

POLLUTANT	CO
Number Very High	0
Number High	0
Number Moderate	0
Number Low	8589
Maximum 15-minute mean	2.1 mg m^{-3}
Maximum hourly mean	1.9 mg m^{-3}
Maximum running 8-hour mean	0.7 mg m^{-3}
Maximum running 24-hour mean	0.5 mg m^{-3}
Maximum daily mean	0.5 mg m^{-3}
Average	0.0 mg m^{-3}
Data capture	98.3 %

All mass units are at 20'C and 1013mb

The graph below illustrates the annual variation in CO results for our background site.



The table below highlights the annual variation in CO levels.

Year	Abbey School CO (ugm_3)
2005	.02
2006	.05

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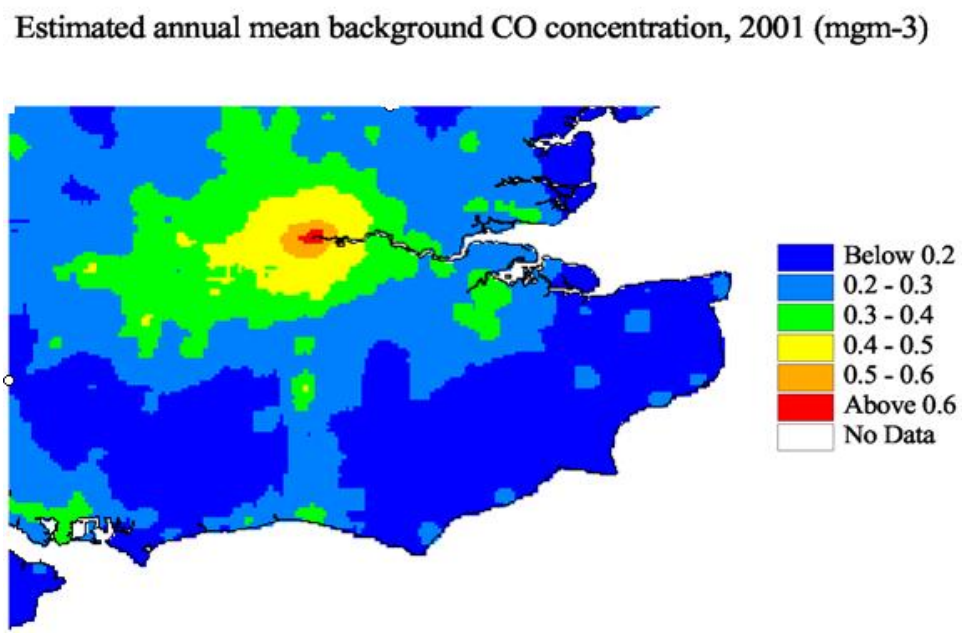
Below is a background map[10] of CO levels, illustrating the trends across the South East region, highlighting levels in the Wycombe District to range between 0.02 – 0.05 ugm^3.



Assessment of Results

The results were found to lie within the estimated background concentrations for the area despite being slightly elevated on previous years results.
As evident from the above results which indicate no exceedences of the objectives and the lack of additional CO sources within the District, it is concluded that the national objectives have been met. Based on these findings there continues to be very little risk of the objective being exceeded in Wycombe in the near future.

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4.7 MONITORING OF LEAD

Conclusions form the last updating screening assessment highlighted no likelihood of the 2008 national objectives for lead being exceeded in Wycombe and therefore no further monitoring was deemed necessary. There are only two identified premises in the Wycombe area who class as a significant source of lead.

Assessment of Results

There have been no significant changes in lead sources within the district since the previous updating screening assessment and therefore it is concluded that the national objectives for lead have not been exceeded and are not likely to be in the near future.

4.8 MONITORING OF UNREGULATED POLLUTANTS – OZONE (O_3)

The pollutant Ozone (O_3) continues to be monitored in our Abbey monitoring site using real time continuous monitoring techniques. The results of which are illustrated in the table below.

Produced by AEA Energy & Environment on behalf of Wycombe District Council

WYCOMBE ABBEY
01 January to 31 December 2006

POLLUTANT	O_3
Number Very High	0
Number High	30
Number Moderate	566
Number Low	8142
Maximum 15-minute mean	232 µg m^{-3}
Maximum hourly mean	228 µg m^{-3}
Maximum running 8-hour mean	195 µg m^{-3}
Maximum running 24-hour mean	151 µg m^{-3}
Maximum daily mean	136 µg m^{-3}
Average	51 µg m^{-3}
Data capture	99.6 %

All mass units are at 20'C and 1013mb

Pollutant	Air Quality (England) Regulations 2000 and (Amendment) Regulations 2002	Exceedences	Days
Ozone	Running 8-hour mean > 100 µg m^{-3}	344	44

Assessment of Results

The results illustrate there are a number of exceedances of the recommended objectives for Ozone however it is not possible to regulate Ozone levels in the same way as other pollutants due to its truly transboundary nature.

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5.0 Quality Control

5.1 DIFFUSION TUBES

Diffusion tubes are prepared and analysed by Bureau Veritas a UKCAS accredited laboratory who have continued to provide a high quality service throughout Wycombe's monitoring project. The tubes are prepared by spiking 10% TEA in water, blanks are retained for verification and procedures are governed by a series of quality control checks.

The tubes are then analysed again by Bureau Veritas who have a defined quality system which includes daily calibrations followed by a series of checks before any tube can be analysed.

On the basis of our co – location site at Stokenchurch the diffusion tube bias correction factor has been calculated using the necten diffusion tube precision and accuracy web sheet.

5.2 CONTINUOUS MONITORS

Results from the continuous measurement monitoring stations are screened on a daily basis and ratified by data analysts.

The continuous monitors themselves are fully calibrated on a 4 weekly basis which includes filter changes to a high standard with strict calibration procedures being adhered to. The monitors also receive regular servicing in line with equipment good practice.

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6.0 New Local Developments

6.1 NEW ROAD SCHEME

The long awaited works at Handy cross (key objective from the Action Plan) by the Highways Agency have now been completed and the proposed improvements in air quality as a result of this should be evident over the coming months. It is currently too early to interpret and changes in the nitrogen dioxide diffusion tube results. We hope to be able to report positively on this in the next update. In addition a new Park & Ride has also been developed at Cressex that is hoped to reduce traffic moving to the town centre. This will also be considered as part of the next update.

6.2 NEW RETAIL DEVELOPMENT

It has previously been reported on that the town centre redevelopment project lies outside of the AQMA and an EIA established that vehicle traffic related to this development was unlikely to affect the local air quality so to exceed the National objectives or have any significant impact on air quality in the area and therefore no detailed assessment was carried out. The project is still not yet complete so any changes in air quality that may have occurred can not yet be reported upon.

6.3 NEW BUS TERMINAL

The new state–of-the-art bus terminal located just off the Oxford Road was completed in August of 2006. Located close to the Eden development the terminal aims to not only provide excellent much needed public transport links in the area, but should also serve to protect the health of commuters. The new sliding door screen and concourse waiting area will keep passengers and harmful exhaust fumes away from each other in a way that was not practiced in the past.

6.4 NEW MINERAL DEVELOPMENT

No new mineral development processes have been seen or are expected within the District in the near future.

6.5 NEW LANDFILL DEVELOPMENT

No new landfill developments have been seen or are expected in the Distric6t in the near future.

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7.0 Permitted Processes

The European Solvent Emissions Directive came into force in the UK in 2002 with a compliance date of 1st November 2006. The aim of the Directive is to reduce the emissions of Volatile Organic Compounds to the environment. As such dry cleaners, which did not previously fall under the Pollution Prevention and Control Regulations, have now had to apply to their Local Authority for a permit to operate as they are now classed as Part B processes. The deadline for applications was October 2006 with Wycombe District Council receiving 14 applications. Wycombe District Council hopes to complete this permit processing by October 2007. Aside form the above mentioned no other new Part A or B processes have been introduced into the District during 2006. Four Part B processes have been removed, two of which are car re-spraying businesses and two involving coating processes. The full list of permitted processes can be found in the appendices. No new processes are expected within the District in the near future. Wycombe District Council will continue to monitor any permitted processes within the District.

8.0 Action Plan

Wycombe District Council's Action Plan is an ongoing works and is not yet due to be reviewed and reported upon until 2008 in line with DEFRA's report timetable[3].

9.0 Air Quality and the Transport Plan

The Buckinghamshire County Councils, new Local Transport Plan, 2006 – 2011[12] lays out the aims for an integrated approach to air quality management. Through many initiatives such as encouraging cleaner fuels and reducing the effects of road traffic emissions, one of the main aims for air quality is to "improve local air quality especially in Air Quality Management Areas".

As a member of the Bucks Air Quality Management Group, Air Quality issues are discussed in a regular forum with the County Council, and by working in partnership with the other District Councils better integration is achieved.

The full Transport plan can be found on www.buckscc.gov.uk/transport_plan/LTP2/LTP2_main.doc including a full section on the Environment and Air Quality.

10.0 Conclusion

It appears in this latest air quality review that all 7 of the national air quality objectives are being met outside of the AQMA. It is therefore concluded that there is no need for further detailed assessments or monitoring alterations within the District.

Inside of the current AQMA there are hotspots where NO_2 objectives are still failing and therefore the current area of the AQMA will remain alongside the monitoring associated with it. Further work to reduce such levels will be implemented and the AQMA will continue to be reviewed on an annual basis.

All continuous monitoring stations will remain and proceed with 2007 data capture, an overview of all the NO_2 tube locations will occur and as a result some may be altered to reflect the possible change in traffic flow around the towns new local developments.

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11.0 References

1) LAQM. TG(03) Technical Guidance. Part IV of the Environment Act 1995. Local Air Quality Management. February 2003 (and the update in January 2006).

2) Refers to standards recommended by the Expert Panel on Air Quality Standards. Recommended standards are set purely with regard to scientific and medical evidence on the effects of the particular pollutants on health, at levels at which risks to public health, including vulnerable groups, are very small or regarded as negligible.

3) Refers to objectives in the Strategy for each of the eight pollutants. The objectives provide policy targets by outlining what should be achieved in the light of the air quality standards and other relevant factors and are expressed as a given ambient concentration to be achieved within a given timescale.

4) Wycombe District Council (2006) Air Quality Review and Assessment – Detailed

5) DETR (2000) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland department of the Environment, Transport and the Regions. Cm 4548, SE 2000/0, NIA 7.

6) Wycombe District Council (2006) Local Air Quality Review and Assessment – Updating and Screening Assessment, January 2006

7) LAQM. TG(03) Technical Guidance. Part IV of the Environment Act 1995. Local Air Quality Management. February 2003

8) LAQM. PRG (03) Progress Report Guidance. Local Air Quality Management, January 2004

9) LAQM. PGA (05) Policy Guidance Addendum. Local Air quality Management, March 2005

10) www.airquality.co.uk/archive/laqm/tools/aq_maps_2001pdf

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12.0 Appendices

Nitrogen Dioxide Diffusion Tube Data:

	Periods in Year															
Site Name / Number	1	2	3	4	5	6	7	8	9	10	11	12	13	Raw Mean values	Bias Corrected values	2007 Predicted values
1 - Stokenchurch, Green	48.0	48.0	29.0	33.0	37.0	43.0	25.0	26.0	25.0					34.9	36	35
2 - Stokenchurch, Green	46.0	49.0	32.0	30.0	34.0	34.0	33.0	24.0	21.0					33.7	34	33
3 - Stokenchurch, off the Green	39.0	33.0	27.0	30.0	25.0	19.0	20.0	25.0	31.0					27.7	28	27
4 - Stokenchurch, off the Green	36.0	30.0	25.0	31.0	32.0	23.0	19.0	17.0	32.0					27.2	28	27
49 - Stokenchurch, Slade Road	39.0	39.0	35.0	41.0		34.0	33.0	28.0						35.6	36	35
60 - Stokenchurch, Marcourt	43.0	47.0	35.0	44.0	45.0	32.0		32.0	45.0					40.4	41	40
61 - Stokenchurch, Marcourt	40.0	44.0	35.0	35.0	46.0	34.0	32.0	19.0	29.0					34.9	36	35
62 - Stokenchurch Marcourt	41.0	45.0	33.0	40.0	44.0		27.0	31.0	33.0					36.8	37	36

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5 - Lane End, car park	29.0	28.0	15.0	15.0	20.0	15.0	16.0	27.0	24.0					21.0	21	20
6 - Lane End, car park	27.0	25.0	15.0	10.0	17.0	17.0	11.0	12.0						16.8	17	17
16 - Bourne end, Parade	45.0	41.0	28.0	31.0	32.0	36.0	27.0	25.0	12.0					30.8	31	30
50 - Wheeler End, Bullocks Farm Lane	44.0	33.0	19.0	21.0	29.0	28.0	16.0	15.0	16.0					24.6	25	24
7 - Hambleden, Skirmett Road	29.0	24.0	11.0	15.0	19.0	12.0	12.0	10.0	13.0					16.1	16	16
8 - Hambleden, Skirmett Road	28.0	26.0	14.0	12.0	19.0	12.0	7.0	9.0	9.0					15.1	15	15
9 - Marlow, Pound lane	41.0	34.0	22.0	28.0	26.0	26.0	19.0	40.0	13.0					27.7	28	27
10 - Marlow, Pound Lane	34.0	30.0	21.0	19.0	28.0	30.0		22.0						26.3	27	26
11 - Marlow, Parkway	45.0	38.0	29.0	29.0	32.0	35.0	24.0	19.0	28.0					31.0	32	31
12 - Marlow, Parkway	44.0	37.0	26.0	26.0	30.0	31.0	24.0	17.0	30.0					29.4	30	29
17 - Wooburn Green, the Green	38.0	41.0	26.0	26.0	32.0	23.0	30.0	19.0						29.4	30	29
18 - Wooburn Green, the Green	42.0	42.0	26.0	26.0	32.0	26.0	32.0	25.0	19.0					30.0	31	30
21 - Loudwater, MFI	39.0	42.0	35.0	32.0	38.0	34.0	30.0	21.0						33.9	35	34
22 - Loudwater, MFI	40.0	44.0	32.0	32.0	33.0	34.0	34.0	27.0						34.5	35	34

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25 - High Wycombe, Turnpike Road	44.0	39.0	20.0	28.0	35.0	28.0	31.0	29.0	23.0					30.8	31	30
26 - High Wycombe, Turnpike Road	42.0	39.0	28.0	31.0	34.0	24.0	21.0	21.0	24.0					29.3	30	29
27 - High Wycombe, Off WW Road	39.0	39.0	30.0	26.0	31.0	30.0	24.0	33.0	25.0					30.8	31	30
28 - High Wycombe, Off WW Road	37.0	38.0	28.0	29.0	75.0	31.0	29.0	21.0	22.0					34.4	35	34
29 -	38.0	39.0	25.0	29.0	33.0	31.0								32.5	33	32
30 -	41.0	42.0	24.0	26.0	33.0	28.0								32.3	33	32
31 -	48.0	48.0	38.0	52.0	50.0	42.0								46.3	47	46
32 -	53.0	46.0	36.0	52.0	56.0	52.0								49.2	50	49
33 - West Wycombe, Bradenham road	49.0	41.0	31.0	26.0	35.0	33.0	29.0	19.0	24.0					31.9	33	32
34 - West Wycombe, Bradenham Road	42.0	41.0	29.0	31.0	30.0	30.0	24.0	24.0	30.0					31.2	32	31
35 - Princes Risborough, Horns Lane	37.0	39.0	23.0	17.0	28.0	23.0	23.0	23.0	18.0					25.7	26	25
36 - Princes Risborough, Horns Lane	36.0	35.0	26.0	27.0	30.0	26.0	16.0	14.0	21.0					25.7	26	25
37 - Walters Ash	31.0	29.0	20.0	25.0	24.0		26.0	15.0	1.0					21.4	22	21
38 - Walters Ash	31.0		22.0	23.0	22.0		24.0	13.0	23.0					22.6	23	22

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41 - Chadwick Street	47.0	50.0	31.0	31.0	31.0	32.0	31.0	20.0	38.0					34.6	35	34
42 - Chadwick Street	45.0	44.0	33.0	36.0	33.0	36.0	29.0	19.0	35.0					34.4	35	34
43 - High Wycombe, Green Hill	37.0	41.0	28.0	31.0	28.0		28.0	17.0	23.0					29.1	30	29
44 - High Wycombe, Green Hill	41.0	36.0	31.0	31.0	31.0		30.0	21.0	30.0					31.4	32	31
45 - High Wycombe, Abbey School	32.0	29.0	20.0	22.0	20.0	16.0	13.0	17.0	25.0					21.6	22	21
46 - High Wycombe, Abbey School	33.0	36.0	19.0	15.0	19.0	17.0	14.0	15.0	12.0					20.0	20	19
46 a - High Wycombe, Abbey School	27.0	35.0	20.0	19.0	20.0	18.0	14.0	17.0	19.0					21.0	21	20
A - Loudwater, Knaves Hollow	37.0	37.0	30.0	41.0	30.0	30.0	40.0	31.0	41.0					35.2	36	35
A1 - Loudwater, Knaves Hollow	32.0	38.0	31.0	41.0	31.0	31.0	35.0	25.0	21.0					31.7	32	31
B - Loudwaer, Lammas Way	39.0	39.0	37.0	26.0	37.0	27.0	36.0	30.0	38.0					34.3	35	34
B1 - Loudwater, Lammas Way	42.0	45.0	35.0	26.0	35.0	22.0	36.0	22.0	35.0					33.1	34	33
C - Stokenchurch, Marcourt Road		41.0	36.0	45.0	36.0		61.0							43.8	45	44

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C1 - tokenchurch, Marcourt Road	41.0		35.0	41.0	35.0									38.0	39	38
D - Wheeler End, Bullocks Farm Lane	68.0	79.0	55.0	65.0	55.0	75.0		48.0	47.0					61.5	63	61
D1 - Wheeler End, Bullocks Farm Lane	78.0	67.0	60.0	63.0	60.0	81.0	68.0	52.0	33.0					62.4	64	62
E - West Wycombe, High Street	40.0	40.0	32.0	34.0	32.0	35.0	24.0	30.0	18.0					31.7	32	31
E1 - West Wycombe, High Street		47.0	35.0	34.0	35.0	24.0	30.0	31.0	12.0					31.0	32	31
F - West Wycombe, by Car Park	50.0	46.0	32.0		32.0			24.0	12.0					32.7	33	32
F1 - West Wycombe, by Car Park	50.0	53.0	38.0		38.0			23.0	27.0					38.2	39	38
G - West Wycombe, Butchers	43.0	52.0	38.0		38.0			22.0	28.0					36.8	38	37
G1 - West Wycombe, Butchers	45.0	52.0	40.0		40.0			24.0	26.0					37.8	39	38
H - West Wycombe, Chapel House								39.0	36.0					37.5	38	37
H1 - West Wycombe Chapel House								37.0	34.0					35.5	36	35

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Permitted Processes:

Part B Process	Number Removed in 2006	Number Added in 2006	Number Remaining in District
Waste Oil Burners	0	0	4
Metal (ferrous)	0	0	0
Metal (non ferrous)	0	0	1
Cement & Lime	0	0	2
Other Minerals	0	0	1
Organic Chemicals	0	0	1
Incineration	0	0	0
D - isocyanate process	0	0	0
Coating Processes	2	0	4
Car Respraying	2	0	7
Coating Manufacture	0	0	0
Timber	0	0	5
Combustion	0	0	0
Treatment & Processing of Animal/Vegetable Matter	0	0	0
Dry Cleaning	0	0	14
Unloading of Petrol	0	0	26

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