C O N T E N T S

Appendices

Executive Summary

This progress report provides a review and update on air quality issues within West Wiltshire and includes information on developments that may affect air quality and the results of monitoring for 2003.

This report is not a further Updating and Screening Assessment, it is a report to assist the local authority. It can help in many ways such as helping LA's to respond to requests for up to date information on air quality, provide a means of communicating air quality information to members of the public and maximise the value of investment in monitoring equipment.

Progress Reports are designed to ensure continuity in the Local Air Quality Management Process (LAQM). A local authority is only required to produce a Progress Report in years when the authority is not carrying out an Updating and Screening Assessment or a Detailed Assessment. West Wiltshire District Council did not have to proceed to a Detailed Assessment following the Updating and Screening Assessment completed in July 2003.

The monitoring results obtained in 2003 across the district show that there are no other areas of concern and that the two Air Quality Management Areas (AQMAs) at Bradford On Avon and Westbury declared in November 2001 shall remain.

Chapter 1: Introduction

1.1 The preparation of air quality Progress Reports form part of the local air quality management (LAQM) system introduced under the Environment Act 1995 and subsequent Regulations

1.2 The overall aims of this Progress Report are to report progress on implementing local air quality management and to report progress in achieving and trying to maintain concentrations below the air quality objectives.

1.3 In order to achieve the above aims this report will address new monitoring results (for the year 2003) and look at any new local developments or significant change in industrial processes which may affect local air quality.

1.4 The Progress Report will also ensure that changed circumstances requiring a detailed assessment are identified early and acted upon without any delay. To assist in writing the report technical guidance LAQM.PRG(03) has been considered.

Chapter 2: New Monitoring Results

2.1 West Wiltshire District Council uses two types of monitoring methods to obtain data on air quality within the district. These are real time analysers and passive diffusion tubes.

2.2 Real Time Analysis

2.2.1 Real time analysers are regarded as the most accurate method of monitoring pollutants. West Wiltshire uses two API M200A NO2 analysers and one API M100A SO2 analyser. To monitor for PM10 we use a BAM 1020 analyser.

2.3 Nitrogen Dioxide

2.3.1 The API M200A measures the concentration of Nitric Oxide (NO) and total oxides of Nitrogen (NO_x) and then by calculation the NO_2 concentration is determined.

2.3.2 Until June 17 2003 the NO2 analyser was located in a roadside enclosure in Warminster Road, Westbury which is about 8m from the road. The site location can be seen in Appendix 1. The site was chosen originally because it has historically been regarded as a heavily trafficked road, which takes a mix of light and heavy-duty vehicles. Both commercial and residential properties are situated along the road.

2.3.3 On the 17 June 2003 the analyser was relocated to a site owned by Oval Motors in Warminster Road, Westbury (shown in Appendix 1) The reason for this was to gain more information on NO_2 concentrations in a more confined and populated area of Warminster Road. There are also residential properties all along the opposite side of the road. Residential properties in Warminster Road were considered with a view to housing the equipment, however none of them were suitable.

2.3.4 On the 17 June 2003 another NO_2 analyser was installed in St Margaret's Street, Bradford On Avon. The analyser is located within Mr Salvats coffee shop with the air inlet being connected to the building façade, which is approximately 3m from the road. A map showing the exact location can be seen in Appendix 2. This location was chosen because no automatic monitoring had been carried out in this area of the AQMA. Most of the residential properties here are sited above shops, however there are a few which are built at the pavement edge.

2.4 Sulphur Dioxide

2.4.1 To monitor for SO_2 an API M100A SO_2 analyser has been used. This instrument uses the process of fluorescence of SO_2 due to the absorption of UV energy to determine SO_2 concentration in the sample.

2.4.2 West Wiltshire District Council have been monitoring SO_2 in Warminster Road Westbury with an automatic real time analyser (API M100A SO_2) since 1999.

2.4.3 The analyser is located in a roadside enclosure in Warminster Road, Westbury, the same location as the nitrogen dioxide analyser before it was relocated to Oval Motors. A site location plan can be seen in appendix 1.

2.5 PM10

2.5.1 To monitor for PM_{10} a BAM 1020 analyser has been used (this is also located in the roadside enclosure, Warminster Road , Westbury – See appendix 1). This automatically records dust concentrations with built in data logging. The sampling head used on this equipment is specific to only allow particles less than 10 microns in size through to ensure that PM_{10} is accurately measured. The analyser uses the principal of beta absorption to provide sample determination of mass concentration. An energy source of beta particles produces repeatable measurement characteristics. A glass fibre filter tape is used (30mm wide by 20 metres long) and allows for long periods of monitoring. A known amount of electron scattering and attenuation through a clean filter is compared with that of a dust sampled filter. The mass concentration is then calculated by the ratio of the number of detected beta particles passing through the filter and the sample volume.

2.5.2 The BAM 1020 PM_{10} analyser does not require fortnightly calibration checks as automatically self-calibration of zero and span are applied at the beginning of every cycle (i.e., every 60 minutes). If the instrument fails to perform to its specification, an error is logged in the memory. The zero testing of the instrument is based on the units ability to hold a constant output when measuring the blank filter paper. The span measurements are made by automatically inserting a reference membrane in the measurement path. The BAM 1020 is serviced once every 6 months and calibrated by Enviro Technology Ltd our instrument supplier.

2.6 Quality Assurance/Quality Control (QA/QC)

Automatic Calibration

2.6.1 To ensure that the information obtained from the analysers is as accurate as possible and to quantify any instrument drifts a stringent QA/QC protocol is followed.

2.6.2 The API M200A analyser is subjected to daily automatic calibration. This provides a daily check on the performance of the instrument. It should be noted that these results are not used for instrument scaling.

2.6.3 The zero air is generated by passing ambient air through purafil charcoal scrubbers before it is passed into the reaction cell. The span gas is generated by an NO_2 permeation tube containing pure liquid NO_2. The permeation tube is enclosed in an oven, which is maintained at a constant temperature. The zero air is passed across the permeation tube at a constant flow rate. Provided the flow rate and temperature are kept constant, the amount of NO_2 permeating from the tube into the air stream will be constant. The gas then produced then passes into the reaction cell and a span calibration response is determined.

2.6.4 In the API M100A the SO_2 contained within the sample absorbs in the 190nm – 230nm region. The UV lamp within the analyser emits ultra violet radiation, which passes through a 214nm filter. This excites the SO_2 molecules and as a result fluorescence is produced. The amount of fluorescence is measured by a photo multiplier tube (PMT) which has a secondary UV filter. The PMT transfers the light energy into an electrical signal, which is proportional to the light energy in the sample stream being analysed. The fluorescent radiation that impinges upon the PMT is, therefore, directly proportional to the concentration of SO_2 in the sampled air

2.6.5 The data is collected as 1-hour averages. The data is down loaded from the analyser and then stored on a desktop computer.

2.6.6 The analyser is subjected to daily automatic calibration. This provides a daily check on the performance of the instrument.

2.6.7 In the API M100A analyser, zero air is generated by passing ambient air through a charcoal scrubber, before entering the reaction cell.

2.6.8 The span gas is generated by an SO_2 permeation tube which contains a quantity of pure liquid SO_2. The permeation tube is enclosed in an oven which is maintained at a constant temperature. The zero air is passed across the permeation tube at a constant flow rate. Provided the flow rate and temperature are kept constant, the amount of SO_2 permeating from the tube into the air stream will be constant. The gas produced then passes into the reaction cell and a span calibration response is determined.

Manual Calibration

2.6.9 Every two weeks manual calibration checks are carried out on both instruments. This allows the instrument drifts to be fully qualified and documented using traceable calibration gas standards and the results are used to scale data.

2.6.10 At the time of the instrument calibration checks, instrument pre-calibration checks are made to ensure that the condition of the analyser, before the calibration check, is assessed and any faults attended to. A copy of the checklist can be seen in Appendix 3 of this report.

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2.6.11 The fortnightly calibration procedure requires a zero check on the analyser. This is achieved by a source of zero air being provided by passing ambient air through the charcoal scrubber before it enters the reaction cell. Once stability has been achieved (this is defined as a variation of less than 0.1ppb over a one minute period for the analyser) three readings are recorded from the instrument display after three ten second intervals. Next the calibration gas bottle is opened at a pressure of 30 psi. The analyser is allowed to stabilise for a minimum of ten minutes. Three consecutive readings are taken from the instrument display, allowing ten seconds between readings. The calibration gas is then isolated.

2.6.12 By considering the previous calibration results and the results obtained from the calibration just performed, the success of the calibration procedure is determined. The zero value should not differ by more than ± 2ppb from the previous calibration. The span calibration should not differ by more than 5% from that obtained during the previous calibration. Additionally, the analyser sample inlet filter is changed when necessary.

Six Monthly Checks

2.6.13 These checks are carried out by our analyser suppliers, Enviro Technology Ltd at the same time as they service the equipment. They ensure that the measurements from the analyser are representative and inter-comparable. The calibrations act as an

independent audit of the system performance. Additionally, any site-specific problems that may have remained undetected will be fully quantified.

Data Scaling

2.6.14 The data obtained from the analysers is scaled to take into account instrument drift. The data scaled is that which was collected in the two week period before the calibration check was made.

The corrected data is determined using the following formulae:-

Instrument Zero = Vz
Instrument Span (F) = c/(Vs-Vz)
Pollutant Concentration (ppb) = F(Va-Vz)
Conversion to µg/m3 = Pollutant concentration x 1.91

Vz is the response of the analyser when the pollutant being measured is not in the sample air stream.

Vs is the response of the analyser to an accurately known concentration, c.

Va is the recorded signal from the analyser sampling ambient air.

2.7 Passive Diffusion Tubes

2.7.1 Passive diffusion tubes are not as accurate as real time monitoring, however they do give a good indication of what is happening with air quality.

2.7.2 West Wiltshire District currently has 11 sites within the district to monitor for nitrogen dioxide. Five of these sites are outside AQMA's and 6 are within an AQMA. The sites are shown on the map in Appendix 4.

2.7.3 A nitrogen dioxide passive diffusion tube is a clear plastic tube open at one end and at the closed end a mesh is impregnated with a pollutant absorbing chemical. The diffusion tube collects the pollutant during the exposure period and then is resealed and returned to a laboratory for analysis. Each tube is exposed for a month period. The laboratory then assesses the quantity of the pollutant absorbed by calculating the average ambient NO_2 concentration over the exposure period.

2.7.4 Each tube is mounted on a lamp-post or similar structure ensuring that the open end is at the bottom to prevent rainwater collection.

2.7.5 West Wiltshire District Council utilises diffusion tubes prepared and analysed by Bristol City Scientific Services.

2.7.6 The laboratory participate in the Workplace Analysis Scheme for Proficiency (WASP) for nitrogen dioxide tubes. The most recent WASP reports are contained within Appendix 5.

2.7.7 They analyse a solution supplied by Netcen as part of the QA/QC scheme that they run. Information about this is contained in Appendix 5.

2.7.8 The laboratory also participate in a field inter-comparison scheme which is controlled by Netcen and organised by the Health and Safety Laboratory. Three tubes are co-located with a continuous analyser which provides a reference value. The results of this are contained within Appendix 5.

2.7.9 The tubes are prepared by pipetting 30μl of solution of 20% triethanolamine in water onto the metal grids in the end of the cap, then assembling the tube components. A fresh batch of tubes is prepared each month ready to dispatch in time for the required exposure date.

2.7.10 Laboratory blanks are retained so that at least one is run alongside each batch of samples. Travel blanks are supplied three-monthly as required by the UK survey procedure.

2.8 Diffusion tube locations

2.8.1 West Wiltshire currently has five sites outside of an AQMA. The sites all represent relevant locations as described in paragraphs 1.19 –1.21 of the Technical Guidance LAQM.TG(03). All the remaining monitoring sites meet the local siting criteria as set out in Box A1.2 of the guidance. The sites are as follows:

- Lamp post 8 Semington – kerbside location
- Lamp post 56 County Way Trowbridge – kerbside location on busy roundabout
- 17 Danvers Way Westbury – background site in residential area
- 52 Oldfield Park Westbury – background site in residential area
- New Road, Bradford On Avon – kerbside location in residential area

2.8.2 During 2003 two diffusion tubes were removed. These were located at Church Street, Hilperton and the location in Semington on lamp post 17. A short diffusion tube study was carried our in Hilperton at the request of the Parish Council who were concerned about the amount of traffic going through the village. At the end of six months it was concluded that there would be no exceedence of the nitrogen dioxide annual objective. The report can be seen in appendix 6.

2.8.3 The location at New Road in Bradford On Avon was only added in November 2003 so the average used in table 1.0 is only for 2 months. This site was chosen in order to help with producing our action plan as we felt it is necessary to find out nitrogen dioxide levels in neighbouring streets.

2.8.4 Table 2.0 shows the measured annual average concentration of nitrogen dioxide at each of the sites in 2003. Column three shows the corrected data. This is the annual average for 2003 using a correction factor of 0.92. The corrected data accounts for any bias in the preparation method. This factor was obtained from the spreadsheet available on the University of the West of England AQM Resource Centre website. At the time of writing this report the overall factor for three collocation studies who use Bristol Scientifics was 0.92 (5 April 2004) The bias correction spreadsheet can be seen in appendix 7. The results have been projected forward to the objective years of 2005 and 2010.

Table 2.0

Site Location	2003 annual average µg/m3 (NO2)	Corrected 2003 annual average µg/m3 (NO2)	Predicted 2005 annual average µg/m3 (NO2)	Predicted 2010 annual average µg/m3 (NO2)
Lamp post 8 Semington	49	45	43	35
Lamp post 17 Semington	45	41	39	32
Lamp post 56 County Way Trowbridge	42	39	37	30
Lamp post 17 Danvers Way Westbury	17	16	15	13
Lamp post 52 Oldfield Park Westbury	21	19	18	16
Church Street Hilperton	36	33	31	26
New Road Bradford On Avon	28	26	25	20

2.8.5 The predicted 2005 and 2010 concentrations are obtained through applying a correction factor which is obtained from the Technical Guidance LAQM.TG(03).

2.8.6 For background sites (those shaded in grey) correction factors in box 6.7 of the Technical Guidance LAQM.TG(03) have been used. For measurements made in 2003 the annual average concentration is multiplied by 0.908/0.948 to obtain 2005 levels and by 0.778/0.948 to obtain 2010 predicted levels.

2.8.7 From data measured at roadside sites (those un-shaded) correction factors contained in box 6.6 of the Technical Guidance LAQM.TG(03) have been used. For measurements made in 2003 the concentration is multiplied by 0.892/0.941 to obtain the 2005 level and by 0.734/0.941 for the 2010 predicted level

2.8.8 The monitoring site Lamp post 8 in Semington is currently exceeding the air quality objective for nitrogen dioxide. However a relief road for Semington was opened towards the end of March this year (2004) Only traffic requiring access to the village of Semington itself is now able to use the main road through. All other traffic must now use the new road. There is currently no data available to look at the impact this has had upon the air quality, however as traffic is now greatly reduced It is anticipated that a great reduction in levels of nitrogen dioxide will occur. Monitoring in Semington will continue so that the impacts of the relief road can be assessed.

2.9 Diffusion tube data collected within the AQMAs

2.9.1 West Wiltshire currently has 6 nitrogen dioxide diffusion tube sites (including a collocation study) which are located within an AQMA. They are located as follows:

Masons Lane Bradford On Avon – kerbside location
Silver Street Bradford On Avon – kerbside location
St Margaret's Street Bradford On Avon – kerbside location
Lamp post 21 Warminster Road Westbury – kerbside location
Lamp post 79 Warminster Road Westbury – kerbside location
Haynes Road Westbury – kerbside location

2.9.2 Table 2.1 shows the annual average concentrations of nitrogen dioxide at each of the sites in 2003. Column 3 shows the corrected data using a factor of 0.92 which accounts for any bias in the preparation method. This factor was obtained from the spreadsheet available on the University of the West of England AQM Resource Centre website. At the time of writing this report the overall factor for three collocation studies who use Bristol Scientifics was 0.92 (5 April 2004) Again the bias correction spreadsheet can be seen in appendix 7. These locations can be seen on the location maps in Appendix 8. Graphs showing the nitrogen dioxide diffusion tube results for Masons Lane and all Westbury sites since 1999 can be seen in Appendix 9.

Table 2.1

Site Location	2003 annual average $\mu g/m^3$ (NO2)	Corrected 2003 annual average $\mu g/m^3$	Predicted 2005 annual average $\mu g/m^3$	Predicted 2010 annual average $\mu g/m^3$
Masons Lane Bradford On Avon	66	61	58	48
Lamp post 21 Warminster Rd Westbury	50	46	44	36
Lamp post 79 Warminster Rd Westbury	55	51	48	40
Haynes Road Westbury	50	46	44	36
Silver Street Bradford On Avon	41	38	36	30

2.9.3 The predicted 2005 and 2010 concentrations are obtained through applying a correction factor which is quoted in the Technical Guidance LAQM.TG(03).

2.9.4 It can be seen from these results that all sites are likely to exceed the annual mean air quality objective in 2005, except for Silver Street, Bradford On Avon (It should be noted that monitoring in Silver Street only started in November 2003). In addition Masons Lane is predicted to exceed the Air Quality Daughter Directive annual

objective by 2010 and lamp post 79 Warminster Road, Westbury is just on the objective of 40µg/m3

2.9.5 Since May 2003 diffusion tubes have been located in St Margaret's Street, Bradford On Avon for the purposes of a co-location study. The results can be seen in table 2.2.

Table 2.2

St Margaret's Street BOA	May 03	June 03	July 03	Aug 03	Sept 03	Oct 03	Nov 03	Dec 03	Average
	33.8	35.2	43.9	40.2	38.27	35.4	34.9	35.4	37
	37.6	39.7	40.9	33.8	38	37	38.9	37.8	39
	29.7	32.6	34.5	39	33.95	35.7	41.6	34.4	36

2.9.6 Although there is quite a variation in the results obtained from the diffusion tubes, the average results from over a period of eight months are quite similar and indicate that the objective for nitrogen dioxide will be met. Once 12 months of automatic and collocated diffusion tube data has been gathered at this site a bias correction factor can then be calculated. A graph showing these results can be seen in appendix 10.

2.10 Automatic data results

2.10.1 As stated earlier in this chapter the API M200A (NO2) analyser was moved from outside the public toilets in Warminster Road to Oval Motors in Warminster Road, Westbury. The results from the first location can be seen in table 2.3 and results from the new location in Oval Motors can be seen in Table 2.4. All the automatic data has been ratified.

Table 2.3 NO2 Automatic Data

Public Toilets, Warminster Rd, Westbury	January 2003	Feb 2003	March 2003	April 2003	May 2003	5 month average
µg/m3	26	34	37	36	21	31
Hourly exceedence?	No	No	No	No	No	No

Table 2.4 NO2 Automatic Data

Oval Motors, Warminster Rd, Westbury	Aug 2003	Sept 2003	Oct 2003	Nov 2003	Dec 2003	Average
µg/m3	38	45	37	No data	38	40
Hourly exceedence?	No	No	No	No data	No	No

2.10.2 Although there is not a full years data from the same location it can be seen that by relocating the analyser the results are showing an increase in NO2 levels which is what our diffusion tubes are indicating. Graphs showing the results can be seen in appendix 11.

2.10.3 The API M100 A (SO2) analyser has been at the public toilet site in Warminster Road, Westbury since 1999. Table 2.5 shows 2003 results. The automatic data has been ratified.

Table 2.5 SO2 Automatic Data

Warminster Rd, Westbury	Jan 03	Feb 03	March 03	April 03	May 03	June 03
µg/m3	5	3	5	3	2	3
350µg/m3 exceedence?	No	No	No	No	No	No

Warminster Rd, Westbury	July 03	Aug 03	Sept 03	Oct 03	Nov 03	Dec 03	Annual average
µg/m3	2	3	4	4	4	4	3.5
350µg/m3 exceedence?	No	No	No	No	No	No	No

2.10.4 It can be seen from these results that no exceedences of the objectives for sulphur dioxide have occurred. Graphs for each of the months can be seen in appendix 12. The results are consistently low and do not create any cause for concern.

2.10.5 The API M200A (NO2) analyser which is installed in Mr Salvats Coffee Shop, St Margaret's Street, Bradford On Avon has been running since August 2003. The monthly averages can be seen in table 2.6. The automatic data has been ratified.

Table 2.6 NO2 Automatic Data

St Margaret's St, BOA	Aug 03	Sept 03	Oct 03	Nov 03	Dec 03	Average
µg/m3	32	33	34	32	31	32.4
Hourly exceedence?	No	No	No	No	No	No

2.10.6 Graphs showing the monthly results can be seen in appendix 13. It is clear that there are no hourly exceedences and it is highly unlikely that the NO2 annual objective will be exceeded.

2.10.7 A BAM 1020 has been positioned in Warminster Road, Westbury since 1999 and measures PM10 – the results for 2003 can be seen in table 2.7 The data has been ratified.

Table 2.7 PM10 Automatic Data

Month	Jan 03	Feb 03	March 03	April 03	May 03	June 03
µg/m3	No data	No data	No data	28.16	23.45	29.2

Month	July 03	Aug 03	Sept 03	Oct 03	Nov 03	Dec 03	8 month Average
µg/m3	26.51	40.06	34.12	26	23.69	No data	28.89

2.10.8 The BAM broke in January and had to be sent away so was not returned until the end of March. Although a 12 month average cannot be reported on, 8 months of monitoring shows an average of 28.89 µg/m3 which is well below the 40 µg/m3 annual average.

2.10.9 There is also an hourly objective of 50 µg/m3 not to be exceeded more than 35 times a year. Graphs showing 24 hourly averages for each of the months in 2003 can be seen in appendix 14. During the 8 months of data collected there have been 19 exceedences.

2.11 Trends

2.11.1 In following the guidance LAQM.PRG(03) it is normal practice to only consider a trend as being significant when five years worth of data are available. West Wiltshire DC does not have this amount of data, however the NO2 diffusion tube graphs in

appendix 9 show the annual averages since 1999 in Masons Lane, Bradford On Avon and 79 Warminster Road, Westbury. Data for the other locations in Warminster Road and Haynes Road is available from 2000.

2.11.2 In Westbury there has been an upward trend in nitrogen dioxide levels since 2000, however it should be noted that there is only four years of data for two of the sites. The levels at 79 Warminster Road dropped quite dramatically after 1999 to 2001 and have since continued to increase.

2.11.3 The five years of data available for Masons Lane, Bradford On Avon shows a decrease of nitrogen dioxide levels from 1999 to 2001, The levels have since been increasing each year up to 2003 which mirrors the results obtained from 79 Warminster Road, Westbury.

2.12 Radiation Monitoring

2.12.1 West Wiltshire District Council until recently (October 2003) undertook radiation monitoring and were members of the steering group which was the Southern England Radiation Monitoring Group (SERMG), Due to financial constraints we have had to cease undertaking radiation monitoring. The work was co-ordinated by Southampton University. The aim of SERMG is to monitor environmental radioactivity in a wide range of natural materials throughout Southern England. Data is available to the public and published regularly.

2.12.2 The main objective of the scheme is to provide background information for the area over a period of time so that any fluctuations in radioactive content of environmental materials deriving from man-made sources can quickly be identified.

2.12.3 Terrestrial samples provided for the scheme ranged from environmental soils to foodstuffs. Samples such as grass and soil helped to identify areas of deposition and enabled an estimate to be made of the likely transfer of activity into the food chain. Examples of foodstuffs sampled were milk, eggs, vegetables and fish.

2.12.4 As well as monitoring terrestrial samples, background gamma radiation monitoring was also undertaken using an Argus instrument.

2.12.5 The annual report for November 2002 – October 2003 is currently unavailable, however results for the previous year are. The results confirm a low radiological background for the region and shows a similar pattern to those of preceding years. Results form the 2001 – 2002 report can be seen in appendix 15 with West Wiltshire's results highlighted.

Chapter 3: New Local Developments

3.1 This section of the report looks at changes that have taken place that may affect air quality as well as looking at major developments under consideration.

3.1.1 The areas looked at include new industrial processes which are included in the list in appendix 2 of TG(03), new developments with an impact on air quality, especially those that will significantly change traffic flows, and new landfill sites, quarries etc which have a nearby relevant exposure.

3.1.2 Table 3.1 below shows information on any new developments.

Table 3.1

Development	**Source of information**	**Details of development & proposed development in West Wiltshire**
New Part A process	Environment Agency	**No new processes since USA report 2003**
New Part B process	Local Authority EH dept.	**Stone Crusher Permitted March 2004**
New retail development	Local Authority Planning dept.	**Not aware of any**
New road scheme	Highways Agency, WCC	***Semington relief road – existing **Hilperton Gap relief road – proposed**
New mineral development	Local Authority Planning dept.	**None in pipeline**
New landfill development	Local Authority Planning dept.	**None in pipeline**
Mixed use development (residential/commercial)	Local Authority Planning dept.	**Have no current details**

3.2 New Part B Processes

3.2.1 The only new Part B process in West Wiltshire is a stone crusher. This particular process is not highlighted as a process most likely to release significant quantities of the specified substances to air as stated in appendix 2 of LAQM.TG(03).

3.3 New Road Scheme

3.3.1 * Semington relief road was opened towards the end of March 2004. This has had the effect of stopping through traffic in Semington village. Access is now only available to buses and emergency vehicles.

3.3.2 ** Hilperton Gap is a proposed road scheme. This scheme is currently in the planning stages and we have required air quality assessments to be carried out by the developer as part of the planning process.

3.3.3 No other road schemes are currently proposed. Westbury relief road is still awaiting funding and is likely to be the next new road scheme to have a positive impact upon air quality in Westbury.

3.4 Industrial Processes

3.4.1 Lafarge Cement (UK) Westbury have submitted an application to the Environment Agency (EA) to trial the use of recycled liquid fuel in the cement manufacturing process. The EA are due to make a determination on 30 April 2004. As a statutory consultee West Wiltshire District Council has considered air quality impacts and has submitted the comments to the EA. A copy of the letter can be seen in appendix 15.

3.5 Key Strategic Sites

3.5.1 West Wiltshire District Council has allocated sites in the district which are suitable for commercial development.

3.5.2 The District Council, through its economic development and planning policy functions, supports the development of the sites to further the economic prosperity of West Wiltshire.

3.5.3 The type of site varies considerably, from large scale to small scale, from greenfield to brownfield, from town centre to edge of town. Most of the sites are allocated for development in the West Wiltshire District Plan. Others already have planning permission for certain uses or are subject to current planning applications.

3.5.4 Each site description includes information on size, planning status, opportunities and constraints, and marketing information.

3.5.5 The sites which are relevant in terms of the districts current AQMAs are as follows:

3.5.6 Kingston Mills, Bradford On Avon which has been allocated for a mix of uses to include 130 dwellings plus any of the following: small-scale retail, further education, financial services, office and leisure/arts. This is on the very edge of the existing AQMA boundary.

3.5.7 The last application to develop the site was withdrawn so currently there is no proposal for the site. The development of this site may have implications on the air quality within Bradford On Avon

3.5.8 In Westbury four areas of land have been identified as being key strategic sites. These are: West Wilts Trading Estate, Northacre business park, Brook Lane, Land at Station Road and Vivash. Although none of these sites lie within the AQMA increased traffic from the development of these sites may have an impact upon the air quality.

3.5.9 All these sites including more information can be viewed on West Wiltshire District Council web site at the following address:

http://www.westwiltshire.gov.uk/economic_development/keysites-indexpage.php

Chapter 4: Action Plan

4.1 West Wiltshire DC are still working on producing an Action Plan for the two AQMAs we have (Westbury and Bradford On Avon) so we are unable to report on any progress of implementing measures.

4.1.1 Regular meetings are now being held between ourselves and Wiltshire County Council Transport Planners and Community Planners from both organisations to come up with some workable options for the two towns. Our aim is to have a draft Action Plan for DEFRA by the middle of the Summer.

Chapter 5: Local Air Quality Strategy

5.1 West Wiltshire District Council does not currently have an Air Quality Strategy.

Chapter 6: Planning and Policies

6.1 West Wiltshire District council does not currently have any local policies that relate to air quality, however the planning application list is looked at on a regular basis in order to identify any new developments which may impact upon local air quality.

Chapter 7: Local Transport Plans and Strategies

7.1 The Local Transport Plan (LTP) is produced by Wiltshire County Council and sets out a clear strategy for achieving the Governments objectives for transport over the next 10 year period.

7.1.1 The LTP includes area based programmes such as Western Wiltshire Sustainable Transport Strategy which is a comprehensive package of walking, cycling, and public transport improvements for areas of Wiltshire including Bradford On Avon, Westbury, Melksham and Warminster.

7.1.2 There are some elements which relate to bringing about air quality improvements within west wiltshire. These are discussed below.

7.2 Bradford On Avon

7.2.1 In conjunction with the District Council, Wiltshire County Council has adopted a Community Planning approach to develop a transport scheme that will meet the air quality objectives in the town and improve facilities for pedestrians, cyclists and public transport users.

7.3 Westbury

7.3.1 Wiltshire County Council's 2003 Annual Progress Report included a bid for an A350 Westbury bypass and town centre measures. We consider that this will resolve the local air quality issues and enable road space to be given over to walking, cycling and public transport improvements in the town centre.

7.3.2 The proposal for a Westbury bypass was remitted to the Bristol/Bath to South-Coast (BB2SC) Study by the Secretary of State for Transport and the final report was issued in February 2004. This recommended that a bypass for Westbury should be progressed to proceed further through its statutory processes. The BB2SC Study is currently being considered by the South West Regional Assembly prior to its submission to the Government for its determination on, inter alia, Wiltshire County Council's bid.

7.4 A full version of Wiltshire County Council's Local Transport Plan can be viewed at www.wiltshire.gov.uk/index/transport/publications.htm

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CHAPTER 8: CONCLUSION

8.1 This report has not highlighted any new areas of concern with regard to the air quality objectives.

8.2 The AQMA's in Bradford on Avon and Westbury still remain and the production of an Action Plan is currently underway.

Abbreviations and Glossary

Abbreviations

AQMA	Air Quality Management Area
BAM	Beta Attenuation Monitor
NO	nitrogen monoxide, also termed as nitric oxide
NO_2	nitrogen dioxide
NO_x	nitrogen oxides
PM_{10}	particulate matter with an (equivalent aerodynamic) diameter of ten microns (10 μm) or less
SO_2	Workplace Analysis Scheme for Proficiency

Glossary

Air Quality Objective	Policy targets generally expressed as a maximum ambient concentration to be achieved, either without exception or with a permitted number of exceedences within a specified timescale.
Annual mean	The average of the concentrations measured for each pollutant for one year. In the case of the Air Quality Objectives this is for a calendar year.
AQMA	Air Quality Management Area, an area where a local authority has designated for action, based upon predicted exceedences of Air Quality Objectives.
Chemiluminescence	The emission of absorbed energy as light during a chemical reaction. The measurement of the light emitted can give a measure of the concentration of one of the reactants if the other one is known.
exceedence	A period of time where the concentration of a pollutant is greater than the appropriate Air Quality Objective.
Microgramme (μg)	One millionth of a gramme.

Mg/m^3 milligrammes per cubic meter of air. A unit for describing the concentration of air pollutants in the atmosphere, as a mass of pollutant per unit volume of clean air. This unit is one thousand times larger than the $\mu g/m^3$ unit listed below.

$\mu g/m^3$ microgrammes per cubic meter of air. A measure of concentration in terms of mass per unit volume. A concentration of 1 $\mu g/m^3$ means that one cubic meter of air contains one microgram (millionth of a gram) of pollutant.