

Ashford Borough Council

May 2010



2010 Air Quality Progress Report for

Ashford Borough Council

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

Date: May 2010

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Executive Summary

Part IV of the Environment Act 1995 places a statutory duty on local authorities to review and assess the air quality within their area and take account of Government Guidance when undertaking such work. This Progress Report is a requirement of the Fourth Round of Review and Assessment and is a requirement for all local authorities. The report is submitted within the permitted schedule of reporting, following the extension granted by Defra to allow inclusion of the 6-month M20 J10 monitoring study - end of May 2010. The Report has been undertaken in accordance with the Technical Guidance LAQM.TG (09) and associated tools (as updated in 2010).

This Progress Report considers all new monitoring data and assesses the data against the Air Quality Objectives. It also considers any development changes that may have an impact on air quality as well as updating on any relevant strategy and policy changes.

Having considered the latest monitoring data and development updates, it is concluded that the air quality objectives for benzene, 1, 3-butadiene, carbon monoxide, lead, PM₁₀ and sulphur dioxide will be met. There is no requirement to undertake a detailed assessment for these pollutants.

Moreover, in 2009 there were no exceedences of the annual mean nitrogen dioxide objective, identified through passive diffusion tube monitoring, near Junction 10 of the M20 at the location relevant of public exposure. A 6-month monitoring programme at this location using a continuous chemiluminescent monitor has also confirmed that the annual mean objective is not breached at this location, once annualised to allow for the limited period of monitoring.

A 6-month period of NO₂ diffusion tube monitoring at junctions along the A292 Ashford circular road system (which was subject to a new traffic management scheme implemented in November 2007) has also indicated that the NO₂ annual mean objective is likely to be met, after adjusting for the limited monitoring period.

Therefore, there is no need for a Detailed Assessment at this stage.

Proposed actions arising from this Progress Report are as follows:

- Continue with current continuous automatic monitoring programme for NO₂ at Lees Rd, near J10 M20, to collate a full year of data and confirm compliance with the annual mean objective;
- Continue with NO₂ diffusion tube monitoring at junctions along the A292 Ashford circular to collate a full year of data and confirm compliance with the annual mean objective;
- Progress to a 2011 Annual Progress Report, to be completed by April 2011.

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1 Introduction

1.1 Description of Local Authority Area

The largest borough in Kent, Ashford has a fast-growing population which has more than trebled in the last 40 years to around 112,000 residents. Designated by the Government as a growth area, a £2.5 billion investment programme is under way to provide 31,000 new homes and 28,000 jobs by 2031. Although the urban area of Ashford is expanding, much of the borough is rural in character, including protected areas such as Romney Marsh, the North Downs and the High Weald.

The main source of air pollution in the borough is road traffic emissions from major roads, notably the M20, A20, A28 and A292. Other pollution sources, including commercial, industrial and domestic sources, also make a contribution to background pollution concentrations.

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 microgrammes per cubic metre $\mu\text{g}/\text{m}^3$ (for carbon monoxide the units used are milligrammes 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 $\mu\text{g}/\text{m}^3$ | Running annual mean | 31.12.2003 |
| | 5.00 $\mu\text{g}/\text{m}^3$ | Running annual mean | 31.12.2010 |
| 1,3-Butadiene | 2.25 $\mu\text{g}/\text{m}^3$ | Running annual mean | 31.12.2003 |
| Carbon monoxide | 10.0 mg/m^3 | Running 8-hour mean | 31.12.2003 |
| Lead | 0.5 $\mu\text{g}/\text{m}^3$ | Annual mean | 31.12.2004 |
| | 0.25 $\mu\text{g}/\text{m}^3$ | Annual mean | 31.12.2008 |
| Nitrogen dioxide | 200 $\mu\text{g}/\text{m}^3$ not to be exceeded more than 18 times a year | 1-hour mean | 31.12.2005 |
| | 40 $\mu\text{g}/\text{m}^3$ | Annual mean | 31.12.2005 |
| Particles (PM ₁₀) (gravimetric) | 50 $\mu\text{g}/\text{m}^3$, not to be exceeded more than 35 times a year | 24-hour mean | 31.12.2004 |
| | 40 $\mu\text{g}/\text{m}^3$ | Annual mean | 31.12.2004 |
| Sulphur dioxide | 350 $\mu\text{g}/\text{m}^3$, not to be exceeded more than 24 times a year | 1-hour mean | 31.12.2004 |
| | 125 $\mu\text{g}/\text{m}^3$, not to be exceeded more than 3 times a year | 24-hour mean | 31.12.2004 |
| | 266 $\mu\text{g}/\text{m}^3$, not to be exceeded more than 35 times a year | 15-minute mean | 31.12.2005 |

1.4 Summary of Previous Review and Assessments

Between 1998 and 2001, Ashford Borough Council undertook its first round of review and assessment of air quality. The first round assessments (Stages 1, 2 and 3) concluded that it was not necessary to declare any Air Quality Management Areas (AQMA) for any pollutant.

The first phase of the second round of review and assessment, the Updating and Screening Assessment (USA), was completed in May 2003 and this provided an update with respect to air quality issues within the borough since the previous round. The USA concluded that a detailed assessment was required for particulates (PM₁₀) due to road traffic emissions from the M20 between Junctions 9 & 10. The highest predicted levels were identified at receptors 25 m south of the M20, near Canterbury Road. The Detailed Assessment (April 2004) concluded that the objectives would in fact be met at relevant receptors near the M20 and no AQMA declaration was required.

The third round of review and assessment, undertaken between 2006 and 2008, concluded that all prescribed objectives would be met and no detailed assessment was required. Therefore, no AQMA was declared.

The first phase of the fourth round of review and assessment (USA 2009), concluded that the air quality objectives for benzene, 1, 3-butadiene, carbon monoxide, lead, PM₁₀ and sulphur dioxide would be met. However, the USA identified exceedences of the annual mean NO₂ objective in 2008 as follows:

- at one location in Lees Road, near the M20 J10 (identified through Passive diffusion tube monitoring);
- At a kerbside location in Canterbury Road (identified through passive diffusion tube monitoring), where there was no relevant exposure. This site was re-located in 2008 to a relevant receptor location in Gore Court;
- On the basis of DMRB modelling, annual mean NO₂ concentrations were predicted to be above 36 µg/m³ (but met the objective of 40µg/m³) at three locations, such as to warrant further investigation. These locations were junctions of the A292 Somerset Road with North Street, Wellesley Road and New Street.

At the time of the USA, proposals by the Highway Agency to build a new junction 10A (as the capacity of J10 is insufficient to enable further major development in the southeast part of Ashford) had not been finalised. Also, proposals to address 'operation stack' (when the police use the M20 for parking HGVs when there is a problem at the Port of Dover) were unclear. Therefore, Ashford Borough Council did not consider it prudent to proceed to a detailed assessment on the basis of the marginal NO₂ annual mean exceedence in Lees Road, but instead established a continuous NO₂ analyzer in the locality.

In addition, since the USA 2009, Ashford Borough Council has undertaken additional monitoring of NO₂ using passive diffusion tubes at relevant receptor locations at junctions along the A292 Ashford circular where DMRB model predictions in 2008 were above 36µg/m³.

2 New Monitoring Data

2.1 Summary of Monitoring Undertaken

This section provides details of monitoring carried out in 2009, the year covered by this report. The changes in the monitoring sites since the year 2008 (as reported in the USA 2009) are as follows:

- Re-location of the Ashford School Roadside continuous analyzer (measuring NO_2 , O_3 and PM_{10}) and passive diffusion tubes to Ashford Background (in East Hill), to more accurately reflect relevant exposure;
- Temporary automatic NO_2 monitoring near Junction 10 M20 (Lees Rd) for a 6-month period between 1/11/2009 – 11/5/2010;
- Installation of three new NO_2 diffusion tubes at junctions along the A292 Ashford circular, following on from DMRB modelling predictions which highlighted the risk of approaches to the annual mean NO_2 objective at these locations.

2.1.1 Automatic Monitoring Sites

Figure 2.1. Ashford Background (Ashford School) Continuous Analyzer

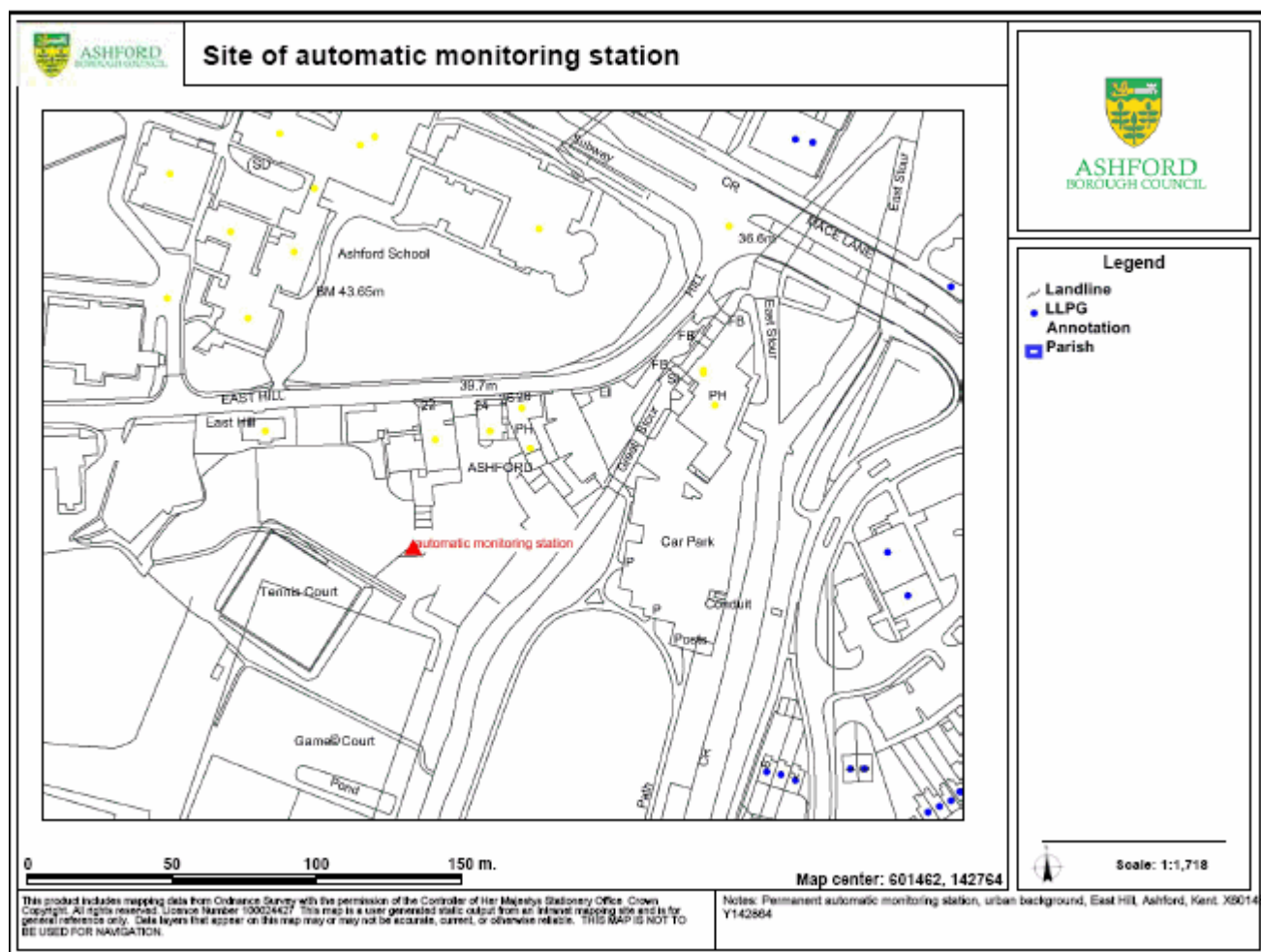
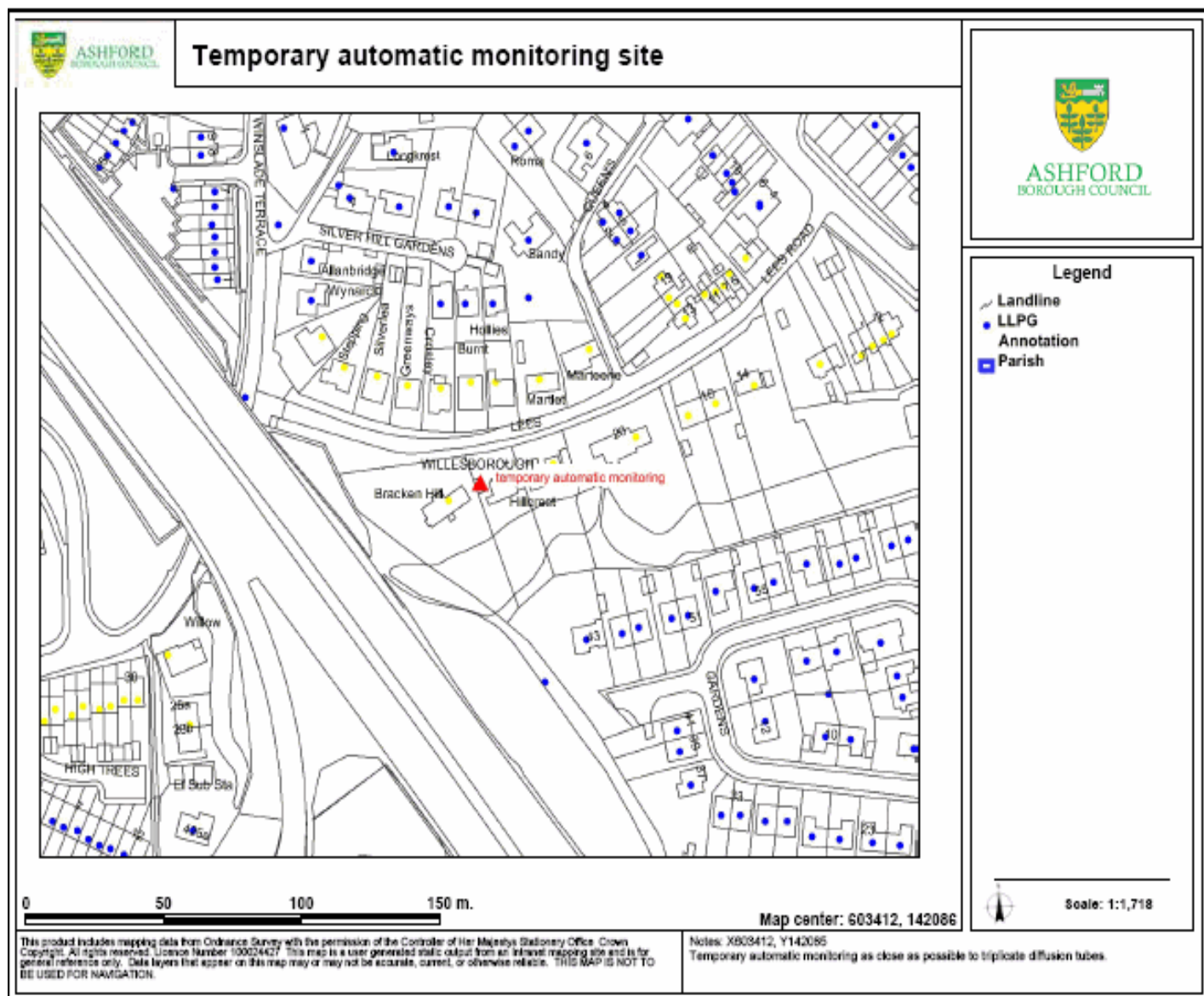


Figure 2.2. Ashford M20 (Lees Road) Background Continuous Analyzer



There is currently automatic monitoring of NO₂ (using a chemiluminescent analyser) , PM₁₀ (using a Tapered Element Oscillating Microbalance (TEOM)) and ozone undertaken at the Ashford Background (Ashford School) site, which commenced in September 2008, when it was relocated from its former location at the nearby roadside site. The station is owned by the Kent and Medway Air Quality Monitoring Network (KMAQMN) and managed by current network managers AEA. The Council calibrates the site every two weeks. There are triplicate NO₂ diffusion tubes co-located at the site, which can provide co-location data for calculation of the bias adjustment factor.

The Quality Assurance/Quality Control (QA/QC) procedures for the KMAQMN are equivalent to the UK Automatic Urban and Rural Network (AURN) procedures with the exception of the following:

- Calibration of NO_x analysers with NO gas (AURN also use NO₂)
- Data checks are done once daily and downloads are done twice daily (AURN are hourly)
- Independent audits of the stations are undertaken annually (AURN are 6 monthly).

There is also a continuous monitoring site (for NO₂ only) at a property on Lees Road, near J10 of the M20. This site was installed on a 6-month basis to verify the NO₂ passive diffusion tube measurements at this site. This site was chosen as the closest possible to the triplicate diffusion tubes on the neighbouring property. The automatic monitoring and passive monitoring are set at an equivalent height.

Table 2.1 Details of Automatic Monitoring Sites

| Site Name | Site Type | OS Grid Ref (X, Y) | 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? |
|-------------------------------------|---------------------|-----------------------|---|--|-------------|--|--|---|
| Ashford School Background | Urban Background | X=601431, Y=142735 | O ₃ , NO ₂ , PM ₁₀ | Chemiluminescent (NO ₂) ultra violet absorption (O ₃) TEOM (PM ₁₀) | No | Y-0m | N/A | No |
| Ashford M20 (Lees Rd) Background | Urban background | X=603412 Y=142085 | NO ₂ | Chemiluminescent | No | Y-0m | N/A | No |

2.1.2 Non-Automatic Monitoring

Outside the continuous monitoring network, Ashford Borough Council undertook monitoring at 14 NO₂ diffusion tubes sites in 2009. The diffusion tubes are supplied and analysed by Harwell Scientifics utilising the 50% Triethanolamine (TEA) in acetone preparation method. Harwell Scientifics participate in the Workplace Analysis Scheme for Proficiency (WASP: see Appendix A) for NO₂ diffusion tube analysis and the Annual Field Inter-Comparison Exercise. These provide strict performance criteria for participating laboratories to meet, thereby ensuring NO₂ concentrations reported are of a high calibre. The lab follows the procedures set out in the Harmonisation Practical Guidance.

With regard to the application of a bias adjustment factor for the diffusion tubes, the technical guidance LAQM.TG (09) and Review and Assessment Helpdesk recommends use of a local bias adjustment factor where available and relevant to diffusion tube sites. Ashford Borough Council has a background site co-location study, which is not considered as representative of the diffusion tube sites, typically roadside or façade-based, in the area. Therefore, the bias factor has been incorporated into the Review and Assessment Helpdesk spreadsheet of national comparison studies to derive a bias-adjustment factor for 2009 of 0.81 (<http://www.uwe.ac.uk/aqm/review/mguidance.html>) (see data in Appendix A). This was 0.8 in 2008, and 0.803 for 2007.

Figure 2.3. Map of Non-Automatic (Passive Diffusion Tube) Monitoring Sites: North of Ashford Town Centre

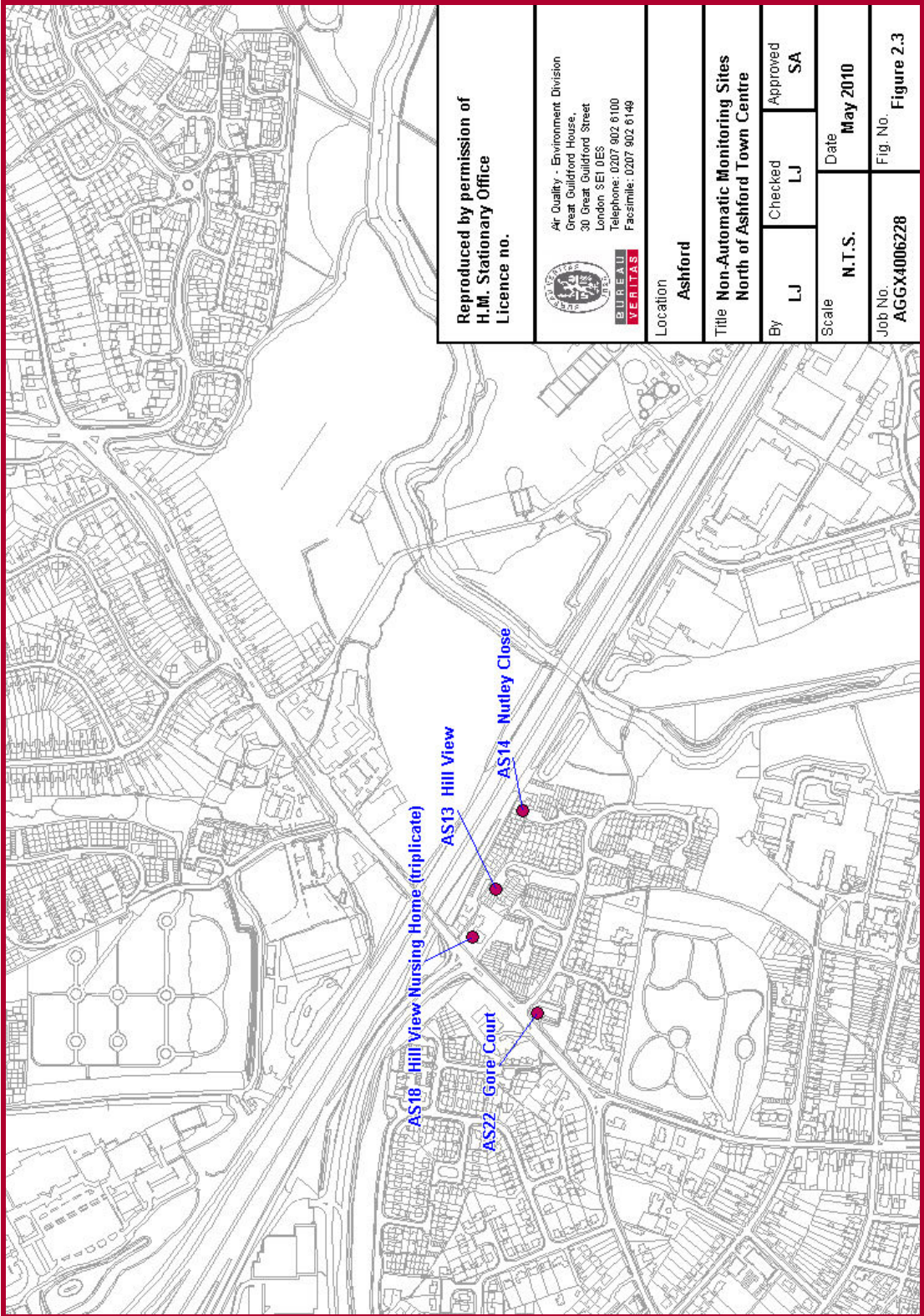


Figure 2.4. Map of Non-Automatic (Passive Diffusion Tube) Monitoring Sites: Ashford Town Centre

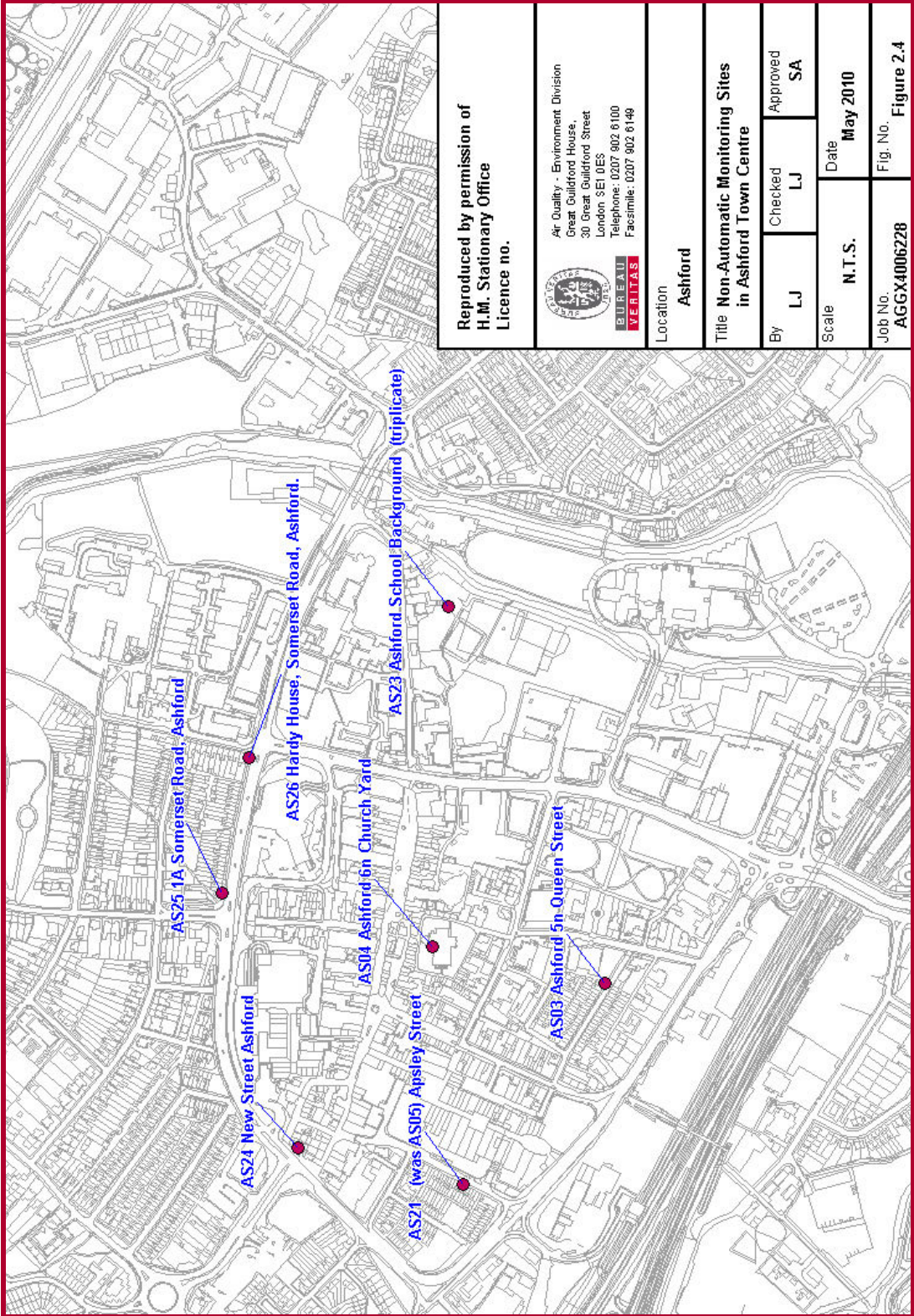


Figure 2.5. Map of Non-Automatic (Passive Diffusion Tube) Monitoring Sites: Near Junction 10 M20

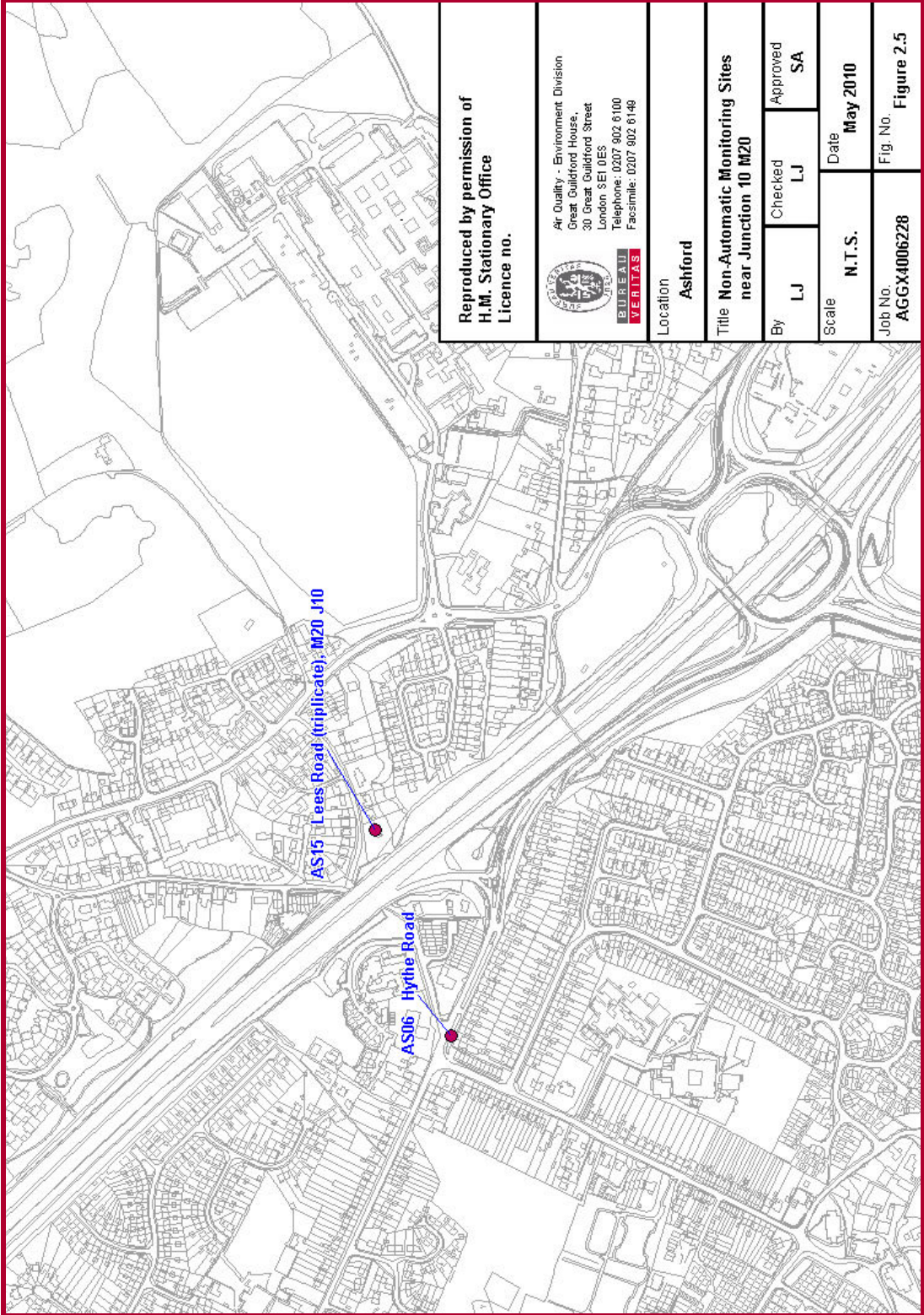


Figure 2.6. Map of non-automatic (Passive Diffusion Tube) monitoring site: Tenterden

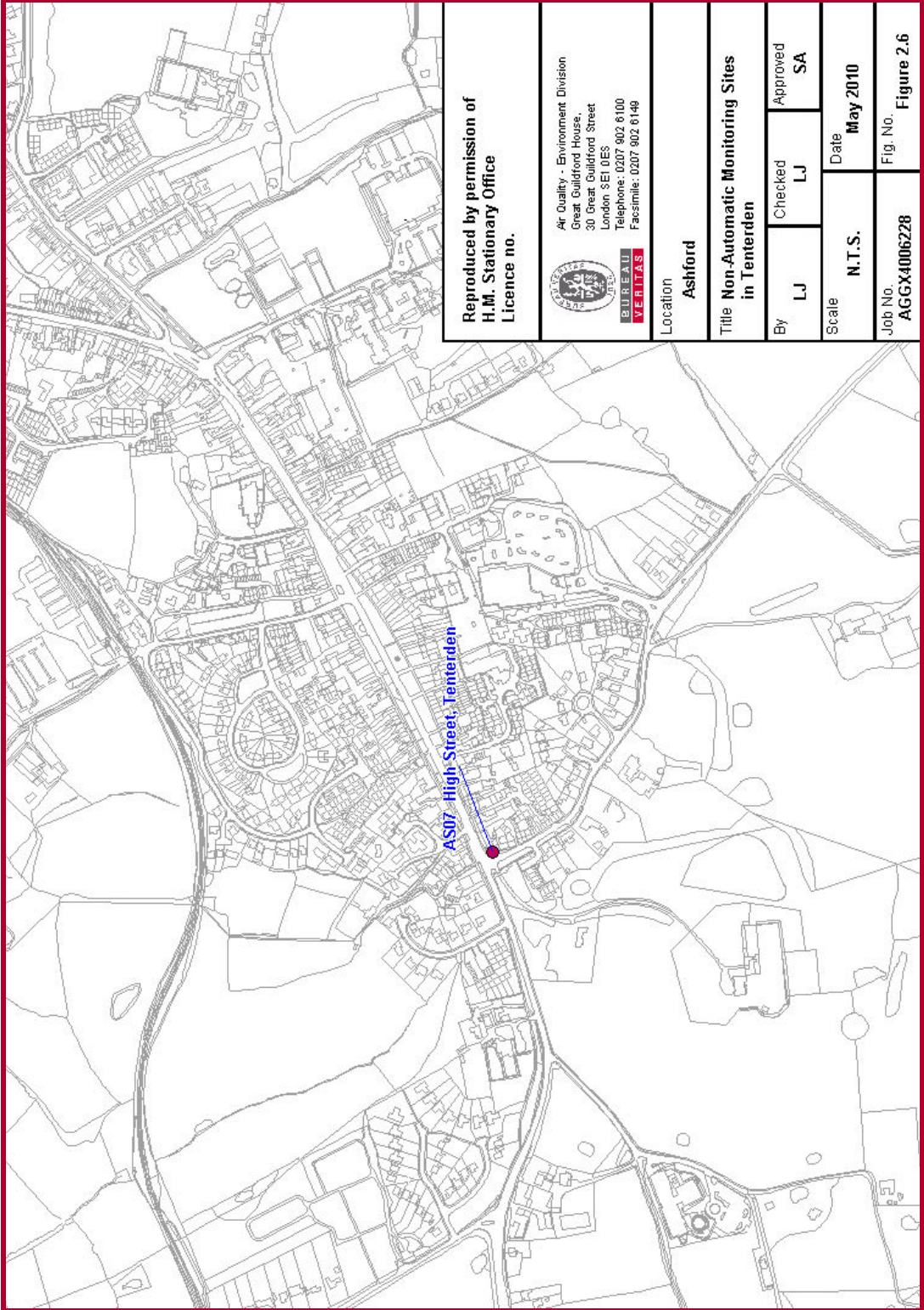


Table 2.2 - Details of Non- Automatic (Passive Diffusion Tube) Monitoring Sites

| Site Name | 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? |
|---|------------|--------------------|--------|----------------------|----------|---|--|----------------------|
| AS03 Ashford 5n Queen Street | Roadside | 600976 | 142547 | NO ₂ | No | Y – in line with facade | 3 m | No |
| AS04 Ashford 6n Church Yard | Background | 601021 | 142754 | NO ₂ | No | N | N/A | No |
| AS06 Hythe Road | Roadside | 603153 | 141990 | NO ₂ | No | Y-6 m | 2 m | No |
| AS07 High Street, Tenterden | Roadside | 587945 | 133079 | NO ₂ | No | N | 8 m | No |
| AS13 Hill View | Façade | 601367 | 143541 | NO ₂ | No | Y-0 m | 45 m | No |
| AS14 Nutley Close | Façade | 601460 | 143509 | NO ₂ | No | Y-0 m | 22 m | No |
| AS15 Lees Road (triplicate), M20 J10 | Façade | 603401 | 142081 | NO ₂ | No | Y-0 m | 30 m (M20) | No |
| AS18 Hill View Nursing Home (triplicate) | Façade | 601309 | 143569 | NO ₂ | No | Y-0 m | 16.5 m | No |
| AS21 (was AS05) Apsley Street | Façade | 600734 | 142717 | NO ₂ | No | Y-0 m | 3.5 m | No |
| AS22 Gore Court | Façade | 601218 | 143491 | NO ₂ | No | Y-0 m | 11 m | No |
| AS23 Ashford School Background (triplicate) | Background | 601431 | 142735 | NO ₂ | No | Y-0 m | N/A | No |
| AS24 New Street Ashford | Roadside | 600778 | 142915 | NO ₂ | No | N | 10m | No |
| AS25 1A Somerset Road, Ashford | Roadside | 601085 | 143007 | NO ₂ | No | Y- 0m | 2.5m | Yes |
| AS26 Hardy House, Somerset Road, Ashford. | Roadside | 601249 | 142975 | NO ₂ | No | Y -1.8m | 3.5 m | Yes |

2.2 Comparison of Monitoring Results with Air Quality Objectives

2.2.1 Nitrogen Dioxide

Automatic Monitoring Data – Ashford School Background

The 2009 data show no exceedences of the nitrogen dioxide objectives at the Ashford School background automatic monitoring site (Tables 2.3a and b). The data capture for 2009 was above the recommended 90%, and therefore there was no need for annualisation.

Table 2.3a Results of Automatic Monitoring at Ashford School Background for Nitrogen Dioxide: Comparison with Annual Mean Objective

| Site ID | Location | Within AQMA? | Data Capture for monitoring period % | Data Capture for full calendar year 2009 % | Annual mean concentrations ($\mu\text{g}/\text{m}^3$) | | |
|---------|---------------------------|--------------|--------------------------------------|--|---|------|------|
| | | | | | 2007 | 2008 | 2009 |
| ZA3 | Ashford School Background | No | 94 | 94 | - | 24* | 21 |

* Annualised data from USA 2009; 27% data capture.

Table 2.3b Results of Automatic Monitoring at Ashford School Background for Nitrogen Dioxide: Comparison with 1-hour Mean Objective

| Site ID | Location | Within AQMA? | Data Capture for monitoring period % | Data Capture for full calendar year 2009 % | Number of Exceedences of hourly mean ($200 \mu\text{g}/\text{m}^3$) | | |
|---------|---------------------------|--------------|--------------------------------------|--|---|------|------|
| | | | | | 2007 | 2008 | 2009 |
| ZA3 | Ashford School Background | No | 94 | 94 | - | 0 | 0 |

Automatic Monitoring Data – Ashford M20 J10 Background

The 2009 data (after annualisation) show no exceedences of the annual mean nitrogen dioxide objective at the Ashford M20 J10 background automatic monitoring site (Table 2.3c). The monitoring programme covered a 6 –month period; therefore, annualisation was carried out on the data following the procedure set out in LAQM.TG(09) and summarised in Appendix A.

Table 2.3c Results of Automatic Monitoring at Ashford M20 for Nitrogen Dioxide: Comparison with Annual Mean Objective

| Site ID | Location | Within AQMA? | Monitoring period | Data Capture % | Period mean concentration ($\mu\text{g}/\text{m}^3$) | Annualised mean concentration ($\mu\text{g}/\text{m}^3$) | Number of Exceedences of hourly mean (200 $\mu\text{g}/\text{m}^3$) |
|-----------------------------------|----------|--------------|-----------------------|----------------|--|--|--|
| Ashford M20 J10 background | Lees Rd | No | 1/11/2009 – 11/5/2010 | 55% | 39.6 | 33.4 | 0 |

*Short-term data has been annualised to compare against the AQ objectives, using average annualisation factor of 0.81.

Diffusion Tube Monitoring Data

The nitrogen dioxide diffusion tube data are summarised in Table 2.4. The full dataset (monthly mean values) are included in Appendix B.

The 2009 diffusion tube results shows no site exceeding the annual mean NO_2 objective. The only site approaching the annual mean objective is found at Lees Rd near J10 of the M20 – $38.4\mu\text{g}/\text{m}^3$. This is lower than with the diffusion tube monitoring carried out in 2008, where a breach of the annual mean objective was monitored at this location (as reported in the USA 2009). However, annual mean NO_2 concentrations measured at this location using passive diffusion tubes are higher than the annualised NO_2 concentrations measured using the continuous analyser (Table 2.3c), suggesting possible over read of the corrected diffusion tube data.

Due to the uncertainties regarding on-going traffic management along the M20 near Junction 10, it is recommended that NO_2 monitoring (both continuous and passive) be continued at this location, although there is no need at present to proceed to a Detailed Assessment.

Table 2.4 Results of Nitrogen Dioxide Diffusion Tubes

| Site ID | Location | Within AQMA? | Data Capture for full calendar year 2009 ^b % | Annual mean concentrations (µg/m ³) | | |
|-----------|--|--------------|---|--|---|--|
| | | | | 2007 ^{c, d} Bias adjustment factor 0.803 | 2008 ^{c, d} Bias adjustment factor 0.80 | 2009 ^c Bias adjustment factor 0.81 |
| AS03 | Queen Street | N | 100 | 25 | 24 | 20.5 |
| AS04 | Church Yard | N | 100 | 22 | 21 | 19.0 |
| AS06 | Hythe Road | N | 100 | 35 | 36 | 32.4 |
| AS07 | High Street, Tenterden | N | 100 | 30 | 29 | 27.4 |
| AS13 | Hill View | N | 100 | 29 | 27 | 25.1 |
| AS14 | Nutley Close | N | 100 | 32 | 28 | 25.5 |
| AS15 – 17 | J10 M20 Lees Road (triplicate) | N | 100 | 39 | 43 | 38.4 |
| AS18 – 20 | Hill View Nursing Home (triplicate) | N | 100 | 32 | 32 | 28.9 |
| AS21 | Apsley Street | N | 100 | N/A | N/A | 22.9 |
| AS22 | Gore Court | N | 100 | N/A | 37 | 32.3 |
| AS23 – 25 | Ashford School background (triplicate) | N | 100 | N/A | 24* | 18.4 |
| AS24 | New Street A292 | N | 58 | N/A | N/A | 24.2* |
| AS25 | 1A Somerset Rd A292 | N | 58 | N/A | N/A | 29.8* |
| AS26 | Hardy House A292 | N | 42 | N/A | N/A | 33.8* |

*Less than 9 months data capture. Annualisation undertaken using seven background sites in the Kent & Medway air quality monitoring network) as shown in Appendix A.

2.2.2 PM₁₀

The 2009 results (Table 2.5) show that the PM₁₀ objectives are continuing to be met at the Ashford School Background site. Data for the years 2008 and 2009 have been fully ratified. Data for 2008 and 2009 are VCM corrected. Data capture for 2009 was more than 90% and therefore there was no need for annualisation.

Table 2.5 Results of PM₁₀ Automatic Monitoring: Comparison with Annual Mean Objective

| Site ID | Location | Within AQMA? | Data Capture for full calendar year 2009 % | Annual mean concentrations (µg/m ³) | | |
|---------------------------|-----------|--------------|--|---|------|--|
| | | | | 2007 | 2008 | 2009 (VCM corrected) |
| Ashford School background | East Hill | No | 96 | - | 20 | 18 3 days when 24 hour mean exceeded 50 µg/m ³ |

2.2.3 Ozone (O₃)

Continuous monitoring of O₃ is undertaken by Ashford Borough Council at the Ashford School Background monitoring site. Data have been taken from the Kent & Medway Air Quality Monitoring Network. Ozone is a transboundary pollutant; the sources of ozone are frequently spatially distant from the measured site of the concentrations. This pollutant is not a prescribed air quality objective for LAQM.

The results from 2009 indicate the objective for ozone is being met.

Table 2.6 Results of Automatic Monitoring for ozone: Comparison with Objective

| Location | Within AQMA? | Description | % Data capture 2009 | 2007 | 2008 | 2009 |
|--------------------|--------------|---|---------------------|------|------|------|
| Ashford Background | No | Maximum 8-hour running mean > 100 µg/m ³ | 90 | - | 0 | 7 |

2.3 Summary of Compliance with AQS Objectives

Ashford Borough Council has examined the results from monitoring in the borough. Concentrations measured in 2009 are all below the objectives, therefore there is no need to proceed to a Detailed Assessment.

Ashford Borough Council has examined the 2009 results from monitoring in the borough. Concentrations are all below the objectives, therefore there is no need to proceed to a Detailed Assessment.

3 New Local Developments

3.1 Road Traffic Sources

Transformation of Ashford's Ring Road

Ashford Shared Space won the 2009 Street design Award for Highways. Previously, pedestrian access to the town centre was severely limited by the busy Ring Road which surrounded it. A multi-million pound scheme has been implemented to improve the appearance and character of the town centre, involving alteration to the Ring Road and creating a 'shared space' in the town centre.

The 'shared space' principle allows motor vehicles, pedestrians and cyclists to occupy the same space and create safer environments, with reduced speeds. 'Shared space' seeks to change the mental maps that drivers create and alert them to a different environment in which pedestrians and cyclists have equal priority. The keys to this are low speeds, a narrow carriageway and the removal of the typical visual clues for drivers, such as information signs and pedestrian guard railing. The 'shared space' philosophy builds on the work of Hans Monderman in Holland and has been used in changes recently completed in Kensington High Street.

The old Ring Road has been 'broken up' and converted into a series of quality streets. Kent County Council, as a member of the Ashford's Future partnership, was responsible for arranging the work to convert the road to two-way traffic and progressively resurface it with higher quality materials.

In addition to changing the traffic flow from one-way to two-way, there has been creation of:

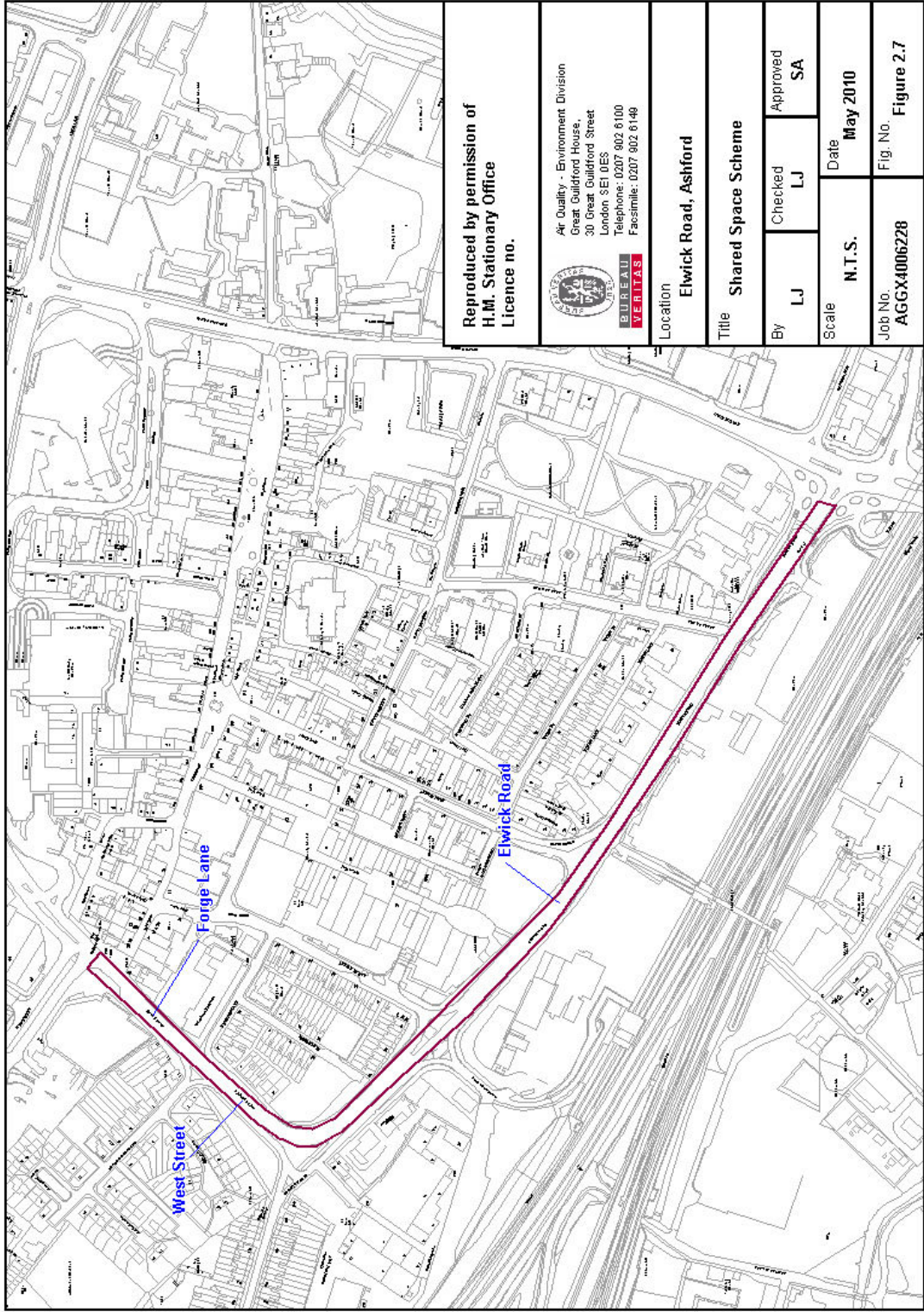
- a new Elwick Street
- a new Elwick Square
- an improved Bank Street
- a West Street 'pocket park' between the carriageways.
- Reducing speeds to 20mph or less and narrowing the carriageway will result in better sharing of road space between pedestrians and drivers.

The new-look Bank Street re-opened in August 2008 and work has now been completed along Elwick Road and West Street, including improved paving and street furniture and a 20mph zone to increase safety (Figure 2.7).

Further phases will be implemented in conjunction with progress on Victoria Way and Park and Ride that will reduce the need for traffic to enter the town centre. Ultimately this scheme will provide an attractive place for residents, businesses and visitors, stimulating growth and opening up the town centre.



Figure 2.7. Shared Space Scheme: Elwick Road to Forge Lane

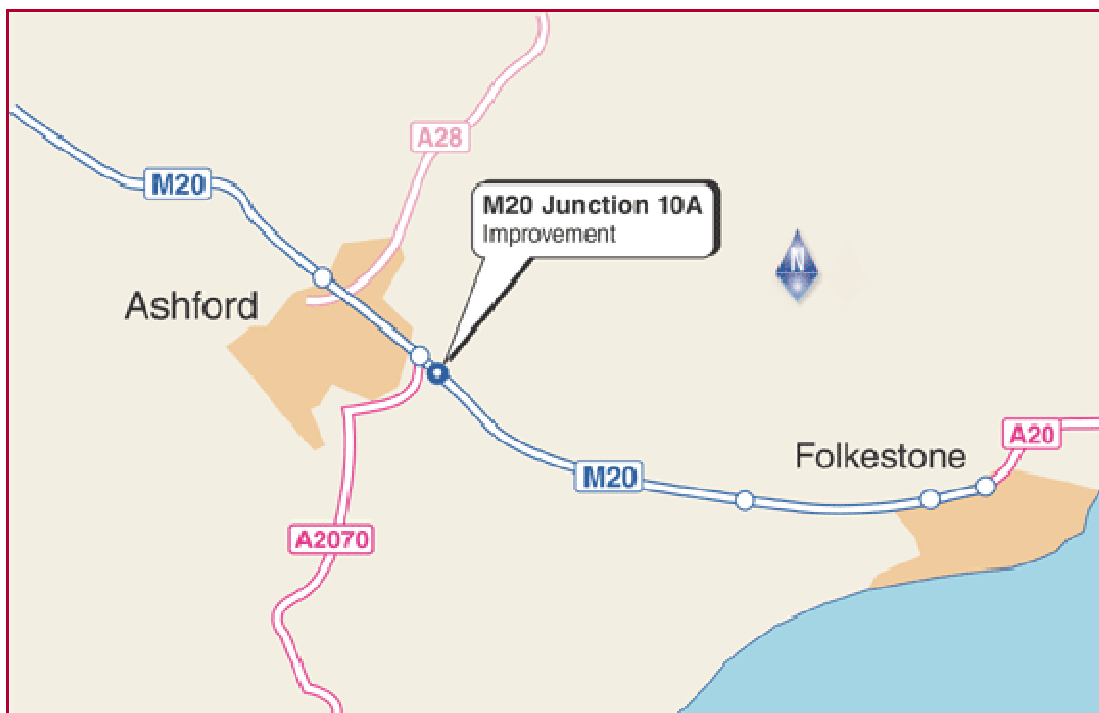


The impact of these town centre traffic management changes on air quality have been measured using the three new diffusion tube locations at junctions along the A292. The data available so far (as described in this Progress Report) for a 6-month period indicate no exceedences of the NO₂ statutory annual mean air quality objective.

Plans for a New M20 Junction at Ashford

Details of a key scheme to allow for major economic growth in the Ashford area by increasing capacity on the M20 through Kent have now been published. A new junction 10A – east of the existing junction 10 – will improve journey time reliability and safety for both long distance and local traffic on the M20, a key international route.

Figure 3.1 Map of location of new M20 Junction 10A



It will also provide the increased capacity needed to unlock major development and investment in Ashford, including Government plans for 31,000 new homes and 28,000 new jobs in the area by 2031.

Following public consultation, the planned improvements will include a roundabout over the M20, link roads and a new crossing for pedestrians and cyclists.

The new junction is expected to open up developments to the east of Ashford including Cheeseman's Green, Waterbrook and Sevington, enabling approximately 5,000 new homes and 3,000 new jobs to be created.

Following public consultation held between June 2008 and September 2008, the Highways Agency is publishing its 'preferred route' for the new junction. Of the three options originally put forward, the preferred route is Option A, a new roundabout over the M20.

Option A includes link roads to the A2070 Bad Munstereifel Road. The A20 Hythe Road would be incorporated into the new junction and a new crossing for pedestrians and cyclists.

As well as reducing congestion on the M20 and at junction 10 by helping to segregate long distance traffic from local traffic, junction 10A would improve journey time and road safety, and reduce noise levels for residents near the A2070, close to junction 10.

The Highways Agency will now carry out further surveys and detailed design of the junction improvement scheme in preparation for an application to the Infrastructure Planning Commission in late 2011.

Subject to the completion of statutory processes and confirmation of value for money and funding, the new junction could be open for traffic in 2014/15.

In terms of assessing potential impacts on air quality, it is recommended that continuous and diffusion tube monitoring at the Ashford M20 Lees Rd sites should continue.

3.2 Other Transport Sources

The electrification of the rail -line between Hastings and Ashford will allow high speed services to be extended to Hastings. However, this has no air quality implications within the borough of Ashford.

Ashford Borough Council confirms that there are no other newly identified or newly implemented other transport sources, which may have an impact on air quality within the Local Authority area.

3.3 Industrial Sources

Ashford Borough Council confirms that there are no new or newly identified industrial sources (either under the LAPC regime or EP Regulations) which may have an impact on air quality within the Local Authority area.

3.4 Commercial and Domestic Sources

Ashford Borough Council confirms that there are no new or newly identified commercial or domestic sources which may have an impact on air quality within the Local Authority area.

3.5 New Developments with Fugitive or Uncontrolled Sources

Ashford Borough Council confirms that there are no new or newly identified fugitive or uncontrolled sources which may have an impact on air quality within the Local Authority area.

4 Local / Regional Air Quality Strategy

Ashford Borough Council does not have a Local Air Quality Strategy, but works in partnership with Kent County Council and the Kent and Medway district authorities through the Kent & Medway Air Quality Partnership on air quality issues across Kent.

Kent County Council, in partnership with Kent local authorities, has produced a Regional Environment Strategy¹, which considers air quality issues county-wide and includes objectives relevant to air quality:

- Meeting National Air Quality Objectives
- Reducing the impact on environmental health
- Planning new development appropriately
- Tackling transboundary pollution

The Kent Environment Strategy Progress Report (2007) provides an update with respect to progress with actions relating to air quality, as shown below:

- Despite reductions in some air pollutants, overall air quality in Kent is showing no clear improvement;
- Long-standing problems have been exacerbated by traffic growth, increased ozone pollution from distant sources and extreme weather such as heat waves which are becoming more likely as a result of global warming;
- The identification of new Air Quality Management Areas (AQMAs) is an indication of the problem – but only a first step in solving it;
- The effort going into ‘monitoring and action planning’ is still not being matched by ‘implementation’ of actual measures to improve air quality;
- Reducing emissions from HGV and car traffic remains the key challenge to improve air quality.

The Environment Strategy has been revised in 2009 and is awaiting adoption (likely Summer 2010) following consultation.

¹ http://www.kent.gov.uk/environment_and_planning/environment_and_climate_change/kent_environment

5 Planning Applications

A planning application has been received for development proposals in Warren South, (to the North West of the borough) which include a Park and Ride scheme and adjacent housing development. Ashford Borough Council has requested an air quality assessment for the proposed scheme. It is recommended that due consideration be given to this proposed scheme (subject to its status) in the Updating and Screening Assessment 2012.

6 Air Quality Planning Policies

All of Ashford Borough Councils Development Plan Documents (DPDs) include the production of a Sustainability Appraisal (SA) in parallel to the production of the DPD in question. The SA Framework which this local authority uses to assess the sustainability of the evolving policies within each DPD, includes a section on air quality, as well as other cross-cutting topics such as Transport. This ensures that air quality, and the impacts of potential policies on air quality, are considered as part of the planning process.

Ashford Borough Councils Core Strategy has two main policies that are relevant to air quality in the borough. CS10 (Sustainable Design) is reproduced below in its entirety, as it is an innovative policy for a Local Authority Core strategy. Policy CS15, on transport, stresses the need for modal shift and the provision of public transport. This will help manage the impact of traffic movements in an ever developing borough and help manage air quality impact.

POLICY CS10: Sustainable Design and Construction

All major developments must incorporate sustainable design features to reduce the consumption of natural resources and to help deliver the aim of zero carbon growth in Ashford. Unless it can be demonstrated that doing so is not technologically practicable, would make the scheme unviable or impose excessive costs on occupiers, developments are expected to:-

A) Achieve the standard set out below or specified in a later DPD, or an equivalent quality assured scheme, with a strong emphasis on energy, water and materials. These requirements will be met through:

- (a) Energy and water efficiency,
- (b) Sustainable construction materials, and,
- (c) Waste reduction.

B) Reduce carbon dioxide emissions through on-site sustainable energy technologies at the percentage set out below or at such other level as may be specified in a subsequent DPD.

C) Be carbon neutral which can be met through a combination of (A) and (B) above, with any shortfall being met by financial contributions to enable residual carbon emissions to be offset elsewhere in the Borough.

| Ashford LDF 2007 - 2014 | | | | | | |
|-------------------------|--------|----------------------------------|--|--|--|-------------------------------|
| | | | (CS3) Town Centre & (CS4) Brownfield Urban Sites | (CS5) Urban Extensions & (CS4) Greenfield Urban Sites | (CS6) Tenterden, the Villages | Existing and refurbishment |
| (A) | BREEAM | Residential | Code Level 3 | Code Level 4 | Code Level 2 | EcoHomes 'Very Good' |
| | | Overall level | Very Good | Excellent | Good | Very Good |
| | | Energy Credits | Excellent | Excellent | Excellent | Excellent |
| | | Water Credits | Maximum | Maximum | Excellent | Excellent |
| | | Material Credits | Excellent | Excellent | Very Good | Very Good |
| (B) | | Minimum Carbon Dioxide Reduction | | | | |
| | | | 20% | 30% | 10% | 10% |

Where any site is brought forward as two or more separate development schemes of which one or more falls below the relevant threshold for this policy, the Council will require the relevant targets in the above table to be met as though the site had come forward as a single scheme.

The Kent and Medway Air Quality Partnership have produced an Air Quality and Planning Guidance (January 2009) document which is available in draft. The document gives general advice to developers, consultants and local authorities regarding air quality issues with respect to development proposals in Kent. With regard to Air Quality Assessments the guidance recommends that all assessments within Kent should follow similar methodologies. With regard to sustainable transport and travel plans, the guidance recommends that all new developments should make provisions to encourage cycling and walking, and development should be supported by Travel Plans. The Guidance also recommends that car parking should be minimised where developments are located within AQMAs and those close to public transport links. The Air Quality Planning Guidance aims to promote the provision for refuelling of alternative fuels together with installing electric vehicle charging points in car parks, with the aim of promoting the use of cleaner-fuelled vehicles. The guidance also recommends that local authorities seek appropriate funds through Section 106 agreements to help to improve air quality.

7 Local Transport Plans and Strategies

The Final Draft of the Kent County Transport Strategy “Growth without Gridlock” was published in November 2009. The document provides strategies for the whole of Kent, but also some which are directly aimed at transport improvement in Ashford.

Kent wide policies from the Integrated Transport Strategy include the following options for controlling local roads:

- Reallocation of Road Space – to allow more sustainable travel road space will be reallocated to car sharers and bus transit systems.
- Red Routes – status assigned to certain roads during peak periods to reduce loading and parking. The aim of this is to minimise delays on such routes.

Together with improving the road network Kent County Council have suggested schemes which aim to reduce the travel demand. Such schemes included in the Integrated Transport Strategy include:

- Land-use planning
- Mixed use developments
- Park and ride schemes
- Variable parking charges
- Teleworking and broadband access
- Promotion of travel plans for both schools and workplaces
- Improvements to public rights of way and walking/cycling routes
- Improvements in interchanges and travel information

To reduce the pollution from vehicles Kent County Council have suggested the following schemes:

- Low emission zones – this strategy includes charging high emission vehicles during peak periods in urban centres.
- Kent County Council have proposed that they will work with bus operators and taxi firms to bring forward the use of fuel efficient and low emission buses.

Kent County Council have proposed several improvements to the current bus network in order to improve connectivity and promote the use of public transport. The following improvements have been outlined:

- Fastrack bus networks to improve longer bus journeys across the county.
- Inter-urban coach service – to give all towns direct access to public transport
- Local Bus Services – these will operate into the local communities with links to the inter-urban and the fastrack systems
- Improvement to the rural bus network through rural interchange system

The Kent Integrated Transport Strategy for Growth outlines the following key issues for Ashford:

- The development of a Traffic Management Centre (UTMC), as well as extending and upgrading the bus tracking and real-time passenger information system;
- The development of Smartlink – a bus rapid transit system planned for Ashford, which will link the major development areas to the town centre, train station, Park and Ride sites, business parks and the Designer Outlet.
- Development of a network of inter-urban coach services offering direct, fast services along major corridors.

Ashford Borough Council, as part of its Core Strategy, includes a policy on transport CS15. The content of CS15 appears below.

POLICY CS15: Transport

The Council will seek to promote public transport and other non-car based modes of travel especially in the Growth Area. This will be achieved primarily by the early introduction of a bus rapid transport system (SMARTLINK), initially on a two-arm basis but with the aim of extending this to other parts of the town as and when this is feasible, together with parking restraint in areas with good public transport. In addition, a new rail halt is planned at Park Farm and measures to encourage cycling will be promoted.

The Council will also seek the earliest possible implementation of highway and other schemes that would remove serious impediments to growth and/or secure important environmental benefits. These include a new motorway junction (J10A, plans for which have now been announced by Central Government), improvements to increase the capacity of the existing motorway junctions, a new road bypassing the town centre to the south (Victoria Way) and the introduction of Park & Ride schemes.

Within this context, development proposals must show how all highway, public transport, walking and cycling needs arising from the development will be satisfied and provide for the timely implementation of all necessary infrastructure.

Developments that would generate significant traffic movements must be well related to the primary and secondary road network, and this should have adequate capacity to accommodate the development. New accesses and intensified use of existing accesses onto the primary or secondary road network will not be permitted if a materially increased risk of road traffic accidents or significant traffic delays would be likely to result.

In rural areas, proposals which would generate levels of traffic, including heavy goods vehicle traffic, beyond that which the rural roads could reasonably accommodate in terms of capacity and road safety will not be permitted. Where development sites include part of an identified key transport infrastructure route or facility, the land required should be reserved and the scheme designed to accommodate this. Proposals which are likely to prejudice such infrastructure being provided will not be permitted.

The Council's Parking Strategy will be implemented through the designation in DPDs of three Park & Ride facilities at The Warren, Waterbrook and Chilmington Green and the provision of three new, multi-storey car parks in Ashford town centre together with the redevelopment of some existing surface car parks and a parking management plan that will increase car parking charges, particularly for long stay use in the town centre. It is currently envisaged that charges will be doubled in real terms by 2021.

Maximum parking standards will accord with national standards and the South East Plan, except where existing SPG6 applies or where superseded by more restrictive standards in DPDs. In particular, as SMARTLINK and Park & Ride schemes are implemented, maximum parking standards for commercial developments in Ashford town centre will be progressively reduced with the aim of achieving a rate of half of the current PPG13 maximum standard by 2021. In addition, in the other main employment areas that are located on SMARTLINK routes or otherwise have good public transport accessibility, the aim will be to reduce maximum parking levels to 80% of the PPG13 standard. Full details will be set out in the Ashford Town Centre Area Action Plan and other DPDs.

8 Climate Change Strategies

Ashford Borough Council plan to develop a climate change strategy. The Council will also be joining the Carbon Trust's Local Authority Carbon Management Programme in May 2010 and the work on this scheme will inform the future climate change strategy.

Kent County Council Select Committee on Climate Change produced some potential Climate change targets in October 2006. It recommended a Climate Change Action Plan to support the Vision for Kent developed by the Kent Partnership and Kent County Council. The Committee used existing targets in Vision for Kent 2006, Kent Environment Strategy, Local Transport Strategy, South East Plan Kent and Medway Structure Plan as a basis for the climate change strategy. In addition to the transport sources of emissions, indicators and target were proposed to:

- Reduce Kent's Ecological Footprint
- Reduce CO₂ emissions and adopt a 60% reduction by 2050
- Minimise waste growth to zero by 2012
- Promote renewable energy to 20% by 2020; 154mw by 2016
- Efficient land use by preventing physical development which impedes ecosystem processes involved in local and global climate regulation.

The Final Draft of the Kent County Transport Strategy "Growth without Gridlock" (2009) contains a number of strategies aimed at dealing with the issue of Climate Change.

These include:

- Providing alternative forms of transport, such as walking and cycling networks together with cycle hire
- Promoting school and workplace travel plans
- Encouraging vehicle fleet and taxi companies to use low emission vehicles
- Encouraging local businesses and retailers to work in partnership to co-ordinate deliveries
- Reducing the need to travel through land use planning

Delivering a Sustainable Transport System (DaSTS) (2008) is a government document which outlines immediate plans to 2014 and a proposed approach in the longer term. The two DaSTS which relate to climate change are:

- To reduce transport emissions of CO₂ and other Greenhouse gases
- To improve the quality of life for transport users and non-transport users, and to promote a healthy natural environment.

In order to deliver the above two DaSTS Kent County Council is developing the 3rd Local Transport Plan which will include measures to reduce greenhouse gas emissions and ensure that local transport shows resilience against the impacts of climate change.

9 Implementation of Action Plans

Ashford Borough Council has no declared AQMAs. Therefore, there are no Air Quality Action Plans in place.

10 Conclusions and Proposed Actions

10.1 Conclusions from New Monitoring Data

The 6-months annualised continuous monitoring results at a location relevant for public exposure near J10 of the M20 (Lees Rd), showed the annual mean NO₂ air quality objective is being met. Therefore, it is recommended that a full year of data be collated, and monitoring be continued at this location to assess the impact of on-going junction improvements and changes in traffic management in the vicinity and demonstrate compliance with the NO₂ annual mean objective.

The 6-month annualised passive diffusion tube monitoring results at locations along the A292 Ashford circular, showed the annual mean air quality objective for NO₂ would not be breached. However, it is recommended that a full year of data be collated, and monitoring be continued to assess on-going town centre traffic management changes.

Both the NO₂ and PM₁₀ air quality objectives were met in 2009 at the Ashford School Background site. Concentrations of ozone were also monitored at this site and met the objective; however, this pollutant is not prescribed in Regulations for LAQM.

10.2 Conclusions relating to New Local Developments

Significant changes to the road network are proposed at the M20 J10, with a new junction 10A – east of the existing junction 10 – which will improve journey time reliability and safety for both long distance and local traffic on the M20, a key international route. It will also provide the increased capacity needed to unlock major development and investment in Ashford, including Government plans for 31,000 new homes and 28,000 new jobs in the area by 2031. Monitoring is being undertaken at Lees Road, near M20 J10 to assess air quality.

10.3 Proposed Actions

- Continue with current continuous automatic monitoring programme for NO₂ at Lees Rd, near J10 M20, to collate a full year of data and confirm compliance with the annual mean objective;
- Continue with NO₂ diffusion tube monitoring at junctions along the A292 Ashford circular to collate a full year of data and confirm compliance with the annual mean objective;
- Progress to a 2011 Annual Progress Report, to be completed by April 2011.

References

- Local Air Quality Management Technical Guidance LAQM.TG(09). February 2009. Published by Defra in partnership with the Scottish Government, Welsh Assembly Government and Department of the Environment Northern Ireland
- Local Air Quality Management Policy Guidance LAQM.PG(09). February 2009. Published by Defra in partnership with the Scottish Government, Welsh Assembly Government and Department of the Environment Northern Ireland
- Diffusion Tubes for Ambient NO₂ Monitoring: Practical Guidance for Laboratories and Users, Report to Defra and the Devolved Administrations , Feb 2008
- Ashford Borough Council 2009 Updating Screening and Assessment
- Ashford Borough Council 2008 Local Air Quality Management Annual Progress Report
- Ashford Borough Council 2007 Local Air Quality Management Annual Progress Report
- Air Quality and Planning Guidance Consultation Draft. January 2009. Kent and Medway Air Quality Partnership
- Select Committee on Climate Change Report Oct 2006, Kent County Council.
- Ashford Borough Council Core Strategy, July 2008

Appendices

Appendix A: QA:QC Information

Diffusion Tube Bias Adjustment Factors

Diffusion tubes are supplied and analysed by Harwell Scientifics utilising the 50% Triethanolamine (TEA) in acetone preparation method.

Factor from Local Co-location Studies (if available)

Ashford Borough Council has co-location sites at two locations: Ashford School Background since September 2008; and Ashford M20 background since November 2009. The bias adjustment factor of 0.97 from the Ashford School Background site has been incorporated into the Review and Assessment Helpdesk spreadsheet.

Discussion of Choice of Factor to Use

With regard to the application of a bias adjustment factor for the diffusion tubes, the technical guidance LAQM.TG (09) and Review and Assessment Helpdesk² recommends use of a local bias adjustment factor where available and relevant to diffusion tube sites. Ashford Borough Council has a background co-location study, which has been incorporated into the Review and Assessment Helpdesk Spreadsheet. The combined bias adjustment factor for Harwell Scientifics has been used 0.81 (version 310310.xls).

PM₁₀ Monitoring Adjustment

Particulates are monitored by TEOM. Results presented in the Progress Report have been VCM-corrected. The parameters used in producing the corrected data are summarised in Table A.1 below.

² www.uwe.ac.uk/aqm/review

Table A1: VCM Correction Data

| | |
|--|--|
| Site Name | Ashford Background |
| Organisation | |
| Start Date | 01/01/2009 |
| End Date | 01/01/2010 |
| TEOM data already corrected with 1.3 factor | No |
| EPA Constant A | 3 |
| EPA Constant B | 1.03 |
| Instrument Temperature | 25 |
| Instrument Pressure | 1013 |
| Instrument reports to local ambient readings | No |
| Timescale | Daily |
| Pressure Site | Barking and Dagenham - Rush Green (BG1) |
| Pressure Site Warning | |
| Temperature Site | Barking and Dagenham - Rush Green (BG1) |
| Temperature Site Warning | |
| FDMS Site 1 | Bexley - Thames Road North FDMS (BX6) |
| FDMS Site 1 Warning | FDMS1 Correction includes unratified data. |
| FDMS Site 2 | Tower Hamlets - Blackwall (TH4) |
| FDMS Site 2 Warning | FDMS2 Correction includes unratified data. |
| FDMS Site 3 | Average of remaining sites within range |
| FDMS Site 3 Warning | FDMS3 Correction includes unratified data. |

Short-term to Long-term Data adjustment

The Ashford M20 background monitoring site commenced sampling on 1 November 2009, data are available for the period 01/11/09 to 11/05/2010. The annualisation factors are shown in the Table A.2 below.

Three diffusion tube sites had data capture of less than 75%. A summary of the annualisation factors is shown in Table A.3

Table A.2 Nitrogen Dioxide Automatic Data Annualisation Factors

| Site | Site Type | Annual Mean | Period Mean | Ratio |
|----------------|------------|-------------|----------------|-------------|
| Canterbury | Background | 15.78 | 19.21 | 0.82 |
| Thurrock | Background | 27.66 | 31.75 | 0.87 |
| Ashford School | Background | 28.24 | 37.93 | 0.74 |
| Thanet Margate | Background | 20.17 | 23.07 | 0.87 |
| Bexley | Background | 31.03 | 34.48 | 0.90 |
| | | | Average | 0.84 |

QA/QC of automatic monitoring

The Council calibrates the sites every two weeks and ETi services the stations twice per year. The QA/QC procedures for the sites are those of the Kent and Medway Air Quality Monitoring Network (K&MAQMN). The K&MAQMN procedures are equivalent to the UK Automatic Urban and Rural Network (AURN) procedures, with the exception of the following:

- Calibration of NO_x analysers with NO gas (AURN also use NO₂)
- Data checks are done once daily and downloads are done twice daily (AURN are hourly)
- Independent audits of the stations are undertaken annually (AURN are 6 monthly).

K&MAQMN managers AEA ratify the data for these sites.

QA/QC of diffusion tube monitoring

Tube preparation and analysis follows operating procedure HS/WI/1015 (NO₂). Nitrogen dioxide analysis procedures are compliant with the Diffusion Tubes for Ambient NO₂ Monitoring: Practical Guidance for users and laboratories (Feb 2008).

Harwell Scientifics Ltd participate in the AEA inter-comparison and the WASP scheme. In 2009, Harwell was rated as Good in both proficiency schemes.

Table A3: Annualisation of NO₂ diffusion tubes

| Monitoring Location | Site code | Uncorrected diffusion tube period mean concentration | Site annualisation factor | | | | | | | |
|---------------------|-----------|--|---------------------------|------------|----------|---------|----------------|--------|-----------------|---------|
| | | | Sevenoaks Greatness | Canterbury | Thurrock | Ashford | Thanet Margate | Bexley | Swale Sheerness | Average |
| New Street | AS24 | 24.4 | 1.266 | 1.250 | 1.169 | 1.307 | 1.243 | 1.169 | 1.164 | 1.224 |
| 1A Somerset Rd | AS25 | 30.1 | 1.266 | 1.250 | 1.169 | 1.307 | 1.243 | 1.169 | 1.164 | 1.224 |
| Hardy House | AS26 | 34.3 | 1.277 | 1.232 | 1.172 | 1.310 | 1.229 | 1.171 | 1.141 | 1.219 |

Appendix B: Monthly NO₂ Diffusion Tube Measurements 2009

Table B1: Monthly Mean Measurements (µg/m³)

| Site details | Site Code | X | Y | Site type | Jan | Feb | Mar | Apr | May | Jun | July | Aug | Sep | Oct | Nov | Dec | Raw data Average |
|-------------------------------------|-----------|--------|--------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------------------|
| Ashford 5n Queen Street | AS03 | 600976 | 142547 | R | - | 39.2 | 25.6 | 29.1 | 18.7 | 21.5 | 12.6 | 17 | 20.9 | 31.3 | 22.7 | 39.7 | 25.3 |
| Ashford 6n Church Yard | AS04 | 601021 | 142754 | B | 40.5 | 35 | 28 | 24.7 | 14.9 | 15.6 | 11.9 | 14.5 | 17.5 | 25.8 | 18.7 | 34.2 | 23.4 |
| Hythe Road | AS06 | 603153 | 141990 | R | 51.4 | 37.2 | 50.5 | 46.2 | 27.5 | 48.6 | 23.4 | 25.3 | 37.7 | 44.9 | 31 | 56.8 | 40.0 |
| High Street, Tenterden | AS07 | 587945 | 133079 | R | 38.9 | 48.9 | 37.9 | 34.5 | 19.6 | 30.2 | - | 27.2 | 25.6 | 36.1 | 30.2 | 42.4 | 33.8 |
| Hill View | AS13 | 601367 | 143541 | F | 46.4 | 39.2 | 34.9 | 33.8 | 21.2 | 23.3 | - | 19.9 | 31.6 | 29.6 | 25.4 | 35.7 | 31.0 |
| Nutley Close | AS14 | 601460 | 143509 | F | 41.6 | 41.3 | 32.3 | 32.1 | 25 | 31 | 16.9 | 18.2 | 37.7 | 32.3 | 25.8 | 43.5 | 31.5 |
| Lees Road (triplicate), M20 J10 | AS15 | 603401 | 142081 | F | 67 | 44.1 | 47.4 | 46.8 | 40.6 | 38.8 | 49 | 46.9 | 31.7 | 46.4 | 59.5 | 50.7 | 47.4 |
| Hill View Nursing Home (triplicate) | AS18 | 601309 | 143569 | F | 45.9 | 47.4 | 42.3 | 37.4 | 27.5 | 33.7 | 19.4 | 25.5 | 35.5 | 38.3 | 27.4 | 47.8 | 35.7 |
| Apsley Street | AS21 | 600734 | 142717 | F | 43.8 | 42.2 | 33.1 | 31 | 17.9 | 12.2 | 16.8 | 20.8 | 24 | 32.9 | 24.1 | 40.5 | 28.3 |
| Gore Court | AS22 | 601218 | 143491 | F | 43.6 | 50 | 45.6 | 40 | 33 | 34.2 | 30 | 31.1 | 39.5 | 44.4 | 35.7 | 51.4 | 39.9 |
| Ashford School Rural (triplicate) | AS23 | 601431 | 142735 | B | 37.7 | 28.6 | 24.3 | 23.6 | 15.7 | 17.6 | 12.5 | 14.1 | 21 | 26.7 | 19 | 32.2 | 22.8 |
| New Street | AS24 | 600778 | 142910 | R | - | - | - | - | - | 22.8 | 22.8 | 16.2 | 29.2 | 31.9 | 23.3 | - | 24.4 |
| 1A Somerset Rd | AS25 | 601090 | 143011 | R | - | - | - | - | - | 29.9 | 29.9 | 16.2 | 28.6 | 40.2 | 35.8 | - | 30.1 |
| Hardy House | AS26 | 601250 | 142981 | R | - | - | - | - | - | 32.8 | 32.8 | 29.6 | 31.8 | 44.3 | - | - | 34.3 |

* F=Façade; B=Background; R=Roadside.