

**∦ Hounslow** 

# **Local Authority Information**

**Local Authority** The London Borough of Hounslow

Officer to contact Mr Anderson Ramdeen

**Environmental Policy and Projects Officer** 

Contact address Environmental Strategy

Civic Centre Lampton Road Hounslow Middlesex TW3 4DN

Contact phone number 020 8583 5206

Contact email address Anderson.Ramdeen@hounslow.gov.uk or

airpollution@hounslow.gov.uk

Council website <a href="http://www.hounslow.gov.uk">http://www.hounslow.gov.uk</a>

Air quality website <a href="http://www.hounslow.gov.uk/airpollution\_az">http://www.hounslow.gov.uk/airpollution\_az</a>

### TABLE OF CONTENTS

SECTION 1: INTRODUCTION	4
SECTION 2 : PURPOSE OF THE PROGRESS REPORT	6
SECTION 3 : NEW MONITORING RESULTS	7
SECTION 4: NEW LOCAL DEVELOPMENTS	10
SECTION 5 : ADDITIONAL INFORMATION	10
SECTION 6 : CONCLUSIONS	11
APPENDIX 1 : AUTOMATIC AND DIFFUSION TUBE MONITORING SITES	14
APPENDIX 2: PROJECTED MODELLED ANNUAL AVERAGE NO <sub>2</sub> FOR 2005	14
APPENDIX 2: PROJECTED MODELLED ANNUAL AVERAGE NO <sub>2</sub> FOR 2005	15
APPENDIX 3 : NEW MONITORING SITE – HATTON CROSS	16
APPENDIX 5 OBJECTIVES AND DATA CAPTURE	29
APPENDIX 6 – DIFFUSION TUBE DATA: 2005	31
APPENDIX 7 – AIR QUALITY ACTION PLAN PROGRESS REPORT	33

# **Hounslow Air Quality Progress Report 2006**

### **Section 1: Introduction**

Local authorities have various duties with respect to local air quality management (LAQM) and delivering the national objectives set out in the Air Quality Strategy for England, Wales and Northern Ireland, plus associated Regulations. This report takes account of guidance contained in LAQM.PRG (03) "Progress Report Guidance" (Defra, 2003).

The first round of air quality review and assessments lead to the declaration of four Air Quality Management Areas:

- Area 1 Heston and Cranford
- Area 2 Brentford and Chiswick
- Area 3 The Spring Grove / Hounslow Central corridor
- Area 4 The North Feltham corridor

Local Authorities are also required to proceed to the second round of review and assessment in which sources of emissions to air are reassessed to identify whether the situation has changed since the first round, and if so, what impact this may have on predicted exceedance of the air quality objectives.

The second round of review and assessment was undertaken in two steps. The first step is an Updating and Screening Assessment, which updates the Stage 1 and 2 review and assessment previously undertaken for all pollutants identified in the Air Quality Regulations. Where a change in the level or area of exceedance is identified for a pollutant it will be necessary for the local authority to proceed to a Detailed Assessment, equivalent to the previous Stage 3 assessments. Where a local authority does not need to undertake a detailed Assessment, a progress report is required instead.

In 2002, CERC (Cambridge Environmental Research Consultants) carried out a further modelling study as part of a Stage 4 Review and Assessment for Hounslow. The modelling differed from the Stage 3 report in that it used the latest road transport emission factors and used up to date emissions data taken from the GLA Emissions Inventory for London.

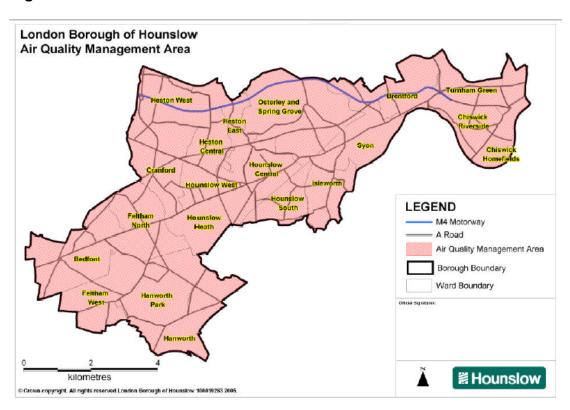
The modelling results while similar to that shown in the Stage 3 Assessment additionally highlighted the following further areas as being likely to exceed the annual mean nitrogen dioxide air quality objective in 2005:

A greater length along the A4

- The A315 (London Road)
- Whitton Road (B361)
- Feltham Town Centre
- Twickenham Road (A310)

The Council produced a detailed Updating and Screen Assessment of local air quality in April 2006. This concluded that the air quality objectives for PM10 and NO2 are predicted to change as indicated by a revised Emissions Inventory for Heathrow Airport. A detailed assessment of these pollutants was therefore required. Hounslow has taken on the a detailed assessment for PM10 at Gunnersbury Avenue. Monitoring is due to commence in May 2007.

The Council's Executive agreed to declare a borough-wide AQMA and the legal declaration was completed in March 2006. This declaration is shown below in **Figure 1** 



A summary of the latest modelling results (2004) can be seen in **Appendix 2** 

For all of the remaining sources, the air quality objectives are predicted to be met and therefore there is no need to proceed to a detailed assessment for these pollutants.

More information can be found on Hounslow's internet website: <a href="http://www.hounslow.gov.uk/airpollution.gov">http://www.hounslow.gov.uk/airpollution.gov</a>

This Progress Report is a requirement of Government guidance issued in 2003 (LAQM.PRG (03)) which sets out the timescales for submission of the various reports on air quality.

### **Section 2: Purpose of the Progress Report**

Following consultation on the LAQM process, the Government concluded that it was too 'stop-start' and that gaps of several years might occur between air quality reviews. Updating and Screening Assessments are now required at intervals of three years whilst Progress Reports maintain continuity and are to be produced in the intervening years.

Progress Reports are designed to ensure continuity in the LAQM process and are intended to assist local authorities by –

- Helping retain a profile for LAQM within the authority, including the retention of staff with a knowledge of air quality issues
- Providing a means for communicating air quality information to members and the public
- Maximizing the usefulness and interpretation of the monitoring effort being carried out by the local authority
- Maximizing the value of the investment in monitoring equipment
- Making the next round of review and assessment that much easier, as there will be a readily available up to date source of information
- Helping local authorities respond to requests for up-to-date information on air quality
- Providing information to assist in other policy areas, such as transport and land use planning
- Providing a ready source of information on air quality for developers carrying out environmental assessments for new schemes
- Demonstrating progress with implementation of air quality Action Plans and/or air quality strategies
- Providing a timely indication of the need for further measures to improve air quality, rather than delaying until the next full round of review and assessment.

### **Section 3: New Monitoring Results**

The council monitors air quality throughout the borough using a combination of fixed and mobile monitoring stations and diffusion tubes. A network of eighteen NO<sub>2</sub> diffusion tubes monitor nitrogen dioxide across the borough and a further five monitor benzene and other petrochemicals around the airport. There are also three collocated diffusion tube arrangements at each of the automatic monitoring sites. Please see **Appendix 5** for exceedance statistics and data capture rates for 2006 (NO<sub>2</sub>, PM10 and SO<sub>2</sub>).

Monitoring activities at each of the fixed sites are summarised in **Table 1** below:

**Table 1: Automatic Monitoring Site Activities** 

Monitoring sites	Operational since	Pollutants monitored
Brentford, Glenhurst Rd	1993	NOx, NO2, NO, CO, O3, PM10
Cranford Avenue Park	Jan-99	NOx, NO2, NO, SO2, O3, PM10
Chiswick, Chiswick High Rd	Sep-99	NOx, NO2, NO, SO2, PM10, PM2.5 (since February 2005)
Hatton Cross	Oct-05	NOx, PM10
A4 Lampton Road	Apr-06	NOx, PM10

Preliminary results for the Hatton Cross and A4 Lampton Road sites are included in **Appendix 3.** Monitoring data for all other automatic monitoring sites can be found in at <a href="https://www.londonair.org.uk">www.londonair.org.uk</a>

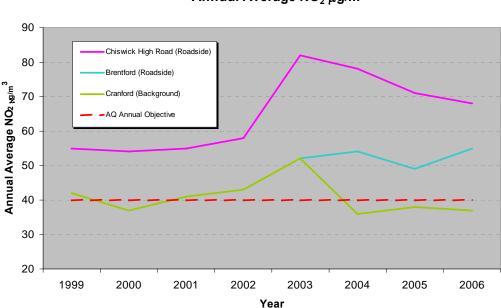
**Appendix 1** shows the location of automatic monitoring sites and diffusion tubes.

#### Nitrogen Dioxide

**OBJECTIVE**: 200 micrograms per cubic metre or less, when expressed as an hourly mean, not to be exceeded more than 18 times a year to be achieved by 31st December 2005. 40 micrograms per cubic metre or less, when expressed as an annual mean, to be achieved by 31st December 2005.

Please see **Figure 2** below showing annual average results for NO<sub>2</sub>. Data for 2006 is not yet ratified.

#### Figure 2



#### Annual Average NO<sub>2</sub> µg/m<sup>3</sup>

A closer look at the objectives (a full list of Air Quality Objectives is shown in **Appendix 5**) show that the average annual mean objective of  $40\mu m^3$  continues to be exceeded. A decrease has been observed in the continuous over 2003, but the high levels in 2003 may have been to the poor weather conditions for that year.

Nitrogen Dioxide diffusion tube data for 2006 is listed at **Appendix 6**. Tubes are analysed by *Gradko International* using 50% TEA (triethanolamine) v/v in Acetone and are typically exposed for four-week periods.

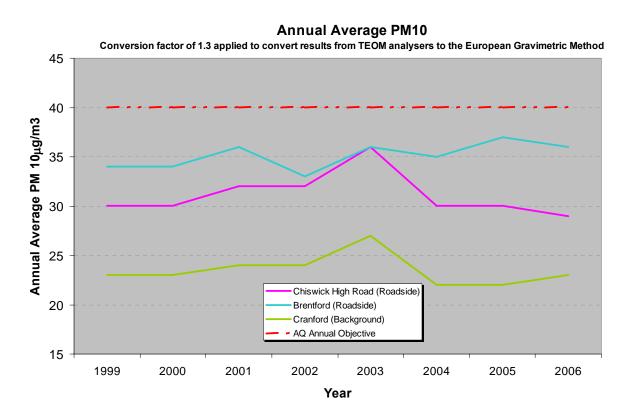
14 of the 20 roadside diffusion tube sites showed an increase over 2006.

#### **Small Particles (PM10)**

**OBJECTIVE**: 50 micrograms per cubic metre or less, when expressed as a 24hour mean, not to be exceeded more than 35 times a year to be achieved by 31<sup>st</sup> December 2004. 40 micrograms per cubic metre or less, when expressed as an annual mean, to be achieved by 31st December 2004.

Please see **Figure 3** below showing annual average results for PM10. Data for 2006 is not yet ratified. Annual average PM10 levels continue to stay below the PM10 objective of  $40\mu g/m^3$ . The short-term objectives and results can be seen in **Appendix 5.** At the Brentford site, the 24 hour mean objective was not achieved as there were 50 exceedences (i.e. >35) in 2006.

### Figure 3



### **Section 4 : New Local Developments**

There have been no new industrial processes (A1, A2 or B) commenced operation or changed significantly during 2005. However there is at least one development which came into operation in 2006, Hounslow Key site 1 which commenced operation of a new ASDA superstore. Residential and commercial office operations have not commenced yet.

There have been no new developments with impact on air quality, e.g. which have resulted in significantly increased traffic flows.

In addition, it is expected that Terminal 5 and Heathrow will open in 2008 with associated increases in traffic.

### <u>Section 5 : Additional Information</u>

#### Air Quality Action Plan

For several years, Hounslow has been taking action with the aim of undertanding and managing the air pollution problems within the Borough. Hounslow has developed a local Air Quality Action Plan (AQAP). The plan has been adopted but it is expected that an addendum will be submitted to DEFRA to take into consideration the comments received from the GLA and DEFRA.

In summary the elements of the action plan are as follows:

First, a series of three packages designed at reducing emissions from road transport:

- Switching to cleaner technologies promoting use of public transport, cycling, etc., shifting freight from road to rail, etc.
- Tackling through traffic
- Promotion of cleaner vehicle technology

Secondly, two packages that deal with emissions from specific sources within or bordering the Borough:

- Measures specific to Heathrow Airport;
- Measures concerning local industries and other businesses

The next package deals with actions that need to be undertaken by the Council to promote more effective use of resources in the Borough:

 Improving eco-efficiency of current and future developments, including properties owned or run by the Council

The final package covers actions of a more general nature, for example, implementation of the Mayor's Air Quality Strategy in the Borough:

Actions to be taken corporately, regionally and in liaison with the Mayor.

These actions are being managed with the use of an access database program called action plan tracker. The tables generated by are shown in **Appendix 7**. These tables outline progress against each action.

#### **New Monitoring Sites**

Hounslow has recently procured two new automatic air quality monitoring sites. They are now fully installed and the preliminary results are shown in **Appendix 3**.

#### **New Monitoring Equipment**

In February 2005, the council acquired an OSIRIS direct reading, airborne particle sampler which was collocated at our Chiswick High Road air quality monitoring site. The OSIRIS is a general-purpose instrument that will continuously indicate the concentration of TSP, PM10, PM2.5 and PM1 particles with a resolution of 0.1 micrograms per cubic metre. The preliminary data received shows a good correlation between TEOM (Tapered Element Oscillating Microbalance) and OSIRIS PM10 readings. In 2006, 2 more of these were acquired along with weather station and analyser equipment to replace out of date equipment at various sites.

### **Section 6 : Conclusions**

The following are conclusions are made following our Air Quality Updating and Screening Assessment (April 2006)

#### CARBON MONOXIDE

It is concluded that the 2003 strategy objectives for carbon monoxide are likely to be achieved. There is no need to progress to a detailed review and assessment for this pollutant.

#### **BENZENE**

It is concluded that the 2003 strategy objectives for benzene are likely to be achieved. There is no need to progress to a detailed review and assessment for this pollutant.

#### **1,3-BUTADIENE**

It is concluded that the 2003 strategy objectives for 1,3-Butadiene are likely to be achieved. There is no need to progress to a detailed review and assessment for this pollutant.

#### LEAD

It is concluded that the 2004 strategy objectives for lead are likely to be achieved. There is no need to progress to a detailed review and assessment for this pollutant.

#### **NITROGEN DIOXIDE**

It is concluded that the 2005 strategy objectives for nitrogen dioxide are not likely to be achieved. There is a need to progress to a detailed review and assessment for this pollutant.

#### SULPHUR DIOXIDE

It is concluded that the 2004/2005 strategy objectives for sulphur dioxide are likely to be achieved. There is no need to progress to a detailed review and assessment for this pollutant.

#### **PM10**

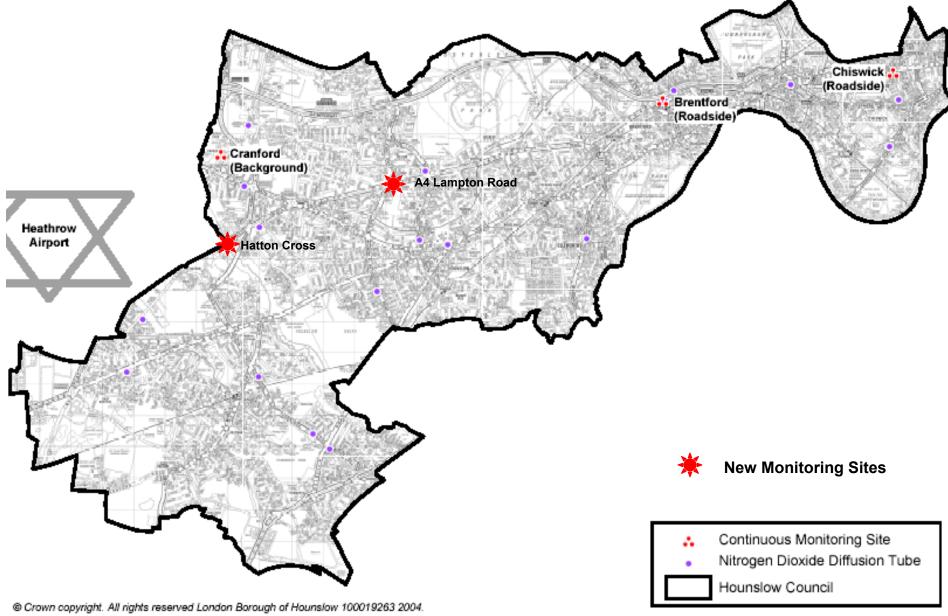
It is concluded that PM10 concentrations from road transport are predicted to be very close to the 2004 daily mean objective at Gunnersbury Avenue (A406). An exceedence of the 2010 objectives is predicted at 9 locations. The 2010 assessment is for information purposes as at the present time the 2010 objectives are not in the Regulations. However, there is a need to progress to a detailed review and assessment for road traffic on Gunnersbury Avenue and Chiswick High Road and for Heathrow Airport. Compliance with the 2010 objectives should be re-assessed in the next round of the review and assessment process in 2006.

#### **SUMMARY AND RECOMMENDATIONS**

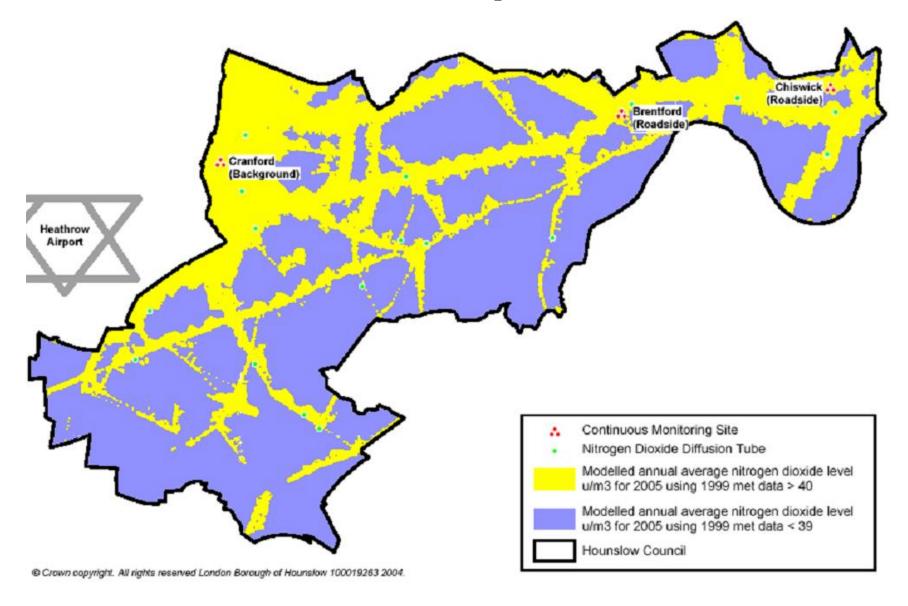
For all pollutants apart from NO2 and PM10 the air quality objectives are predicted to be met and therefore there is no need to proceed to a detailed assessment. A detailed assessment of NO2 and PM10 should be undertaken. The monitoring equipment for detailed assessment of PM10 is due to be up and operational in May 2007. The guidelines for detailed assessment require at least 6 months of monitoring (to include summer and winter periods). Therefore the results of this detailed assessment will be available in the first quarter of 2008.

Further information concerning this report or local air quality issues in general may be obtained from Anderson Ramdeen, Environmental Policy and Projects Officer on 020 8583 5206 or e-mail <a href="mailto:Anderson.Ramdeen@hounslow.gov.uk">Anderson.Ramdeen@hounslow.gov.uk</a> or <a href="mailto:airpollution@hounslow.gov.uk">airpollution@hounslow.gov.uk</a>

### **Appendix 1 : Automatic and Diffusion Tube Monitoring Sites**



## Appendix 2: Projected Modelled Annual Average NO<sub>2</sub> for 2005



### **Appendix 3: New Monitoring Sites Data**

### 1. A4 Lampton Road

# **Hounslow (A4 – Lampton Road) Air Quality Monitoring**

During April 2006 TRL installed a monitoring station on behalf of London Borough of Hounslow on the A4, Lampton Road, to monitor oxides of nitrogen (NO<sub>x</sub>) and particulate (PM<sub>10</sub>) concentrations. Both the particulate monitoring and NO<sub>x</sub> monitoring began on 13<sup>th</sup> April. 2006. The aim of this site is to measure the contribution of the A4 to local air quality concentrations.



#### **UK Air Quality Objectives**

Air quality standards and objectives are set out in the Air Quality (England) Regulations 2000 (as amended 2002) and the Air Quality Strategy (AQS). The limits contained within the AQS are based upon concentrations over a given time period that are considered to be acceptable, judged on the basis of the most recent information on the effects of each pollutant on human health and the environment. Table 1 outlines the Air Quality Objectives for  $NO_2$  and  $PM_{10}$  as set out in the regulations and provisional objectives for Greater London as set out in an Addendum to the National Air Quality Strategy published in February 2003.

Table 1. Air Quality objectives

Objective Objectives	Compliance date
UK objectives for NO <sub>2</sub> set in regulations	
Hourly average concentration of 200 $\mu g/m^3$ (105 ppb) not to be exceeded more than 18 times a year.	31 December 2005
Annual mean of 40 μg/m³ (21ppb)	31 December 2005
UK objectives for NO <sub>x</sub> not set in regulations (vegetation based directive	s; targets met)
Annual average concentration of 30 µg/m³ (16 ppb).	31 December 2000
UK objectives for PM <sub>10</sub> set in regulations	
Hourly average concentration of 50 $\mu g/m^3$ not to be exceeded more than 35 times a year.	1 January 2005
Annual mean of $40 \ \mu g/m^3$	1 January 2005
London provisional objectives for PM <sub>10</sub>	
24-hour mean concentration of 50 $\mu g/m^3$ not to be exceeded more than 10 times a year.	31 December 2010
Annual mean of 23 μg/m <sup>3</sup>	31 December 2010

# 13<sup>th</sup> April 2006 to 30<sup>th</sup> June 2006.

#### Results for NOx and PM<sub>10</sub> at A4 Lampton Road

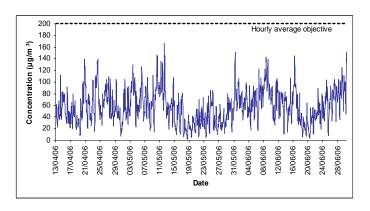


Figure 1: NO<sub>2</sub> hourly data (TEOM\*1.3) hourly data

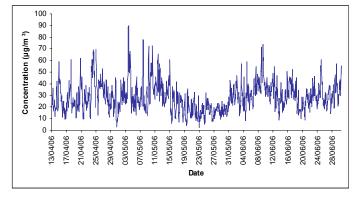


Figure 2: PM<sub>10</sub>

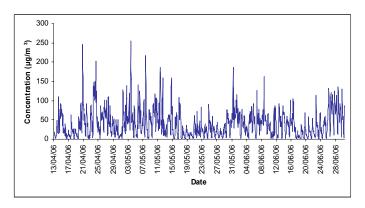


Figure 3: NO hourly data hourly data

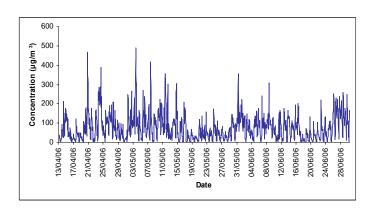


Figure 4: NOx

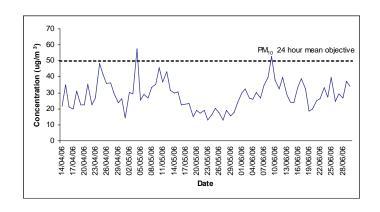


Figure 5: PM<sub>10</sub> (TEOM \* 1.3) 24-hr average

Table. 2. Statistics for NOx and  $PM_{10}$  at Lampton Road.

	NO	NO <sub>2</sub>	NO <sub>x</sub>	PM <sub>10</sub> (adjusted
NO <sub>2</sub> 1 hour mean objective (200 μg/m³; 18 exceedences)	-	0	-	-
NO <sub>2</sub> annual mean objective (40 μg/m³)	-	57.5	-	-
PM <sub>10</sub> 1 hour mean objective (50 μg/m³; 35 exceedences)	-	-	-	2
PM <sub>10</sub> annual mean objective (40 µg/m³)	-	-	-	28.5
Minimum (μg/m³)	0.2	1.9	0.3	2.5
Average (μg/m³)	39.8	57.5	76.0	28.5
Standard deviation (μg/m³)	34.6	28.5	66.2	12.2
Median (μg/m³)	32.3	55.1	61.7	27.0
Maximum (μg/m³)	255.3	166.1	487.7	90.1
Data capture (%)	99.9	99.9	99.9	99.8

During the period  $13^{th}$  April to  $30^{th}$  June two of the four  $NO_2$  and  $PM_{10}$  objective concentrations were breached at the A4 Lampton Road site. Two exceedences of the  $PM_{10}$  hourly mean objective and one exceedence of the  $NO_2$  annual mean objective were recorded. The two exceedences of the  $PM_{10}$  hourly mean objective occurred on the  $4^{th}$  May and the  $9^{th}$  June 2006.

# 1<sup>st</sup> July 2006 to 30<sup>th</sup> September 2006.

#### Results for NOx and PM<sub>10</sub> at A4 Lampton Road

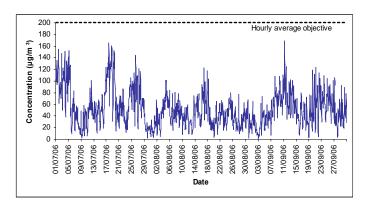


Figure 1: NO<sub>2</sub> hourly data (TEOM\*1.3) hourly data

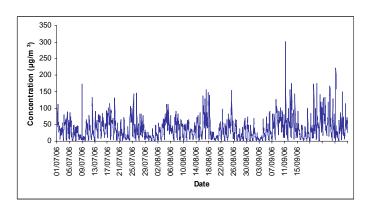


Figure 3: NO hourly data hourly data

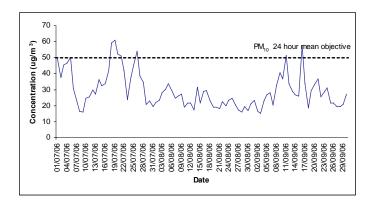


Figure 5: PM<sub>10</sub> (TEOM \* 1.3) 24-hr average

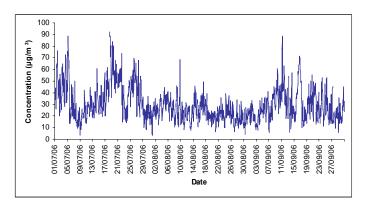


Figure 2: PM<sub>10</sub>

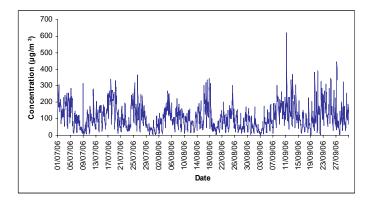


Figure 4: NOx

Table. 3. Statistics for NOx and PM<sub>10</sub> at Lampton Road.

	NO	NO <sub>2</sub>	NO <sub>x</sub>	PM <sub>10</sub> (adjusted
$NO_2$ 1 hour mean objective (200 $\mu g/m^3$ ; 18 exceedences)	-	0	-	-
NO <sub>2</sub> annual mean objective (40 μg/m³)	-	51.3	-	-
PM <sub>10</sub> 1 hour mean objective (50 μg/m³; 35 exceedences)	-	-	-	8
PM <sub>10</sub> annual mean objective (40 µg/m³)	-	-	-	29.5
Minimum (μg/m³)	0	2.6	1.4	3.3
Average (μg/m³)	37.1	108.0	51.3	29.5
Standard deviation (μg/m³)	32.0	72.9	30.2	14.0
Median (μg/m³)	30.3	95.5	45.9	26.2
Maximum (μg/m³)	300.9	620.5	169.0	92.3
Data capture (%)	99.2	99.2	99.2	98.8

#### **Discussion**

Monitoring began at the A4 Lampton Road site in April 2006. Both particulate monitoring and  $NO_x$  monitoring began on  $13^{th}$  April. This second report represents the data collected between  $1^{st}$  July and  $30^{th}$  September 2006. Data capture was high for both NOx (99.2%) and PM10 (98.8%).

During this period two of the four  $NO_2$  and  $PM_{10}$  objective concentrations were breached at the A4 Lampton Road site. Eight exceedences of the  $PM_{10}$  24-hr mean objective were recorded. The eight exceedences of the  $PM_{10}$  hourly mean objective occurred on the  $5^{th}$ ,  $18^{th}$ ,  $19^{th}$ ,  $20^{th}$ ,  $21^{st}$ , and  $26^{th}$  July, and the  $11^{th}$  and  $16^{th}$  of September 2006. The  $NO_2$  annual mean objective was also breached during this three month period. This is the second three month period when a breach of this objective occurred.

# 1<sup>st</sup> September 2006 to 31<sup>st</sup> December 2006.

#### Results for NOx and PM<sub>10</sub> at A4 Lampton Road

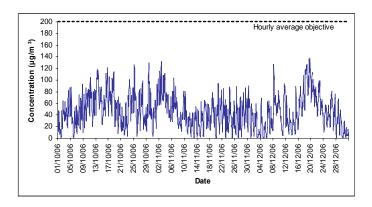


Figure 1: NO<sub>2</sub> hourly data (TEOM\*1.3) hourly data

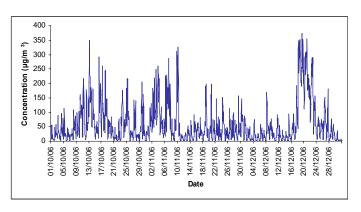


Figure 3: NO hourly data hourly data

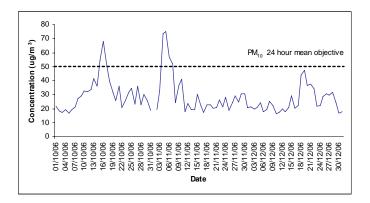


Figure 5: PM<sub>10</sub> (TEOM \* 1.3) 24-hr average

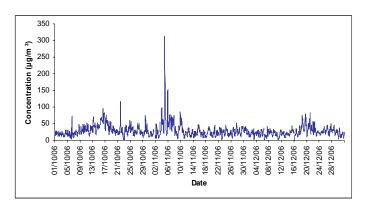


Figure 2: PM<sub>10</sub>

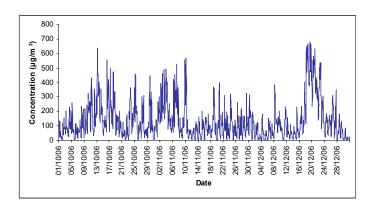


Figure 4: NOx

Table. 4. Statistics for NOx and PM<sub>10</sub> at Lampton Road.

	NO	NO <sub>2</sub>	NO <sub>x</sub>	PM <sub>10</sub> (adjusted
NO <sub>2</sub> 1 hour mean objective (200 μg/m³; 18 exceedences)	-	0	-	-
NO <sub>2</sub> annual mean objective (40 μg/m³)	_	45.2	-	-
PM <sub>10</sub> 1 hour mean objective (50 μg/m³; 35 exceedences)	-	-	-	7
PM <sub>10</sub> annual mean objective (40 µg/m³)	-	-	-	28.5
Minimum (μg/m³)	0	0.3	1.0	0
Average (μg/m³)	56.8	45.2	132.0	28.5
Standard deviation (μg/m³)	66.8	28	125.8	18.2
Median (μg/m³)	32.7	42.7	93.8	25.0
Maximum (μg/m³)	372.9	138.3	678.5	311.8
Data capture (%)	99.1	99.1	99.1	97.8

#### **Discussion**

Monitoring began at the A4 Lampton Road site in April 2006. Both particulate monitoring and  $NO_x$  monitoring began on  $13^{th}$  April. This second report represents the data collected between  $1^{st}$  October and  $31^{st}$  December 2006. Data capture was high for both NOx (99.1%) and PM10 (97.8%).

During this period two of the four  $NO_2$  and  $PM_{10}$  objective concentrations were breached at the A4 Lampton Road site. Seven exceedences of the  $PM_{10}$  24-hr mean objective were recorded. The seven exceedences of the  $PM_{10}$  hourly mean objective occurred on the  $15^{th}$ ,  $16^{th}$ ,  $17^{th}$  October, and the  $4^{th}$ ,  $5^{th}$ ,  $6^{th}$   $7^{th}$  of November 2006. The  $NO_2$  annual mean objective was also breached during this three month period. This is the third three month period when a breach of this objective occurred.

#### 2. Hatton Cross

# **Hounslow (Hatton Cross) Air Quality Monitoring**

During October 2005 TRL installed a monitoring station on behalf of London Borough of Hounslow at Hatton Cross to monitor oxides of nitrogen (NO<sub>x</sub>) and particulate (PM<sub>10</sub>) concentrations. Particulate monitoring began on  $9^{\text{th}}$  October and NO<sub>x</sub> monitoring began on  $19^{\text{th}}$  October. The site is one of a suite of monitoring sites measuring background pollutant concentrations in the vicinity of Heathrow airport. .



#### **UK Air Quality Objectives**

Air quality standards and objectives are set out in the Air Quality (England) Regulations 2000 (as amended 2002) and the Air Quality Strategy (AQS). The limits contained within the AQS are based upon concentrations over a given time period that are considered to be acceptable, judged on the basis of the most recent information on the effects of each pollutant on human health and the environment. Table 1 outlines the Air Quality Objectives for  $NO_2$  and  $PM_{10}$  as set out in the regulations and provisional objectives for Greater London as set out in an Addendum to the National Air Quality Strategy published in February 2003.

Table 1. Air Quality objectives

Objective	Compliance date
UK objectives for NO <sub>2</sub> set in regulations	
Hourly average concentration of 200 $\mu g/m^3$ (105 ppb) not to be exceeded more than 18 times a year.	31 December 2005
Annual mean of $40 \mu g/m^3$ (21ppb)	31 December 2005
UK objectives for NO <sub>x</sub> not set in regulations (vegetation based directive	s; targets met)
Annual average concentration of 30 µg/m³ (16 ppb).	31 December 2000
UK objectives for PM <sub>10</sub> set in regulations	
Hourly average concentration of 50 $\mu g/m^3$ not to be exceeded more than 35 times a year.	1 January 2005
Annual mean of $40 \ \mu\text{g/m}^3$	1 January 2005
London provisional objectives for $PM_{10}$	
24-hour mean concentration of 50 $\mu \text{g/m}^3$ not to be exceeded more than 10 times a year.	31 December 2010
Annual mean of 23 μg/m <sup>3</sup>	31 December 2010

# 5<sup>th</sup> January 2006 to 31<sup>st</sup> March 2006

#### Results for NOx and PM<sub>10</sub> at Hatton Cross

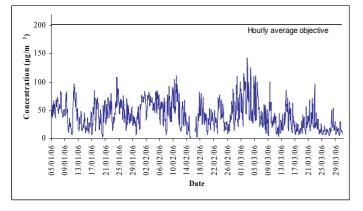


Figure 1: NO<sub>2</sub> hourly data

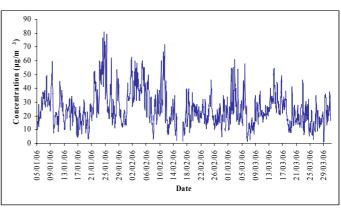
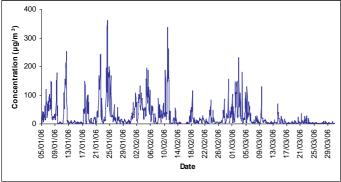


Figure 2: PM<sub>10</sub> (TEOM\*1.3) hourly data



Concentration (µg/m 3)

400 - 90/05/06 25/03/06 -25/01/06 29/01/06 18/02/06 02/03/06 13/03/06 29/03/06 09/01/06 13/01/06 17/01/06 21/01/06 02/02/06 14/02/06 22/02/06 01/03/06 17/03/06 10/02/06 26/02/06 90/00/60 21/03/06

Figure 3: NO hourly data Table. 2. Statistics for NOx and PM<sub>10</sub> at Hatton Cross.

Figure 4: NOx hourly data

	NO	NO <sub>2</sub>	$NO_x$	PM <sub>10</sub> (adjusted )
$NO_2$ 1 hour mean objective (200 $\mu g/m^3$ ; 18 exceedences)	-	0	-	-
NO2 annual mean objective (40 µg/m³)	-	40.6	-	-
PM <sub>10</sub> 24 hour mean objective (50 μg/m³; 35 exceedences)	-	-	-	1
$PM_{10}$ annual mean objective (40 $\mu g/m^3$ )	-	-	-	25.4
Minimum (μg/m³)	0.2	1.5	2.4	0.9
Average (μg/m³)	27.3	40.6	67.9	25.5
Standard deviation (μg/m³)	42.9	23.4	61.9	12.3
Median (μg/m³)	8.6	36.8	46.5	23.3
Maximum (μg/m³)	360.6	142.6	469.7	80.8
Data capture (%)	98.3	98.3	98.3	97.4

#### **Discussion**

Monitoring began at the Hatton Cross site in October 2005. Particulate monitoring began on  $9^{th}$  October and  $NO_x$  monitoring began on  $19^{th}$  October. This second report presents the data collected during the period  $5^{th}$  January to  $31^{st}$  March 2006. Data capture for  $NO_x$  was again very high at 98.3%, the slight decrease was due to a communication failure between 15/02/06 to the 16/02/06.  $PM_{10}$  data capture was also high at 97.9%.

One exceedence was recorded of the PM<sub>10</sub> 24-hour objective on 24<sup>th</sup> January 2006, whilst concentrations of NO<sub>2</sub> just exceeded the annual mean objective over the three month period.

# 1<sup>st</sup> July 2006 to 30<sup>th</sup> September 2006

#### Results for NOx and PM<sub>10</sub> at Hatton Cross

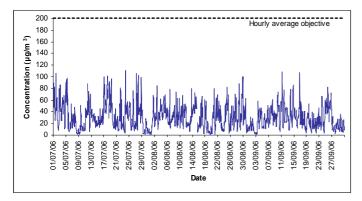


Figure 1: NO<sub>2</sub> hourly data

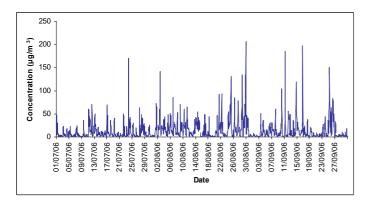


Figure 3: NO hourly data

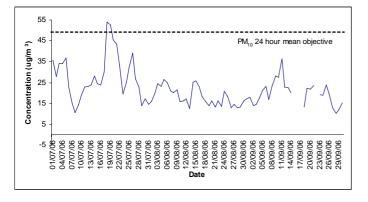


Figure 5: PM<sub>10</sub> (TEOM \* 1.3) 24-hr average

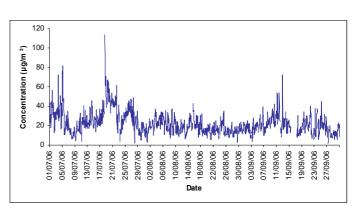


Figure 2: PM<sub>10</sub> (TEOM\*1.3) hourly data

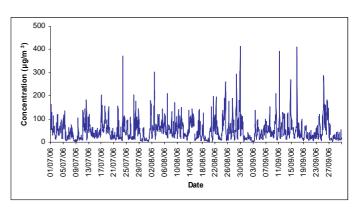


Figure 4: NOx hourly data

Table. 2. Statistics for NOx and PM<sub>10</sub> at Hatton Cross.

	NO	NO <sub>2</sub>	NO <sub>x</sub>	PM <sub>10</sub> (adjusted
$NO_2$ 1 hour mean objective (200 $\mu g/m^3$ ; 18 exceedences)	-	0	-	-
NO <sub>2</sub> annual mean objective (40 μg/m³)	-	49.9	-	-
PM <sub>10</sub> 24 hour mean objective (50 μg/m³; 35 exceedences)	-	-	-	2
PM <sub>10</sub> annual mean objective (40 μg/m³)	-	-	-	22.1
Minimum (μg/m³)	0.2	1.0	0.1	1.4
Average (μg/m³)	12.7	49.9	30.5	22.1
Standard deviation (μg/m³)	18.9	44.0	20.3	11.0
Median (μg/m³)	5.5	38.8	27.1	19.9
Maximum (μg/m³)	205.6	413.7	110.6	113.3
Data capture (%)	99	99	99	94.6

#### **Discussion**

Monitoring began at the Hatton Cross site in October 2005. Particulate monitoring began on  $9^{th}$  October and  $NO_x$  monitoring began on  $19^{th}$  October. This fourth report presents the data collected during the period  $1^{st}$  July to  $30^{th}$  September 2006. Data capture was high for both  $NO_x$  (99%) and  $PM_{10}$  (94.6%).

During this period, one of the four  $NO_2$  and  $PM_{10}$  objective concentrations was breached at the Hatton Cross site. Two exceedences of the  $PM_{10}$  24-hr mean objective occurred on the  $18^{th}$  and  $19^{th}$  July 2006. The short data gaps seen in the  $PM_{10}$  data were caused by incorrectly seated filters. These were rectified quickly on identification to minimise data loss.

# 1<sup>st</sup> October 2006 to 31<sup>st</sup> December 2006.

#### Results for NOx and PM<sub>10</sub> at Hatton Cross

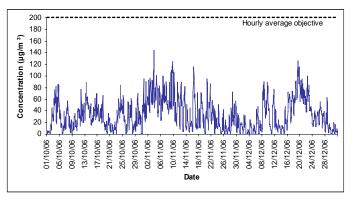


Figure 1: NO<sub>2</sub> hourly data (TEOM\*1.3) hourly data

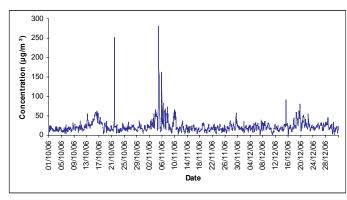


Figure 2: PM<sub>10</sub>

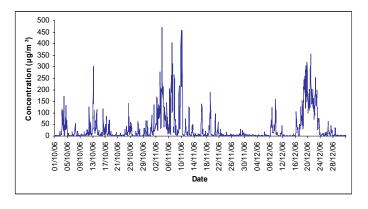


Figure 3: NO hourly data

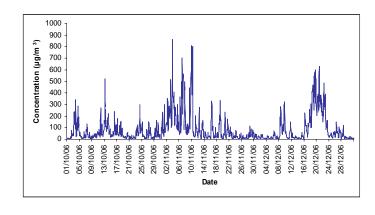


Figure 4: NOx



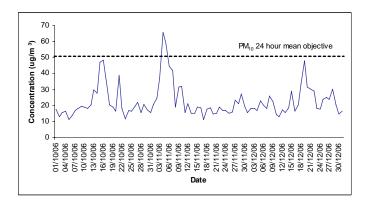


Figure 5: PM<sub>10</sub> (TEOM \* 1.3) 24-hr average

Table. 2. Statistics for NOx and PM<sub>10</sub> at Hatton Cross.

	NO	NO <sub>2</sub>	NO <sub>x</sub>	PM <sub>10</sub> (adjusted )
$NO_2$ 1 hour mean objective (200 $\mu g/m^3$ ; 18 exceedences)	-	0	-	-
NO <sub>2</sub> annual mean objective (40 μg/m³)	-	33.3	-	-
PM <sub>10</sub> 24 hour mean objective (50 μg/m³; 35 exceedences)	-	-	-	2
PM <sub>10</sub> annual mean objective (40 μg/m³)	-	-	-	22.6
Minimum (μg/m³)	0	0.1	0.5	0.8
Average (μg/m³)	31.8	33.3	81.9	22.6
Standard deviation (μg/m³)	62	25.8	114.9	16.3
Median (μg/m³)	5.2	27.4	36.3	19.2
Maximum (μg/m³)	470.4	143.5	862.3	281.2
Data capture (%)	99.1	99.1	99.1	97.7

#### **Discussion**

Monitoring began at the Hatton Cross site in October 2005. Particulate monitoring began on  $9^{th}$  October and  $NO_x$  monitoring began on  $19^{th}$  October. This fifth report presents the data collected during the period  $1^{st}$  October to  $31^{st}$  December 2006. Data capture was high for both  $NO_x$  (99.1%) and  $PM_{10}$  (97.7%).

During this period, one of the four  $NO_2$  and  $PM_{10}$  objective concentrations was breached at the Hatton Cross site. Two exceedences of the  $PM_{10}$  24-hr mean objective occurred on the  $4^{th}$  and  $5^{th}$  of November 2006.

# **Appendix 5: Objectives and Data Capture**

# **Air Quality Objectives 2006**

Pollutant	Objective	Result	Achieved Objective?
Hounslow 2 - Cra	nford		
Nitrogen Dioxide	Annual mean not exceeding 40ug/m3	37	YES
•	No more than 18 occurences of hourly		
Nitrogen Dioxide	mean >200ug/m3	0	YES
	No more than 10 days where maximum		
Ozone	rolling 8hr mean >100ug/m3	31	NO
	Annual mean less than 40ug/m3		
PM10 Particulate	(gravimetric equivalent)	23	YES
	No more than 35 days where daily mean		
PM10 Particulate	>50ug/m3 (gravimetric equivalent)	4	YES
	No more than 24 occurences of hourly		
Sulphur Dioxide	mean >350ug/m3	0	YES
	No more than 3 days where daily mean		
Sulphur Dioxide	>125ug/m3	0	YES
	No more than 35 occurences of 15min		
Sulphur Dioxide	mean >267ug/m3	0	YES
Hounslow 4 - Chi	swick High Rd		
Nitrogen Dioxide	Annual mean not exceeding 40ug/m3	68	NO
G	No more than 18 occurences of hourly		
Nitrogen Dioxide	mean >200ug/m3	2	YES
	Annual mean less than 40ug/m3		
PM10 Particulate	(gravimetric equivalent)	29	YES
	No more than 35 days where daily mean		
PM10 Particulate	>50ug/m3 (gravimetric equivalent)	20	YES
	No more than 24 occurences of hourly		
Sulphur Dioxide	mean >350ug/m3	0	YES
	No more than 3 days where daily mean		
Sulphur Dioxide	>125ug/m3	0	YES
	No more than 35 occurences of 15min		
Sulphur Dioxide	mean >267ug/m3	0	YES
Hounslow 5 - Bre	ntford		
	No occurences of rolling 8hr mean		
Carbon Monoxide	>10mg/m3	0	YES
Nitrogen Dioxide	Annual mean not exceeding 40ug/m3	55	NO
	No more than 18 occurences of hourly		-
Nitrogen Dioxide	mean >200ug/m3	3	YES
	Annual mean less than 40ug/m3		
PM10 Particulate	(gravimetric equivalent)	36	YES
	No more than 35 days where daily mean		
PM10 Particulate	>50ug/m3 (gravimetric equivalent)	50	NO
	Hounslow 5 - Brentford - Carbon Monoxide a	achieved a	capture rate less

Warning: Warning: Hounslow 5 - Brentford - Carbon Monoxide achieved a capture rate less than 75% for the year (62%). Results may not be representative of the full year and should be used for guidance only.

Note 1: Results from TEOM analysers have been multiplied by a conversion factor of 1.3, BAM analysers by a conversion factor of 0.83, all other particulate analyser types including FDMS by 1

Note 2: Ratification information is shown below. Results based on provisional data must be considered with care

Warning: Calculation included provisional data. Data after 28

Feb 2006 have not been fully ratified.

Warning: Calculation included provisional data. Data after 08

Feb 2006 have not been fully ratified.

Warning: Calculation included provisional data. Data after 08

Feb 2006 have not been fully ratified.

Warning: Calculation included provisional data. Data after 01

Apr 2006 have not been fully ratified.

## 2005 Data Capture

Hounslow 5 - Brentford:

	Data Capture Rates for 2005		
-	e for NO2 between 01-jan-2005 and 31-dec-2005		
Site Code	Site Name	Result (%)	
HS2	Hounslow 2 - Cranford	90	
HS4	Hounslow 4 - Chiswick High Rd	98	
HS5	Hounslow 5 - Brentford	83	
Data capture rat	e for SO2 between 01-jan-2005 and 31-dec-2005.		
Site Code	Site Name	Result (%)	
HS2	Hounslow 2 - Cranford	87	
HS4	Hounslow 4 - Chiswick High Rd	96	
•	e for PM10 between 01-jan-2005 and 31-dec-2005.		
Site Code	Site Name	Result (%)	
HS2	Hounslow 2 - Cranford	94	
HS4	Hounslow 4 - Chiswick High Rd	99	
HS5	Hounslow 5 - Brentford	98	
Data capture rat	e for NOX between 01-jan-2005 and 31-dec-2005.		
Site Code	Site Name	Result (%)	
HS2	Hounslow 2 - Cranford	90	
HS4	Hounslow 4 - Chiswick High Rd	97	
HS5	Hounslow 5 - Brentford	83	
Data capture rate for CO between 01-jan-2005 and 31-dec-2005.			
Site Code	Site Name	Result (%)	
HS5	Hounslow 5 - Brentford	62	

# Appendix 6 - Diffusion Tube Data: 2006

	Location	Classification	Annual mean Unadjusted 2006 µg/m³	Corrected Value 2006 µg/m³	Corrected Value 2005 µg/m³	2005-2006 Difference
HS32	24 Adelaide Terrace, Brentford	Roadside	57.42	64.41	58.03	6.38
HS33	30 Surrey Crescent	Roadside	56.18	63.01	60.04	2.97
HS34	Chiswick community school, Burlington Lane, Chiswick	Intermediate	30.84	34.59	36.67	-2.07
HS35	Hogarth Primary School, Devonshire Street, Chiswick	Intermediate	30.87	34.62	33.23	1.39
HS41	Hanworth Library, Hampton Road West, Hanworth	Roadside	38.85	43.57	40.93	2.64
HS42	150 High Street Hounslow	Background	48.14	53.99	45.22	8.78
HS43	26 Glenhurst Road, Brentford	Roadside	40.95	45.94	46.40	-0.46
HS51	Marjory Kinnon School, Hatton	Roadside	30.28	33.97	32.57	1.39
HS52	Bedfont Library, Staines Road, Bedfont	Roadside	31.92	35.80	36.55	-0.74
HS53	Church of the good shepherd, Beavers Lane, Cranford	Intermediate	35.61	39.94	36.39	3.55
HS54	Cranford Community School, High Street, Cranford	Roadside	39.55	44.36	38.72	5.63
HS55	Cranford Library, Burnham Gardens, Cranford	Roadside	47.80	53.61	51.06	2.56
HS61	Outside 108 Twickenham Road	Roadside	56.96	63.89	62.21	1.68
HS62	Junction of Sutton Road and Heston Road, Hounslow	Roadside	40.80	45.76	50.39	-4.63
HS63	Outside Nanty House Day Nursery (opposite 20 Lampton Road)	Roadside	50.99	57.20	57.20	0.00
HS64	Junction of Roseheath Road and Wellington Road South	Roadside	39.45	44.25	43.05	1.20
HS65	Outside No.1 Eastbourne Road at junction with Uxbridge Road	Roadside	39.63	44.45	37.82	6.63
HS66	Brainton Avenue, adjacent to No 32 Harlington Road East (Feltham)	Roadside	40.09	44.97	39.05	5.92
HS CHIS A	Chisick High Road	Roadside	59.94	67.23	68.39	-1.16
HS CHIS B	Chisick High Road	Roadside	58.33	65.42	69.57	-4.15
HS CHIS C	Chisick High Road	Roadside	60.21	67.54	65.33	2.21
HS BREN A	Brentford, Glenhurst Rd	Roadside	54.16	60.75	55.77	4.98
HS BREN B	Brentford, Glenhurst Rd	Roadside	56.40	63.26	53.93	9.34
HS BREN C	Brentford, Glenhurst Rd	Roadside	65.65	73.64	53.40	20.24
HS CRAN A	Cranford Avenue Park	Background	30.10	33.77	33.51	0.25
HS CRAN B	Cranford Avenue Park	Background	29.72	33.33	30.15	3.18
HS CRAN C	Cranford Avenue Park	Background	32.52	36.48	31.39	5.10

Roadside sites: 14 increased, 6 decreased

Urban background sites: 4 increased, 0 decreased Intermediate sites: 2 increased, 1 decreased

<sup>\*</sup>Correction factor applied to 2005 data is taken from the table in TG (03), Box 6.6, and is applicable to roadside sites only \*Correction factor applied to 2006 data is taken from collocation studies at Brentford Roadside, Chiswick and Cranford monitoring sites.

**APPENDIX 7 – Air Quality Action Plan Progress Report 2006** 

Action/Measure	Original Timescale	Progress with Measure	Outcome to date	Comments	Local Authority Role	Responsibility
1.1 Establish a Green Travel Plan for Hounslow	2008	In progress	The Green Travel Plan for Hounslow. The first draft is now available. Baseline information is being collected and measures are being implemented	Included in LIP for implementation. The AQAP will monitor and strive towards ascertaining modal shift	Transport Planning	Transport Panner
1.2 Improve access to, and quality of, public transport travel information	2008	In progress	This will form part of the Hounslow Green Travel Plan.	Included in LIP for implementation. The AQAP will assist in providing this information and that air quality issues are incorporated	Transport Planning	Transport Panner
1.3 Development more dedicated cycle (priority) lanes and signalling	2010	In progress	Although Hounslow is a London Borough with an extensive road network and often widely-spaced employment opportunities, there is considerable potential to in crease the number of people commuting by bicycle. The Borough has maintained its percentage for cycling as the mode to and from work over the ten year period.	Included in LIP for implementation. The Council is keen to work with the Cycle Centre of Excellence and LCN+ to improve Hounslow's transport environment to encourage more people to cycle, to work, education or for leisure The Council supports the London Cycle Network on cycle routes and will continue working on its	Transport Planning	Transport Panner
			Local Cycling Routes – West Area. Crane Valley Park . Report carried out by consultants and supported by SUSTRANS. Bid submitted for more funding in 2007/08 for implementation.	implementation, enforce against illegal parking, and seek developer contributions in appropriate circumstances for its improvement. The Council will also seek contributions from developers and other sources in order to develop local cycling links to		
			Local Cycling Routes – Isleworth and Brentford. St Paul's Road contra flow cycle lane. Mayer Brown have carried out an investigation. Design completed.	the London Cycle Network taking into account, where appropriate, the existing and proposed routes of neighbouring Councils. (		

1.4 Extend provision of more parking for motorcycles, mopeds and bicycles at public sites and new developments.	In progress	The Council is committed to the introduction of safe and secure cycle parking at public facilities. In addition to provision at key destinations, including tube, rail and bus stations, schools, shopping centres, leisure facilities and libraries, residents and businesses have asked for more local facilities. Regular requests are made for the installation of stands. Sites will be surveyed, and where appropriate proposed for funding.  Cycle Parking –Work on going to install cycle stands at key locations.	Included in LIP for implementation	Transport Planning	Transport Planner
---	-------------	--	------------------------------------	-----------------------	----------------------

	2008 - ongoing	In progress	Where appropriate the Council is seeking to provide improvements to pedestrian footways leading to premises and amenities and will require good pedestrian access to and within all new developments. Improvements to the pedestrian environment should be made paying particular attention to the needs of people with a mobility handicap. Priority will also be given to pedestrians in crossing roads wherever possible and consideration will be given to improving pedestrian facilities that are used by public transport passengers in connection with their journeys.  Bedfont Road Footbridge/Cycleway – £40k was used for design, leaving £10k to pay for other activities. Another £10k has been secured from Transport for London for approvals and water bores. Possession of the bridge structure from Network Rail is needed to complete design and obtain approval in principle. A	This action plan measure has been incorporated into the LIP for implementation.  Proposal 23 To continue to remove the physical and attitudinal barriers to walking throughout the Borough.  Proposal 24. To enhance existing and create new walking routes and networks across the Borough.  Proposal 25 To carry out walking audits for the majority of Council traffic schemes.  Proposal 26 To actively promote walking as a viable transport mode highlighting the health and community benefits.	Transport Planning	Transport Planner
--	-------------------	-------------	---	--	-----------------------	----------------------

1.6 Introduce more Safe Routes to School throughout	2008	In progress	The School Travel Plan strategy has been developed and	This action plan measure has been incorporated into the	School Travel Planning	School Travel Plan advisor
the Borough with special			included in the LIP. This strategy	LIP for implementation.	i iaiiiiig	i iaii advisoi
regard to the schools within			outlines the principles and	Funding sought via BSP bid		
the highest exceedance			proposed delivery of the new	to roll out to other schools.		
areas			government targets for all	to ron out to other sorioois.		
aroao			primary and secondary schools	Proposal 13 To		
			in a local authority to have	introduce and actively		
			authorised school travel plans in	promote school travel plans		
			place by the end of financial	to all centres of education in		
			year 2008-09.	the Borough.		
				Proposal 14 To continue to		
			Child Cycle Training –	implement a safer routes to		
			Progressing well. Extra £36,000	school physical measures		
			was received from TfL. Over	programme.		
			1,750 children have been			
			trained to level 1 and over 600	Beyond 2008		
			to level 2 standard.	Once the boroughs primary &		
				secondary schools have		
			Feltham Community College –	adopted travel plans and the		
			Budget for preparation. Report	subsequent safer routes		
			went to Area committee prior to	programmes have been		
			consultation. Detailed design	implemented annual reviews		
			and introduction of scheme	will be carried out.		
			Longford Community School –			
			Budget for preparation.			
			Consultation and introduction of			
			scheme in 2006/07. Additional			
			£15,000 obtained from TfL for			
			drainage and to ensure scheme			
			passed member approval by			
			being 20mph compatible			
			Name and One and Infant Name and			
			Norwood Green Infant, Nursery			
			& Junior Schools – Preparation			
			and some physical installation measures. Discussions with			
			school took place in September			
			and report went to committee in			
			April 2007, when a petition was			
			overturned. Introduction and			
			monitoring of scheme will now			
			take place			
			Orchard and Grove Road			
			Schools Cluster - CD will used			
			this budget for the physical			
			installation of measures. Work			
			completed and form part of a			
			broader 20 mph zone			
			schemeBS\06\STP\HOU.05			
			School travel advisor – Post is			
			being 50% funded by Hounslow			
			Council and 50% by TfL. The			
			advisor is working with schools			
			to develop travel plans and			

1.7 Require Green Travel Plans for new businesses within the Borough employing more than a specified number of people.	2010 - ongoing	In progress	This project will continue to encourage organisations and businesses within the Borough to adopt and implement Green Travel Plans. It will include:  a high profile, good quality awareness campaign to publicise how green travel plans can benefit local businesses and organisations; provide incentives and rewards to encourage businesses and organisations to adopt travel plans; and To design and provide planning officers with good promotional material to encourage local businesses and organisations to adopt green travel plans through the negotiation of Section 106 agreements.	This action has been included in the LIP for implementation Proposal 33 To actively promote workplace travel plans at businesses throughout the Borough. Proposal 34 To continue to promote sustainable transport to encourage modal choice	Development Planning/ Transport Planning	Development Planner/ Transport Planner
1.8 As 1.7but for existing businesses	2010	Same for new businesses	Same for new businesses		Development Planning/ Transport Planning	Development Planner/ Transport Planner

1.9 Improve access to, and quality of, public transport travel information on regional basis	On-going	In progress	•Travel Awareness Programme  The Council has signed up to the London wide "Good Going" campaign. All travel awareness activities will be branded with	Air Quality Action – report on success of promotion, identify other opportunities through the partnership organisations for joint promotion around Heathrow and also West	Air Quality Cluster Group	Transport Planner/ Environmental Strategy
			the Hounslow version of the "Good Going" logo. The Council will also contribute to the London wide Good Going publicity campaigns	London.		
			The Council is keen to attract the funding to develop a programme of Travel Awareness promotion demonstrating the environmental, health and convenience of using sustainable transport.			
			•City Car Club The Council is keen to seek funding to develop a city car club. Ideally the car club vehicles would include a significant amount of zero emission cars and scooters.			
			01 Travel awareness campaigns (Good Going) – submitted baseline details to TfL. On 24 June the National Bike Week Event was held. Some funding left over from this event.			
			02 Walking on Wednesdays (WOW) This is ongoing. TfL sent through promotional material.			
			03 Travel Awareness (Good Going) Bike ride event took place on 24 June as part of National Bike Event. Some funding left over from this event.			
			04 Travel Awareness (Good Going) Travel promotion material and public transport guide being produced.BS/06/TA/HOU.05			20
			Travel Awareness (Good Going) participation in travel awareness events is being progressed with major partners in the Borough, such as Glaxo Smith			38

1.10 Improvements in	2010	In progress	The council will continue its	This action plan measure has	Transport	Traffic/
1.10 Improvements in overall public transport service (facilities, cleanliness, safety, frequency, reliability) across the Borough and West London, and particularly in declared AQMAs	2010	In progress	programme to develop and implement bus priority measures across the borough. Schemes are primarily designed to improve safety and to reduce bus journey times. They include measures to:  •Improvements to bus lanes; •Rationalisation of weighting and loading restrictions; •Signal improvements.  In terms of the enhancement and new routes there are two particular Borough priorities;  •Improving the links from across the Borough to the Ashford Hospital; • Creating a nightline bus service.  01 Swan Road/Bear Road Hanworth— Bob Curtis supervised the scheme that was implemented on site in March. Accessibility through kerb lifting and footway resurfacing took place at 4 bus stops  BUS PRIORITY Stamford Brook Scheme was implemented from the TfL enabling budget. Raised entry treatments have been installed on side roads. Work on new islands and	This action plan measure has been incorporated into the LIP for implementation. Timescales - Air Quality Action – monitor journey time reliability and modal shift in order to assess potential emission reductions. Monitor effectiveness of enforced bus lanes for easing congestion.	Transport Planning	Traffic/ Transport Planners
			been installed on side roads.			

1.11 Support multi modal travel by further development of public transport interchanges for rail/cycle/bus/walking both within Hounslow and the West London area;	2009	In Progress	Proposal 32 of the LIPTo improve the accessibility and aesthetic of the transport environment of our town centres, areas of regeneration and our station approaches.  An annual accident and remedial programme aimed at reducing the number of road traffic accident casualties.  Measures may include:  •Traffic calming •New and enhanced signals •Junction improvements •Pedestrian facilities •Cycle and powered two wheeler facilities	Air Quality Action – seek to ensure improvements protect members of the public from emissions from public transport in the waiting areas within the stations, seek to ensure signage is in place, where relevant, to switch off engines where appropriate, e.g. on bus stands.  The purpose of the programme is to: Address the barriers to pedestrian movement created by the main road network Improve the safety, security, amenity, accessibility and convenience of pedestrian and cycle routes Improve service and delivery Encourage use of public transport	Transport Planning	Transport Planner
1.12 Development of efficient and high quality bus corridors	Ongoing	In progress	See 1.09.	This action plan measure has been incorporated into the LIP for implementation.	Transport Planning	Transport Planner
1.13 More night buses	2010	Not started	No progress to date, however improvements are being sought.		Transport Planning	Transport
1.14 Monitor progress with green travel plans	2008	In progress	Hounslow has 5 travel plans – these are being monitored for progress and improvements. A green travel plan for the council has been drafted		Transport Planning	Transport Planner
1.15 Reassess car parking provision for new developments	2009	In progress	All new developments are being scrutinised for car parking provisions. Car free developments are to be encouraged.		Development Planning	Development Planner
1.16 Subsidise bus, train and underground fares in order to achieve significant modal shift;		In progress	No progress to date, however this was highlighted in the consultation on the LIP as a measure to take forward.	Air Quality Action – to identify, in conjunction with the Transportation team, opportunities to lobby for subsidised travel.	Transport Planning	Transport Planner
1.17 Research into novel mechanisms for reducing emissions, e.g. creation of markets for car parking spaces, emission trading systems	2010	Not started yet	No progress to date		Transport Planning/ Environmental Strategy	Environmental Strategy

Action/Measure		In progress				
2.1 Introduce Home Zones/20 mph in residential areas subject to significant amounts of through traffic that should use alternative routes.	2009	In progress	The Council will continue its existing programme, for which the majority of schemes are funded by TfL, of speed reduction schemes including 20 MPH Zones. The Council's Road Safety Plan lays out the principles for developing the 20 MPH Zone Programme. The purpose of these zones is to improve the local environment and quality of life by reducing vehicle speeds, and deterring through traffic. Recent post implementation monitoring of 20 MPH zones in London shows that they are effective in speed reduction and in reducing accident levels.  Wellington Road – Objections to some of the proposals were received during the consultation exercise. Scheme was reported to Area Committee. Work has started on site and 70% of the traffic calming features have been implemented  Worple Road. Design was progressed and consultation took place with local school and residents. Area Committee gave approval to the scheme. Implementation is now proceeding. A public meeting was held last week to discuss local traffic issues including a CPZ proposal and the 20 mph zone.	This action plan measure has been incorporated into the LIP for implementation.	Development Planning	Street Management and Public Protection

2.2 Support the West London Transit Scheme project if appropriate	On-going	In progress	Monitoring progress of consultations		Transport Planning/ Environmental Strategy	Transport Planning/ Environmental Strategy
2.3 Ensure the provision of sufficient signage and details of spaces for public car parks;	On-going	In progress	Identification of deficient areas has begun – implementation has begun. This is on-going		Transport Planning	Transport Planner
2.4 Creation of Clear Zones	2008	Not started	No progress.	Air quality Action – to seek information from Camden on condition and criteria for Clear Zone.	Transport Planning	Transport Planner
2.5 Develop best practice advice to ensure air quality assessments are made for proposals for new transport infrastructure and changes to traffic management	2008	In progress	1-May-05 – WLAQ commissioned consultants to produce best practice guide for assessment of transport issues with regards to air quality impacts.  1-Sep-05 – guide published, assistance sought form GLA/TfL for promotion across London. Timescales - 2006/07 – WLAQ group to established communication strategy for guide; Promotional Workshops held. Promotional Presentations delivered at NSCA spring conference  Communication Strategy in place. Workshop for air quality and transport officers in April 2007. Presentation at Bristol Conference in March 2007  Feedback survey being conducted by TTR (Travel and Transport Research.	This action plan measure has been incorporated into the LIP for implementation.	West London Air Quality Cluster Group	West London Air Quality Cluster Group

2.6 Implement schemes along the high exceedance corridors designed to smooth traffic flows	2008	In progress	1-Apr-05 – commissioned consultants to audit strategic travel routes through WL in order to identify potential causes of congestion along the routes. 21-Jul-05 – launch of report.  Recommendations to be given to WLTS for implementation via WL BSP funding	2006/07 - WLAQ to link with WL Transport Group for implementation of findings and promotion to TfL for use as audit tool across London.	West London AQ Cluster Group	Environmental Strategy
2.7 Improve coordination of road works and provide more effective signing around them.	On-going	In progress	Traffic/ Transport coordinators in place to look at road works across the borough to minimise traffic disruption.		Transport	Transport Planner

occupancy vehicle lanes and freight priority schemes along the major exceedance corridors such as the M4 and A4	and local authorities around	2007.	Planning	
along the major exceedance corridors such as the M4			1 lanning	
corridors such as the M4	Heathrow:			
	HOV lanes – pilot study			
and A4	currently on M1, tend to work			
	better on radial routes than			
	orbital but may be consideration	0		
	on M25 close to t5 spur;	Carbon emissions to be		
	Freight only lanes – not	monetised;		
	applicable at present to areas	DMDD assessed to be also		
	around Heathrow as would mean relocating slow moving	DMRB currently being revised, overhaul of approach		
	freight closer to residential	to give a quick progression to		
	houses close to M4.	detailed assessment in areas		
	Houses close to M4.	where the EU limit is		
	Meeting with HA 20/11/06M4	breached, also to take into		
	Route Management Strategy	account cumulative impacts,		
	now finalised;	criteria for negligible change		
	Hounslow taking part in	also being revised		
	national diffusion tube			
	monitoring survey, results from			
	first 6 months in monitoring			
	section;			
	Diaming and the Strategic Book			
	Planning and the Strategic Road Network – document on DfT			
	website – gives clarity to HA			
	role, general presumption that			
	there will be no capacity			
	enhancements on routes of			
	strategic national importance			
	purely to accommodate new			
	developments, in any case			
	would be subject to stringent			
	environmental assessment;			
	Heathrow Junction M4			
	improvements total completion			
	by February 2007. Should give			
	beneficial impact on air quality			
	from reducing queue lengths;			
	Study due to start in early 2007			
	on what will be needed to cope			
	with the impact of T5 opening;			
	Any improvements to the M4 will			
	come via TVMMS measures eg			
	speed limits, ramp metering etc.			
	Decision in Spring 2007 as to			
	which measures will be taken			
	forward;			
	Trial of NOx removing paint to			
	start on M60;			

2.9 Implement tram system along the A4 in line with Council Policy	2010	Not started	Project for the Sustainable Development of Heathrow (PSDH) may investigate this measure. Report due Summer 2007		Transport Planning	Transport Planner
2.10 Implement measures such as variable message signing and other measures to smooth traffic flows on the HA/TfL routes M4 and surrounding link roads;	2008	In progress	January 2006 - Meeting with HA and local authorities around Heathrow: Brief being brought together looking at traffic management aspects. Variable speed signs on M25 have not shown demonstrable effects on journey times, also are very expensive; Motorway Access Management scheme assessing feasibility of ramp metering. Need to ensure measures are in place to prevent traffic queuing on local roads.  Meeting with HA 20/44 – impact of variable speed limits appreas to be a site specific issue with regards to impacts of air quality improvements.	Meeting to be arranged for 2007.	Transport Planning	

2.11 Influence Route	2008	In progress	January 2006 - Meeting with HA	Meeting to be arranged for	Environmental	Environmental
Management Strategy to		p. 29, 200	and local authorities around	2007.	Strategy	Strategy Officer
take account of air quality			Heathrow:			
			Brief being brought together looking at traffic management			
			aspects. Variable speed signs			
			on M25 have not shown			
			demonstrable effects on journey			
			times, also are very expensive;			
			Motorway Access Management			
			scheme assessing feasibility of			
			ramp metering. Discussions			
			about RMS's taking account of			
			Air Quality			
			Meeting with HA 20/11Study on			
			M1 in Sheffield, main air quality			
			issues from congestion in peak			
			hours so results not conclusive,			
			free-flowing traffic would show			
			better results. In the M4 area this measure may be part of			
			recommendations from TVMMS			
			on measures to take forward			
			although the impact of lowering			
			speeds will be site specific			
			dependent on the air quality			
			issues of the particular road.			
2.12 Use of speed limits on	2008	In progress	January 2006 - Meeting with HA	Meeting to be arranged for	Environmental	Environmental
major roads at the optimal			and local authorities around	2007.	Strategy	Strategy Officer
level for NOx and PM <sub>10</sub>			Heathrow:	2006 – M4 Junction 4		
emissions for the current			Junction 4 improvements	improvements scheduled for		
traffic profile;			predicted to reduce queuing at	2006.		
			junction and therefore have +ve air quality benefit;	Diffusion tube monitoring sites identified in Hillingdon		
			HA drawing together modelling	for a) residential exposure, b)		
			study looking at effect on	motorway boundary location.		
			change in emissions on a	motor way boundary roodilon.		
			flowing network;			
			HA to ask local authorities to			
			participate in diffusion tube			
			monitoring exercise.			

2.13 Identify air quality congestion-related hotspots throughout West London and the appropriate measures for delivering improvement in both congestion and air quality	On-going - 2010	In progress	Key congestion hot spots areas occur at the convergence of the following strategic roads:  M4  A4  A30  A205  A312  A316  A406  Schemes from this programme could involve:  *signal-phasing improvements, *redesign of intersection and reallocation of road space to traffic circulation  installation of roundabouts and *installation of new signals  Congestion hot spots are being looked at via the Local Implementation Plan which has been recently finalised	Air Quality Action – request detailed assessments at future hotspots prior to, and after, implementation of congestion-relieving schemes, especially in the cases where there is relevant public exposure to pollutants.  Proposal 15 To work with TfL and the Highways Agency to reduce the amount of Congestion Hot Spots in the Borough.  Proposal 16 To develop the boroughs transport environment for improved availability for pedestrian, cyclist and public transport users to balance with the existing demands of the car.  Proposal 17 To work with the local business community to mitigate against the impact of congestion on the local economy	Transport Planning	Transport Planner
2.14 Support rail projects that have the potential effect to cut through traffic e.g. Crossrail, implementation of stopping service on Piccadilly line at Turnham Green.	2008	In progress	Metropolitan and Piccadilly lines to Heathrow; Cross Rail; Air Track – rail service link between Heathrow and Staines; Extension of Piccadilly and HEX to Terminal 5; Provision of Heathrow Connect – stopping service (at Hayes) from Paddington to Heathrow. June 2005 – Heathrow Connect launched. 2008 – extension to T5 due for completion.  PSDH may investigate this measure – report due summer 2007	This action plan measure has been incorporated into the LIP for implementation. Air Quality Action – assess modal shift of Heathrow Connect and HEX with regards to access to Heathrow, quantify in terms of emissions reductions where feasible to do so.  Rail % to Heathrow: 2004 –9.3 2005 – 9.6 2006 – 8.8 (three quarters only)	Environmental Strategy	Environmental Strategy Officer

2.15 Use of fiscal measures, such as road pricing, for reducing traffic on major road networks	2008	In progress	January 2006 - Meeting with HA and local authorities around Heathrow: Road pricing will be lead by DfT, not the HA; Project Heathrow will be evaluating the area around Heathrow; Local authorities to identify any potential sites for application to HA Travel Behaviour programme (Slough Estates in 2006/07).  PSDH may investigate this measure – report due summer 2007	Meeting to be arranged for 2007.	Environmental Strategy	Environmental Strategy Officer
2.16 Establishment of cross- agency regional group to address air quality issues with regards to roads	2008	In progress	Suggested at HATF in June meeting. Discussed as AOB at December 05 HATF meeting. Group approval, Chair of Steering Group to action.		Environmental Strategy	Environmental Strategy Officer
2.17 Build over the arterial routes and scrub tunnel emissions	2010	Not Started	No Progress to date		Environmental Strategy	Not assigned
2.18 Lobby for Air Track link to Staines and the West		In progress			Transport Planning	
3.1 Implement an Action Plan via the BAA Heathrow Clean Vehicle Programme to make improvements in the Council vehicle fleet with regard to reducing emissions.			No progress to date. Request from ALG to all borough fleet managers for emissions inventory of fleet. March 2006 - Briefing note sent to fleet manager outlining emissions criteria for London LEZ.  Update assessment from Clean Vehicle Programme in Nov;		Environmental Strategy	Environmental Strategy Officer

3.2 Get local businesses and freight operators in Hounslow to sign up to the Clean Vehicle Programme and develop and implement action plans for reducing emissions;	2008	In progress	June 2006 - Project commissioned to audit freight sites and desire lines in Hounslow with regard to fleet profile, freight routes, existence of fleet/travel management plans, raise awareness of LEZ.  Report due and strategy will be written based on outcome		Environmental Strategy	Environmental Strategy Officer - Satbir
3.3 Train local authority drivers to minimise emissions, and consider opening training opportunities to other drivers working for businesses in Hounslow;	2008	In progress	Fleet management ensures that all drivers are tained, awareness of smooth driving and vehicle maintenance integral part of training		Environmental Strategy	
3.4 Implement Idling Vehicles Regulations and actively promote the use of the Dirty Diesel Hotline for reporting smoky vehicles spotted in Hounslow;	2008	In progress	Idling vehicles program guidelines drafted – implementation to start 2007/2008	This action plan measure has been incorporated into the LIP for implementation.	Environmental Strategy	Environmental Strategy Officer
3.5 Implement the recommendations of the London Low Emission Zone Feasibility Study jointly with the GLA, ALG and TfL.	2010 – as necessary	In progress	Attendance at Low Emission Zone meeting on 13-Dec-04 by Air Quality and Transportation officers from Hounslow. Joint consultation comments returned on LEZ project. 14-Dec-05 - Presentation arranged for the HATF on LEZ. Attendance at West London update meeting.  Hounslow will respond to the Review of Mayor's Air quality Strategy	Included in the LIP for implementation. Briefing note to be issued to Cabinet Environment Member and Transport Member recommending support for LEZ.	Environmental Strategy	Environmental Strategy Officer
3.6 Install signs in waiting areas of Council premises, bus garages, coach stations, railway crossings (with timings) and major leisure venues, etc. advising drivers to switch off engines when stationary;	2008	In progress	Identifying locations – Implementation via LIP	This action plan measure has been incorporated into the LIP for implementation.	Environmental Strategy	Environmental Strategy Officer

3.7 Trial new technology where appropriate e.g. greater use of electric vehicles in Council fleet, and act as a point of information for businesses and major fleet operators and other stakeholders in Hounslow for cleaner vehicle technologies, national schemes and grant systems for the use of alternative fuels:.	2008	In progress	Funding secured for 2006/2007 year for alternatively fuelled vehicles. Project identified – implementation timescale delayed due to lack of resources		Environmental Strategy	Environmental Strategy Officer
3.8 Participate in joint Vehicle Emissions Testing programme with other organisations	2008	In progress	Project identified but restricted by funding	To assess as potential regional project with West London boroughs in 2006/07.	Environmental Strategy	Environmental Strategy Officer
3.9 Provision of low or zero emission buses for schools within the high exceedance areas;	2010	In progress	No progress to date.		Environmental Strategy	Environmental Strategy Officer
3.10 Focusing on areas and corridors of high exceedance within residential areas, banning or restricting of traffic, or particular types of traffic, from identified roads;		In progress	Consideration is being given to 20MPH zones as well as the potential LEZ scheme  Wellington Road – Objections to some of the proposals were received during the consultation exercise. Scheme was reported to Area Committee. Work has started on site and 70% of the traffic calming features have been implemented  Worple Road. Design was progressed and consultation took place with local school and residents. Area Committee gave approval to the scheme. Implementation is now proceeding. A public meeting was held last week to discuss local traffic issues including a CPZ proposal and the 20 mph zone.		Environmental Strategy	Environmental Strategy Officer

3.11 Discounts for residents with low emission vehicles in Parking Management Areas	2008	In progress	Publicity due, currently working out logistics		Environmental Strategy	Environmental Strategy Officer
3.12 Develop sub-regional Bus Quality Partnerships focussed on addressing the contribution of buses and coaches to emissions.	2010	In progress	Sub regional partnerships developed West London Transport Strategy.  The council will continue its programme to develop and implement bus priority measures across the borough. Schemes are primarily designed to improve safety and to reduce bus journey times. They include measures to:  •Improvements to bus lanes; •Rationalisation of weighting and loading restrictions; •Signal improvements.  In terms of the enhancement and new routes there are two particular Borough priorities;  •Improving the links from across the Borough to the Ashford Hospital; •Creating a nightline bus service.	Partners for this proposal include: •London Bus Initiative & L B Bromley •Local residents and businesses •Term contractor for delivery •Transport for London •Neighbouring boroughs	Partnership	West London Air Quality and Transport Group

3.13 Provision of low emission buses in the West London/Heathrow region	2010	Planning Phase	Sub regional partnerships developed with Heathrow Area Transport Forum - March 2006 - awaiting publication of Bus and Coach Strategy. Consultation comments given on emerging Heathrow Surface Access Strategy to include linkages with air quality action plans and requirements for reduction in emissions.  Heathrow surface access strategy not yet published  Heathrow Bus and Coach Strategy published, commitment in the Strategy to ensure only LEZ compliant vehicles are stipulated in future BAA supported contracts.		Partnership	Heathrow Area Transport Forum (HATF)
3.14 Ensure freight developments in the West London area are subjected to an air quality assessment before implementation;	2005	Completed	May 2005 - Project commissioned for audit at 5 key freight hubs across West London, objectives to identify freight routes, raise awareness of the LEZ and gather activity data for future review and assessment work.  December 2005 – project results disseminated to WL Freight Quality Partnership.  Freight Strategy in the pipeline	Complete with regards to policy.	Partnership	West London Air Quality and Transport Group

3.15 Develop a Freight Strategy to include reducing the air quality impact of freight maximising opportunities to move freight from road to other modes e.g. canals.	2006	In progress	December 2005 – joint meeting of air quality officers and freight quality partnership reps. Potential joint working areas identified: Establishment of a freight depot map; Periodic freight audits to validate assumptions used for freight impact.  Freight Study due to be completed 2007 – Freight strategy will be the next step  Regular attendance at WLFQP meetings by member of WL AQ cluster group, opportunities raised for joint projects. Baseline freight map of the West London area has now been produced	Partnership	West London Freight Quality Partnership (WLFQP)
3.16 Facilitate the uptake and use of alternative fuels, including water-diesel emulsion. This should include development of appropriate alternative refuelling infrastructure where necessary e.g. charging points for electric vehicles	2007	In progress	SWELTRAC, of which Hounslow is a member are seeking funding for electric charging points and feasibility for a biodiesel project	Partnership	West London Freight Quality Partnership (WLFQP)

		Ι.		<u> </u>		147
3.17 Lobby national	2006	In progress	Establishment of West London		Lobbying	West London Air
government to, a) introduce			Air Quality Website - will include			Quality Group
policies with the aim of			current consultations page.			
accelerating the uptake of						
existing cleaner vehicles and			Website live Feb 2007, at			
fuels and			www.westlondonairquality.org.u			
b) Introduce even cleaner			k			
vehicles and fuels into the			_			
future fleet.			Relevant information and			
Relevant measures may			consultations will feature on the			
include:			website including information on			
Provide incentives			grants and cleaner vehicle			
through the fuel			technology			
duty system for						
water-diesel						
emulsion and						
other such fuels.						
<ul> <li>Make vehicle</li> </ul>						
excise duty						
reductions for						
retrofitting for						
smaller vehicles						
more significant;						
duty differential						
guarantee;						
<ul> <li>Increase and</li> </ul>						
extend PowerShift						
and CleanUp						
retrofitting grants;						
Operate a national						
incentive-based						
vehicle scrappage						
scheme for older						
vehicles;						
introduce Low						
Emissions Zones						
into all large urban						
areas;						
3.18 Ensure fiscal	2006	Not started	No progress to date		Lobbying	West London Air
encouragement of the						Quality and
adoption of low and zero			London Congestion Charge			Transport Group
emissions vehicles through			Zones and LEZ schemes are			
the provision of discounts			led by TfL therefore not in			
when entering any proposed			Hounslow control. Any			
LEZ or Congestion charging			Hounslow-specific scheme will			
zone;			look to include these points			

3.19 Promote best practice in terms of emissions management with the train operators, the Strategic Rail Authority and Network Rail;	2010	Not started	No progress to date	Lobbying	West London Air Quality and Transport Group
4.1 Continue to insist that existing problems are resolved and oppose any further expansion at Heathrow that leads to negative air quality impacts	2010	In progress	Air Quality panel work now completed.  March 2006 - awaiting publication of final Report  Air Quality Technical panel report published in July 2006, outlines best practice methodology for predicting air quality at Heathrow. This will form the basis of the air quality work which will inform the PSDH report due in summer 2007	Local Authority Led	Environmental Strategy
4.2 Assess the health impact of Heathrow Airport and associated activities	2010	Not started	No progress to date		Environmental Strategy
4.3 Provide feedback on Airport Masterplan. Ensure air quality considerations are properly considered in Heathrow Airport's Master Plan	On-going	In progress	Through air quality action planning meetings with BAA, Heathrow authorities keep abreast of the BAA AQAP	Environmental Strategy	Environmental Strategy Officer

T	т.	T	I		T
4.4 Support London Borough of Hillingdon in	In progress	Whilst compliance with the ATM limit is a matter for BAA to	The responsibility of monitoring the ATMs lies with	Partnership	Heathrow Air Quality Working
various actions, e.g.:		manage, the Council, in	BAA however Hillingdon have		Group
		common with the T5 Inspector,	asked, where possible, for		Gloup
Auditing ATM					
limits and BAA		regards it as a critical control	BAA to provide corroboration		
Heathrow Air		over the environmental impact	of the results from the CAA's		
Quality Action		of Heathrow.	figures.		
Plan		Currently asking BAA to confirm			
<ul> <li>Pursuing emission</li> </ul>		that in any in the event of any			
reductions on the		unforeseen overrun of the			
airport,		agreed 480,000ATM limit, it	Consultation sought with		
<ul> <li>Quantifying</li> </ul>		would reduce the ATMs in the	neighbouring boroughs where		
impacts of the		following year by twice the	impacts from on-airport		
BAA Air Quality		amount of the overrun.	development impact on their		
Strategy and			residents as opposed to		
Surface Access		This is a continual on-going	Hillingdon.		
Strategy		process.	3		
Develop best					
·		Meeting to be arranged with			
practice guidelines		BAA planning team to discuss			
to ensure air		securing of the network post T5			
quality impact		construction and into operation.			
assessments are		Car park extension in Longford			
integral part of		assessed for air quality impacts.			
development					
proposals, and		Mitigation sought for the			
that appropriate		increased impact on residential			
mitigation is taken		areas.			
		PM continues to be monitored			
		around the T5 site. No			
		exceedances of PM noted at			
		residential locations during			
		2006, construction now moving			
		to internal fit-out stage			
		AQ station at Longford and			
		Oaks Road both to be retained			
		post T5 opening. These are			
		both at key residential locations			
		Mitigation sought for on-airport			
		developments in 2006 eg car			
		rentals consolidation car park			
		close to residents in Longford			
		and potential redevelopment of			
		Terminal 2, the Heathrow East			
		terminal, which would include a			
		new on-airport Energy Centre			
		1 3, 22 30			

4.5 Work with other Boroughs to evaluate best practice from European and International airports with regard to the minimisation of	On Going	In progress	Work with the ARC members – Local authorities affiliated with airports.	Hounslow is a part of the Airports Regional Conference - ARC	Partnership	Heathrow Air Quality Working Group
air quality impacts and assess feasibility of application at Heathrow,						

4.6 Work with other	On-going	In progress	The Action Plan is currently	2006/07 – new station to be	Partnership	Heathrow Air
Boroughs and BAA to:			being revised and a new plan	located.		Quality Working
<ul> <li>Review air quality</li> </ul>			will be published in the next			Group
monitoring regime			month. Highlights from the	Station at Hatton Cross in		
at Heathrow and			2001-2006 action plan include:	operation now		
identify potential			Completion of the pre-			
gaps			conditioned air (PCA) trial. PCA			
Strengthen the			will be fitted to all stands for new			
existing BAA 5			generation large aircraft up to			
year action plan			2007; Increase of the number of			
Establishment of			airport companies signed dup to			
code of practice			the Clean Vehicle programme to			
for airlines best operating practice			a total of 55:			
to maximise			Establishment of a retail			
reduction of			consolidation centre which has			
emission			reduced retail delivery trips into			
61111061611			the Central Terminal Area by			
			more than 60%;			
			Trials hosted of alternatively			
			fuelled vehicles, LPG fuelling			
			facilities installed landside and			
			airside;			
			Studies commissioned into the			
			Heathrow vehicle fleet to identify			
			opportunities for emissions reductions;			
			Improvements made to			
			Heathrow Emissions Inventories			
			via the Project for the			
			Sustainable Development of			
			Heathrow process.			
			Air quality monitoring regime			
			reviewed as part of PSDH. New			
			monitoring station located north			
			east of Heathrow in February			
			2005.			
			Publication of Civil Aviation			
			Sustainable StrategyProgress			
			Report on Air Transport White			
			Paper published in December 2006. Heathrow expansion via			
			mixed mode and/or 3rd runway			
			still supported by Govt but only			
			if strict environmental criteria			
			such as AQ objectives can be			
			met. Full PSDH consultation			
			due in summer 2007OMEGA			
			set up by Govt, a multi-			
			disciplinary partnership to study			
			environmental, business and			
			operational impacts of			
			aviation.Hillingdon and			
			Hounslow to attend meeting in			
			April 2007 for update on			
			OMEGA workstreams			

4.7 Work with the Mayor to introduce a Heathrow specific LEZ to reduce emissions;  Accelerate take up of cleaner vehicle technology;  Set target for modal shift  Specify emissions criteria for vehicles routinely using the airport  Minimise the air quality impact of freight deliveries to and from Heathrow  Promote use of bus priority, guided buses and high occupancy vehicle lanes in the Heathrow area	On-going On-going	In progress	Heathrow included in the London Low Emission Zone area, however will not affect airside vehicles therefore this will need to be important part of new Heathrow Air Quality Strategy. Awaiting outcome of LEZ for Greater London proposal. All other issues yet to be looked at	Partnership	Heathrow Air Quality Working Group
4.8 Lobby Central Government to pursue more stringent emission standards for plant, aircraft and airside vehicles	2010	In progress	Ongoing – no outcomes yet	Partnership	Heathrow Air Quality Working Group
4.9 Reducing fares on the Heathrow Express to achieve modal shift	2010	In progress	Ongoing – no outcomes yet	Partnership	Heathrow Air Quality Working Group
4.10 Review air port passenger duty (APD) with a view to public transport improvement	2010	In progress	Ongoing – no outcomes yet	Partnership	Heathrow Air Quality Working Group

4.11 Work with National Government to ensure the use of all relevant fiscal measures to reduce emissions from and around Heathrow in order to achieve the 2010 EU limit, this could include a surface access charge and/or a landing charges scheme differentiated by emission levels	On-going On-going	In progress	November 2005 - Attendance at EFTEC "Reducing Greenhouse Gas Emissions from Aviation" conference. Review of Aviation White Paper due end of 2006. It is expected to include mitigation measures to ensure air quality limits are met and maintained at levels below the EU limit. July 2005 - Sustainable Aviation Strategy launched with targets stated for improvements in NOx emissions.  Publication of Civil Aviation Sustainable Strategy Progress Report on Air Transport White Paper published in December 2006. Heathrow expansion via mixed mode and/or 3rd runway still supported by Govt but only if strict environmental criteria such as AQ objectives can be met. Full PSDH consultation due in summer 2007OMEGA set up by Govt, a multidisciplinary partnership to study environmental, business and operational impacts of aviation. Hillingdon and Hounslow to attend meeting in April 2007 for update on OMEGA workstreams	EFTEC Conference - Hillingdon to ask DfT/DEFRA to consider the conclusions from the conference for application in the UK/Europe. The forthcoming European Commissions Working Group on this issue is due to report April 2006. Aviation White Paper - Hillingdon will maintain dialogue with DEFRA, DfT and neighbouring local authorities to ensure the measures suggested are adequate in terms of air quality mitigation. Sustainable Aviation Strategy - Hillingdon to seek independent review of targets set.	Partnership	Heathrow Air Quality Working Group

5.1 Install Combined Heat and Power where appropriate within the Borough;	2010	In progress	The Apple group (Air Pollution Planning and the Local Environment - London Air Quality Working Group) will assess CHP and Biomass issues in London.  Biomass assessment to be part of 2007 APPLE work programme	Mayoral support for biomass plants across London.	Local Authority Led	Planning
5.2 Improve public dissemination of industrial pollutant emissions data and other relevant information, for example on performance against permit conditions;	2007	In progress	Meeting with the EA in March 2006 to discuss Heathrow Part A issues and new T5 boilers – awaiting details from EA.		Local Authority Led	Environmental Strategy
5.3 Ban bonfires on all industrial sites;	2007	In progress	Best Practice Guide: Control of Emissions from Construction and Demolition for consultation on GLA website March 2006. Document out for consultation March 2006, to be finalised and agreed by ALG-Tec in June 2006.  Launched at the GLA - November 2006. Used in Hounslow as a planning condition	Recommendation in the Best Practice guide for no bonfires to be permitted on construction sites across London.	Local Authority Led	Environmental Strategy
5.4 Adopt a best practice strategy for all proposed demolition and development projects. This will include the use of low emission vehicles and equipment and the use of dust minimisation techniques. This may be achieved by responding to the consultation on London wide Construction Guide in development	2007	In progress	Best Practice Guide: Control of Emissions from Construction and Demolition for consultation on GLA website March 2006. Document out for consultation March 2006, to be finalised and agreed by ALG-Tec in June 2006.  See above	Recommendations in the Best Practice guide for use of low emissions vehicles on construction sites including retro-fitting of specialist vehicles.	Local Authority Led	Environmental Strategy

5.5 Continued regulation of part B processes and maintenance of part B register. Ensure register is available on-line check against Rob	2008	In progress	Waiting for 2005/06 report from Kings College.  New Part B website launched January 2007, link on council website, gives details of processes and permits within Hounslow	Local Authority Led	Environmental Strategy
5.6 Introduction of Environmental Award system for local industries and businesses probably on a West London basis?	2008	Planning Phase	No progress to date.	Local Authority Led	Environmental Strategy
5.7 Encourage businesses to participate in environmental management schemes and to continue to improve environmental performance	2008	Planning Phase	No progress to date.	Local Authority Led	Environmental Strategy
6.1 Provide a consolidated platform for advising businesses and the public of the risks of air pollution, ways of reducing pollution, and campaigns such as Bike to Work Week, bringing together information currently spread around several departments of the Council and other bodies.	2010	In progress	February 2006 – Hounslow signed up to YourAir and AirTEXT project – this will provide air quality predictions on a street by street basis via the website and offer a texting service to vulnerable receptors with regards to high air pollution episode warnings. AirTEXT launched in March 2007 – Articles in Hounslow Matters magazine to promote.	Local Authority Led	Environmental Strategy
6.2 Work with existing buildings and housing stock to secure improvements in emissions	2007	Planning Phase	Mayors' sustainable design and construction SPD adopted	Local Authority Led	Energy Efficiency Programme

6.3 Expanded use of existing mechanisms such as section 106 agreements for improvements in air quality. The agreement will relate to the location of the development with regards to exceedance areas, the scale of development and the projected emissions;	On-going	In progress	Continually having AQ input in planning application process. Taking part in planning enquiries etc.	APPLE working group project programme to include use of section 106 agreements and planning obligations.	Local Authority Led	Development Planning
6.4 Introduce, review and update Air Quality Supplementary Guidance when appropriate	2006	In progress	Draft Air Quality SPD being drafted. Will go to executive and committees mid 2007		Local Authority Led	Planning Policy
6.5 Quantify cumulative effects of new developments within AQMA	2006	In progress	Hounslow's entire Borough Area declared an Air Quality Management Area	To be included in AQ SPD in the LDF	Local Authority Led	Planning Policy
6.6 Develop supplementary planning guidance for sustainable design and construction ideally using a London wide model	2006	completed	Mayors Sustainable Design and Construction SPD adopted by Hounslow in summer 2005.		Local Authority Led	Development Planning
6.7 Raise awareness of sustainable waste management practices	2006	In progress	Full kerbside and green waste collection now available across all the borough		Local Authority Led	Waste Management
6.8 Development of West London Air Quality SPG to ensure consistency across Borough boundaries, explore opportunities for joint section 106 agreements	2006	In progress	The Hounslow LDF is currently being formulated, consultation comments will be submitted to include cross-boundary issues  Air Quality and Climate change linked to new draft as key spatial objectives		Partnership	West London Air Quality Group

7.1 Ensure that the London Development Framework, Local Implementation Plan (for transport), the Community Plan and future corporate strategies incorporate the Borough air quality action plan and local air quality strategy measures where appropriate;		In progress	July 2005 - Links made with air quality in the draft West London Economic Development Strategy; Borough LIP incorporates all relevant Air Quality Action plan measures and has targets in the LIP monitoring framework September 2005 - West London sub-regional development framework – consultation response included - inadequate inclusion of impact of Heathrow therefore need for extensive environmental improvements, no mention of Freight Quality partnership and the need to address the issue of introducing people into areas of poor air quality.  September 2005 – attendance at West London Environmental Strategies seminar – need for strong environmental objectives across the region identified as key objective; Hounslow's LDF currently at consultation stage, air quality policies identified for inclusion: link air quality and climate change, address issues of introducing receptors into areas of poor air quality, separation of sensitive receptors from polluting sources.  Air Quality and climate change as key objectives draft consultation ends March 2007	Ensure air quality comments are logged in current LDF consultation process.	Local Authority Led	Planning Policy Unit
7.2 Develop an environmental management system for LB Hounslow.	2008	Not started yet	No progress.		Local Authority Led	Environmental Strategy
7.3 Explore links with Access Hounslow for better coordination of environmental protection and action within Hounslow	2008	Not started yet	No progress.		Local Authority Led	Environmental Strategy

7.4 Implement an integrated procurement strategy so that purchase of goods and services is evaluated against London sustainability targets. This to include support to environmental industries in London, where appropriate.	2008	Not started yet	No progress	Local Authority Led	Environmental Strategy
7.5 Provide air quality information to interested parties and link with other health initiatives	2006	In progress	Maintain a presence on the Public Health Development Group forum – AQ interests are addressed from a health point of view  Periodic Air Quality updates in Hounslow Matters. AirTEXT and health effects publicised	Local Authority Led	Environmental Strategy
7.6 Implement infrastructure for effective and integrated distribution of goods in London.	2006	Not started yet	No progress	Local Authority Led	Environmental Strategy

7.7 Ensure consistency of Action Plan measures and explore all opportunities for regional measures for reducing emissions;	2007	In progress	Commuter sub-group of HATF identified as new area for potential joint working, meeting attended March 2006. Joint projects identified with WL Freight Quality partnership. Highways Agency meetings identified as annual event. Environment Agency meetings identified as 6-monthly event.  Joint projects identified with WL Freight Quality partnership.  Highways Agency meetings identified as annual event for Heathrow area.  Environment Agency meetings identified as 6-monthly event for Heathrow area.  Environment Agency meetings identified as 6-monthly event for Heathrow specific issues, attendance also at WL AQ Cluster Group.  Review of WL Air Quality Strategy complete and now includes links with Climate Change and a Communication Strategy	Partnership	West London Alliance

7.8 Development of regional Air Quality Strategy to tackle cross-boundary issues and include all National Air Quality Strategy pollutants, climate change etc	2006	In progress	Recommendation to link air quality and climate change within LAQM regime, more research needed to tackle impacts from aviation. This recommendation will be taken forward in our climate change program, aviation policy and air quality action plan  Nottingham declaration to be signed	Partnership	Local Authorities