

Runnymede Borough Council - England



2013 Air Quality Progress Report

for
Runnymede Borough Council

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

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Executive Summary

A system of Local Air Quality Management (LAQM) was introduced in the UK in 1997 under the requirements of the Environment Act 1995. There are seven pollutants to be considered and local authorities are required to periodically review and assess air quality across their areas to determine whether or not the air quality objectives for the specified pollutants are likely to be achieved.

This Progress Report provides monitoring data and reviews potential sources of air pollution for the year 2012.

The Council carries out diffusion tube monitoring for nitrogen dioxide and benzene.

Monitoring results for that period confirmed that exceedances of the annual mean nitrogen dioxide objective continue to occur in the AQMAs.

Outside the AQMAs, monitoring data collected during 2012 and preceding years confirmed the need to proceed to a Detailed Assessment for nitrogen dioxide, for the area in vicinity of the railway crossing in Vicarage Road, Egham and the area of the Bridge Road / Weir Road junction in Chertsey.

The results from site RY13 showed that Addlestone AQMA may have to be extended at its northern boundary. Additional monitoring started in May 2013 at site RY43 (further north along Chertsey Road) to determine the area of exceedance

Current diffusion tube monitoring network for nitrogen dioxide provides good spatial coverage. Full justification for maintaining the current monitoring provision has been given in **Section 2.2**.

Benzene monitoring results from a background site in Ottershaw have been much below the annual mean objective for a number of years, therefore it was decided to move the monitoring tube to a site considered to be a 'worst-case' location in terms of benzene exposure at a petrol station in Bridge Road in Chertsey.

The assessment of emission sources (transport, industrial, commercial and domestic, fugitive or uncontrolled) confirmed that there were no new or newly identified local developments which may have an impact on air quality within the Local Authority area.

Currently, the Council does not have policies specifically addressing air pollution or greenhouse gas emissions. However, a Draft Air Quality Action Plan (2013) includes Development Control measures aimed at ensuring adequate assessment of new development impacts and appropriate mitigation where adverse impacts are identified. As such, the AQAP will be able to constitute an air quality policy when and if adopted by the Council.

A feasibility study of the AQAP (2013) measures is due to be finalised in September 2013.

Regarding the Action Plan itself, having now received Defra's comments, the next course of action is to continue consultation with the Surrey County Council, Highways Agency, neighbouring local authorities and other statutory and non-statutory consultees.

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Appendix A: QA/QC Data

Appendix B: PPC installations within Runnymede

Appendix C: AQMAs within Runnymede

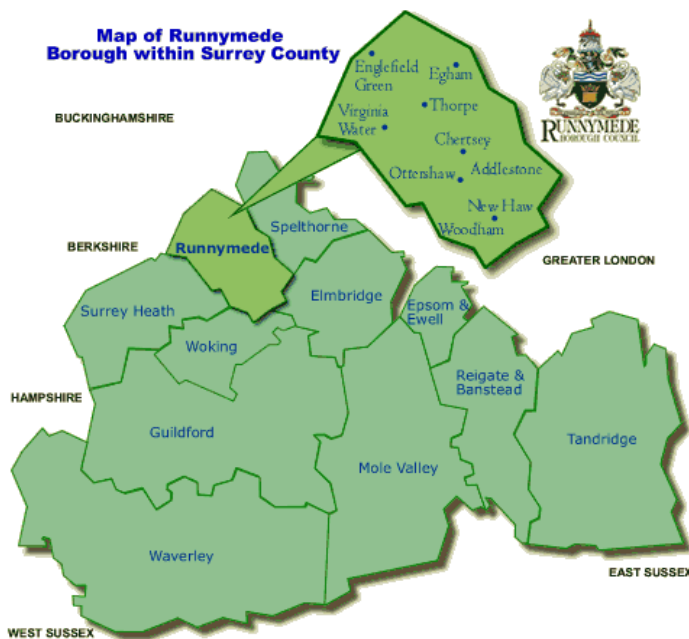
1 Introduction

1.1 Description of Local Authority Area

Main Characteristics

Runnymede lies approximately 30km in straight line southwest from central London. It is located in northwest Surrey. Its northern and eastern edges are formed by the rivers Thames and Wey respectively, its western boundary crosses Windsor Great Park and reaches the edge of Chobham Common (outside Borough Boundary), while to the south, the area extends almost to Woking. Runnymede includes the towns and villages of Addlestone, Chertsey, Egham, Egham Hythe, Englefield Green, Lyne, New Haw, Ottershaw, Row Town, Thorpe, Woodham and Virginia Water (as shown in **Figure 1-1** below).

Figure 1-1 Location of Runnymede in Surrey



Total area of Runnymede amounts to 7,804 hectares¹, of which 6,140 hectares (79%) is designated as the Metropolitan (London) Green Belt.

The population of Runnymede is 80,510². Population density is 10.3 people per hectare, which is over twice the regional and national average. The largest towns are listed below³:

Town	Population
▪ Addlestone	17,888
▪ Chertsey	11,766
▪ Egham	11,179
▪ Englefield Green	11,180

¹ 2011 Census: Quick Statistics - Population Density, 2011 (QS102EW).

² As above.

³ Estimated from Census 2001 and Census 2011 ward population data.

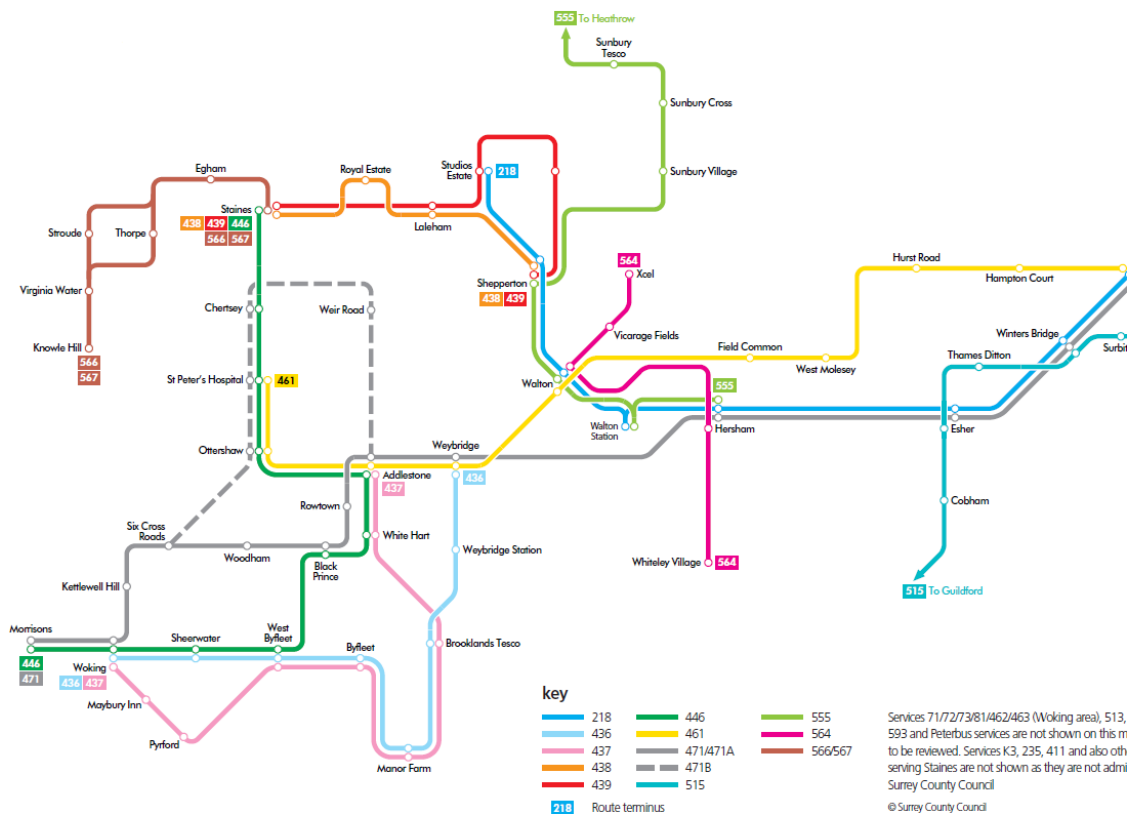
Road Traffic

The Borough is intersected by two motorways: the M25, which goes round London and runs north south through the Borough, and the M3 crossing east west, which links South West London to Southampton and the South Coast. Other major roads are the A30, A318, A317, and A320. The three largest towns of Addlestone, Chertsey and Egham are connected by A and B category roads. Main A roads connect the west part of the Borough with Windsor and Bracknell, and the south side of the borough connects well with Woking and Guildford. There is good access by road to the airports of Heathrow and Gatwick.

Road traffic is the main source of air pollution in Runnymede. The number of cars per household in Runnymede amounts to 1.5⁴. Car ownership within the Borough is higher than the average for England, with 85% of households having one or more cars available and 45% having two or more cars⁵. Such high car ownership may account for low usage of public transport.

There are a number of bus routes using the road network, as shown on map in **Figure 1-2**. Bus services in Runnymede were reviewed by Surrey County Council in August 2010. The buses are operated by different operating companies, Abellio Surrey being the most popular provider. A quality Bus Partnership operates in the north of the Borough on the Windsor - Heathrow route.

Figure 1-2 North Surrey bus routes map



⁴ 2011 Census: Key Statistics - Car or Van Availability, 2011 (KS404EW).

⁵ As above.

Railway

Runnymede has main line rail connections to London (Waterloo) and Reading. Southwest destinations can be reached through links with Weybridge, Woking and Guildford.

Airports

The distance from the Borough's boundary (intersecting M25) to Heathrow Airport (Terminal 5) via M25 is about 6 km.

Industry and infrastructure

Most of the built environment in Runnymede is residential in nature, due to the borough's close proximity and good road/rail access to London. Small pockets of industrial land use are mainly located on designated industrial/trade estates. More recently the area has been targeted for office developments (**Figure 1-3**). Main sources of employment are in the service sector.

Some 572 hectares (9%) of the borough's area is affected by heavy exploitation of its natural gravel and sand deposits, which have occurred for many decades, with another 142 hectares targeted for future extractions. The empty extraction pits have mainly been utilised by landfilling with domestic and inert commercial waste.

The list of industrial installations within the Borough regulated under the Pollution Prevention and Control regime is included in **Appendix B**. Nine industrial installations fall under A1 category and are regulated by the Environmental Agency. There are no type A2 installations. There are 35 Part B installations, comprising:

- 1 Cement Mortar Batching plant
- 4 Vehicle Respraying installations
- 6 Mobile Crushers
- 8 Dry Cleaners
- 13 Petrol stations
- 1 Mobile Roadstone Coating installation
- 2 Mobile Batching Plants

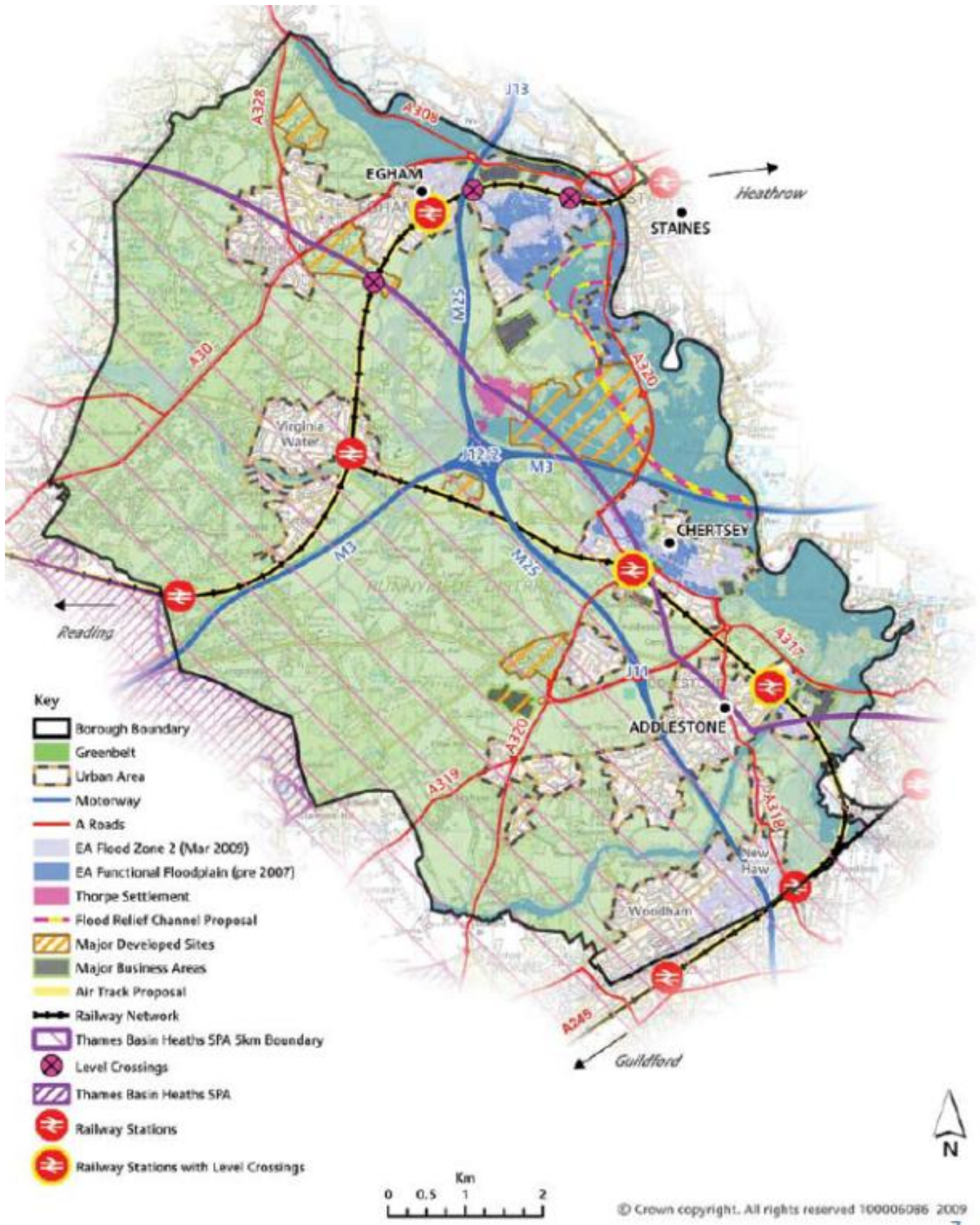
Runnymede Infrastructure Delivery Plan⁶ provides an overview of existing infrastructure provision and identify the future infrastructure and service needs for the Borough (for the emerging Local Plan period up to 2026).

It must be noted that 79% of the Runnymede area is comprised of Green Belt where there is a general presumption against major development with the exception of 'very special circumstances' as dictated

⁶ RBC (2013) *Infrastructure Delivery Plan*. Available from: http://www.runnymede.gov.uk/portal/binary/com.epicentric.contentmanagement.servlet.ContentDeliveryServlet/RBC%2520Portal/LGCL%2520Categories/Environment/Land_premises/Planning/Planning_policy/LDF/IDP/IDP_2013.pdf

by Planning Policy Guidance Note 2, Green Belts (1995). The restrictions over development extend to housing, where control goes as far as residential extensions and replacement dwellings.

Figure 1-3 Industry and Infrastructure in Runnymede.



1.2 Purpose of Progress Report

This report fulfils the requirements of the Local Air Quality Management process as set out in Part IV of the Environment Act (1995), the Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007 and the relevant Policy and Technical Guidance documents. The LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether or not the air quality objectives are likely to be achieved. Where exceedances are considered likely, the local authority must then declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) setting out the measures it intends to put in place in pursuit of the objectives.

Progress Reports are required in the intervening years between the three-yearly Updating and Screening Assessment reports. Their purpose is to maintain continuity in the Local Air Quality Management process.

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

1.3 Air Quality Objectives

The air quality objectives applicable to LAQM in England are set out in the Air Quality (England) Regulations 2000 (SI 928), The Air Quality (England) (Amendment) Regulations 2002 (SI 3043), and are shown in Table 1.1. This table shows the objectives in units of microgrammes per cubic metre $\mu\text{g}/\text{m}^3$ (milligrammes per cubic metre, mg/m^3 for carbon monoxide) with the number of exceedances in each year that are permitted (where applicable).

Table 1.1 Air Quality Objectives included in Regulations for the purpose of LAQM in England

Pollutant	Air Quality Objective		Date to be achieved by
	Concentration	Measured as	
Benzene	16.25 $\mu\text{g}/\text{m}^3$	Running annual mean	31.12.2003
	5.00 $\mu\text{g}/\text{m}^3$	Running annual mean	31.12.2010
1,3-Butadiene	2.25 $\mu\text{g}/\text{m}^3$	Running annual mean	31.12.2003
Carbon monoxide	10.0 mg/m^3	Running 8-hour mean	31.12.2003
Lead	0.5 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2004
	0.25 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2008
Nitrogen dioxide	200 $\mu\text{g}/\text{m}^3$ not to be exceeded more than 18 times a year	1-hour mean	31.12.2005
	40 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2005
Particles (PM ₁₀) (gravimetric)	50 $\mu\text{g}/\text{m}^3$, not to be exceeded more than 35	24-hour mean	31.12.2004

	times a year		
	40 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2004
Sulphur dioxide	350 $\mu\text{g}/\text{m}^3$, not to be exceeded more than 24 times a year	1-hour mean	31.12.2004
	125 $\mu\text{g}/\text{m}^3$, not to be exceeded more than 3 times a year	24-hour mean	31.12.2004
	266 $\mu\text{g}/\text{m}^3$, not to be exceeded more than 35 times a year	15-minute mean	31.12.2005

The air quality critical level for the protection of vegetation for nitrogen oxides, as set out in the Air Quality Standards Regulations 2010, is shown in **Table 1.2**. Although local authorities are not required to work towards the achievement of this objective, it was considered reasonable to include it in the report due to the Borough's proximity to a European habitat conservation site. Runnymede lies within a short distance of Chobham Common, site designated both as a Natural Nature Reserve (NNR) and a Site of Special Scientific Interest (SSSI). Chobham Common is also a component of two International Sites (European or Natura 2000 sites), the Thames Basin Heaths Special Protection Area (SPA) and Thursley, Ash, Pirbright and Chobham Special Area of Conservation (SAC).

Table 1.2 Nitrogen oxides critical level for the protection of vegetation (Schedule 6 of the Air Quality Standards Regulations 2010)

Pollutant	Critical Level	
	Concentration	Measured as
Oxides of nitrogen	30 $\mu\text{g}/\text{m}^3$	Annual mean

1.4 Summary of Previous Review and Assessments

1.4.1 First round of review and assessment

Runnymede Borough Council (the Council) undertook its first round of air quality review and assessment between the years 1999 and 2002. The assessment was carried out in four stages as prescribed by the then statutory guidance, and published as four consecutive air quality reports. In light of the more accurate and detailed Stage 3 Review and Assessment (completed in 2000), the Council declared an AQMA for NO₂ and PM₁₀ in November 2001 for the areas (**Figures C1 and C2 in Appendix C**):

- (Area 1 - north of junction 11) extending 70m east and west of the centre line of the M25 between Junction 11 and the Borough's boundary north of Junction 13;
- (Area 2 - south of junction 11) extending 55m east and west of the centre line of the M25 between Junction 11 and the southern boundary of the borough at New Haw/Byfleet.

1.4.2 Second round of review and assessment

Nitrogen dioxide monitoring data collated for the 2003 Updating and Screening Assessment confirmed that annual mean concentrations of nitrogen dioxide at all the diffusion tube monitoring sites complied with the objective.

However, the assessment of Runnymede road traffic identified roads at risk of NO₂ objectives being exceeded:

- One road with increased traffic flow: Woburn Hill;
- Three junctions: Eastwood Rd/Guildford Street; High Street/Church Rd; Woodham Lane/New Haw Rd.

A Detailed Assessment was undertaken for the above locations in 2004, however, dispersion modelling indicated that the only areas predicted to exceed the 2005 objective for NO₂ were those close to the M25 motorway (already part of the AQMA).

1.4.3 Third round of review and assessment

The 2006 Updating and Screening Assessment recorded elevated levels of NO₂ at roadside monitoring sites - RY1 in Addlestone and RY6 at the Leisure Centre in Egham (already within the M25 AQMA, the area north of junction 11).

No roads were identified as requiring dispersion modelling. Therefore, a Detailed Assessment (2007) was based on the monitoring results and focused on Addlestone town centre. As a result, an AQMA

for NO₂ was declared in July 2008 for the junction of High Street, Brighton Road and Church Road in Addlestone. The extent of this AQMA can be seen in **Figures C3 and C4, Appendix C**.

1.4.4 Fourth round of review and assessment

The 2009 Updating and Screening Assessment concluded that although there were no identified exceedances of the annual mean objective for nitrogen dioxide outside AQMAs in 2008 or the two preceding years, and no roads were considered to be requiring a Detailed Assessment, it was still necessary to undertake further diffusion tube monitoring, mainly in Addlestone, Egham and Chertsey, to monitor the levels of nitrogen dioxide on 'busy' roads.

Monitoring results for nitrogen dioxide as examined in the 2010 Progress Report showed potential exceedances of the annual mean objective at a few residential properties in the area nearest Vicarage Road level crossing in Egham (monitoring site RY26). It was, therefore, recommended to proceed to a Detailed Assessment in this location. The 2010 Report identified one planning application – to redevelop the former DERA site in Longcross - as likely to have a significant adverse impact on air quality in the areas where large increases in traffic flow would be incurred as a result of the proposed development. It was considered that the affected roads would include: C10 Trumpsgreen Road; B389 Sandhills Lane; B388 Mill House Lane; C10 Chobham Lane; C10 Stroude Road; B375 London Street and B388 Vicarage Road.

The Further Assessment for Addlestone AQMA, completed in 2010, confirmed that the highest concentrations of NO₂ occurred at the junction of High Street and Station Road. High NO₂ concentrations were also modelled close to the High Street the road centre (between Simplemarsh Road and Chapel Avenue, where "street canyon" effects can be expected to occur) and Station Road road centre (in the proximity of the railway station where higher emissions come from stationary traffic backing up behind the railway barriers). Heavy Goods Vehicles were found to contribute significantly to emissions.

1.4.5 Fifth round of review and assessment

The results from Runnymede diffusion tube sites as reported in the 2012 Air Quality Updating and Screening Assessment demonstrated that exceedances of the annual mean NO₂ objective continued to occur in the AQMAs. Outside the AQMAs the annual mean objective for nitrogen dioxide was exceeded at the following diffusion tube monitoring sites in 2010 and/or 2011: RY13, RY18, RY21, RY23, RY25, RY26, RY31. It was estimated that nitrogen dioxide concentrations at receptors nearest to those sites, calculated using Defra's nitrogen dioxide fall-off with distance spreadsheet, exceeded the annual mean objective at sites RY13, RY23, RY25 and RY26. Due to exceedances at site RY13, Addlestone AQMA may have to be extended at its northern boundary. Further monitoring should continue further north along Chertsey Road, and up to the Chertsey Road A318/St Peter's Way A317 roundabout.

Results from short-term automatic monitoring of nitrogen dioxide at Vicarage Road, Egham, in 2011 showed that the annual mean recorded at the monitoring site exceeded the objective. This has been confirmed by the results from diffusion monitoring sites RY25 and RY26, both of which recorded concentrations high enough to raise concern of annual mean objective having been exceeded in 2010 and 2011 at the residential properties nearest to the diffusion tube sites, in Vicarage Road, Vicarage Crescent and Pooley Green Road. Therefore, the 2012 report recommended that a Detailed Assessment was necessary for NO₂ in those areas.

Finally, nitrogen dioxide concentrations at the receptors in the vicinity of the Bridge Road/Weir Road junction (site RY23) may have exceeded the annual mean objective in 2010/2011 and future monitoring in that area was recommended.

On the basis of the results from the Highway's Agency continuous monitoring site in Staines (years 2007-2010) and the results from the short-term automatic monitoring in Vicarage Road, Egham (2011), it was proposed to proceed to a Detailed Assessment for the areas of the existing AQMA along the M25 to review the validity of the original AQMA designation with respect to particulates (PM₁₀).

As monitoring results for benzene at site RY3 had been much below the objective of 5.00 µg/m³ for a number of years, it was decided to move the monitoring tube to a worst-case location where benzene concentrations were expected to be the highest.

Surrey County Council's Transport Assessment Report (2012), produced to assess transport impacts of the development scenarios proposed by the emerging Local Plan (2013) for the period 2009-2026, identified several roads considered to experience significant (over 25%) increase in traffic flow between the years 2009 (base year) and 2026. Those roads included:

- Addlestone: B3121 Church Road and A319 Chertsey Road;
- Chertsey: A317 Eastworth Road, B386 Holloway Hill, A320 Guildford Road, A317 St Peter's Way, Chilsey Green Road, St Anns Road;
- Ottershaw: A319 Chobham Road, Almers Road, Longcross Road, Stonehill Road, Foxhills Road, Hardwick Lane, Kitsmead Lane;
- Egham: A30 Egham Hill, A320 Staines Road;
- Virginia Water: A30 London Road, Trumps Green Road, Wellington Avenue.

The 2012 report recommended diffusion tube monitoring in some of those areas currently not included in the monitoring programme to be aware of any potential future changes in nitrogen dioxide concentrations.

Finally, it had been noted that the Council did not have policies specifically addressing air pollution or greenhouse gas emissions.

Air Quality Action Plan

In 2008, a draft action plan was prepared for Runnymede Air Quality Management Areas, which set out measures aimed at improving air quality and achieving the air quality objectives in the Borough. The draft AQAP was last reviewed and updated in 2012/13.

A Draft Air Quality Action Plan was submitted to Defra at the end of May 2013 and we received Defra's comments the following month. The Plan includes six categories of projects (Development Control, Monitoring, Infrastructure Projects, Traffic Emissions Control, Sustainable Transport and Promotion), ranked according to their perceived feasibility as 'green' (most feasible, some already being implemented), 'amber' (given lower priority due to either high cost of implementation or/and low effectiveness) and 'red' (suspended from further consideration due to low feasibility).

The list of the proposed measures is preliminary and will be consulted upon and reviewed to identify the most effective projects to address local air quality issues. Most of the actions require the assistance and co-operation of partners. The preferred options (prioritised measures) will have to undergo a feasibility and emission reduction study in order to quantify the costs and benefits of their implementation. The measures will be reviewed and revised annually to ensure that the work remains focused on the best suited projects.

We have been recommended by Defra to select indicators for each objective which is taken forwards in the final version of the AQAP and provide an estimate of the overall impact of the (prioritised) measures in the AQAP, which would help understanding whether (and when, if so) the 'green' actions will address the air quality problem in the AQMAs. It has also been recommended to us to focus on measures that address the identified majority source of emissions – that is HGVs - and that the measures that are taken forwards are allocated indicators to measure their delivery progress and success.

The Runnymede AQAP is intended to be an evolving plan that will further develop in time, and a result will be the subject of ongoing consultation by stakeholders and others. The Environment Act 1995 requires the Council to undertake extensive consultation at each stage of the process, thus creating an iterative method of action. Having now received Defra's comments, the Plan is to be sent to the Surrey County Council, Highways Agency, neighbouring local authorities and other statutory and non-statutory consultees. All comments from both Statutory and non-statutory consultees received on the draft Action Plan will be considered and incorporated where appropriate into the final Action Plan. The final AQAP will be the subject of Council approval through its Cabinet.

2 New Monitoring Data

2.1 Summary of Monitoring Undertaken

2.1.1 Automatic Monitoring Sites

Runnymede Council does not operate any long-term automatic monitoring stations for any of the specified pollutants.

2.1.2 Non-Automatic Monitoring Sites

The Council carries out diffusion tube monitoring for nitrogen dioxide and benzene.

Nitrogen dioxide (NO₂) Monitoring Programme

Runnymede had thirty monitoring sites in 2012 (**Table 2.1**), mostly at roadside locations, of which a few (RY1, RY6, RY8 and RY9) have been in operation since the launch of Defra's UK Nitrogen Dioxide Network programme in 1993. The programme operated until 2005 and has been continued on a voluntary basis.

Circa 2004, three tubes - RY10, RY11 and RY12 - were added to the programme for the purposes of a co-location study. They were located at a Highways Agency's M25 J13 site near Staines and deployed by the Centre for Sustainability, TRL, alongside the Highways Agency's continuous analyser. The monitoring stopped in March 2011 when the site was decommissioned (due to lack of funding).

Local knowledge and monitoring and modeling data from previous years provided basis for the identification of new monitoring sites. The new monitoring programme started in October 2009 and its focus is on town centres with roads of the following characteristics:

- Busy streets or junctions with residential properties and/or where people may spend 1 or more hours;
- Narrow congested streets with residential properties.

The sites are shown on the map in **Figure 2-1**.

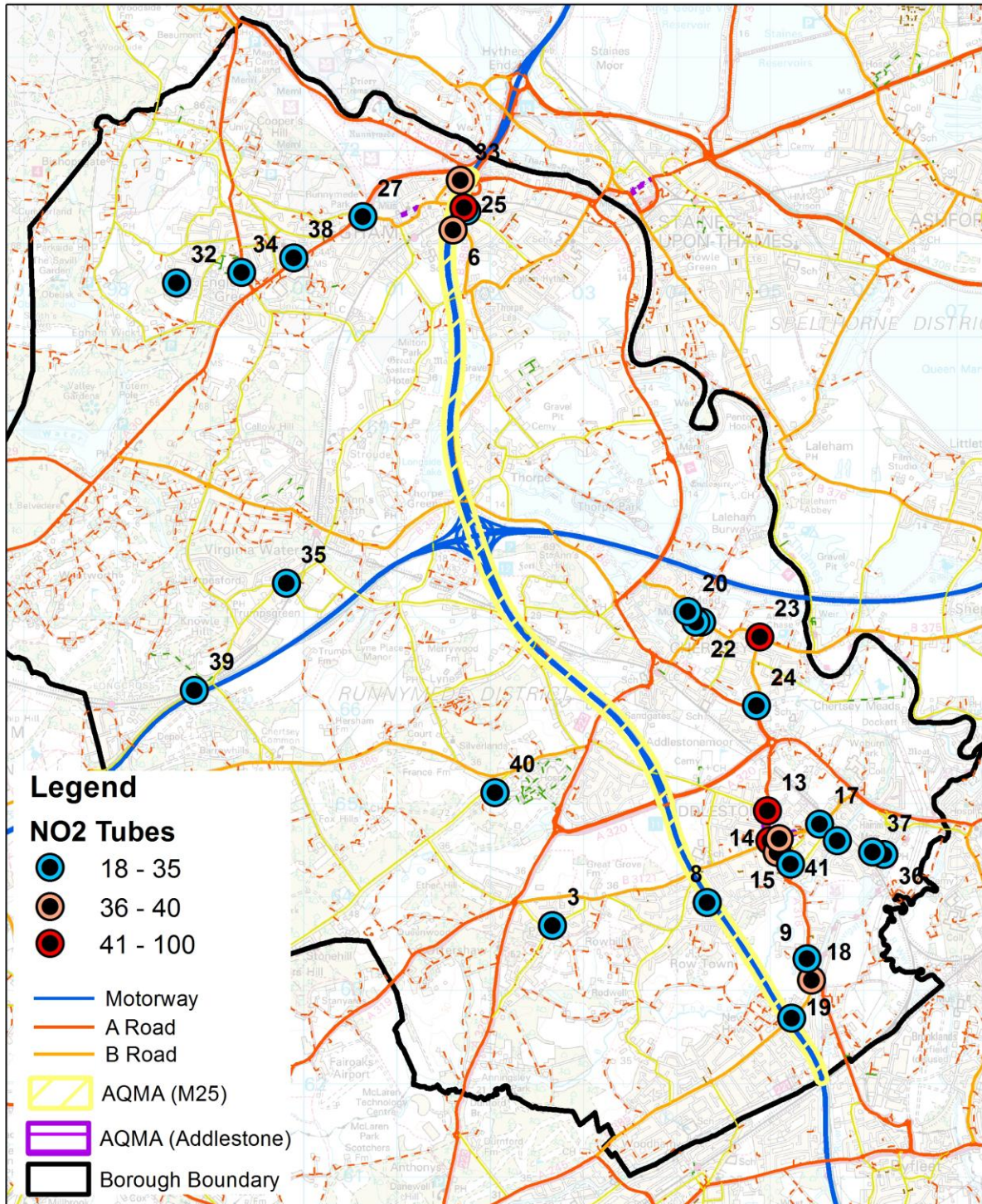
Benzene Monitoring Programme

Benzene has been monitored for a number of years (since circa 1995) at a background location, next to a nitrogen dioxide diffusion tube at the site RY3 (site details in **Table 2.1**, with the location shown on map in **Figure 2-1**).

Site Name	Site Type	Site Type	XY OS Grid Ref	In AQMA?	Is monitoring collocated with a Continuous Analyser (Y/N)	Relevant Exposure? (Y/N with distance (m) to relevant exposure)	Distance to kerb of nearest road (N/A if not applicable)	Does this location represent worst-case exposure?	Monitoring Period
RY3	Brockhurst Residential Home, Brox Road, Ottershaw	Urban background	X 502663 Y 163693	N	N	Y (22.0 m)	7.0 m	N	1995-Dec 2012

Figure 2-1 Map of Non-Automatic Monitoring Sites, 2012 (30 sites)

Runnymede Diffusion Tube Monitoring Network (2012)



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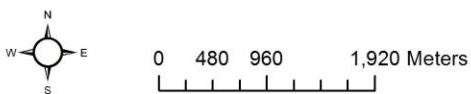


Table 2.1 Details of Non-Automatic Monitoring Sites

Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	In AQMA?	Is monitoring collocated with a Continuous Analyser (Y/N)	Relevant Exposure? (Y/N with distance (m) to relevant exposure)	Distance to kerb of nearest road (N/A if not applicable)	Does this location represent worst-case exposure?	Monitoring Period
RY1	Civic Centre, Station Road, Addlestone	Roadside	X 505095 Y 164623	Y	N	Y (2.0 m)	2.0 m	N	1993-to date
RY3	Brockhurst Residential Home, Brox Road, Ottershaw	Urban background	X 502663 Y 163693	N	N	Y (22.0 m)	7.0 m	N	1993-to date
RY4	Riverside Sheltered Housing, Pitson Close, Addlestone	Urban background	X 505712 Y 164622	N	N	Y (5.0 m)	5.0 m	N	1993-07/2012
RY6 *	Egham Sports Centre, Vicarage Road, Egham	Roadside	X 501595 Y 171124	Y	N	Y (12.0 m)	11.0 m	N	1993-to date
RY8	Ongar Place First School, Milton Road, Addlestone	Roadside	X 504325 Y 163940	Y	N	Y (26.0 m)	21.0 m	N	1993-to date
RY9	175 New Haw Road, New Haw	Roadside	X 505395 Y 163337	N	N	Y (13.0 m)	2.0 m	N	1993-to date
RY13	1-22 Wyvern Place, High St, Addlestone	Roadside	X 504959 Y 164778	N	N	Y (0.5 m)	2.0 m	N	10/2009-to date
RY14	1 Church Road, Addlestone	Roadside	X 504993 Y 164600	Y	N	Y (0.5 m)	1.5 m	Y	10/2009-to date
RY15	23 Brighton Road, Addlestone	Roadside	X 505036 Y 164554	Y	N	Y (4.5 m)	5.5 m	N	10/2009-to date
RY17	158 Station Road, Addlestone	Roadside	X 505589 Y 164844	N	N	Y (0.5 m)	3.5 m	Y	10/2009-to date
RY18	New Haw Road/Woodham Lane roundabout, New Haw	Roadside	X 505443 Y 163107	N	N	Y (1.0 m)	4.5 m	Y	10/2009-to date

Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	In AQMA?	Is monitoring collocated with a Continuous Analyser (Y/N)	Relevant Exposure? (Y/N with distance (m) to relevant exposure)	Distance to kerb of nearest road (N/A if not applicable)	Does this location represent worst-case exposure?	Monitoring Period
RY19	78 Woodham Lane, New Haw	Roadside	X 505227 Y 162701	Y	N	Y (8.5 m)	2.5 m	Y	10/2009-to date
RY20	26 Windsor Street, Chertsey	Roadside	X 504117 Y 167060	N	N	Y (0.5 m)	3.5 m	N	10/2009-06/2012
RY21	London Street/Heriot Road junction, Chertsey	Roadside	X 504261 Y 166945	N	N	Y (1.0 m)	1.0 m	Y	10/2009-to date
RY22	Guildford Street, Chertsey	Roadside	X 504203 Y 166940	N	N	Y (0.5 m)	3.5 m	Y	10/2009-to date
RY23	37 Bridge Road, Chertsey	Roadside	X 504888 Y 166786	N	N	Y (8.0 m)	1.0 m	Y	10/2009-to date
RY24	Eastworth Road/Chertsey Road junction	Roadside	X 504852 Y 166046	N	N	Y (9.5 m)	3.0 m	Y	10/2009-to date
RY25	1 Pooley Green Road, Egham	Roadside	X 501748 Y 171316	N	N	Y (7.5 m)	1.5 m to edge of nearest lane (parked vehicles) 13.0 m to edge of road (flowing traffic)	Y	10/2009-to date
RY26	Railway crossing, Vicarage Road, Egham	Roadside	X 501716 Y 171383	N	N	Y (6.0 m)	2.5 m	Y	10/2009-to date
RY27	Egham Hill roundabout (193/195 High Street), Egham	Roadside	X 500634 Y 171287	N	N	Y (3.0 m)	1.0 m	Y	10/2009-to date
RY32	Beechtree Avenue, Englefield Green	Urban Background	X 498638 Y 170580	N	N	Y (8.0 m)	> 50.0 m	N	10/2009-07/2012
RY33	46 The Avenue, Egham	Roadside	X 501679 Y 171676	Y	N	Y (1.0 m)	15m from the Avenue & 43m from the M25	Y	01/2011-to date
RY34	Jct. of St Jude's Road & Bagshot Rd	Roadside	X 499334 Y 170688	N	N	Y (1.0 m)	1.0 m	Y	01/2011-to date

Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	In AQMA?	Is monitoring collocated with a Continuous Analyser (Y/N)	Relevant Exposure? (Y/N with distance (m) to relevant exposure)	Distance to kerb of nearest road (N/A if not applicable)	Does this location represent worst-case exposure?	Monitoring Period
RY35	7 Fairview Cottages, Trumps Green Road, Virginia Water	Roadside	X 499815 Y 167362	N	N	Y (11.0 m)	2.0 m	N	07/2011-to date
RY36	5 Ham Moor Lane, Addlestone (Weybridge Business Park)	Industrial	X 506218 Y 164454	N	N	N	2.0 m	Y	05/2012-12/2012
RY37	3 Shakespeare Road, Addlestone (Weybridge Business Park)	Industrial	X 506093 Y 164481	N	N	Y (3.0 m)	1.5 m	N	05/2012-12/2012
RY38	The Beeches, Chestnut Drive, Egham	Roadside	X 499891 Y 170847	N	N	Y (30.0 m)	13.0 m	N	08/2012-to date
RY39	Chobham Lane, Longcross, near Kitsmead Lane roundabout	Roadside	X 498827 Y 166217	N	N	N	10m from Chobham Lane & 39m from the M3	Y	08/2012-to date
RY40	Homewood Park, Stonehill Road	Urban Background	X 502052 Y 165119	N	N	N	68.0 m	N	08/2012-to date
RY41	1 Hampshire Court, Bush Close, Addlestone	Urban Background	X 505214 Y 164352	N	N	Y (9.0 m)	63.0 m	N	08/2012-to date

* Tube moved higher up the fence from 01/09/2010.

2.2 Comparison of Monitoring Results with Air Quality Objectives

2.2.1 Nitrogen Dioxide (NO₂)

Diffusion Tube Monitoring Data

Results from the diffusion tube monitoring survey, 'new' monitoring programme, are presented in **Table 2.5**. Results from the established sites of the diffusion tube monitoring survey are shown in **Tables 2.3** (bias unadjusted) and **2.4** (bias adjusted). The latter dataset covers a much longer period of time, so it was possible to examine trends in concentrations at those sites, as shown in **Figure 2-2**. The annual mean concentrations above 40µg/m³ were marked in bold.

- ***Sites exceeding annual mean objective outside AQMAs***

The sites which exceeded the annual mean objective of 40 µg/m³ in 2012 outside AQMAs are listed in **Table 2.2** below. **Table 2.2** also shows the estimated concentrations at receptors nearest to those sites, calculated using Defra's nitrogen dioxide fall-off with distance spreadsheet.

As can be seen from the results from site RY13, Addlestone AQMA may have to be extended at its northern boundary. Further monitoring started in May 2013 at site RY43 - further north along Chertsey Road to determine the area of exceedance.

The 2012 Updating and Screening Assessment report recommended that a Detailed Assessment was required for NO₂ for the area in the vicinity of monitoring sites RY25 and RY26 including receptors along Vicarage Road, Vicarage Crescent and Pooley Green Road. Results from 2012 showed lower concentrations than in previous years, however the 'national' bias adjustment factor used was the lowest in a decade increasing uncertainty of the results.

Concentrations at the receptors in the vicinity of the Bridge Road/Weir Road junction (site RY23) may have exceeded the annual mean objective in 2010/2011 and a Detailed Assessment for that area was recommended in the 2012 Updating and Screening Assessment report. As in the case of sites RY25/RY26, concentrations seem to have reduced in 2012, however uncertainty over the accuracy of the results remains an issue. Additional monitoring started in May 2013 further along Weir Road at site RY45 to determine the area of exceedance.

The area in immediate proximity of Heriot Road/London Street roundabout (site RY21) is considered to be the worst-case location for nitrogen dioxide concentrations in Chertsey town centre. The annual

mean concentrations are not considered to be exceeding the objective, however future monitoring at the site is recommended.

Table 2.2 Sites exceeding annual mean objective for nitrogen dioxide outside AQMAs, 2012

Site	Annual Mean Concentr. 2012 [$\mu\text{g}/\text{m}^3$]	Estimated total annual mean background concentr. ¹ 2012 [$\mu\text{g}/\text{m}^3$]	Distance from kerb to receptor	Distance from kerb to monitoring tube	Predicted annual mean concentr. at receptor ² 2012 [$\mu\text{g}/\text{m}^3$]	Comment / Recommendation
RY13	48.8	26.5	7.5 m	2.0 m	41.9	Site adjacent to Addlestone AQMA. showed that the AQMA can be extended at its northern boundary. Additional monitoring started in May 2013 further along Chertsey Road at site RY43 to determine the area of exceedance.
RY23	49.0	23.4	9.0 m	1.0 m	37.7	Detailed Assessment required on the basis of previous years' results. Uncertainty over the bias factor make it difficult to establish actual concentrations. Six-month results for RY23 for 2013 showed a mean of 59.2 $\mu\text{g}/\text{m}^3$. Additional monitoring started in May 2013 further along Chertsey Road at site RY45 to determine the area of exceedance.
RY25, RY26	39.9 (RY25) 55.9 (RY26)	30.3	23 m (RY25) 10.0 m (RY26)	13.0 m (RY25) 2.5 m (RY26)	37.6 (property nearer RY25) 47.1 (Property nearer RY26)	Detailed Assessment required on the basis of previous years' results. Continue monitoring at the sites RY25 and RY26 due to potential exceedances of the annual mean NO_2 objective at a few receptors in the vicinity of the railway crossing at Vicarage Road, Pooley Green Road and Vicarage Crescent.

¹ Source: Defra's 2010 based background pollution maps.

² Defra's fall-off with distance calculation spreadsheet (Issue 4: 25/01/2011).

Sites exceeding annual mean objective inside AQMAs

The sites exceeding the annual mean objective for NO_2 in 2012 within the Addlestone AQMA were sites RY1 and RY14 (the worst case location in the AQMA).

There were no sites within the M25 AQMA which exceeded the objective in 2012.

Trends in concentrations

The results from established diffusion tube sites (**Tables 2.3** and **2.4**) cover sufficient periods of time to examine trends in concentrations at those sites, as shown in **Figure 2-2**.

The trend graph in **Figure 2-2** shows increasing annual mean concentrations at the sites RY1 (within the Addlestone AQMA) and RY6 (within the M25 AQMA) and decreasing concentrations at the roadside location RY9.

Table 2.3 NO₂ results for 1998-2012, established sites, bias unadjusted.

Tube ID	Annual Mean Concentrations [$\mu\text{g}/\text{m}^3$] / Data Capture [%]														
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
RY1	38.8	48.5	35.9	37.2	36.1	35.5	35.1	27.6	28.5	38.6	37.6	43.2	43.6	39.8	46.5
	100.0	91.7	100.0	100.0	100.0	91.7	100.0	58.3	83.3	100.0	91.7	83.3	91.7	100.0	91.7
RY3	23.5	25.9	25.1	20.4	22.9	22.6	19.5	16.7	15.9	20.5	21.8	20.4	20.5	18.9	21.7
	91.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	83.3	91.7	83.3	100.0	91.7	100.0	100.0
RY4	24.8	26.6	25.5	25.4	22.2	21.8	17.8	17.4	19.9	22.3	23.8	22.7	24.0	25.5	22.4
	100.0	100.0	100.0	100.0	91.7	100.0	83.3	100.0	91.7	100.0	75.0	91.7	100.0	100.0	58.3
RY6	46.0	46.9	47.1	34.2	32.7	39.5	33.6	34.2	28.3	40.2	42.1	42.1	39.2	40.5	42.3
	100.0	100.0	91.7	91.7	100.0	100.0	91.7	83.3	91.7	100.0	83.3	91.7	58.3	100.0	75.0
RY8	26.3	29.2	26.6	30.0	25.7	29.7	22.0	23.0	19.9	22.7	24.2	24.0	30.3	23.0	23.8
	100.0	100.0	91.7	91.7	100.0	100.0	100.0	91.7	83.3	100.0	91.7	91.7	100.0	75.0	100.0
RY9	-	-	-	33.3	34.4	36.8	34.0	28.5	29.2	33.2	32.5	30.9	31.5	31.3	32.9
	-	-	-	100.0	100.0	100.0	100.0	100.0	91.7	91.7	91.7	91.7	100.0	100.0	100.0

- Data capture of below 90%
- Data not adjusted to estimate annual mean
- Data adjusted to estimate annual mean

Table 2.4 NO₂ results for 1998-2012, established sites, bias adjusted (national database bias factor).

Tube ID	Annual Mean Concentrations [$\mu\text{g}/\text{m}^3$] / Data Capture [%]														
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
RY1	*	*	34.8	40.5	41.5	37.2	41.8	34.2	36.5	41.3	36.9	44.5	46.3	42.2	40.4
	100.0	91.7	100.0	100.0	100.0	91.7	100.0	58.3	83.3	100.0	91.7	83.3	91.7	100.0	91.7
RY3	*	*	24.3	22.3	26.4	23.7	23.2	20.7	20.4	22.0	21.4	21.0	21.8	20.1	18.9
	91.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	83.3	91.7	83.3	100.0	91.7	100.0	100.0
RY4	*	*	24.7	27.7	25.5	22.9	21.2	21.6	25.5	23.8	23.3	23.4	25.4	27.0	19.5
	100.0	100.0	100.0	100.0	91.7	100.0	83.3	100.0	91.7	100.0	75.0	91.7	100.0	100.0	58.3
RY6	*	*	45.7	37.3	37.6	41.5	40.0	42.4	36.2	43.0	41.3	43.4	41.6	42.9	36.8
	100.0	100.0	91.7	91.7	100.0	100.0	91.7	83.3	91.7	100.0	83.3	91.7	58.3	100.0	75.0
RY8	*	*	25.8	32.7	29.5	31.2	26.2	28.5	25.5	24.3	23.7	24.7	32.2	24.4	20.7
	100.0	100.0	91.7	91.7	100.0	100.0	100.0	91.7	83.3	100.0	91.7	91.7	100.0	75.0	100.0
RY9	-	-	-	36.2	39.6	38.7	40.5	35.3	37.4	33.2	31.9	31.8	33.4	33.1	28.6
	-	-	-	100.0	100.0	100.0	100.0	100.0	91.7	91.7	91.7	91.7	100.0	100.0	100.0

- Data capture of below 90%
- Data were not adjusted to estimate annual mean
- Data adjusted to estimate annual mean

Table 2.5 Results of Nitrogen Dioxide Diffusion Tubes in 2012

Site ID	Location	Site Type	Within AQMA?	Data Capture 2012 (Number of Months or %) ^b	Data with less than 9 months has been annualised ^c (Y/N)	Confirm if data has been distance corrected (Y/N)	Annual mean concentration (Bias Adjustment factor = 0.87)	Comments
							2012 ($\mu\text{g}/\text{m}^3$)	
RY13	1-22 Wyvern Place, High St, Addlestone	Roadside	N	83.3	N	N	48.8	Site adjacent to Addlestone AQMA. Results showed that the AQMA can be extended at its northern boundary. Additional monitoring started in May 2013 further along Chertsey Road at site RY43 to determine the area of exceedance.
RY14	1 Church Road, Addlestone	Roadside	Y	91.7	N	N	53.0	Results confirm the validity of the AQMA. The site represents the worst-case location within the AQMA.
RY15	23 Brighton Rd, Addlestone	Roadside	Y	91.7	N	N	36.2	Results confirmed the validity of the AQMA southern boundary.
RY17	158 Station Rd, Addlestone	Roadside	N	91.7	N	N	32.8	The site did not exceed the annual mean objective, however should be retained as new development was constructed at the railway station in Addlestone in December 2012 and due to new development proposed at Aviator Park and as part of Addlestone redevelopment scheme.
RY18	New Haw Road/Woodham Lane roundabout, New Haw	Roadside	N	83.3	N	N	36.4	
RY19	78 Woodham Lane, New Haw	Roadside	Y	83.3	N	N	35.0	The site is located within the M25 AQMA.
RY20	26 Windsor Street, Chertsey	Roadside	N	58.3	N	N	26.3	The site did not show exceedances of the annual mean objectives in either 2010 or 2011. The tube was removed in 2012.
RY21	London Street/Heriot Road junction, Chertsey	Roadside	N	100.0	N	N	34.0	The site represents a worst-case location in Chertsey town centre and therefore is worth retaining.
RY22	Guildford Street, Chertsey	Roadside	N	66.7	Y	N	32.8	This site could be closed down provided 2013 results show no exceedances.

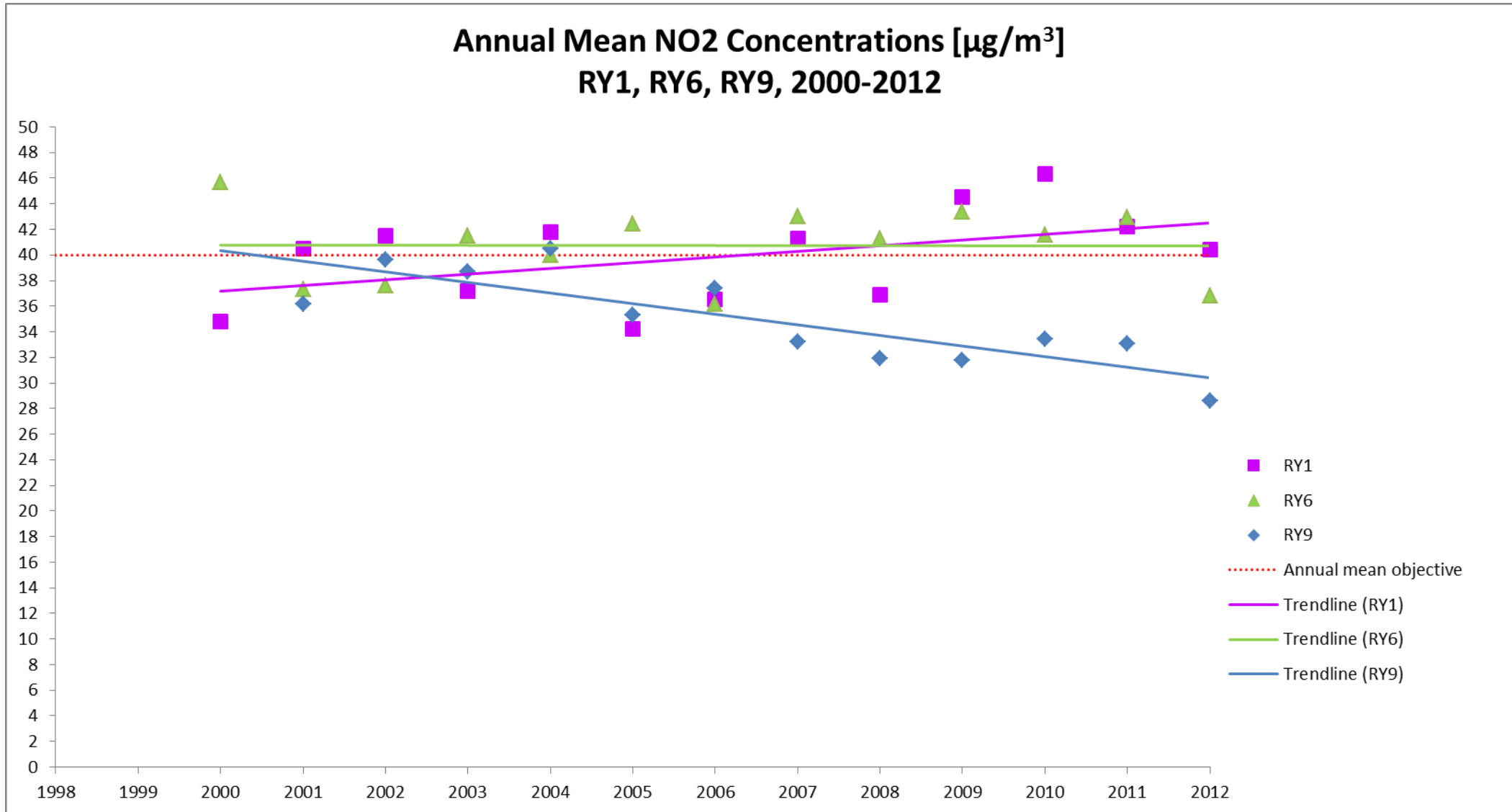
Site ID	Location	Site Type	Within AQMA?	Data Capture 2012 (Number of Months or %) ^b	Data with less than 9 months has been annualised ^c (Y/N)	Confirm if data has been distance corrected (Y/N)	Annual mean concentration (Bias Adjustment factor = 0.87)	Comments
							2012 ($\mu\text{g}/\text{m}^3$)	
RY23	37 Bridge Road, Chertsey	Roadside	N	100.0	N	N	49.0	Detailed Assessment required on the basis of previous years' results. Uncertainty over the bias factor make it difficult to establish actual concentrations. Six-month results for RY23 for 2013 showed a mean of $59.2 \mu\text{g}/\text{m}^3$. Additional monitoring started in May 2013 further along Chertsey Road at site RY45 to determine the area of exceedance.
RY24	Eastworth Road/Chertsey Road junction	Roadside	N	58.3	Y	N	26.4	Although RY24 was well below the objective in 2012, the site showed concentrations close to the objective in the preceding years. Further monitoring is recommended due to the site being a marker for traffic in Chertsey.
RY25	Vicarage Rd/Pooley Green Rd junction, Egham	Roadside	N	58.3	Y	N	39.9	Detailed Assessment required on the basis of previous years' results. Continue monitoring at the sites RY25 and RY25 due to potential exceedances of the annual mean NO_2 objective at a few receptors in the vicinity of the railway crossing at Vicarage Road, Pooley Green Road and Vicarage Crescent.
RY26	Railway crossing, Vicarage Road, Egham	Roadside	N	75.0	Y	N	55.9	Detailed Assessment required on the basis of previous years' results. Continue monitoring at the sites RY25 and RY25 due to potential exceedances of the annual mean NO_2 objective at a few receptors in the vicinity of the railway crossing at Vicarage Road, Pooley Green Road and Vicarage Crescent.
RY27	Egham Hill roundabout (193/195 High Street), Egham	Roadside	N	100.0	N	N	31.8	Although RY27 was well below the objective in 2012, the site showed concentrations close to the objective in the preceding years. Further monitoring is recommended due to the site being a marker for traffic in Egham.
RY32	Beechtree Avenue, Englefield Green	Urban Background	N	50.0	N	N	19.9	The site was a background site for the area of Egham. It was closed down in Jul 2012 as it was perceived more justifiable to have a background site in Virginia Water near the planned DERA redevelopment site.
RY33	46 The Avenue, Egham	Roadside	Y	100.0	N	Y	35.5	Site representative of relevant exposure, within AQMA. Results confirm the validity of the AQMA.
RY34	Jcn. Of St Jude's Rd & Bagshot Rd	Roadside	N	58.3	Y	N	22.9	Although RY34 was well below the objective in 2012, the site showed concentrations close to the objective in the preceding years. Further monitoring is recommended due to the site being a marker for traffic in Egham.

Site ID	Location	Site Type	Within AQMA?	Data Capture 2012 (Number of Months or %) ^b	Data with less than 9 months has been annualised ^c (Y/N)	Confirm if data has been distance corrected (Y/N)	Annual mean concentration (Bias Adjustment factor = 0.87)	Comments
							2012 ($\mu\text{g}/\text{m}^3$)	
RY35	7 Fairview Cottages, Trumps Green Road, Virginia Water	Roadside	N	91.7	N	N	23.8	Although concentrations have been below the objective the site is a worse-case location for traffic in Virginia Water.
RY36	5 Ham Moor Lane, Addlestone (Weybridge Business Park)	Industrial	N	58.3	Y	N	21.0	The site RY36 and RY37 were closed down in 2013 as measured concentrations did not show any exceedances.
RY37	Shakespeare Road, Addlestone (Weybridge Business Park)	Industrial	N	66.7	Y	N	25.0	The site RY36 and RY37 were closed down in 2013 as measured concentrations did not show any exceedances.
RY38	The Beeches, Chestnut Drive, Egham	Roadside	N	41.7	Y	N	30.1	The site has been a marker for traffic in the vicinity of Royal Holloway University of London in Egham.
RY39	Chobham Lane, Longcross, near Kitsmead Lane roundabout	Roadside	N	41.7	Y	N	28.6	Tube not positioned correctly (water often found in tube).
RY40	Homewood Park, Stonehill Road	Urban background	N	33.3	Y	N	16.0	The site provides data for background concentrations in Virginia Water.
RY41	1 Hampshire Court, Bush Close, Addlestone	Urban background	N	25.0	Y	N	25.1	The site provides data for background concentrations in Addlestone.

^b i.e. data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%.)

^c Means should be "annualised" as in Box 3.2 of TG(09), if monitoring was not carried out for the full year.

Figure 2-2 Trends in Annual Mean Nitrogen Dioxide Concentrations measured at Diffusion Tube Monitoring Sites



2.2.2 Benzene

The annual mean concentrations from the BTEX tube were consistently below the objective of 5.00 $\mu\text{g}/\text{m}^3$ in 2012 and preceding years (**Table 2.6**). The BTEX tube at site RY3 was sited at a background location, over 20 m away from the nearest local road. As the results have been much below the objective of 5.00 $\mu\text{g}/\text{m}^3$ for a number of years, it was decided to close down site RY3 in December 2012 and move the monitoring tube from January 2013 to a worst-case location where benzene concentrations are expected to be the highest.

There were no sites in the Borough where it would be necessary to proceed to a Detailed Assessment for benzene on the basis of the screening criteria for benzene sources (industrial installations, major petrol storage depot or relevant petrol stations) as detailed in the box 5.5 of the TG(09) guidance.

However, there are two petrol stations considered to be worst-case locations for benzene exposure (**Table 2.7**). The existing BTEX tube will be moved to the petrol station in Bridge Road from January 2013 to determine the levels of benzene at that location.

Table 2.6 Results of Benzene BTEX tube 2007-2012

Site ID	Data Capture	Annual mean concentrations ($\mu\text{g}/\text{m}^3$)*					
		2007	2008	2009	2010	2011	2012
RY3	100%	n.d.	2.4	2.1	1.6	1.3	0.9

* Converted from ppb (1ppb = 3.25 $\mu\text{g}/\text{m}^3$)

Table 2.7 Petrol station locations to be assessed for benzene emissions

Petrol Station	Annual petrol throughput	Distance to Road & Road AADT	Stage 2 RS fitted?	Distance from pumps to receptor
Chertsey Service Station, 102 Bridge Road, Chertsey, Surrey, KT16 7LR	40,000-70,000 l per week	AADT = 30,000	Fitted in January 2013	10 m
Runnymede Service Station, 38-45 The Avenue, Egham, Surrey, TW20 9AD	2,464,000 l (2009 throughput for diesel & petrol)	AADT = 13,600	Not fitted.	10 m

2.2.3 Summary of Compliance with AQS Objectives

Runnymede Borough Council has measured concentrations of nitrogen dioxide above the annual mean objective at relevant locations outside of the AQMA, and **will need to proceed to a Detailed Assessment**, for the area in vicinity of the railway crossing in Vicarage Road, Egham and the area of the Bridge Road / Weir Road junction in Chertsey.

Addlestone AQMA may have to be extended at its northern boundary. Additional monitoring started in May 2013 at site RY43 (further north along Chertsey Road) to determine the area of exceedance.

3 New Local Developments

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

Runnymede Borough Council confirms that all the following have been considered:

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

4 Local / Regional Air Quality Strategy

The Air Quality Strategy for Surrey forms part of Surrey's third Local Transport Plan (LTP3), completed by the Surrey County Council in April 2011 and consisting of several thematic strategies. Further details of the Strategy have been provided in the 2012 Updating and Screening report.

5 Planning Applications

Table 5.1 below lists all planning applications, for which air quality assessment was either provided or for which it was/will be considered.

A request for a Scoping Opinion have been submitted regarding a proposed redevelopment of Addlestone town centre. The proposal is likely to significantly increase traffic in Addlestone and result in an extension of the existing AQMA.

Other individual applications have not usually been likely to give rise to significant air quality impacts. At the same time, cumulative effects which may have otherwise shown a significant change in traffic flows and worsening of air quality could not be given sufficient consideration due to associated planning or legal issues.

Table 5.1 Proposed developments over 100 residential units

Location	Planning Application	Proposed Number of Residential Units and/or Proposed Area of Commercial Space	Proposed Number of Car Parking Spaces	Comments
Addlestone Bourneside, Former Civic Offices and Police Station, Station Road, Garfield Road (outline), Addlestone, KT15 2AH	RU.13/0810	Up to 175 res. units Hotel Retail store Cinema Gym Community uses	130 (0.85 per unit)	Requested an EIA Scoping Opinion. The proposed development is adjacent to the AQMA and likely to significantly increase traffic in Addlestone and result in an extension of the existing AQMA.
Addlestone, Land at Aviator Park, Station Road, Addlestone, KT15 2PG	RU.13/0770	200	262? (The actual number to be confirmed)	The site is near but not immediately adjacent to Addlestone AQMA. Screened by the planning Department as not likely to arise in significant air quality impacts due to the scale of the proposal. Not likely to give rise to a 'significant' impact as an individual application, however cumulative i have not been assessed e.g. RU.09/0316 (already constructed). The Applicant only assessed the change in trip generation associated with the proposed change in use as compared to a consented office development - as planning permission was granted in 2000 for a scheme comprising six office buildings, of which two have been built.
Addlestone North, Former Safeway foodstore Addlestone North carpark, 179 Station Road, Addlestone	RU.09/0316 Grant Consent - subject to conditions 25-06-2009	112 res. units	82 (0.73 per unit)	Consent granted. Air quality assessment not required. Development in progress.
Royal Holloway University of London Egham Hill Englefield Green Surrey TW20 0EX	RU.13/0832	Up to 2,700 bed spaces Up to 55,000 m ² floorspace	Unknown	Requested an EIA Scoping Opinion regarding the proposed development. The development is to enable growth to 12,000 students by 2031.

6 Air Quality Planning Policies

Currently, the Council does not have policies specifically addressing air pollution or greenhouse gas emissions.

However, a Draft Air Quality Action Plan (2013) includes Development Control measures aimed at ensuring adequate assessment of new development impacts and appropriate mitigation where adverse impacts are identified. The implementation of these measures is subject to the Plan's adoption by the Council.

7 Local Transport Plans and Strategies

Surrey's third Local Transport Plan (LTP3), produced in 2011 and covering the period 2011-2026, consists of several thematic strategies, which include the Air Quality and Climate Change Strategies. Further details of the Plan have been provided in the 2012 Updating and Screening report.

8 Climate Change Strategies

Two Climate Change Strategies have been produced for Surrey. One forms part of Surrey's third Local Transport Plan completed by the Surrey County Council in April 2011, and the other was produced by the Surrey Climate Change Partnership in 2009, looking to provide a framework to address climate change across Surrey over the period to 2020. Further details of the two Strategies have been provided in the 2012 Updating and Screening report.

9 Implementation of Action Plans

A Draft Air Quality Action Plan was submitted to Defra at the end of May 2013 and we received Defra's comments the following month. The Plan includes six categories of projects (Development Control, Monitoring, Infrastructure Projects, Traffic Emissions Control, Sustainable Transport and Promotion), ranked according to their perceived feasibility as 'green' (most feasible, some already being implemented), 'amber' (given lower priority due to either high cost of implementation or/and low effectiveness) and 'red' (suspended from further consideration due to low feasibility).

We have been recommended by Defra to select indicators for each objective which is taken forwards in the final version of the AQAP and provide an estimate of the overall impact of the (prioritised) measures in the AQAP, which would help understanding whether (and when, if so) the 'green' actions will address the air quality problem in the AQMAs. It has also been recommended to us to focus on measures that address the identified majority source of emissions – that is HGVs - and that the measures that are taken forwards are allocated indicators to measure their delivery progress and success. These recommendations are in full considered as part of a feasibility study of the AQAP measures, due to be finalised in September 2013.

Having now received comments from Defra, the Plan is to be sent to the Surrey County Council, Highways Agency, neighbouring local authorities and other statutory and non-statutory consultees. All comments from both Statutory and non-statutory consultees received on the draft Action Plan will be considered and incorporated where appropriate into the final Action Plan. The final AQAP will be the subject of Council approval through its Cabinet.

10 Conclusions and Proposed Actions

10.1 Conclusions from New Monitoring Data

Sites outside AQMAs

The annual mean objective for nitrogen dioxide was exceeded in 2012 at the diffusion tube monitoring sites RY13 (Addlestone High Street), RY23 (Bridge Road, Chertsey) and RY26 (Vicarage Road, Egham). It has been estimated that nitrogen dioxide concentrations at receptors nearest to those sites, calculated using Defra's nitrogen dioxide fall-off with distance spreadsheet exceeded the annual mean objective at sites RY13 and RY26.

On the basis of diffusion tube results from 2012 and preceding years Runnymede Borough Council will need to proceed to a Detailed Assessment, for the area in vicinity of the railway crossing in Vicarage Road, Egham and the area of the Bridge Road / Weir Road junction in Chertsey.

As can be seen from the results from site RY13, Addlestone AQMA may have to be extended at its northern boundary. Additional monitoring started in May 2013 at site RY43 (further north along Chertsey Road) to determine the area of exceedance

The area in immediate proximity of Heriot Road/London Street roundabout (site RY21) is considered to be the worst-case location for nitrogen dioxide concentrations in Chertsey town centre. The annual mean concentrations are not considered to be exceeding the objective, however future monitoring at the site is recommended.

Sites inside AQMAs

The results from 2012 confirmed that exceedances of the annual mean NO₂ objective continue to occur in the AQMAs.

10.2 Conclusions relating to New Local Developments

The assessment of emission sources (transport, industrial, commercial and domestic, fugitive or uncontrolled) confirmed that there were no new or newly identified local developments which may have an impact on air quality within the Local Authority area.

10.3 Other Conclusions

Currently, the Council does not have policies specifically addressing air pollution or greenhouse gas emissions.

However, a Draft Air Quality Action Plan (2013) includes Development Control measures aimed at ensuring adequate assessment of new development impacts and appropriate mitigation where adverse impacts are identified. As such, the AQAP will be able to constitute an air quality policy when and if adopted by the Council.

Defra's recommendations following the review of the AQAP have been considered in full as part of a feasibility study of the AQAP measures, due to be finalised in September 2013.

Having now received Defra's comments, the Plan is to be sent to the Surrey County Council, Highways Agency, neighbouring local authorities and other statutory and non-statutory consultees.

10.4 Proposed Actions

Monitoring

It is perceived that the current diffusion tube monitoring network for nitrogen dioxide provides good spatial coverage. Therefore, it is recommended to continue monitoring at existing sites until they are no longer of concern, and then potentially relocate tubes to other areas where monitoring is required. Full justification for each monitoring site has been given in **Table 2.5 (Section 2.2)**.

The BTEX tube for benzene was moved from January 2013 to a petrol station site in Chersey with the aim to determine benzene concentrations at a site considered to be a worse-case location for benzene exposure.

Detailed Assessment

On the basis of diffusion tube results from 2012 and preceding years Runnymede Borough Council will need to proceed to a Detailed Assessment, for the area in vicinity of the railway crossing in Vicarage Road, Egham and the area of the Bridge Road / Weir Road junction in Chertsey.

As can be seen from the results from site RY13, Addlestone AQMA may have to be extended at its northern boundary. Additional monitoring started in May 2013 at site RY43 (further north along Chertsey Road) to determine the area of exceedance

AQAP

A feasibility study of the AQAP measures is due to be finalised in September 2013.

Having now received Defra's comments, the AQAP is now to be sent to the Surrey County Council, Highways Agency, neighbouring local authorities and other statutory and non-statutory consultees.

2014 Progress Report

The next course of action will be to submit a 2015 Updating and Screening report by end of April 2014.

Appendix A: QA:QC Data

Diffusion Tube Bias Adjustment Factors

Runnymede's diffusion tubes are supplied by Lambeth Scientific Services Limited.

50% triethanolamine (TEA) solution is the absorbent used to prepare the tubes.

The bias adjustment factor applied is a combined bias adjustment factor derived from the national database of co-location studies, available from the LAQM Support Website.

Table A1 below provides the list of correction factors for the years 2000-2012.

Table A 1 Diffusion Tube Bias Adjustment Factors, 2000-2012 (Spreadsheet Version Number: 07_13-Final)

Year	Bias Adjustment Factor
2000	0.97
2001	1.09
2002	1.15
2003	1.05
2004	1.19
2005	1.24
2006	1.28
2007	1.07
2008	0.98
2009	1.03
2010	1.06
2011	1.06
2012	0.87

Factor from Local Co-location Studies (if available)

Co-location tube site (tubes RY10, RY11 and RY12) closed in March 2011 when the Highways Agency's M25 J13 continuous monitoring site near Staines was decommissioned (due to lack of funding).

Short-term to Long-term Data adjustment

Nitrogen dioxide diffusion tube monitoring data with data capture rate below 75% were adjusted to estimate an annual mean concentration using the same guidance (Technical Guidance (09), Box 3.2).

The nearest continuous monitoring sites best meeting the relevant criteria for the adjustment of short-term monitoring data are:

- Mole Valley – Dorking (all data fully ratified)
 - 99% data capture rate for NO₂ between 01/01/2012 and 31/12/2012

- Harrow – Stanmore (all data fully ratified)
 - 98% data capture rate for NO₂ between 01/01/2012 and 31/12/2012

The sites are part of the LAQN network and the monitoring results were derived from the LAQN website.

Table A 2 Adjustment to estimate annual mean NO₂ concentration for site RY22, 2012

RY22, 2012				
Site	Site Type	Annual Mean	Period Mean*	Ratio
Mole Valley, Dorking	Urban Background	23.2	24.3	0.955
Harrow, Stanmore	Urban Background	24.8	26.5	0.936
			Average	0.946

*Period Mean to adjust site RY22 results: Jan, Feb, Apr, May, Aug, Oct, Nov, Dec 2012

Table A 3 Adjustment to estimate annual mean NO₂ concentration for site RY24, 2012

RY24, 2012				
Site	Site Type	Annual Mean	Period Mean*	Ratio
Mole Valley, Dorking	Urban Background	23.2	26.2	0.883
Harrow, Stanmore	Urban Background	24.8	28.5	0.869
			Average	0.876

*Period Mean to adjust site RY24 results: Jan, Feb, Mar, Apr, Sep, Oct, Nov 2012

Table A 4 Adjustment to estimate annual mean NO₂ concentration for site RY25, 2012

RY25, 2012				
Site	Site Type	Annual Mean	Period Mean*	Ratio
Mole Valley, Dorking	Urban Background	23.2	20.5	1.129
Harrow, Stanmore	Urban Background	24.8	21.8	1.138
			Average	1.134

*Period Mean to adjust site RY25 results: Jan, May, Jun, Jul, Aug, Oct, Dec 2012

Table A 5 Adjustment to estimate annual mean NO₂ concentration for site RY26, 2012

RY26, 2012				
Site	Site Type	Annual Mean	Period Mean*	Ratio
Mole Valley, Dorking	Urban Background	23.2	22.7	1.020
Harrow, Stanmore	Urban Background	24.8	24.7	1.003
			Average	1.012

*Period Mean to adjust site RY26 results: Jan, Feb, May, Jun, Jul, Aug, Oct, Nov, Dec 2012

Table A 6 Adjustment to estimate annual mean NO₂ concentration for site RY34, 2012

RY34, 2012				
Site	Site Type	Annual Mean	Period Mean*	Ratio
Mole Valley, Dorking	Urban Background	23.2	27.1	0.855
Harrow, Stanmore	Urban Background	24.8	28.9	0.856
			Average	0.855

*Period Mean to adjust site RY34 results: Jan, Feb, Mar, Apr, May, Nov, Dec 2012

Table A 7 Adjustment to estimate annual mean NO₂ concentration for site RY36, 2012

RY36, 2012				
Site	Site Type	Annual Mean	Period Mean*	Ratio
Mole Valley, Dorking	Urban Background	23.2	21.7	1.067
Harrow, Stanmore	Urban Background	24.8	23.6	1.050
			Average	1.059

*Period Mean to adjust site RY36 results: May, Jun, Jul, Sep, Oct, Nov, Dec 2012

Table A 8 Adjustment to estimate annual mean NO₂ concentration for site RY37, 2012

RY37, 2012				
Site	Site Type	Annual Mean	Period Mean*	Ratio
Mole Valley, Dorking	Urban Background	23.2	20.9	1.110
Harrow, Stanmore	Urban Background	24.8	22.8	1.086
			Average	1.098

*Period Mean to adjust site RY37 results: May, Jun, Jul, Aug, Sep, Oct, Nov, Dec 2012

Table A 9 Adjustment to estimate annual mean NO₂ concentration for site RY38, 2012

RY38, 2012				
Site	Site Type	Annual Mean	Period Mean*	Ratio
Mole Valley, Dorking	Urban Background	23.2	23.0	1.008
Harrow, Stanmore	Urban Background	24.8	27.4	0.903
			Average	0.956

*Period Mean to adjust site RY38 results: Aug, Sep, Oct, Nov, Dec 2012

Table A 10 Adjustment to estimate annual mean NO₂ concentration for site RY39, 2012

RY39, 2012				
Site	Site Type	Annual Mean	Period Mean*	Ratio
Mole Valley, Dorking	Urban Background	23.2	23.0	1.008
Harrow, Stanmore	Urban Background	24.8	27.4	0.903
			Average	0.956

*Period Mean to adjust site RY39 results: Aug, Sep, Oct, Nov, Dec 2012

Table A 11 Adjustment to estimate annual mean NO₂ concentration for site RY40, 2012

RY40, 2012				
Site	Site Type	Annual Mean	Period Mean*	Ratio
Mole Valley, Dorking	Urban Background	23.2	25.0	0.928
Harrow, Stanmore	Urban Background	24.8	29.9	0.827
			Average	0.877

*Period Mean to adjust site RY40 results: Sep, Oct, Nov, Dec 2012

Table A 12 Adjustment to estimate annual mean NO₂ concentration for site RY41, 2012

RY41, 2012				
Site	Site Type	Annual Mean	Period Mean*	Ratio
Mole Valley, Dorking	Urban Background	23.2	27.0	0.857
Harrow, Stanmore	Urban Background	24.8	32.3	0.766
			Average	0.811

*Period Mean to adjust site RY41 results: Oct, Nov, Dec 2012

QA/QC of diffusion tube monitoring

Nitrogen dioxide

Laboratory Performance and WASP scheme

Lambeth Scientific Services Limited follows the procedures set out in the Harmonisation Practical Guidance and participates in the WASP scheme operated by the Health and Safety Laboratory.

From January 2012 till December 2012 (Rounds 116 to 119 of the WASP NO₂ Proficiency Test, an average 70% of Lambeth Scientific Services' laboratory results for test samples were determined to be satisfactory:

- Jan-Mar 2012 75%
- Apr-Jun 2012 100%
- Jul-Sep 2012 0%
- Oct-Dec 2012 100%

The precision results for individual laboratories, available from the LAQM Support spreadsheet database of co-location studies (Spreadsheet Version Number: 06/12) showed that one out of three studies had 'poor' precision in 2012.

Benzene

BTEX passive diffusion tubes for VOC monitoring are supplied by Lambeth Scientific Services. The absorbent used is Chromosorb 106 with an uptake ratio of 1.72. The tubes are subject to the WASP QA/QC programme in the same way as NO₂ tubes. Ratification of results was undertaken by comparing the ratio of concentration of BTEX compounds analysed. Where significant variation of the ration (3.5:1:2:1) was observed, the data for that month was discarded.

Appendix B: PPC installations within Runnymede

Permitted Facilities in the Runnymede Borough Council Area Under the Pollution Prevention Control Act 1999

Part B Facilities

Permit Number	Type of Activity	Operators Name and Site Contact	Permitted Address
PPC4(2)	Sec 3.1 Cement Mortar Batching	Lafarge Aggregates Limited. Mr G Sturgess 07972 533643	Longside, Thorpe Lea Road, Egham, Surrey, TW20 8RH
PPC7(2) EP	Sec 6.4 Respraying Road Vehicles	Medcalf & Company (Coachbuilders) Limited. Mr Angelo Scandone 01932 563026	Medcalf & Company (Coachbuilders) Limited, Fordwater Trading Estate, Fordwater Road, Chertsey, Surrey, KT16 8HG
PPC8(2) EP	Sec 6.4 Respraying Road Vehicles	LA Coachworks (Weybridge) Limited. Mr Paul Mullen 01932 858879	LA Coachworks (Weybridge) Limited, Byron Road, Addlestone, Surrey, KT15 2SY
PPC10(1)	Sec 3.5 Mobile Crusher	Capital Demolition Limited. Mr Dennis Read 01932 346222	Capital Demolition Limited, Capital House, Woodham Park Road, Woodham, Addlestone, Surrey, KT15 3TG
PPC15(2) EP	Sec 6.4 Respraying Road Vehicles	Mr David Hutchens, trading as Panel-wise. Mr David Hutchens 01932 856460	Mr David Hutchens, trading as Panel-wise, Hamm Moor Lane, Weybridge Trading Estate, Weybridge, Surrey, KT15 2SD
PPC18(4) EP10	Sec 1.2 Petrol Storage	Wheatsheaf Service Station. Service Station 01344 846130	Wheatsheaf Service Station, London Road, Virginia Water, Surrey, GU25 4QE
PPC19(3) EP10	Sec 1.2 Petrol Storage	Shell Thorpe Lea Road. Service Station 01784 455970	Shell Thorpe Lea Road, 171 Thorpe Lea Road, Egham, Surrey, TW20 8HP
PPC20(3) EP	Sec 1.2 Petrol Storage	Shell Ottershaw. Service Station 01932 879930	Shell Ottershaw, Guildford Road, Ottershaw, Chertsey Surrey, KT16 PG

Permit	Type of	Operators Name and	Permitted Address
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Number	Activity	Site Contact	
PPC21(3) EP	Sec 1.2 Petrol Storage	Trident Garages Limited. Service Station 01932 874411	Trident Garages Limited, Guildford Road, Ottershaw, Chertsey, KT16 0NZ
PPC22(2)	Sec 1.2 Petrol Storage	Staines Service Station. Service Station 01784 463572	Staines Service Station, Chertsey Lane, Staines, Middlesex, TW18 3LS
PPC23(4) EP10	Sec 1.2 Petrol Storage	Shell Addlestone. Service Station 01932 839960	Shell Addlestone, Chertsey Road, Addlestone, Surrey, KT15 2ED
PPC24(3) EP	Sec 1.2 Petrol Storage	Shell Egham. Service Station 01784 430930	Shell Egham, 186/7 High Street, Egham, Surrey, TW20 9DX
PPC25(2)	Sec 1.2 Petrol Storage	Chertsey Service Station. Service Station 01932 562702	Chertsey Service Station, 102 Bridge Road, Chertsey, Surrey, KT16 7LR
PPC26(3)	Sec 1.2 Petrol Storage	Runnymede Service Station. Service Station 01784 485982	Runnymede Service Station, 38- 45 The Avenue, Egham, Surrey, TW20 9AD
PPC28(3) EP	Sec 1.2 Petrol Storage	Egham Hill SF Connect. Service Station 01784 497589	Egham Hill SF Connect, 1 Egham Hill, Egham, Surrey, TW20 0ET
PPC30(2) EP	Sec 1.2 Petrol Storage	Sainsbury Supermarkets Limited. Service Station 01784 456644	Sainsbury Supermarkets Ltd, The causeway, Staines, Middlesex, TW18 3AG
PPC33(2) EP	Sec 1.2 Petrol Storage	Sainsbury Supermarkets Limited. Service Station 01932 566503	1 The Sainsbury Centre Heriot Road Chertsey Surrey KT16 9AQ
PPC36(2) EP	Sec 1.2 Petrol Storage	Tesco Filling Station. Service Station 01932 741407 if you have problems, contact Andy Berry at Tesco Andy.Berry@uk.tesco.com	Tesco Filling Station, 117 Station Road, Addlestone, Surrey, KT15 2AS
PPC37(1)	Sec 3.5 Mobile Crusher	Capital Demolition Limited. Mr Dennis Read 01932 346222	Capital Demolition Limited, Capital House, Woodham Park Road, Woodham, Addlestone, Surrey, KT15 3TG

PPC40(1)	Sec 7 Dry Cleaners	Zekmur Bros Limited. Mr Kusdil 01932 847411	Zeki Dry Cleaner & Laundry, 83 Station Road, Addlestone, surrey, KT15 2AR
PPC41(3) EP	Sec 6.4 Respraying Road Vehicles	Chertsey Car Care Ltd. Mr Martin Morgan 01932 560690	Chertsey Car Care Ltd. Crystal Haven House, Hanworth Lane Trading Estate, Chertsey, Surrey, KT16 9JX
PPC44	Sec 7 Dry Cleaning	Lampton Cleaners Ltd T/A Harringtons. Michael Corby 01784 433439	9 Station Approach Virginia Water Surrey GU25 4DW
PPC46	Sec 7 Dry Cleaning	Saphire Dry Cleaners Mrs S Waters 01932 353735	15 The Broadway New Haw Addlestone Surrey KT15 3EU
PPC47	Sec 7 Dry Cleaning	Softly Clean Dry Cleaners T/A Softly Clean Mr A Cachra 01932 851900	1 High Street Addlestone Surrey KT15 1TL
PPC50	Sec 7 Dry Cleaning	Egham Dry Cleaners Mr B Tamraz 01784 477300	44 High Street Egham Surrey TW20 9DP
PPC51	Sec 7 Dry Cleaning	Johnson Dry Cleaners Mr Darryl Neville 02073521763 07949050662	Sainsbury's The Causeway, Staines, TW18 3AP
PPC52 EP	Sec 7 Dry Cleaning	Direct Dry Cleaning Mr Paul McGill 01737 361666 07947 780807	Direct Dry Cleaning, Unit 2 Fordwater, Trading Estate, Ford Road, Chertsey, Surrey, KT16 8HG
PPC53 EP	Sec 3.5 Mobile Crusher	Cemex UK Materials Limited	Cemex UK Materials Limited, Cemex House, Coldharbour Lane, Thorpe, Egham, Surrey, TW20 8TD
PPC54 EP	Sec 3.5 Mobile Crusher	Cemex UK Materials Limited	Cemex UK Materials Limited, Cemex House, Coldharbour Lane, Thorpe, Egham, Surrey, TW20 8TD
PPC55 EP	Sec 3.5 Mobile Roadstone Coating	Cemex UK Materials Limited	Cemex UK Materials Limited, Cemex House, Coldharbour Lane, Thorpe, Egham, Surrey, TW20 8TD
PPC 56 EP	Sec 7 Dry Cleaning	Riva Dry Cleaners Mr Fiaz Ahmad (Manager) 01932 560555	3 Burwood Parade, Guildford Street, Chertsey, KT16 9AE
PPC57 EP	Sec 3.5 Mobile Batching Plant	Cemex UK Materials Limited	Cemex UK Materials Limited, Cemex House, Coldharbour Lane, Thorpe, Egham, Surrey, TW20 8TD
PPC58 EP	Sec 3.5 Mobile Batching Plant	Cemex UK Materials Limited	Cemex UK Materials Limited, Cemex House, Coldharbour Lane, Thorpe, Egham, Surrey, TW20 8TD

PPC59 EP10	Sec 3.5 Mobile Crusher	Cemex UK Materials Limited	Cemex UK Materials Limited, Cemex House, Coldharbour Lane, Thorpe, Egham, Surrey, TW20 8TD
PPC60 EP10	Sec 3.5 Mobile Crusher	Cemex UK Materials Limited	Cemex UK Materials Limited, Cemex House, Coldharbour Lane, Thorpe, Egham, Surrey, TW20 8TD

Part A2 Facilities

None

Part A1 Facilities– Permitted and Regulated by the Environment Agency

Permit Number	Type of Activity	Operators Name	Permitted Address
AP3039SD	Sec 5.1 A(1)(a) And 5.1 A(1)(d) Incineration	The Veterinary Laboratories Agency.	The Weybridge Incineration Plant, Veterinary Laboratories Agency, Woodham Lane, New Haw, Addlestone, KT15 3NB
WP3635SJ	Sec 5.2A(1)(b) Disposal of waste in landfill	Cemex UK Materials Limited.	Cemex UK Materials Limited, Addlestone Quarry, Byfleet Road, Addlestone, Weybridge, Surrey, KT15 3LA
CP3334LF	Sec 5.2A(1)(b) Disposal of waste in landfill	Cemex UK Materials Limited	Cemex UK Materials Limited, Norlands Lane, Thorpe, Egham, Surrey, TW20 8SS
EPR/DP3090SF	Sec 5.3 Disposal of waste other than by incineration or landfill. (Sewage Sludge Treatment, less than 250,000tpa)	Thames Water Utilities Ltd, Chertsey Sewage Treatment Works	Thames Water Utilities Ltd, Chertsey Sewage Treatment Works, Lyne Lane, Lyne, Chertsey, KT16 0AR
EA/EPR/DP369 1EF/A001 (EAWML 101006)	Permit application for the composting of green waste	Collier Environmental services Ltd, Trumps Farm, Kitsmead Lane, Longcross, Chertsey, Surrey, KT16 0EF	Collier Environmental services Ltd, Trumps Farm, Kitsmead Lane, Longcross, Chertsey, Surrey, KT16 0EF
EA/EPR/HP313 2TV/A001 At application stage Oct 2010	CHP Sec 1.1, Part A(1) (b) (iii)	Thames Water Utilities Ltd, Chertsey Sewage Treatment Works	Thames Water Utilities Ltd, Chertsey Sewage Treatment Works, Lyne Lane, Lyne, Chertsey, KT16 0AR
EA/EPR/FP329 3ET/V004 (EAWML 83061)	Permit for the Civic Amenity Site	Sita Surrey Ltd,	Sita Surrey Ltd, Lyne Lane CAS, Lyne Lane, Thorpe, KT16 0AP
EPR/HB3733R P/A001	Standard rules environmental Permit 2010	Dennis Read, Capital House	Capital Demolition Limited, Capital House, Woodham Park Road, Woodham, Addlestone, Surrey,

	No.12 (waste activity soil/aggregate)		KT15 3TG
EPR/PP3599EZ /S003 Received 28 Nov 2012	Application for an Environmental Permit	Thorpe Park Operations Ltd	Thorpe Park, Staines Road, Chertsey, Surrey, KT16 8PN

Note: EP = Documentation updated to the Environmental Permitting Regulations.

Updated November 2012

Appendix C: AQMAs within Runnymede

Figure C 1 Boundaries of the M25 AQMA (declared in November 2001)

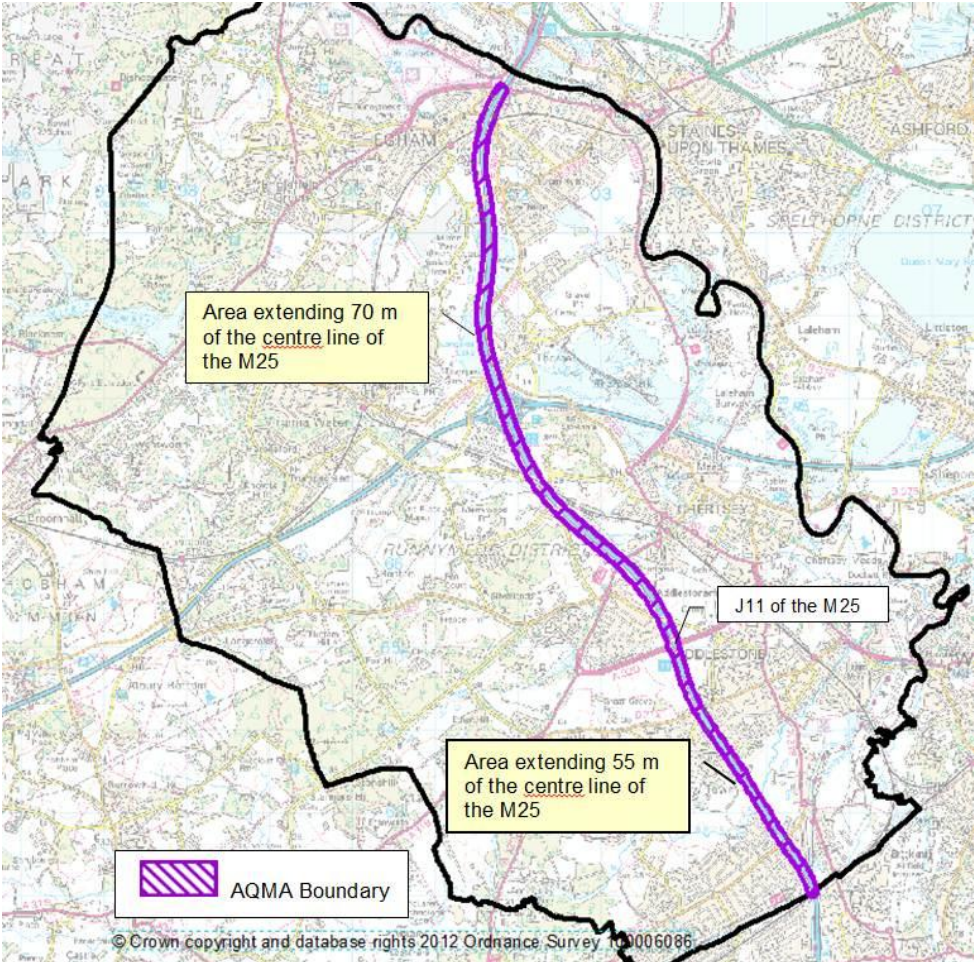


Figure C 2 Photos of M25 AQMA





Figure C 3 Boundaries of Addlestone AQMA (declared in July 2008)



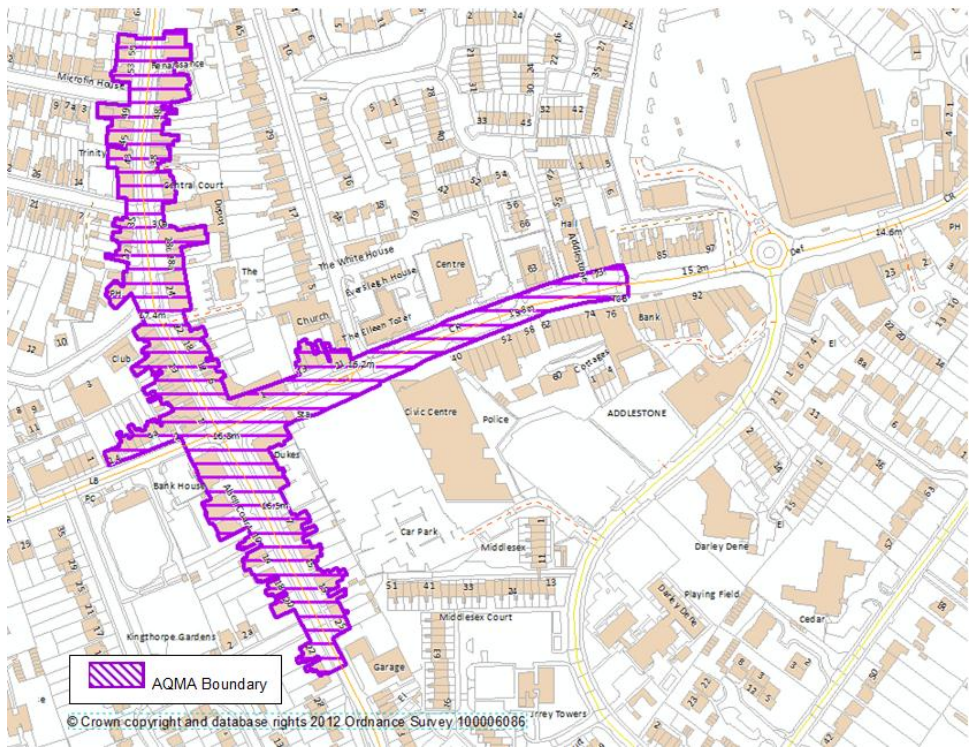


Figure C 4 Photos of Addlestone AQMA (Station Road)



