



2011 Air Quality Progress Report  
for  
*Test Valley Borough Council*

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

Date: April 2011

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12 May 2011

Dear Mr Slaughter

**LOCAL AIR QUALITY MANAGEMENT: 2011 AIR QUALITY PROGRESS REPORT**

Thank you for consulting the Secretary of State for Environment, Food and Rural Affairs on Test Valley BC's Air Quality Progress Report. Please find comments on the report attached.

On the basis of the information provided the conclusions of the report are accepted. We look forward to receiving the Council's 2012 USA by the due date which is the end of April 2012.

Yours sincerely

Tutu Aluko  
**ATMOSPHERE AND LOCAL ENVIRONMENT PROGRAMME**



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## Executive Summary

Local Authorities in the UK have the statutory duty to review and assess air quality on a regular basis which involves the production of reports on a three year cycle. The 2011 report is the third part of Round 4 of this Review and Assessment process requiring the submission of a Progress Report by the end of April 2011. The Progress Report is intended to maintain continuity in the Local Air Quality Management process and present the results of ongoing monitoring of air quality pollutants within the Borough where emissions from a range of sources could adversely impact sensitive receptors.

The Progress Report details the nitrogen dioxide monitoring carried out in 2010 at 17 sites and considers whether new or proposed developments have the potential to impact local air quality which may lead to an exceedence of Air Quality Objectives.

Road transport is one of the main sources of local air pollution in Test Valley and although national UK trends in NO<sub>2</sub> (2004 – 2009) have been decreasing in the range 0.5 to 1% per year (rural sites are typically 1.4% per year), the Council's own monitoring (2005 – 2010) has indicated an upward trend at all 17 sites.

Based on the findings of this Progress Report, Test Valley Borough Council has found no evidence that the levels of nitrogen dioxide may exceed the specific Air Quality Objectives and therefore has not identified the need to proceed to a Detailed Assessment.

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# 1 Introduction

## 1.1 Description of Local Authority Area

Test Valley lies on the western side of Hampshire and to the north of the Southampton conurbation. The borough covers 628 square kilometres (243 square miles) and includes the two historic market towns of Andover and Romsey. The population of the borough in 2010 was estimated at approximately 113,507.

One of the major sources of air pollution within the borough is road traffic using the two primary east-west routes through the Test Valley. To the south of Romsey there is approximately 8.5km of the M27 and to the south of Andover is the A303, of which around 26km passes through Test Valley. In addition to these main traffic routes, a short section of the A34 (approximately 1.3km) runs north-south through the eastern side of the borough at Bullington.

Although there are no other 'major' sources of air pollution within the borough, there are 44 Part B installations permitted by Test Valley under the Environmental Permitting (England and Wales) Regulations 2010 and one Part A2 installation. In addition, there are currently 11 sites which have permits issued by the Environment Agency.

## 1.2 Purpose of Progress Report

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

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

## 1.3 Air Quality Objectives

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

**Table 1.1 Air Quality Objectives included in Regulations for the purpose of Local Air Quality Management in England.**

<b>Pollutant</b>	<b>Concentration</b>	<b>Measured as</b>	<b>Date to be achieved by</b>
<b>Benzene</b>	16.25 $\mu\text{g}/\text{m}^3$	Running annual mean	31.12.2003
	5.00 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2010
<b>1,3-Butadiene</b>	2.25 $\mu\text{g}/\text{m}^3$	Running annual mean	31.12.2003
<b>Carbon monoxide</b>	10.0 $\text{mg}/\text{m}^3$	Maximum daily running 8-hour mean	31.12.2003
<b>Lead</b>	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
<b>Nitrogen dioxide</b>	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
<b>Particles (PM<sub>10</sub>) (gravimetric)</b>	50 $\mu\text{g}/\text{m}^3$ , not to be exceeded more than 35 times a year	24-hour mean	31.12.2004
	40 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2004
<b>Sulphur dioxide</b>	350 $\mu\text{g}/\text{m}^3$ , not to be exceeded more than 24 times a year	1-hour mean	31.12.2004
	125 $\mu\text{g}/\text{m}^3$ , not to be exceeded more than 3 times a year	24-hour mean	31.12.2004
	266 $\mu\text{g}/\text{m}^3$ , not to be exceeded more than 35 times a year	15-minute mean	31.12.2005

## 1.4 Summary of Previous Review and Assessments

### Review and Assessment - Round 4

#### **Part 2 - April 2010 Progress Report**

The 2010 Progress Report was carried out by staff of the Housing, Health & Communities Service in March/April 2010 and considered the results of nitrogen dioxide monitoring carried out in 2009 at 21 sites. In addition, the assessment consisted of applying various screening criteria for the purpose of considering whether new or significantly changed sources of air pollutants may lead to an exceedence of an Air Quality Objective for any of the seven key pollutants.

Road transport is a major source of local air pollution in Test Valley and although national air quality data has shown a decrease in air pollution levels in recent years, the Council's own monitoring (2005–2009) indicated a gradual upward trend. Population exposure to traffic-related pollutants is expected to be relatively higher near major roads with a high percentage of HGVs, at busy road junctions, and in narrow and congested town centre streets.

Based on the findings of this report, Test Valley Borough Council found no evidence that the levels of any of these seven pollutants may exceed the specific Air Quality Objectives and therefore did not identify the need to proceed to a Detailed Assessment.

The April 2010 Progress Report is published on the Council's website at:  
<http://www.testvalley.gov.uk/pdf/April%202010%20Progress%20Report1.pdf>

#### **Part 1 - April 2009 Updating & Screening Assessment**

The 2009 Updating & Screening Assessment (*USA*), carried out by staff of the Housing, Health & Communities Service in March/April 2009, considered the results of nitrogen dioxide monitoring carried out in 2008 at 21 sites. In addition, the assessment consisted of applying various screening criteria for the purpose of considering whether new or significantly changed sources of air pollutants may lead to an exceedence of an Air Quality Objective for any of the seven key pollutants.

Road transport is a major source of local air pollution in Test Valley and although national air quality data has shown a decrease in air pollution levels in recent years, the Council's own monitoring (2004–2008) indicated a gradual upward trend. Population exposure to traffic-related pollutants is expected to be relatively higher near major roads with a high percentage of HGV's, at busy road junctions, and in narrow and congested town centre streets.

Based on the findings of this *USA* report, Test Valley Borough Council found no evidence that the levels of any of these seven pollutants may exceed the specific Air Quality Objectives and therefore did not identify the need to proceed to a Detailed Assessment.

The April 2009 *USA* Report is published on the Council's website at:  
<http://www.testvalley.gov.uk/pdf/Air%20Quality%20USA%20Report%20-%20April%202009.pdf>



**Review and Assessment - Round 3**

This round of the review and assessment process was carried out between 2006 and 2008. The assessment did not identify any exceedence of the current Air Quality Objectives. Consequently there was no requirement to proceed to a detailed assessment or to declare any Air Quality Management Areas within the borough.

**Review and Assessment - Round 2**

This round of the review and assessment process was carried out between 2003 and 2005. The assessment did not identify any exceedence of the current Air Quality Objectives. Consequently there was no requirement to proceed to a detailed assessment or to declare any Air Quality Management Areas within the borough.

**Review and Assessment - Round 1**

This round of the review and assessment process was carried out between 2000 and 2002. The assessment did not identify any exceedence of the current Air Quality Objectives. Consequently there was no requirement to proceed to a detailed assessment or to declare any Air Quality Management Areas within the borough.

## 2 New Monitoring Data

### 2.1 Summary of Monitoring Undertaken

#### 2.1.1 Automatic Monitoring Sites

Test Valley Borough Council currently operates no automatic monitoring sites

#### 2.1.2 Non-Automatic Monitoring Sites

The nitrogen dioxide diffusion tubes used by Test Valley Borough Council in 2010 were supplied and analysed by Environmental Scientifics Group (ESG), Queenslie, Glasgow (laboratory now moved to Didcot, Oxfordshire). The method of analysis is 20% TEA in Acetone and the ESG laboratory is UKAS accredited. ESG confirm that their laboratory follows the procedures set out in the Practical Guidance document.

Test Valley Borough Council does not have a co-location study included with their current diffusion tube monitoring program. A bias adjustment factor of **0.84** has been used for the 2010 data which was obtained from the Defra website at:

[http://laqm.defra.gov.uk/documents/Diffusion\\_Tube\\_Bias\\_Factors\\_v04\\_11\\_v6.xls](http://laqm.defra.gov.uk/documents/Diffusion_Tube_Bias_Factors_v04_11_v6.xls).

The non-automatic monitoring carried out by Test Valley Borough Council during 2010 comprised of 17 nitrogen dioxide diffusion tubes positioned at selected kerbside, roadside, intermediate and urban background locations. Details of these sites are set out in Table 2.2 and location plans can be found in Appendix B.

In order for the results from the use of diffusion tubes to be of an adequate quality, the diffusion tubes used by Test Valley Borough Council are located in accordance with the guidance set out in the AEA Energy & Environment report entitled 'Diffusion Tubes for Ambient NO<sub>2</sub> Monitoring: Practical guidance for Laboratories and Users'.

**Table 2.2 Details of Non- Automatic Monitoring Sites**

Site ID	Site Type	OS Grid Ref	Pollutant Monitored	In AQMA?	Relevant Exposure? Yes / No (distance to relevant exposure)	Distance to kerb of nearest road (n/a if not applicable)	Worst-case location ?
ROM1	Urban background	X 435382 Y 121377	NO <sub>2</sub>	N	Yes (Property façade)	n/a	N
ROM2	Roadside	X 435135 Y 121461	NO <sub>2</sub>	N	Yes (Property façade)	1m	Y
ROM3	Roadside	X 435205 Y 121147	NO <sub>2</sub>	N	Yes (Property façade)	1.3m	Y
ROM5A	Roadside	X 435474 Y 121089	NO <sub>2</sub>	N	No (3 metres)	1m	Y
ROM7	Roadside	X 435480 Y 121103	NO <sub>2</sub>	N	Yes (Property façade)	2.3m	Y
ROM8	Roadside	X 435867 Y 121277	NO <sub>2</sub>	N	No (-3 metres)	4.8m	Y
ROM9	Roadside	X 435697 Y 121244	NO <sub>2</sub>	N	Yes (Property façade equivalent)	2m	Y
ROM10	Roadside	X 435630 Y 121403	NO <sub>2</sub>	N	No (6 metres)	2.6m	Y
CHIL12	Roadside	X 441763 Y 118089	NO <sub>2</sub>	N	No (18 metres)	2m	Y
CHIL11B	Intermediate	X 442137 Y 117672	NO <sub>2</sub>	N	Yes (Property façade equivalent)	24m	N
CHIL14	Roadside	X 442266 Y 117627	NO <sub>2</sub>	N	Yes (Property façade equivalent)	3m	Y
AND15	Intermediate	X 435864 Y 145381	NO <sub>2</sub>	N	Yes (Property façade)	9m	N
AND19	Urban background	X 435848 Y 145599	NO <sub>2</sub>	N	No (12 metres)	n/a	N
AND20	Kerbside	X 436500 Y 144938	NO <sub>2</sub>	N	No (6 metres)	<1m	Y
AND22	Urban background	X 436362 Y 144855	NO <sub>2</sub>	N	Yes (Property façade equivalent)	n/a	N
AND23	Urban background	X 435864 Y 144430	NO <sub>2</sub>	N	Yes (Property façade)	n/a	N
AND25	Roadside	X 435740 Y 144235	NO <sub>2</sub>	N	No (4 metres)	<1m	Y

## 2.2 Comparison of Monitoring Results with Air Quality Objectives

### 2.2.1 Nitrogen Dioxide

Based on the January 2010 – December 2010 diffusion tube results, the annual mean concentration for nitrogen dioxide was not exceeded at any of the 17 monitoring locations.

#### Automatic Monitoring Data

Test Valley Borough Council does not carry out automatic monitoring of any pollutants.

**Table 2.3a Results of Automatic Monitoring for Nitrogen Dioxide: Comparison with Annual Mean Objective**

Site ID	Location	Within AQMA?	Relevant public exposure? Y/N	Data Capture for monitoring period <sup>a</sup> %	Data Capture for full calendar year 2010 <sup>b</sup> %	Annual mean concentrations ( $\mu\text{g}/\text{m}^3$ )		
						2008 <sup>c,d</sup>	2009 <sup>c,d</sup>	2010 <sup>c</sup>
Test Valley Borough Council does not carry out automatic monitoring of nitrogen dioxide								

**Table 2.3b Results of Automatic Monitoring for Nitrogen Dioxide: Comparison with 1-hour Mean Objective**

Site ID	Location	Within AQMA?	Relevant public exposure? Y/N	Data Capture for monitoring period <sup>a</sup> %	Data Capture for full calendar year 2010 <sup>b</sup> %	Number of Exceedences of hourly mean ( $200 \mu\text{g}/\text{m}^3$ ) <small>If the period of valid data is less than 90% of a full year, include the 99.8<sup>th</sup> percentile of hourly means in brackets.</small>		
						2008 <sup>c</sup>	2009 <sup>c</sup>	2010
Test Valley Borough Council does not carry out automatic monitoring of nitrogen dioxide								

### Diffusion Tube Monitoring Data

Although the survey methodology and diffusion tube locations contained in this report have not changed from those reported in the April 2010 Progress Report, the overall number of tubes has been reduced and the location plans for the 17 nitrogen dioxide diffusion tubes can be found in Appendix B.

**Table 2.4 Results of Nitrogen Dioxide Diffusion Tubes**

Site ID	Location	Within an AQMA?	Data Capture for full calendar year 2010 <sup>a</sup> %	Annual mean concentrations ( $\mu\text{g}/\text{m}^3$ )		
				2008 <sup>b, c</sup>	2009 <sup>b, c</sup>	2010 <sup>b</sup>
ROM1	Station Road, Romsey	No	100	17.5	17.8	18.1
ROM2	Cherville Street, Romsey	No	100	20.2	18.8 <sup>b</sup>	19.8
ROM3	Bell Street, Romsey	No	92	22.9	23.0	27.9
ROM5A	Palmerston Street, Romsey (west)	No	100	32.2	38.1	34.7
ROM7	Palmerston Street, Romsey (east)	No	100	33.1	34.8	34.0
ROM8	Plaza Roundabout, Romsey	No	100	31.1	31.5	29.7
ROM9	Alma Road, Romsey (south)	No	100	28.9	32.2	27.5
ROM10	Alma Road, Romsey (middle)	No	100	32.9	32.5	30.9
CHIL12	Chilworth Road, Chilworth	No	100	36.2	36.9	35.6
CHIL11B	Winchester Road, Chilworth	No	100	26.1	26.3	25.7
CHIL14	Bracken Place, Chilworth	No	100	29.2	31.3	29.7
AND15	Weyhill Road, Andover	No	100	24.5	23.4	22.5
AND19	St. John the Baptist Church, Alexandra Road, Andover	No	100	15.9	15.6	15.8
AND20	Humberstone Road, Andover (east)	No	100	15.3	20.6	21.1
AND22	Humberstone Road, Andover (west)	No	100	21.3	14.6	16.2
AND23	Barlows Lane, Andover (north)	No	100	16.5	15.9	16.7
AND25	Barlows Lane, Andover (south)	No	100	21.6	20.0	20.3

<sup>a</sup> 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%)

<sup>b</sup> Means should be “annualised” as in Box 3.2 of TG(09), if monitoring was not carried out for the full year.

<sup>c</sup> Annual mean concentrations for previous years are optional.

**2.2.2 PM<sub>10</sub>**

Test Valley Borough Council does not carry out monitoring of PM<sub>10</sub>.

**Table 2.5a Results of PM<sub>10</sub> Automatic Monitoring: Comparison with Annual Mean Objective**

Site ID	Location	Within AQMA?	Data Capture for monitoring period <sup>a</sup> %	Data Capture for full calendar year 2010 <sup>b</sup> %	Annual mean concentrations (µg/m <sup>3</sup> )		
					2008 <sup>c, d</sup>	2009 <sup>c, d</sup>	2010 <sup>c</sup>
Test Valley Borough Council does not carry out monitoring of PM <sub>10</sub>							

**Table 2.5b Results of PM<sub>10</sub> Automatic Monitoring: Comparison with 24-hour Mean Objective**

Site ID	Location	Within AQMA?	Data Capture for monitoring period <sup>a</sup> %	Data Capture 2010 <sup>b</sup> %	Number of Exceedences of daily mean objective (50 µg/m <sup>3</sup> )		
					2008 <sup>c</sup>	2009 <sup>c</sup>	2010 <sup>c</sup>
Test Valley Borough Council does not carry out monitoring of PM <sub>10</sub>							

If data capture < 90%, include the 90<sup>th</sup> percentile of daily means in brackets.

**2.2.3 Sulphur Dioxide**

Test Valley Borough Council does not carry out monitoring of Sulphur Dioxide.

**2.2.4 Benzene**

Test Valley Borough Council does not carry out monitoring of Benzene.

**2.2.5 Other pollutants monitored**

Test Valley Borough Council does not carry out routine monitoring of any other pollutants.

**2.2.6 Summary of Compliance with AQS Objectives**

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

### **3 New Local Developments**

#### **3.1 Road Traffic Sources**

Test Valley Borough Council has identified no significant new Road Traffic Sources since the last Progress Report was produced in April 2010.

#### **3.2 Other Transport Sources**

Test Valley Borough Council has identified no significant new Transport Sources since the last Progress Report was produced in April 2010.

#### **3.3 Industrial Sources**

Test Valley Borough Council has identified no significant new Industrial Sources since the last Progress Report was produced in April 2010.

#### **3.4 Commercial and Domestic Sources**

Test Valley Borough Council has identified no significant new Commercial and Domestic Sources since the last Progress Report was produced in April 2010.

#### **3.5 New Developments with Fugitive or Uncontrolled Sources**

Test Valley Borough Council has identified no significant new Fugitive or Uncontrolled Sources since the last Progress Report was produced in April 2010.

Test Valley 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.

Test Valley 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**

Test Valley Borough Council does not currently have an Air Quality Strategy, though the need for one will continue to be kept under review.



## 5 Planning Applications

Test Valley Borough Council has a number of approved planning applications for new large-scale developments which have possible implications for local air quality. The air quality assessments carried out for these applications indicate that there is no likelihood of a breach of any current air quality objectives. A brief summary of these applications is set out below:

### **Abbotswood, Romsey** (Application Number – 08/00475/OUTS)

- Outline application for the erection of 800 dwellings with associated Local Centre.
- An air quality assessment has been carried out and formed part of the Environmental Statement submitted with the outline application.
- Construction work on this development is due to start in 2011.

### **Adanac Park, Nursling** (Application Number – 07/02872/OUTS)

- Outline application for a new Class B1 Head Office building and other associated buildings for the Ordnance Survey (OS).
- An air quality assessment has been carried out and formed part of the Environmental Statement submitted with the outline application.
- OS Head Office is now complete and occupied and an application for a hospital at the Adanac Park site has recently been refused.

### **Andover Airfield** (Application Number – 07/01951/OUTN)

- Erection of Business Park with both Outline and Full details for the erection of Class B1, storage and distribution, hotel, community building, biomass plant and associated works.
- An air quality assessment has been carried out and formed part of the Environmental Statement submitted with the outline application.
- The Storage & Distribution Centre for Co-op Stores Ltd is due for completion and occupation in April 2011.

### **Land at East Anton, Andover** (Application Number – TVN.09258)

- Erection of 2500 dwellings, schools, local centres, playing fields, parkland, public open space, landscaping and associated works.
- An air quality assessment was included in the Environmental Statement which was submitted with the outline application.
- Construction works continuing and approximately 350 residential units now occupied.

### **Land at Picket Twenty, Andover** (Application Number – TVN.09275)

- Erection of 1200 residential units, community facility, school, retail units, offices, recreational areas and associated highway works.
- An air quality assessment was included in the Environmental Statement which was submitted with the outline application.
- Associated highway works are currently underway as well as construction of the first phase of residential units.

Note: Full details of these planning applications can be viewed on-line via the Test Valley website at: <http://www.testvalley.gov.uk/Default.aspx?page=9883>

## 6 Air Quality Planning Policies

Test Valley Borough Council's Planning Policy HAZ 03 (see below) is a policy which only considers development for approval if the proposal will not have an adverse impact on the environment, including discharges or emissions to air.

### 5.4 Pollution

#### **HAZ 03:**

#### **POLLUTION**

**Development which would, or could potentially give rise to pollution, will only be permitted if it will not have an adverse impact on adjoining uses or the natural environment, or pose a risk to health as a result of any discharges or emissions to water, land or air.**

5.4.1 Pollution is the release of substances into the environment, which can cause harm to human health, property or the wider environment. Pollution can be released into the air or water or can contaminate land. Some developments or activities have the potential to pollute more than one environmental medium. Emissions or discharges that are a nuisance but are not likely to prove harmful to health (such as dust, noise or harmless odours), are dealt with in Policy AME 05.

5.4.2 The control of pollution is a complex process involving both local planning authorities and other statutory bodies. Government advice is that "the planning system should not be operated so as to duplicate controls which are the statutory responsibility of other bodies." The legal position, however, is that pollution impacts are material planning considerations which should not be ignored in the making of planning decisions. Therefore the Local Planning Authority will control the location of development which may give rise to pollution or is in close proximity to pollution sources.

5.4.3 The Council will take account of any material considerations concerning potential releases of pollution and when making planning decisions will have regard to the advice of the pollution control agencies. In cases where land use mitigation measures are required to prevent pollution, or to enable releases, or potential releases, to meet pollution control standards the Council will need to be convinced that the proposed measures will be effective. In appropriate circumstances the Council will use planning conditions or agreements to ensure that a development does not give rise to pollution.

## 7 Local Transport Plans and Strategies

### Hampshire Local Transport Plan 2011 - 2031

Hampshire County Council's new Local Transport Plan (LTP) was formally approved at a full meeting of the County Council on 24 February 2011.

The new LTP is written in two parts:

- Part A is a 20-year Strategy, which sets out a long-term vision for how the transport network of Hampshire will be developed over the next 20 years, and includes a policy (Policy E) to specifically deliver improvements in air quality.
- Part B is a three-year Implementation Plan setting out planned expenditure on transport over the period April 2011 to March 2014.

The new LTP builds on the successes of previous local transport plans and looks to make improvements to the transport system which will benefit people living and working in Hampshire. It has been produced following extensive consultation with the public and the County Council's strategic partners.

#### Policy E: To deliver improvements in air quality

<b>Why?</b>	Congestion creates higher levels of air pollution as queuing traffic, especially in more restricted or confined spaces, generates higher concentrations of vehicle emissions. Poor air quality can create or exacerbate health and respiratory problems, for example asthma. Air Quality Management Areas (AQMAs) are places where pollutant levels exceed government thresholds. Twenty AQMAs have been identified within urban areas across the sub-region. The recent White Paper on Public Health indicates that by April 2013, Unitary Authorities and County Councils will be given funding and responsibility for improving public health.
<b>How?</b>	The Transport for South Hampshire authorities will work with key partners, environmental health professionals and transport operators to mitigate the impacts of traffic on air quality. The principal causes of poor air quality will be addressed by implementing a strategic area-wide approach within each urban centre to minimise the cumulative effect of road transport emissions. This can be achieved through measures promoting modal shift towards public transport modes, walking and cycling, reducing single occupancy car journeys. Tackling congestion at hotspots can also improve air quality.
<b>Delivery Options</b>	<ul style="list-style-type: none"> <li>• Air Quality Management Areas and Air Quality Action Plans;</li> <li>• Promotion of cleaner, greener vehicle technologies e.g. alternative fuels;</li> <li>• Car Share Schemes;</li> <li>• Support for and similar schemes;</li> </ul>
<b>Outcomes</b>	<ul style="list-style-type: none"> <li>• Improved air quality &amp; environment, and reduced greenhouse gas emissions; and</li> <li>• Promoting a higher quality of life.</li> </ul>

**Test Valley Access Plan**

The Test Valley Access Plan was jointly prepared by the Borough Council and Hampshire County Council and was published in June 2010.

The Test Valley Access Plan objectives are to:

- identify an agreed list of future transport schemes, for which funding can be sought from a variety of sources,
- improve personal safety for all road users,
- improve access and reduce severance,
- developing and encouraging greater use of more sustainable means of transport,
- encourage the development of routes for cyclists and pedestrians,
- encourage healthier and more active lifestyles, and
- ensure that improved access routes do not compromise the natural or historic environment.

**Andover Town Access Plan**

The Andover Town Access Plan was jointly prepared by Test Valley Borough Council and Hampshire County Council and was published in October 2008.

The plan seeks to:-

- set out a range of measures which the contributions collected under the Transport Contributions Policy can help to deliver,
- develop appropriate measures to accommodate the planned development associated with the Major Development Areas at East Anton and Picket Twenty,
- encourage greater use of more sustainable means of transport,
- improve personal safety, especially for pedestrians and cyclists,
- encourage healthier and more active lifestyles,
- reduce the severance caused by the inner ring road,
- encourage the development of a town wide network of cycle facilities,
- recognise and respond to the needs of those with limited or impaired mobility.

The plan will act as a guide for the way funding is obtained and spent by Test Valley Borough Council and Hampshire County Council. The plan will also act as a connection between higher level strategies and the development of specific local transport schemes with potential benefits to the local environment and air quality.

## 8 Climate Change Strategies

### Extract taken from the Test Valley BC Carbon Management Plan - March 2009

1. This Carbon Management Plan (CMP) is part of the Local Authority Carbon Management Programme, run by the Carbon Trust. The aim of the Local Authority Carbon Management Programme is to reduce the Council's carbon emissions from the **2007 baseline of 6,608 tonnes to 5,284 tonnes by 2012**. This is a reduction of 20%. The Plan will show how the Council can reduce its own carbon emissions and help the Test Valley residents reduce their carbon emissions too.
2. The CMP will fit in with existing Test Valley Borough Council policies. The Council's Corporate Plan 2007-2011 and the Test Valley Community Plan both reflect the themes of sustainability. The Council also has a Sustainability Strategy. In addition to the targets it has set for itself, the Council is also required to report on National Indicators (NI), including NI 185 CO<sub>2</sub> reduction from local authority operations. The Local Authority Carbon Management Programme includes the production of the Council's baseline carbon emissions, which can be used to report on NI 185.
3. The 2007 baseline of CO<sub>2</sub> emissions is compiled from energy used in all Council-owned and Council-managed buildings and fuel used by fleet vehicles, employees commuting and business travel. **The baseline, taken from 2007 levels, is 6,608 tonnes of CO<sub>2</sub> emissions.** Buildings account for the highest proportion of the Council's CO<sub>2</sub> emissions. This baseline can be used to report on National Indicator 185 - CO<sub>2</sub> reduction from Local Authority operations.
4. Based upon the 2007 CO<sub>2</sub> emissions, the costs to the Council if the Business-as-Usual scenario was followed, where the demand on the amount of energy used increased at a rate of 0.7% each year over the next 5 years. This shows a financial increase of £0.61 million if no action was taken. However, if the CO<sub>2</sub> emissions were reduced by 20% from 2007 to 2012 then the costs would increase by £220,000. This shows a financial saving of £390,000 at the end of year five if the CO<sub>2</sub> emissions were reduced by 20%.
5. The projects defined within this Programme will cost approximately £0.3 million to implement, but will reduce the Council's costs by £1.2 million. These projects will aim to have a carbon saving of 15.3% from the current 2007 CO<sub>2</sub> emissions baseline.
6. In April 2008 the Council signed the Nottingham Declaration. Through this Local Authority Carbon Management Programme, the Council is already working on a number of key projects including:
  - Phase 1 of server virtualisation to reduce the numbers of servers
  - IT switch off so computers are turned off overnight
  - Staff awareness campaigns to turn off computers and lights.The Council is also researching further projects, such as:
  - Printer rationalisation to reduce the number of printers used
  - Voltage optimisation to reduce the amount of energy needed to run equipment.

The Council has also carried out a Green Fleet Review, run by the Energy Saving Trust, which has resulted in a number of suggestions on how to reduce miles driven, and in turn, fuel used.

**Extract from BUILDING A SUSTAINABLE TEST VALLEY, Sustainability Strategy - Towards 2012 (published June 2009)**

**Background**

In 2007 the Environment Centre was commissioned to undertake a sustainability audit of the Council's main offices and services. The audit confirmed that Test Valley Borough Council was undertaking many positive actions to support the goal of sustainable development, but that these actions were not necessarily being recognised as such. There were also some gaps in approach, particularly in tackling the causes and effects of climate change.

A Member Board and Officer Working Group were set up under the title of "*Building a Sustainable Test Valley*" to steer priorities and to establish a clear direction of travel.

**Purpose of the Sustainability Strategy**

This strategy has been developed to set out the Council's priority actions and to demonstrate its commitment to continuous improvement in the delivery of its targets and objectives.

It builds upon the work identified in the Community Strategy and Corporate Plan and complements and informs other council strategies. The Member Board and the Officer Working Group will continue to be involved in the development of the strategy and will ensure that appropriate arrangements are in place for monitoring progress. A full review will be undertaken annually in December.

**Promoting the Sustainability Strategy**

It is important that the aims and objectives of the strategy, together with key achievements and future successes, are promoted both within the Council and the wider community. Every opportunity will be taken to use a range of methods available for this purpose including:

- Information on the intranet and the website
- Test Valley News
- News releases
- Staff and Member Information Bulletins
- Staff newsletter
- Community News and Information Bulletin
- The Local Strategic Partnership website and quarterly newsletter
- LSP Action Group updates
- Information and feedback from the Council's Sustainability Champions.

## **9 Implementation of Action Plans**

Since the start of the Local Air Quality Management Review and Assessment process in 2000, Test Valley Borough Council has not identified any areas within the borough where Air Quality Objectives have been breached. Accordingly, the Council has not been required to produce an Action Plan.

## **10 Conclusions and Proposed Actions**

### **10.1 Conclusions from New Monitoring Data**

Based on nitrogen dioxide diffusion tube results for 2010, no exceedences of the current Air Quality Objectives have been identified. Nitrogen dioxide trend charts for 15 of the 17 diffusion tube locations utilising data from 2005 to 2010 are included in Appendix C. All of these 15 trend charts show a 6-year trend of increasing levels of nitrogen dioxide with the highest overall levels in 2010 being found in Palmerston Street, Romsey.

### **10.2 Conclusions relating to New Local Developments**

There are currently five major residential/commercial developments referred to in Section 5 of this report which have the potential to have an impact on local air quality. As part of the planning process, each of these applications included an air quality assessment as part of their respective Environmental Impact Assessments. In each case, the assessment indicated no likelihood of a breach of any Air Quality Objectives due to these developments.

Monitoring of nitrogen dioxide in the borough during 2010 has not identified any breaches of Air Quality Objectives; therefore it has not been necessary to proceed to a Detailed Assessment during this current round of the Review and Assessment process.

### **10.3 Proposed Actions**

The Council intends to continue with its nitrogen dioxide diffusion tube survey and then prepare and submit an Updating & Screening Assessment Report in April 2012.



## 11 References

1. Defra (February 2009), Part IV of the Environment Act 1995 Local Air Quality Management – Policy Guidance (PG09)
2. Defra (February 2009), Part IV of the Environment Act 1995 Local Air Quality Management - Technical Guidance LAQM.TG(09)
3. AEA Energy & Environment (Feb 2008), Diffusion Tubes for Ambient NO<sub>2</sub> Monitoring: Practical Guidance for Laboratories and Users – AEAT/ENV/R/2504 – Issue 1a
4. Defra, Trends in NO<sub>x</sub> and NO<sub>2</sub> emissions and ambient measurements in the UK, Version 3<sup>rd</sup> March 2011. Draft for Comment.

## **Appendices**

- Appendix A: QA/QC data
- Appendix B: Nitrogen Dioxide monitoring location plans
- Appendix C: Nitrogen Dioxide trend charts (2005-2010)

## Appendix A: QA:QC Data

### Diffusion Tube Bias Adjustment Factor

The nitrogen dioxide diffusion tubes used by Test Valley Borough Council are supplied by Environmental Scientifics Group, Queenslie, Glasgow. The bias adjustment factor (**0.84**) for our 2010 diffusion tube data was obtained from the University of West of England (UWE) website at:

[http://laqm.defra.gov.uk/documents/Diffusion Tube Bias Factors v04 11 v6.xls](http://laqm.defra.gov.uk/documents/Diffusion_Tube_Bias_Factors_v04_11_v6.xls)

### Factor from Local Co-location Studies (if available)

Test Valley Borough Council does not currently have a local co-location study.

### Discussion of Choice of Factor to Use

Test Valley Borough Council utilise the National Bias Adjustment Factor as it does not currently have the facility to calculate its own local factor.

### PM Monitoring Adjustment

Test Valley Borough Council currently has no Particulate Monitoring sites.

### Short-term to Long-term Data adjustment

All nitrogen dioxide diffusion tube monitoring carried out by Test Valley Borough Council exceeded the 90% capture rate.

### QA/QC of automatic monitoring

Test Valley Borough Council currently has no automatic monitoring sites.

### QA/QC of diffusion tube monitoring

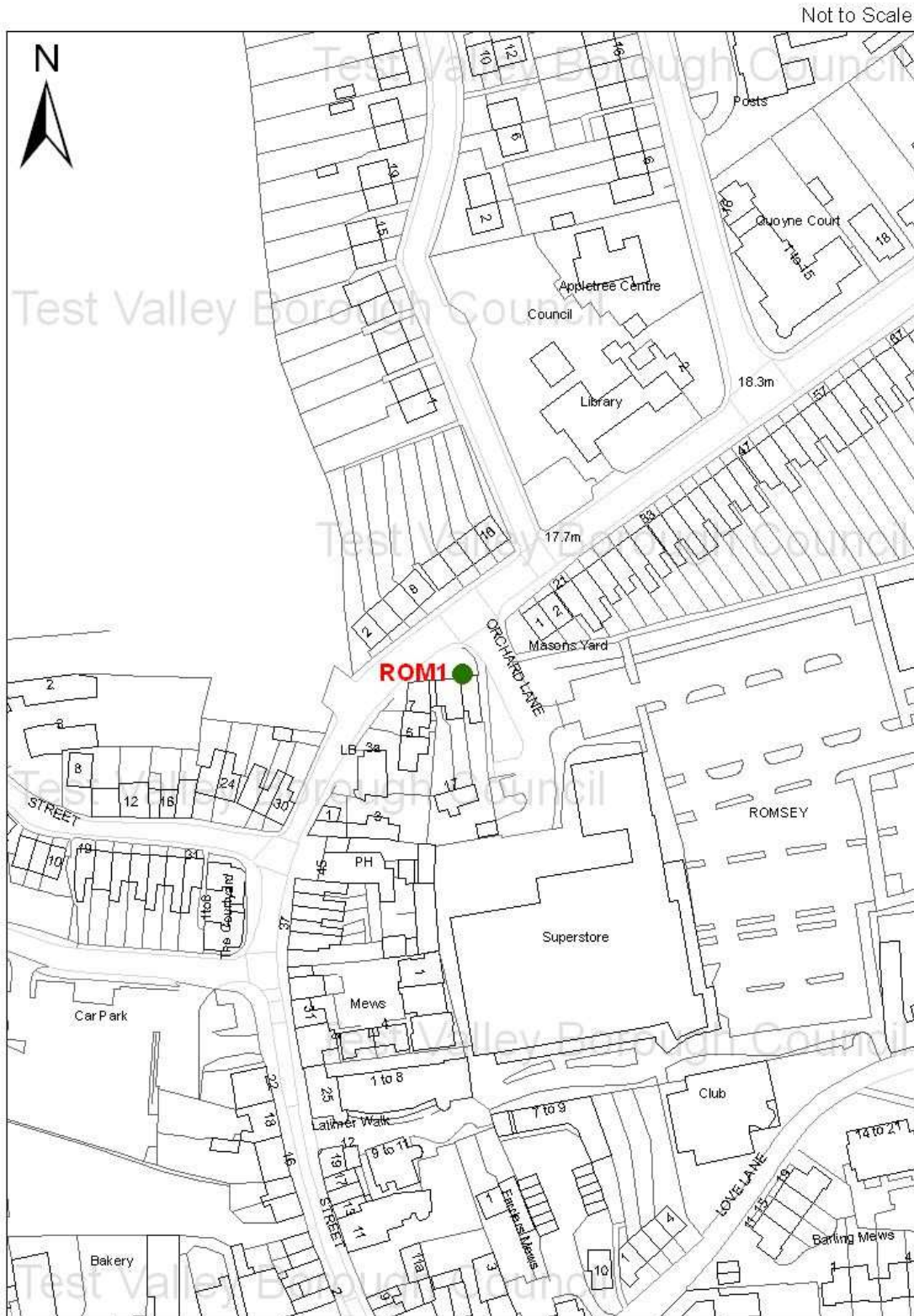
In order for the results from the use of diffusion tubes to be of an adequate quality, the tubes used by Test Valley Borough Council are located in accordance with the guidance set out in the AEA Energy & environment report entitled 'Diffusion Tubes for Ambient NO<sub>2</sub> Monitoring: Practical guidance for laboratories and Users'.

A copy of the Summary of Precision Results for Nitrogen Dioxide Diffusion Tube Collocation Study was downloaded from:

[http://laqm.defra.gov.uk/documents/Tube Precision2010 v04 11.pdf](http://laqm.defra.gov.uk/documents/Tube_Precision2010_v04_11.pdf)

From the Collocation Studies utilising Environmental Scientifics Group (formerly Bureau Veritas) diffusion tubes, 3 studies indicated 'Good' precision in 2010, 9 studies indicated 'Good' precision and 1 'Poor' precision in 2009 with 11 'Good' studies and 2 'Poor' studies in 2008.

### Appendix B: Nitrogen Dioxide monitoring location plans

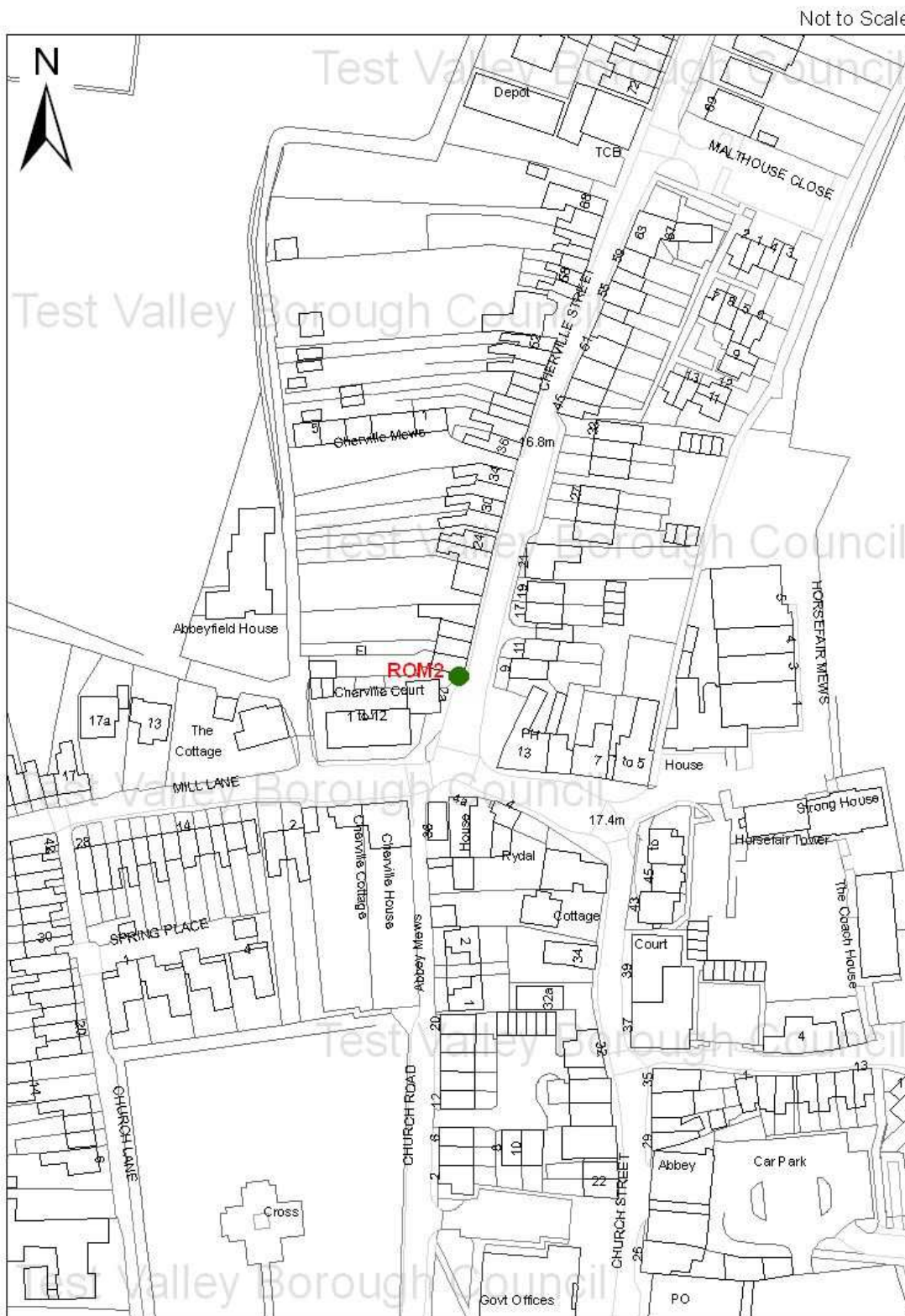


Plan 1  
Approximate location of the ROM1  
nitrogen dioxide diffusion tube in Romsey

Housing, Health & Communities Service,  
Council Offices, Duttons Road,  
Romsey Hampshire SO51 8XG



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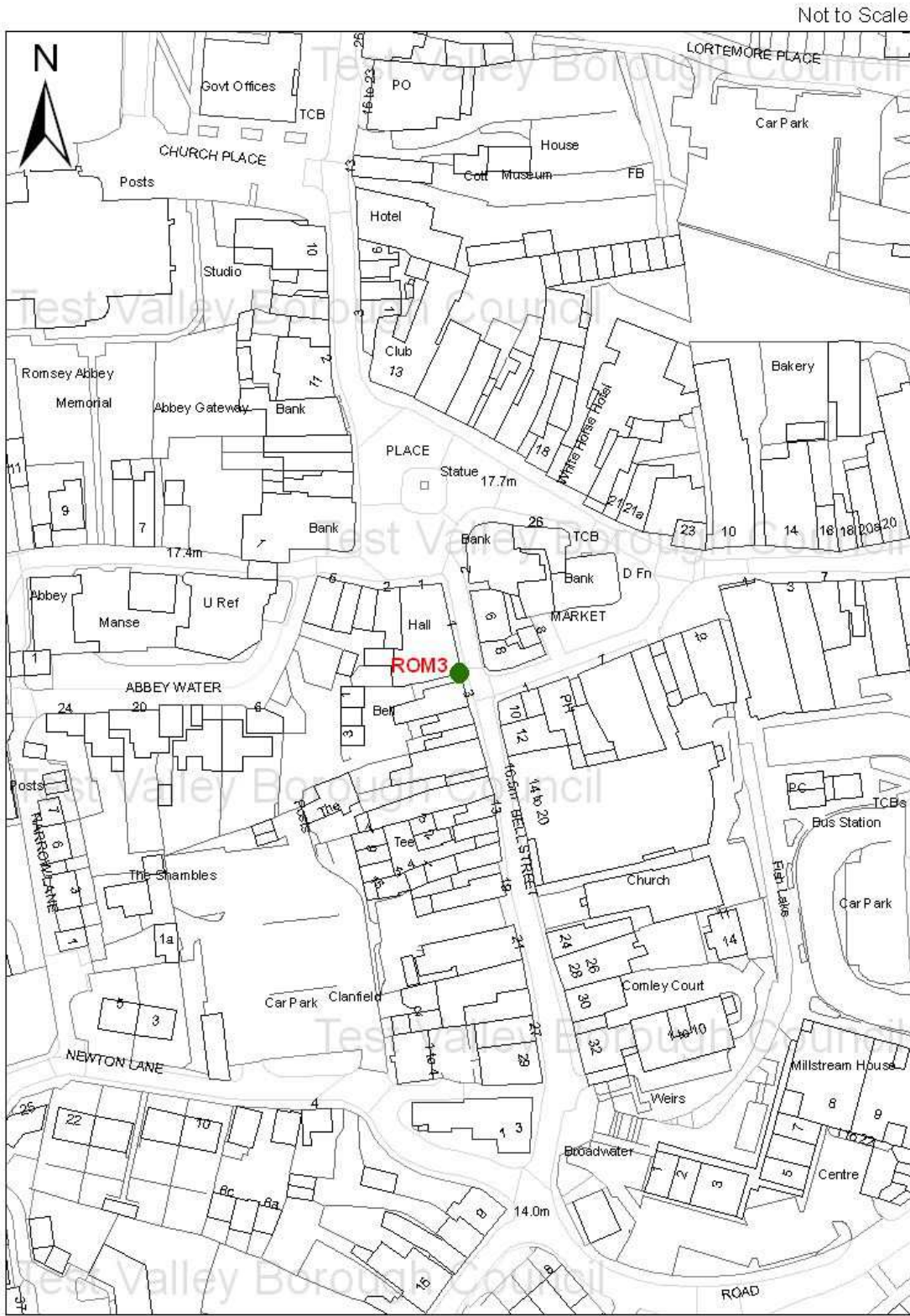


Plan 2  
Approximate location of the ROM2  
nitrogen dioxide diffusion tube in Romsey

Housing, Health & Communities Service,  
Council Offices, Duttons Road,  
Romsey Hampshire SO51 8XG



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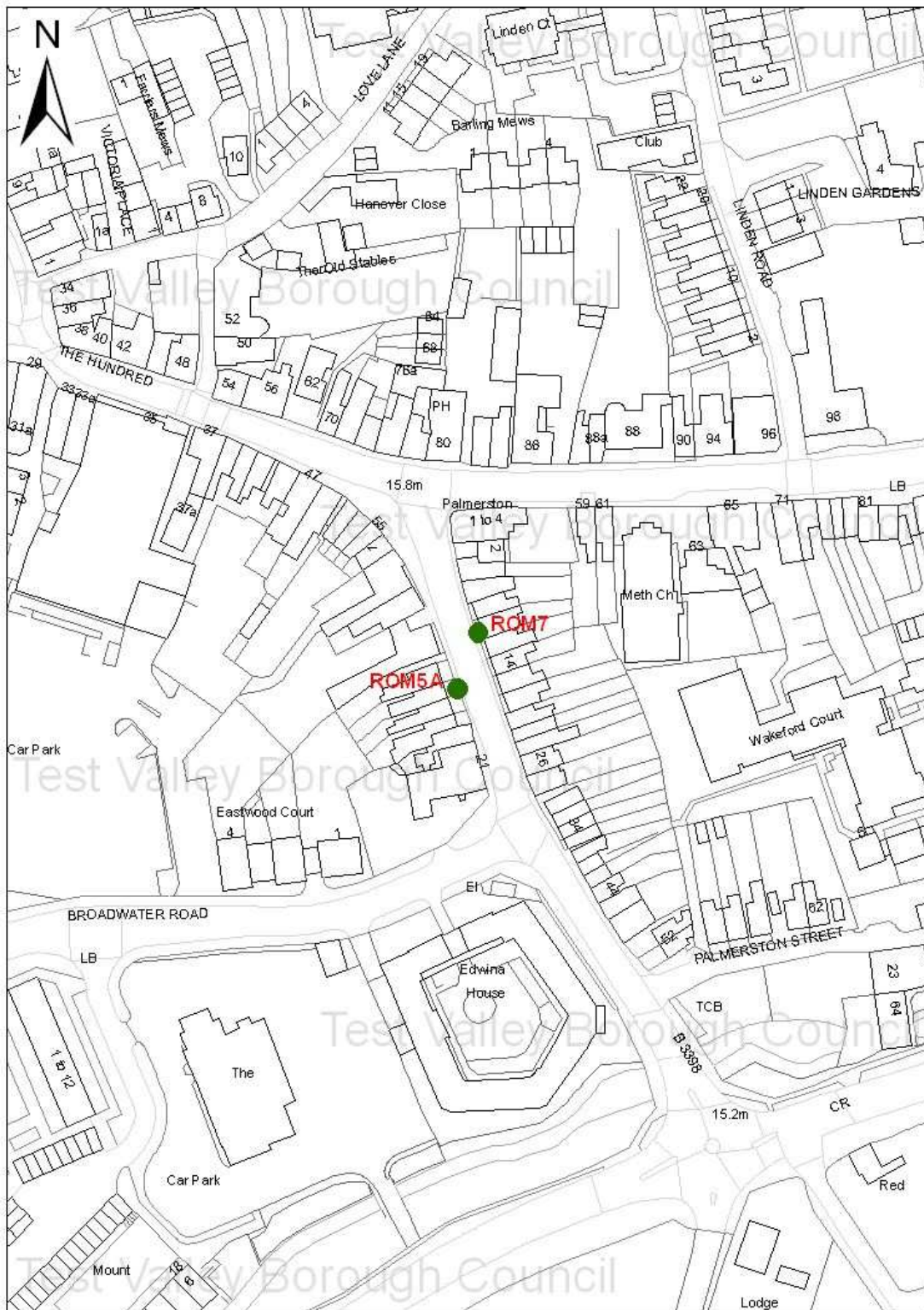
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Plan 3  
Approximate location of the ROM3  
nitrogen dioxide diffusion tube in Romsey

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Council Offices, Duttons Road,  
Romsey Hampshire SO51 8XG



Not to Scale



Plan 4  
Approximate location of the ROM5A & ROM7  
nitrogen dioxide diffusion tubes in Romsey

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Council Offices, Duttons Road,  
Romsey Hampshire SO51 8XG



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Not to Scale



Plan 5  
Approximate location of the ROM8  
nitrogen dioxide diffusion tube in Romsey

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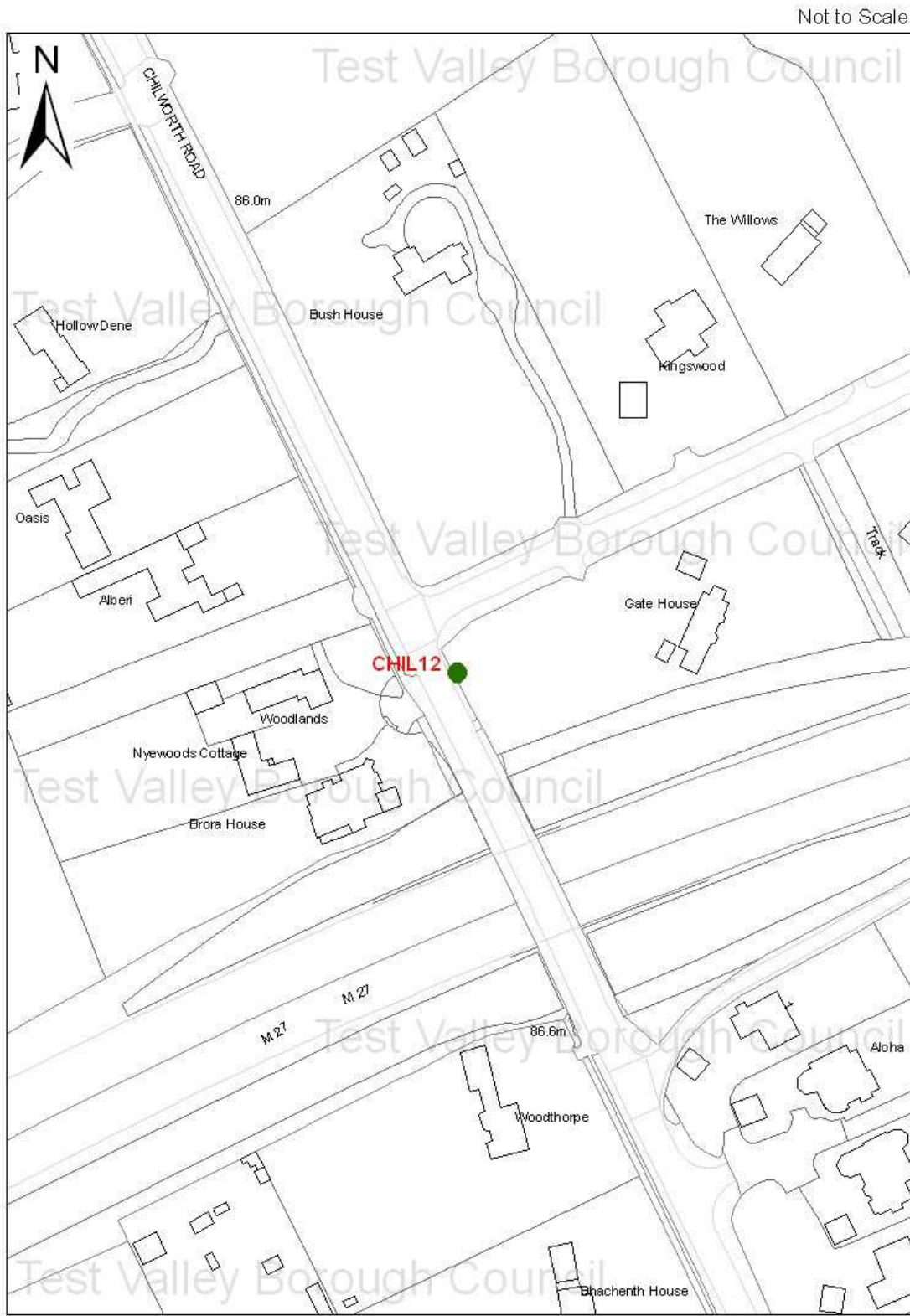




Plan 6  
Approximate location of the ROM9 & ROM10  
nitrogen dioxide diffusion tubes in Romsey

Housing, Health & Communities Service,  
Council Offices, Duttons Road,  
Romsey Hampshire SO51 8XG



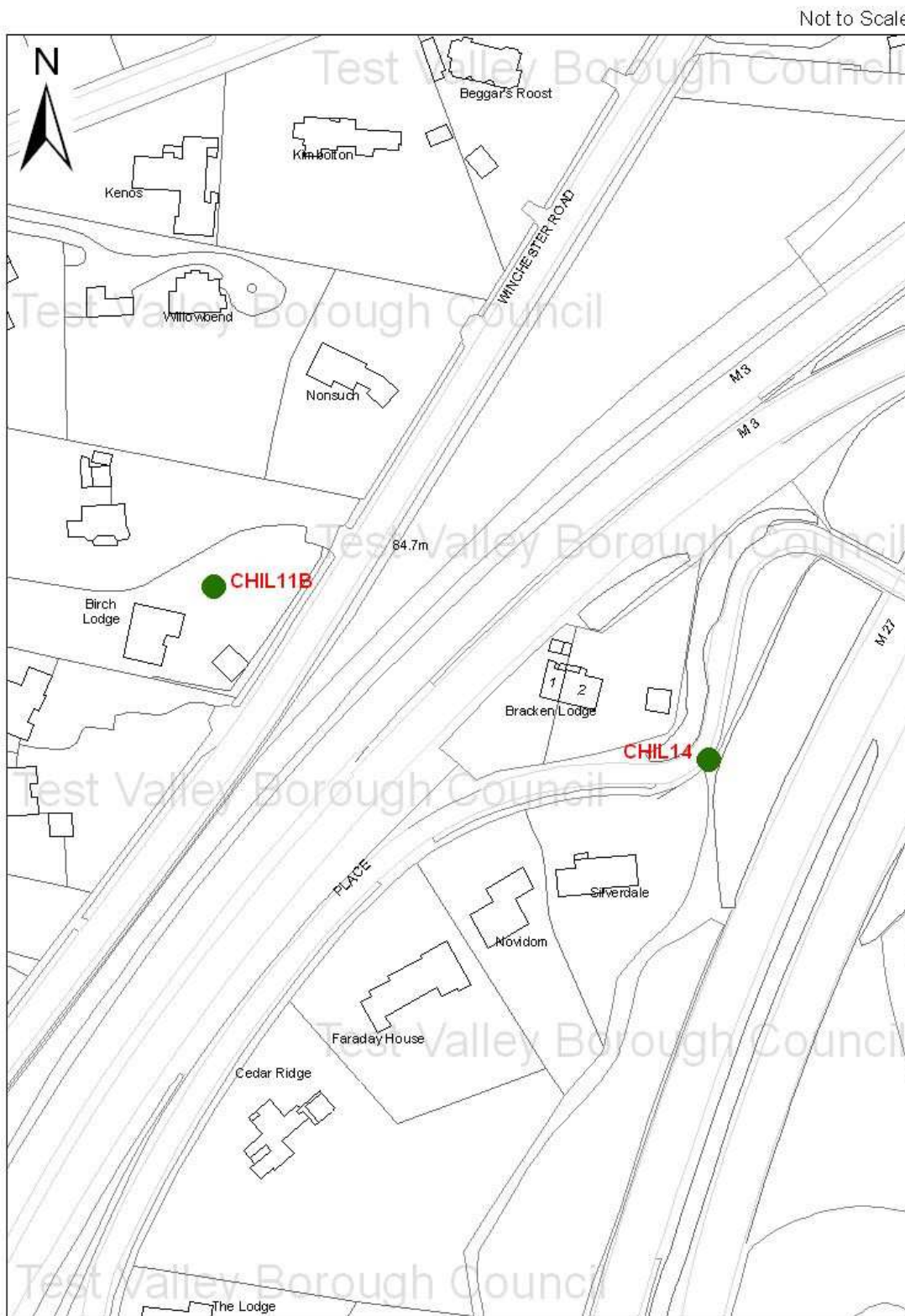


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Plan 7  
Approximate location of the CHIL 12  
nitrogen dioxide diffusion tube in Chilworth

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Romsey Hampshire SO51 8XG





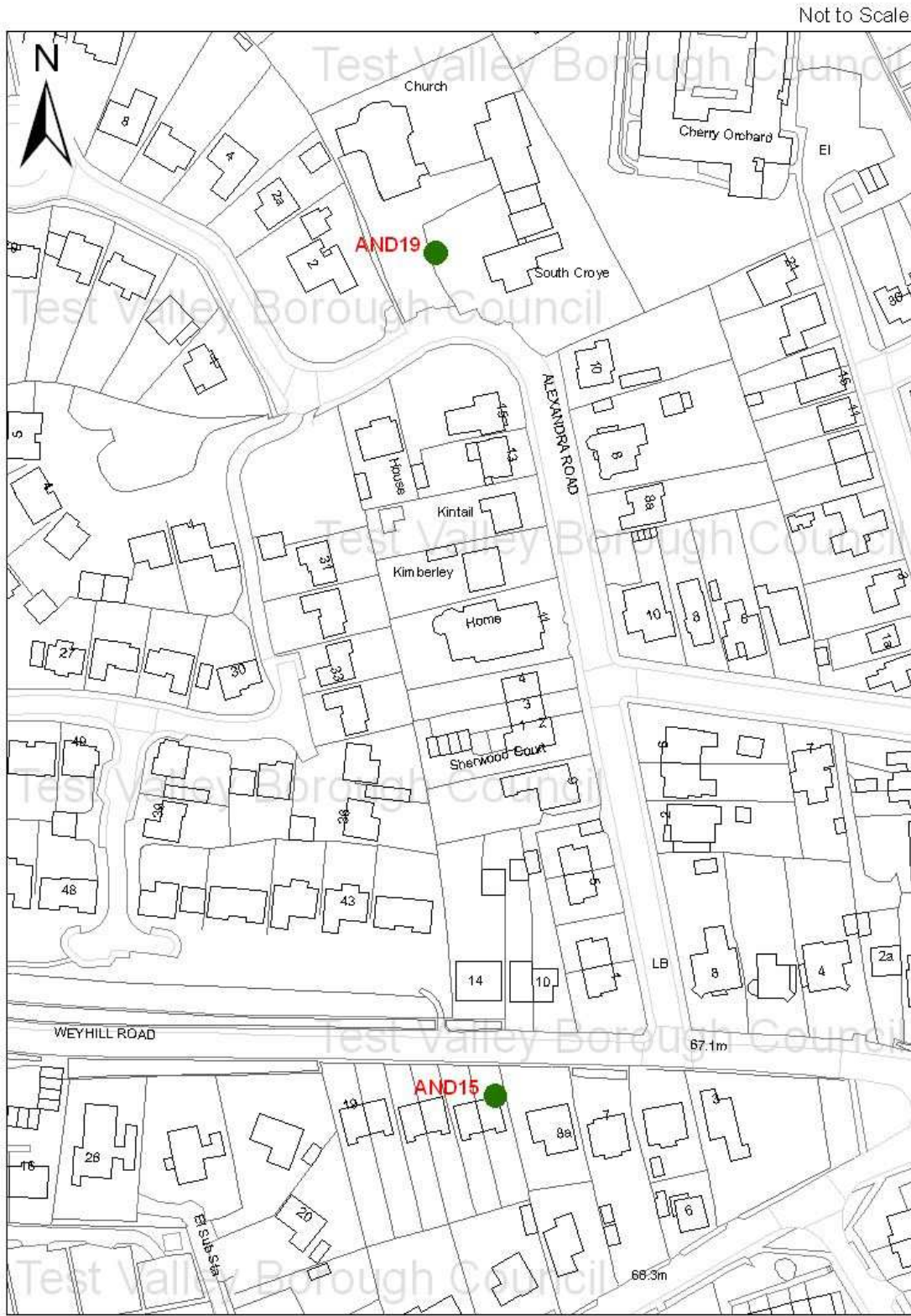
Not to Scale

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Plan 8  
Approximate location of the CHIL 11B & CHIL14  
nitrogen dioxide diffusion tubes in Chilworth

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Plan 9  
Approximate location of the AND15 & AND19 nitrogen dioxide diffusion tubes in Andover

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Plan 10  
Approximate location of the AND20 & AND22  
nitrogen dioxide diffusion tubes in Andover

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Plan 11  
Approximate location of the AND23 & AND25  
nitrogen dioxide diffusion tubes in Andover

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### Appendix C: Nitrogen Dioxide trend charts (2005-2010)

