



# 2010 Air Quality Progress Report for West Dorset District Council

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

August 2010

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## **Executive Summary**

This Progress Report has been produced by West Dorset District Council (WDDC) to satisfy the requirements of Part IV of the Environment Act 1995. This Act requires local authorities to review and assess the air quality within their area and to take account of Government guidance when undertaking such work.

The assessment shows that three areas, in High East Street Dorchester, East Road Bridport and Main Street, Chideock, have exceeded the national objective for nitrogen dioxide; both High East Street in Dorchester and the A35 that runs through the centre of Chideock have been designated as Air Quality Management Areas. A Detailed Assessment for nitrogen dioxide is currently being prepared for East Road, Bridport as a result of Defra's recommendations to WDDC's Updating & Screening Assessment 2009.

Apart from the raised nitrogen dioxide concentrations within the 2 designated AQMA's and along East Road Bridport, all other objectives have been met and there is no requirement to progress to a detailed assessment for any other pollutants.

# Table of contents

<b>1</b>	<b>Introduction</b>	<b>6</b>
1.1	Description of Local Authority Area	6
1.2	Purpose of Progress Report	6
1.3	Air Quality Objectives	6
1.4	Summary of Previous Review and Assessments	8
<b>2</b>	<b>New Monitoring Data</b>	<b>11</b>
2.1	Summary of Monitoring Undertaken	11
2.2	Comparison of Monitoring Results with Air Quality Objectives	16
<b>3</b>	<b>New Local Developments</b>	<b>21</b>
3.1	Road Traffic Sources	21
3.2	Other Transport Sources	21
3.3	Industrial Sources	21
3.4	Commercial and Domestic Sources	21
3.5	New Developments with Fugitive or Uncontrolled Sources	22
<b>4</b>	<b>Planning Applications</b>	<b>23</b>
<b>5</b>	<b>Local Transport Plans and Strategies</b>	<b>24</b>
<b>6</b>	<b>Climate Change Strategies</b>	<b>25</b>
<b>7</b>	<b>Implementation of Action Plans</b>	<b>26</b>
	Promoting Alternatives to Road Transport	27
	Road Traffic Management	28
	Reduce Vehicle Emissions	31
	Use Statutory and Other Powers to Limit Impact of Air Pollution	34
<b>8</b>	<b>Conclusions and Proposed Actions</b>	<b>39</b>
8.1	Conclusions from New Monitoring Data	39
8.2	Conclusions relating to New Local Developments	39
8.3	Other Conclusions	39
8.4	Proposed Actions	39
<b>9</b>	<b>References</b>	<b>41</b>

**Appendices**

Appendix 1	QA/QC Data	42
Appendix 2	Trends in Annual Mean Nitrogen Dioxide Concentration Measured at Diffusion Tube Monitoring Sites.	44
Appendix 3	Maps of Non-Automatic Monitoring Sites	45

**List of Tables**

Table 1.1	Air Quality Objectives included in Regulations for the purpose of Local Air Quality Management in England	7
Table 2.1	Details of Automatic Monitoring Sites	12
Table 2.2	Details of Non-Automatic Monitoring Sites	14
Table 2.4	Results of Nitrogen Dioxide Diffusion Tubes	18
Table 2.5	Planning Applications that included an AQ Assessment	23
Table 7.1	Action Plan Progress Report	27

**List of Figures**

Figure 1.1	Maps of AQMA Boundaries	9
Figure 2.1	Map of Automatic Monitoring Site	11

# 1 Introduction

## 1.1 Description of Local Authority Area

West Dorset is a predominantly rural area; the main source of pollution is from road traffic. At 418 square miles West Dorset is the largest District Council within the County of Dorset, covering 42% of the county area. Being predominately rural in character with small market towns, the district has a relatively low population density, with a total population of just under 95,000. Almost half of the population live in villages/rural areas.

Air quality in West Dorset has been assessed and has been found to be broadly very good due to the predominantly rural environment. However, in certain locations - parts of Chideock, Dorchester and Bridport - air quality has been found to be close to, or exceeding the objective level for nitrogen dioxide. This is due to vehicle emissions and other factors including type and number of vehicles; their speed; congestion and local topographical circumstances.

## 1.2 Purpose of Progress Report

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

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

## 1.3 Air Quality Objectives

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

WDDC undertook the first round of air quality review and assessment in 2001. It was found that there was no requirement to proceed to the next stage, as exceedences in the seven regulated pollutants were not likely.

In 2003 the second round of reviews and assessments commenced. As with Stage One of the first round, the seven pollutants of concern to health were considered, and an assessment was made as to whether air quality objectives for these pollutants would be met. In 2004 Defra accepted this assessment but required West Dorset District Council to proceed to a detailed assessment of nitrogen dioxide (NO<sub>2</sub>) in Chideock, Bridport and Dorchester. The detailed assessment completed in 2006 concluded that there was no need to proceed to an AQMA at any of the identified areas. However, after discussions with Defra it was concluded that an AQMA be declared in Chideock and that further monitoring was to be carried out in Dorchester and Bridport. The area of Chideock shown in figure 1.1 was declared an AQMA in May 2007.

WDDC submitted its 2007 Progress Report in May 2007. This report concluded that a detailed assessment was required in Dorchester and Bridport for NO<sub>2</sub> due to road traffic emissions. The detailed assessment was completed in 2008. From this assessment Defra recommended that an AQMA be declared in High East Street in Dorchester and in East Road in Bridport. The council agreed to declare an AQMA in Dorchester and to do further modelling and monitoring at East Road in Bridport. An Updating and Screening Assessment was completed in 2009. The assessment showed that two areas, in High East Street Dorchester and in Chideock, had exceeded the national objective for NO<sub>2</sub>; but that both these areas are already designated Air Quality Management Areas.

The report also identified that nitrogen dioxide targets had been exceeded in East Road, Bridport. However it concluded that the monitoring sites were not representative of relevant exposure and that additional diffusion tubes are placed in more representative locations. All other objectives had been met and that there was no requirement to progress to a detailed assessment for any pollutants

Defra responded to this report in August 2009 stating that a detailed assessment was required for East Road, Bridport. WDDC is now in the process of completing this report. A







## 2 New Monitoring Data

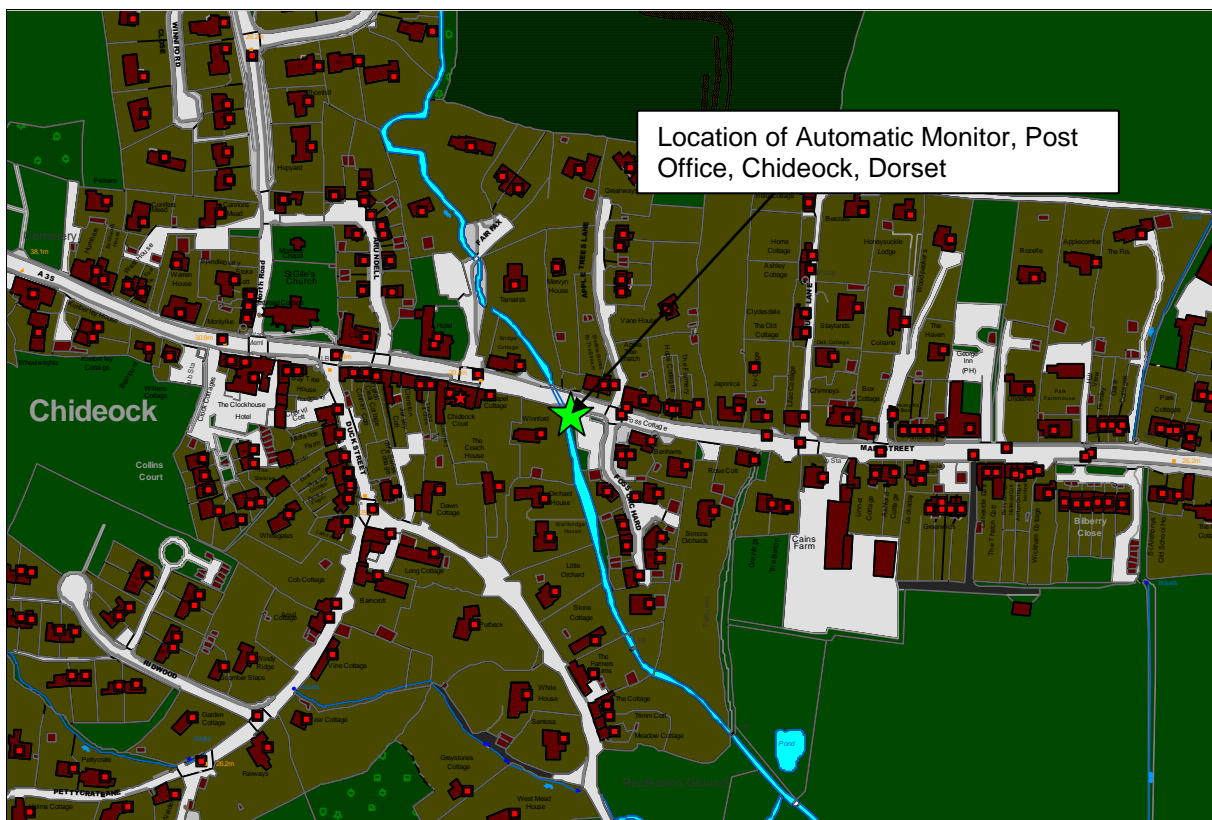
### 2.1 Summary of Monitoring Undertaken

#### 2.1.1 Automatic Monitoring Sites

An automatic monitoring station was installed in Chideock on 31 March 2009 (see map) to measure nitrogen dioxide (NO<sub>2</sub>), however communication problems prevented the station becoming operational until November 2009. Therefore only one full months worth of data was collected in 2009. The continuous monitor is still in operation and is showing levels of NO<sub>2</sub> well below the national average of 40µg/m<sup>3</sup>. Since January 2010 the monitoring station has been co-located with triplicate tubes. These results will be reported on in the 2011 Progress Report.

Full QA/QC procedures can be found at Appendix 1.

**Figure 2.1 Map of Automatic Monitoring Site**



**Table 2.1 Details of Automatic Monitoring Sites**

Site Name	Site Type	OS Grid Ref		Pollutants Monitored	Monitoring Technique	In AQM A?	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?
Post Office, Main Street, Chideock	Roadside	X 342,301	Y 92,817	NO <sub>2</sub>	Chemoluminescent analyser	Y	Y (1m)	2m	N

### **2.1.2 Non-Automatic Monitoring**

In 2009 WDDC monitored for NO<sub>2</sub> in 21 locations in West Dorset, covering 6 geographical areas; Dorchester, Sherborne, Bridport, Chideock, Lyme Regis and Abbotsbury. Details of the monitoring sites are shown in Table 2.2 and monitoring results in Table 2.4.

The diffusion tubes are supplied by Gradko Laboratories. QA/QC procedures for can be found in Appendix 1.

The national correction factor of 0.99 was used for this monitoring period for 2009 as the local co-location study had not commenced. Further details of the correction factor used can be found at Appendix 1.

In January 2009 monitoring was discontinued at three sites; Maiden Newton, Dorchester Tesco and Newlands, Sherborne, as these sites had not exceeded the national objective for the past 8 years. The tubes were relocated in 2009 to Trinity Street, Dorchester, Chervil Cottage in Duck Street, Chideock and Westbury, Sherborne

A further three tubes, 721, 733 & 734 were added to the monitoring programme, two were located along East Road, Bridport (733 & 734) and the other at Homechester House, High West Street Dorchester (721)

Maps of the monitoring sites for 2009 can be found at Appendix 3.

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

Site Name	Site Type	OS Grid Ref		Pollutants Monitored	In AQMA?	Relevant Exposure? (Y/N with distance (m) to relevant exposure)	Distance to kerb of nearest road (N/A if not applicable)	Worst-case Location?
<b>711</b> Dorchester High West St 1	Roadside	X369121	Y90739	NO <sub>2</sub>	N	N	2m	Y
<b>721 (new)</b> Dorchester High West St 2	Roadside	X368982	Y90706	NO <sub>2</sub>	N	Y (1M)	3m	Y
<b>712 (new)</b> Dorchester Trinity Street	Roadside	X369171	Y90711	NO <sub>2</sub>	Y	Y (1M)	2m	Y
<b>713</b> Dorchester High East St 2	Roadside	X369484	Y90759	NO <sub>2</sub>	Y	Y (1m)	2m	Y
<b>714</b> Dorchester High East St 1	Roadside	X369387	Y90742	NO <sub>2</sub>	Y	Y (2m)	2m	Y
<b>727</b> Sherborne Green Hill	Roadside	X363628	Y116883	NO <sub>2</sub>	N	Y(1m)	2m	Y
<b>728 (new)</b> Sherborne Westbury	Roadside	X363784	Y116395	NO <sub>2</sub>	N	Y(1m)	2m	Y
<b>720</b> Abbotsbury	Roadside	X357707	Y85321	NO <sub>2</sub>	N	Y (1m)	1m	Y
<b>716</b> Beaminster	Roadside	X347887	Y101393	NO <sub>2</sub>	N	Y (1m)	2m	Y
<b>717</b> Bridport East Road 1	Roadside	X347557	Y93023	NO <sub>2</sub>	N	N	2m	Y

<b>718</b> Bridport West Street	Roadside	X346505	Y92964	NO <sub>2</sub>	N	Y (1m)	2m	Y
<b>719</b> Bridport South Street	Roadside	X346570	Y92899	NO <sub>2</sub>	N	Y(2m)	2m	Y
<b>730</b> Bridport East Road 2	Roadside	X347612	Y93050	NO <sub>2</sub>	N	N	1m	N
<b>733 (new)</b> Bridport East Road 3	Roadside	X347635	Y93060	NO <sub>2</sub>	N	N	1m	N
<b>734 (new)</b> Bridport East Road	Roadside	X347489	Y92989	NO <sub>2</sub>	N	N	1m	N
<b>724</b> Chideock Duck St	Roadside	X342190	Y92840	NO <sub>2</sub>	Y	Y (1m)	1m	Y
<b>715 (new)</b> Chideock Chervil Cottage	Background	X342174	Y92818	NO <sub>2</sub>	N	Y (2m)	1m	Y
<b>725</b> Chideock George Inn	Roadside	X342486	Y92791	NO <sub>2</sub>	Y	Y (1m)	1m	Y
<b>726</b> Chideock Village Hall	Roadside	X342015	Y92887	NO <sub>2</sub>	Y	N	1m	N
<b>722</b> Lyme Regis Church St	Roadside	X334031	Y92031	NO <sub>2</sub>	N	Y (1m)	2m	Y
<b>723</b> Lyme Regis Broad Street	Roadside	X334296	Y92141	NO <sub>2</sub>	N	Y(1m)	2m	Y

## **2.2 Comparison of Monitoring Results with Air Quality Objectives**

### **2.2.1 Nitrogen Dioxide**

#### **Automatic Monitoring Data**

WDDC's new Automatic Monitoring site became operational at the end of 2009; therefore data was not available for 2009 for comparison with the hourly and annual mean objective.

However initial results for December 2009 and 2010 show that the hourly and annual objective for NO<sub>2</sub> will be met at this location.

#### **Diffusion Tube Monitoring Data**

Table 2.4 shows that the annual mean objective for NO<sub>2</sub> was exceeded at 4 locations, High East & High West Street in Dorchester, along the A35 in Chideock and East Road, Bridport. Both Chideock and High East Street, Dorchester have already been declared AQMA's. Chideock was declared in 2007 and High East Street, Dorchester in 2009.

Results for Chideock in 2009 showed that the NO<sub>2</sub> levels along the A35, at sites 724 (Duck Street) and 726 (Village Hall) were approximately 25% above the national objective, being 50.9µg/m<sup>3</sup> and 47.48µg/m<sup>3</sup> respectively. The 2008 Further Assessment predicted, using the LAQM Year Adjustment Calculator, that there would be a general decline in NO<sub>2</sub> levels in Chideock and that the objective would be met by 2009. Monitoring results for the past 3 years have shown an increase in NO<sub>2</sub> levels, contrary to the outcome of the Further Assessment. An Action Plan is in place to try to improve the levels in Chideock, see Chapter 7 for details on the Action Plan.

New monitoring was undertaken at Chervil Cottage, Duck Street (715) in 2009 to assess whether NO<sub>2</sub> levels exceeded the annual objective in Duck Street and not just at the junction of the A35. This location is approximately 10m back from the A35. The 2009 annual mean at this site showed results well within the national objective.

Two new sites were located in Dorchester in 2009; 715, Trinity Street, and 721, Homechester House, High West Street. Both were sited to identify the extent of the AQMA boundary along High East Street Dorchester. The results show that the national objective has not been exceeded at these locations.



A Further Assessment has also been undertaken for High East Street Dorchester and identified that although there are exceedences in High West Street, they are not in areas where there are relevant receptors. The only receptors in High West Street are at Homechester House and NO<sub>2</sub> is monitored on the façade of this property. The annual objective here has been met; therefore an extension of the AQMA boundary is not required.

The 2 new monitoring sites, 733 & 734 along East Road, Bridport, showed an exceedence of the objective in 2009. This location has previously been identified as exceeding the annual objective and a Detailed Assessment was required from the outcome of the USA 2009. This is currently being undertaken.

No other areas have exceeded the air quality objective within West Dorset. A 5 year nitrogen dioxide monitoring trend in West Dorset can be found at Appendix 2

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

Site ID	Location	Within AQMA	Data Capture for monitoring Period %	Data Capture for full calendar year 2009 %	Annual mean concentrations ( $\mu\text{g}/\text{m}^3$ ) Adjusted for bias		
					2007	2008	2009
711	Dorchester High West Street 1	N	100	100	<b>41.13</b>	<b>41.93</b>	<b>44.64</b>
721	Dorchester <b>(new)</b> High West Street 2	N	95	95			32.8
712	Dorchester <b>(new)</b> Trinity Street	N	95	95			32.9
713	Dorchester High East Street 2	Y	100	100	<b>42.88</b>	38.21	39.61
714	Dorchester High East Street 1	Y	100	100	39.16	<b>43.02</b>	<b>46.22</b>
720	Abbotsbury	N	100	100	21.57	18.89	19.6
717	Bridport East Rd 1	N	100	95	<b>51.34</b>	<b>55.11</b>	<b>57.07</b>
718	Bridport West Street	N	95	95	33.78	28.57	28.71
719	Bridport South St	N	95	95	31.07	29.48	30.08
730	Bridport East Rd 2	N	95	95	38.8	<b>40.02</b>	<b>41.03</b>
733	Bridport <b>(new)</b> East Rd 3	N	100	75			<b>43.32</b>
734	Bridport <b>(new)</b> East Road 4	N	95	95			<b>51.41</b>
724	Chideock Duck St	Y	95	95	<b>41.65</b>	<b>44.34</b>	<b>50.9</b>
715	Chideock <b>(new)</b> Chervil Cottage Duck Street	N	90	90			13.9
725	Chideock opposite the George Inn	Y	95	95	32.67	31.5	30.2
726	Chideock Village Hall	Y	100	100	39.25	<b>41.58</b>	<b>47.48</b>
722	Lyme Regis Church St	N	100	100	27.73	25.89	27.21
723	Lyme Regis Broad St	N	100	100	36.14	27.64	29.82
716	Beaminster	N	100	100	24.13	24.53	24.86
727	Sherborne Green Hill	N	100	100	31.17	30	32.95
728	Sherborne <b>(new)</b> Westbury	N	100	100			21.37

*In bold, exceedence of the NO<sub>2</sub> annual mean AQS objective (40 $\mu\text{g}/\text{m}^3$ )*

## **2.2.2**

### **2.2.3 PM<sub>10</sub>**

WDDC did not identify any areas within the district where PM<sub>10</sub> could be a problem during the last Updating and Screening Assessment. This has not changed; therefore we do not currently undertake any monitoring of this pollutant. However concerns have been raised by residents in Chideock regarding PM<sub>10</sub> levels due to the unique topography of the area and we intend to undertake air quality modelling of this pollutant if funding becomes available.

### **2.2.4 Sulphur Dioxide**

WDDC did not identify any areas within the district where Sulphur Dioxide could be a problem during the last Updating and Screening Assessment. This has not changed, therefore we do not currently undertake any monitoring of this pollutant

### **2.2.5 Benzene**

WDDC did not identify any areas within the district where benzene could be a problem during the last Updating and Screening Assessment. This has not changed, therefore we do not currently undertake any monitoring of this pollutant

### **2.2.6 Other pollutants monitored**

No other pollutants are monitored in West Dorset

### **2.2.7 Summary of Compliance with AQS Objectives**

West Dorset District Council has examined the results from monitoring in the district. Concentrations outside of the AQMA's and East Road, Bridport are all below the objectives at relevant locations, therefore there is no need to proceed to a Detailed Assessment.

### **3 New Local Developments**

West Dorset District 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.

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

West Dorset District Council confirms that there are no new or newly identified local road traffic sources which may have an impact on air quality within the Local Authority area.

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

West Dorset District Council confirms that there are no new or newly identified non-road traffic sources which may have an impact on air quality within the Local Authority area.

#### **3.3 Industrial Sources**

West Dorset District Council confirms that there are no new or newly identified industrial sources which may have an impact on air quality within the Local Authority area.

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

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

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

West Dorset District Council confirms that there are no new or newly identified developments with fugitive or uncontrolled sources which may have an impact on air quality within the Local Authority area.

## 4 Planning Applications

No approved planning applications have been received since the 2009 USA that could have a potential impact on air quality, however the table below shows the planning applications that are currently undetermined have but have included an Air Quality Assessment.

**Table 2.5 Planning Applications that included an AQ Assessment**

Planning Application number	Location	Proposal	In AQMA?	Significant impact on AQ identified	Assessment Approved
1/D/10/000763	Charles Street Development Site, Charles Street, Dorchester	Demolition of existing buildings and structures and comprehensive redevelopment comprising retail units (Use Class A1), restaurants and cafes (Use Class A3), financial and professional services (Use C (Outline))	No but adjacent to High East Street Dorchester AQMA	no	yes

## 5 Local Transport Plans and Strategies

The Rural Dorset LTP is organised around the shared priorities for transport agreed between the Government and Local Government Association (LGA) in July 2002, which focus on improving road safety, accessibility, dealing with problems of congestion and air quality. Dorset County Council has also determined local priorities for reducing traffic impacts on the environment, economic development, and asset management.

The plan takes account of national policies on transport and has been developed within the context of the emerging Regional Spatial Strategy for the South-West and covers the five year period from 2006 to 2011. It also takes into account the vision and priorities in Dorset's Community Strategy and the developing community plans of the borough and district councils. The LTP can be found at [The Current Local Transport Plans - dorsetforyou.com](http://The Current Local Transport Plans - dorsetforyou.com)

The key actions of the Plan for Air Quality and the Environment are summarised below;

- Where areas of poor air quality are defined, which are linked to areas of excess or slow moving traffic, the County Council will work with the borough or district Councils to develop transport strategies to reduce emission levels; particularly where air quality action plans are defined.
- The County Council will ensure that development designs and transport improvements are an appropriate response to the local context and create or reinforce local distinctiveness.
- The level of inappropriate speed will be reduced, not only where this is a major contributory factor to accidents, but also in areas where local communities find speed intimidating and detrimental to their quality of life.
- Traffic management measures will be introduced, including 20mph zones to ameliorate damage to rural communities on heavily trafficked routes such as the A350/C13 and A35.
- Smart traffic management technology will be used to achieve reduced traffic impact where appropriate.
- Traffic Management measures that restrict or remove unnecessary traffic will be introduced in Dorset's market towns to ensure that they function more effectively.
- A lorry routing strategy will be developed that is consistent with the regional freight strategy.
- A Rural Roads Protocol will be developed for the sensitive and sustainable treatment of rural roads, encompassing safety, information, environmental protection, landscape, biodiversity and heritage. And to develop design and management guidance to give effect to the protocol.



## **6 Climate Change Strategies**

WDDC launched their Climate Change Strategy in October 2009. This Strategy aims to help residents, businesses and other organisations to reduce their carbon emissions by 30% by 2020 from 2005 levels. This Strategy can be found at:

[The West Dorset climate change strategy - dorsetforyou.com](http://dorsetforyou.com)

## 7 Implementation of Action Plans

West Dorset District Council published its Air Quality Action Plan for Chideock in March 2009, which is in response to the Air Quality Management Area. The Action Plan contains measures that, when implemented, could have a direct influence on reducing NO<sub>2</sub> levels and measures that may have an indirect effect.

The main aims of the Air Quality Action Plan are to reduce NO<sub>2</sub> emissions and it sets out what the Council will be doing to improve air quality over the next few years and who is responsible for implementing those measures. Other actions include reducing emissions from buildings and industry and to raise public awareness of air pollution and greener travel options.

The source of the NO<sub>2</sub> pollution that resulted in the need to declare an AQMA is from traffic using the A35 Trunk Road and the direct measures are the ones that are aimed at this source. It is the responsibility of the Highways Agency to implement them.

The majority of the other measures in the Action Plan will only have an indirect effect on pollution levels and any resulting improvement will be minimal at best, and not quantifiable.

Table 7.1 below summarises the results of the progress of the action plan so far. The main action plan can be found on the Dorsetforyou website at [Air quality in Chideock - dorsetforyou.com](http://www.dorsetforyou.com/Air_quality_in_Chideock)

**Table 7.1 Action Plan Progress Report**

NO	ACTION REQUIRED BY PLAN	LEAD AGENCY	BY...	ACTION TAKEN/PLANNED
<b>Promoting Alternatives to Road Transport</b>				
A1	Publish an Action Plan to reduce road traffic by; <ul style="list-style-type: none"> <li>Promoting local buses as commuter buses.</li> <li>Encouraging use by travellers of the Jurassic Coast bus</li> </ul>	DCC	June 2010	<b>July 09</b> - DDC to ask Jurassic Coast working Theme Group for their current plan, or more specific Action Plan  <b>Nov 09</b> – Action completed
A2	Publish a School Travel Plan for Symondsburry and other local schools. Include the investigation of Hell Lane as a Walking Bus route <u>Additionally November 2009</u> <i>Concern that Hell Lane still not being used as a walking bus route</i>	DCC	April 2010	<b>July 09</b> - DCC to obtain copy of Symondsburry School Travel Plan  <b>Nov 09</b> – Action completed but DCC to investigate why Hell Lane is not being used.  <b>July 10</b> – WDDC to contact DCC for update
A3	Publish an Action Plan to reduce road local traffic including; <ul style="list-style-type: none"> <li>Promoting Car pool schemes.</li> <li>Increased promotion of the Car Share Dorset scheme</li> <li>Discussing solutions with local caravan park</li> </ul> <u>Additionally November 2009</u> <i>No solutions have yet been proposed for alternative access to the caravan Parks in Seatown</i>	DCC	June 2010	<b>July 09</b> - DCC to obtain copy of Action Plan  <b>Nov 09</b> – Action Plan produced  <b>July 10</b> – WDDC to contact DCC for update. Any proposals should include air quality modelling.

NO	ACTION REQUIRED BY PLAN	LEAD AGENCY	BY...	ACTION TAKEN/PLANNED
A4	Bring a feasible scheme providing alternatives to local car travel into the Capital Programme from 2010/11 onwards	DCC	April 2010	<p><b>July 09</b> - DCC to secure an update</p> <p><b>Nov 09</b> – Waiting for update</p> <p><b>July 10</b> – WDDC to contact DCC for update</p>
A5	Lobby at regional level and through the LTP process for an improved Exeter/Weymouth railway route	DCC	July 2010	<p><b>July 09</b> - DCC currently lobbying for better rail links</p> <p><b>Nov 09</b> – DCC continue to lobby</p> <p><b>July 10</b> - Ongoing</p>
A6	Maintain the national concessionary bus scheme for concessionary users	WDDC	Ongoing	<p><b>July 09</b> - WDDC advises that the concessionary bus scheme is ongoing but may transfer to DCC</p> <p><b>Nov 09</b> –Ongoing</p> <p><b>July 10</b> - Ongoing</p>
A7	Encourage any proposals for new or improved footways or cycleways, in order to provide safe alternatives to car travel for local people and tourists.	WDDC DCC	Ongoing	<p><b>July 09</b> - WDDC (Planning Policy) advise that such proposals continue to be encouraged when opportunities arise</p> <p><b>Nov 09</b> – Ongoing</p> <p><b>July 10</b> - Application for footpath to connect Broadmead to Frogmore farm discussed, funding and ownership problems noted. HA to update</p>

## Road Traffic Management

NO	ACTION REQUIRED BY PLAN	LEAD AGENCY	BY...	ACTION TAKEN/PLANNED
B1	Clarify the Governments current and likely future position on building a by-pass	WDDC	Dec 08	<p><b>July 09</b> - Response back from Government Office for the South West, "It is for the region to identify its priorities." The scheme does not sit high in regional priorities given the significant obstacles it faces.</p> <p><b>Nov 09</b> – Action completed</p>
B2	Maintain a programme of improvements to assist traffic flows on the A30/A35, specifically including bus stop facilities.	HA	Ongoing	<p><b>July 09</b> - A programme of measures are in place, including Dedicated Incident Support Unit to maintain and improve traffic flow</p>
B4	Reduce road blockages via the Journey Time Reliability initiative, which ensures road works minimise delay. Contractors and statutory undertakers carry out the majority of their work at night to minimise congestion.	HA	Ongoing	<p><b>Nov 09</b> – HA informed that Bus Stops and proposed pedestrian crossing to be installed by end of March 2010</p> <p><b>July 10</b> - Upgrade of bus stops (including two shelters) completed. Highways Agency (HA) also has a National Vehicle Recovery Service to recover broken down vehicles on trunk roads to help respond to any congestion problems that develop on trunk roads.</p>
B5	<p>Prompt Dorset Road Safe (the camera partnership) to review options to smooth traffic flows, such as;</p> <ul style="list-style-type: none"> <li>• Remove speed limit and speed camera</li> <li>• Introduce "Average Speed" cameras</li> <li>• Point speed cameras up hill</li> <li>• Introduce a variable speed limit</li> <li>• Extend speed regulated zone</li> </ul>	HA DCC	April 2009	<p><b>July 09</b> - DCC to advise of outcome of Dorset Road Safe discussions of camera positioning and use</p> <p><b>Nov 09</b> – This is a low priority as the partnership's priority is safety, not air quality, however still waiting outcome of speed limit review.</p> <p><b>July 10</b> - Air quality modelling should consider scenario to extend the speed regulated zone.</p>

NO	ACTION REQUIRED BY PLAN	LEAD AGENCY	BY...	ACTION TAKEN/PLANNED
B6	Work with Somerset CC and other councils to amend SatNav systems to warn motorists (particularly HGV drivers) of steep hills at Chideock	DCC	April 2010	<b>July 09</b> - Not achievable within current legislation <b>Nov 09</b> – Completed, not feasible
B7	Complete a feasibility study to smooth flows of Seatown traffic turning onto and off the A35 and reduce pollution from queuing traffic, to deal with the seasonal traffic in particular. Submit proposal for inclusion in LTP	HA	Dec 09	<b>July 09</b> - HA to prepare brief for DCC to commission a high-level study <b>Nov 09</b> –study commissioned. Draft sent to DCC for approval. Report recommended that a mini roundabout be installed at the Duck Street junction. Concerns that this would not improve air quality levels in this area. AQ modelling may be required. <b>July 10</b> - Feasibility study drafted and still with DCC for comments. Will need to undertake air quality modelling before final report is produced. HA & WDDC to meet to discuss requirements for air quality modelling and to look at air quality / traffic data.
B8	Work with local businesses and delivery companies to voluntarily re-schedule deliveries that currently cause problems	WDDC	March 09	<b>July 09</b> -Complete. The 3 or 4 local businesses all have car parks and delivery vehicles do not park on the road. Does not have a major impact on traffic flow <b>Nov 09</b> – Action complete
B9	Investigate the possibility of re-scheduling refuse collection round to avoid creating additional road congestion	WDDC	March 09	<b>July 09</b> -WDDC to explore with flow data <b>Nov 09</b> – Collection does not impede on traffic flow due to very early and mid afternoon collections, not seen as a major concern to air pollution.
B10	Explore the effectiveness of products such as such TiO2 nano-coatings that claim to absorb pollutants when applied to road surface	HA	Dependant on trial findings	<b>July 09</b> - HA to supply copy of Interim report when available. Not looking promising <b>Nov 09</b> –Trials showed that AQ levels did not show a difference in AQ levels when compared to areas without the coating. Not

NO	ACTION REQUIRED BY PLAN	LEAD AGENCY	BY...	ACTION TAKEN/PLANNED
				feasible due to cost and study findings.
<b>Reduce Vehicle Emissions</b>				
C1	Ensure that contracts involving new buses (including school buses on Chideock routes) meet an appropriate fuel and quality specification	DCC	Nov 2009	<p><b>July 09</b> - X53 buses on Chideock routes are new and meet the latest European emission specification.</p> <p><b>Nov 09</b> – Action completed</p>

NO	ACTION REQUIRED BY PLAN	LEAD AGENCY	BY...	ACTION TAKEN/PLANNED
C2	<p>Ensure that air pollution from DCC's own activities is reduced by</p> <ul style="list-style-type: none"> <li>• Expansion of the use of bio-diesel by County Council Fleet vehicles.</li> <li>• Promoting carbon reduction measures within Dorset schools as part of the development of the school travel plan process.</li> <li>• Encouraging the uptake of clean, low carbon vehicles and fuels, including increasing the availability of low carbon fuels locally.</li> <li>• Development of a safer driving policy for County Council staff, including fleet and lease drivers, that teaches and promotes safer eco-driving techniques.</li> <li>• Awarding of Street Lighting PFI contract - This is expected to show significant CO2 savings within coming years from the use of new technologies.</li> </ul> <p><u>Additionally July 2010</u></p> <ul style="list-style-type: none"> <li>• <i>Hybrid Vehicles</i></li> </ul>	DCC	Ongoing	<p><b>July 09</b> - DCC to obtain copy of Action Plan</p> <p><b>Nov 09</b> – DCC confirm that this is ongoing and actions are in the plan</p> <p><b>July 10</b> - Ongoing.</p>



NO	ACTION REQUIRED BY PLAN	LEAD AGENCY	BY...	ACTION TAKEN/PLANNED
C3	<p>Ensure that air pollution from WDDC's own activities is reduced by</p> <ul style="list-style-type: none"> <li>• Continuing drive to better fuel efficiency, engine emission standards and emission controls on council owned and leased vehicles</li> <li>• Monitoring the implementation of the Corporate Travel Plan to reduce emissions resulting from both business travel and travel to work. Actions include the use of pool cars and bicycles for staff, encouragement of car sharing, and flexible working practices.</li> </ul> <p><i>Additionally July 2010</i></p> <ul style="list-style-type: none"> <li>• <i>Hybrid vehicles</i></li> </ul>	WDDC	Ongoing	<p><b>July 09</b> - WDDC Travel Plan is published</p> <p><b>Nov 09</b> – WDDC confirm that this is still ongoing</p> <p><b>July 10</b> - Ongoing.</p>
C4	<p>Workplace Travel Plans - Encourage local employers to develop and implement workplace travel plans, in order to reduce the emissions resulting from both business travel and travel to work. Actions may include initiatives such as the use of pool cars and bicycles for staff, encouragement of car sharing, and flexible working practices.</p>	WDDC	Ongoing	<p><b>July 09</b> - WDDC seek to reduce pollution from local business vehicles by supporting their development of Travel Plans</p> <p><b>Nov 09</b> – Confirm that this is ongoing</p> <p><b>July 10</b> - Ongoing</p>
C5	<p>Investigate differential licence fee for private hire vehicles &amp; hackney carriages using 'greener' fuels</p>	WDDC	March 2009	<p><b>July 2009</b> - Investigated and rejected for reasons of viability. Separate report available</p> <p><b>Nov 09</b> – Action completed</p>

NO	ACTION REQUIRED BY PLAN	LEAD AGENCY	BY...	ACTION TAKEN/PLANNED
C6	Organise a voluntary free emissions testing service for local residents  <i>Additionally November 2009</i> <i>WDDC to explore powers available Under the Road Traffic (Vehicle Emissions) (Fixed Penalty) (England) Regulations 2002 (Statutory Instrument Number 1808).</i>	WDDC	June 2009	<b>July 09</b> - WDDC exploring the feasibility of an event in late September 2009  <b>Nov 09</b> – Noted that emission testing is part of the MOT. Not considered that it would have an impact on non-compliant vehicles.  <b>July 10</b> - VOSA roadside emission testing is more appropriate. HA to contact VOSA for any information they can provide on what they currently do. HA to feedback to WDDC.
C7	Investigate the feasibility of VOSA (Vehicle & Operator Services Agency) testing roadside weight, brakes and emissions of light and heavy goods vehicles at a nearby site on the A35  <i>Additionally November 2009</i> <i>Concerns raised that width and weight restrictions are not in the action plan</i>	CPC  HA	October 09  July 11	<b>July 09</b> - VOSA have written in response to CPC enquiry to reject the proposal  <b>Nov 09</b> – Update from CPC. VOSA have now written to say that if the capital for the layby was found, £350,000, VOSA would be happy to operate the site  <b>July 10</b> – Any proposals will be included in the air quality modelling.
<b>Use Statutory and Other Powers to Limit Impact of Air Pollution</b>				
D1	Take account of air quality issues in tendering process (where relevant)	DCC WDDC	Ongoing	<b>July 2009</b> - WDDC includes environmental performance in their procurement policy and practices. Separate report available. WDDC to check the situation with DCC  <b>Nov 2009</b> – WDDC confirmed that this is part of the procurement procedure

NO	ACTION REQUIRED BY PLAN	LEAD AGENCY	BY...	ACTION TAKEN/PLANNED
				<b>July 10</b> - Ongoing
D2	Use existing environmental protection powers to reduce and control emissions from industrial processes, commercial & residential activities	WDDC	Ongoing	<b>July 09</b> - WDDC continue to use a range of powers to reduce air pollution from industrial, commercial and residential activities  <b>Nov 09</b> – Ongoing  <b>July 10</b> - Ongoing. Parish Council have distributed leaflets on bonfires several times recently
D3	Provide up to date / real-time air quality information on Dorsetforyou website. Investigate the potential for automatic alerts to vulnerable people (e.g. text alerts)	WDDC	June 2009	<b>July 09</b> - Work underway to provide real time air quality information by October 2009  <b>Nov 09</b> – Following complete installation of NO2 monitor in Sept 09, WDDC now investigating options for access to AQ data via website and text alerts  <b>July 10</b> - Grant application made to publish real time data on the web.
D4	Use information from the continuous air pollution monitor and correlate with traffic management data to identify impacts and trends	WDDC	Dec 2009	<b>July 09</b> - Work underway to correlate air quality with traffic flow by December 2009  <b>Nov 09</b> – Not feasible until good quality long term ( 6-12 months) data is available  <b>July 10</b> – HA & WDDC to meet to look at air quality / traffic data.
D5	Investigate the desirability of declaring a smoke control area	WDDC	June 2009	<b>July 09</b> – Discussed, to investigate when outcome of PM <sub>10</sub> measurement is known  <b>Nov 09</b> – WDDC confirmed that a PM <sub>10</sub> monitoring study is likely

NO	ACTION REQUIRED BY PLAN	LEAD AGENCY	BY...	ACTION TAKEN/PLANNED
				to go ahead next year  <b>July 10</b> - Declaration unlikely but will review after PM <sub>10</sub> study completed, grant application made to fund study.
D6	Continue to implement the Home Energy Conservation Act policy for residential properties	WDDC	Ongoing	<b>July 09</b> - WDDC continue to use a range of measures to improve home insulation, and reduce domestic energy use  <b>Nov 09</b> – No change  <b>July 10</b> - Ongoing
D7	Subject to funding, monitor for relevant particulates and assess against air quality objectives. Research brake pad and clutch components as contributory factors	WDDC	March 2010	<b>July 09</b> - WDDC investigating methods of measuring PM10 by March 2010  <b>Nov 09</b> – Currently obtaining quotes for study  <b>July 10</b> - Grant application made to fund study.
D8	Limit further development within the AQMA by continuing not to identify a Defined Development Boundary for the village within the local development framework. Ensure that the AQMA is taken into account as a material consideration in development control.	WDDC	Ongoing	<b>Jul 09</b> - WDDC continue to use a range of planning measures to control development with the potential for increased air pollution  <b>Nov 09</b> – WDDC confirm ongoing  <b>July 10</b> - Ongoing
D9	Refer to AQMA as an issue in developing the Local Development Framework and in bringing forward Local Transport Plan improvement schemes	WDDC	Ongoing	
<b>KEY</b>	<b>WDDC</b> = West Dorset District Council, <b>DCC</b> = Dorset County Council <b>CPC</b> = Chideock Parish Council <b>HA</b> = Highways Agency			

NO	ACTION REQUIRED BY PLAN	LEAD AGENCY	BY...	ACTION TAKEN/PLANNED
	<b>Grey – Action completed, Green On going &amp; within timescale, Amber, Fallen behind, Red – No Action</b>			

The above table is a report of the progress taken to date and does not include the reduction of NO<sub>2</sub> for each action. This information can be found in our original Action Plan.

## **Main Outcomes of the Action Plan**

The Chideock Action Plan applies mainly to the Air Quality Management Area, but also to the District as a whole. It recognises that although not everyone in the District will be exposed to concentrations of nitrogen dioxide that exceed the air quality objectives, it is the intention of the Action Plan to reduce levels of NO<sub>2</sub>, wherever possible, in pursuit of the achievement of the objectives.

The main source of the pollution in Chideock is from the traffic using the A35 Trunk Road. This road is the responsibility of the Highways Agency (HA) so direct actions that the District and County Council can take to reduce pollution levels are very limited. The Highways Agency does not at present have any major actions or measures that would directly reduce the pollution levels in Chideock, however the HA have produced a draft feasibility study on traffic flow through Chideock and alternative routes into Seatown. WDDC have applied to Defra for grant funding of modelling for NO<sub>2</sub> & PM<sub>10</sub> in Chideock, including the outcomes of the feasibility study.

WDDC have also applied to Defra for grant funding of PM<sub>10</sub> monitoring in Chideock as part of the Action Plan even though the Screening Assessment for PM<sub>10</sub> met the criteria set. This is due to public concern that PM<sub>10</sub>'s are above the objective here given the topography of the area. Grant funding to display our continuous monitoring data on the web was also included in the application.

WDDC also undertook a monitoring review of the diffusion tube monitoring sites in Chideock in December 2009 to include more monitoring locations with a view to reviewing the AQMA boundary. The outcomes of this survey will be reported in the 2011 Progress Report.

## **8 Conclusions and Proposed Actions**

### **8.1 Conclusions from New Monitoring Data**

The results from the non-automatic monitoring show that, outside of the 2 declared AQMA's in Dorchester & Chideock, the only other exceedences are in East Road Bridport. WDDC are progressing a Detailed Assessment at present as required to by Defra in a response to our 2009 Updating and Screening Assessment.

The NO<sub>2</sub> results from the continuous monitor in 2009 were for the month of December only, however preliminary results for 2010 show that the national annual and hourly objective at this site will not be exceeded in this location.

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

There are no new local developments within the district that have been identified since the last Updating and Screening Assessment.

### **8.3 Other Conclusions**

Despite the majority of measures being implemented in the Chideock Action Plan, these measures will only have a minimal impact on improving air quality within the AQMA.

The Charles Street Planning Application, that has yet to be determined, includes an air quality assessment as it will be a major development in Dorchester and located adjacent to the AQMA. The findings of the assessment identified that there would not be a significant impact on air quality with the development.

### **8.4 Proposed Actions**

Outside of the Chideock and Dorchester AQMA's and at East Road, Bridport, monitoring results show that the annual objective for NO<sub>2</sub> will be met and that a detailed assessment will not be required for any of the pollutants.

A review of NO<sub>2</sub> monitoring across West Dorset took place in December 2009 and identified 3 locations where air pollution exceeded the national objective. Therefore monitoring from 2010 is now only undertaken in Dorchester, Chideock and Bridport as the other locations had

not shown any exceedences for a minimum of 5 years. The results of the new monitoring will be reported in the 2011 Progress report.

WDDC has an outstanding Detailed Assessment for NO<sub>2</sub> along East Road, Bridport which is currently being completed.



## 9 References

1. Local Air Quality Management Technical Guidance LAQM.TG(09)
2. WDDC Updating and screening Assessment 2009
3. Chideock Air Quality Action Plan
4. [Review and Assessment support - Defra, UK](#)
5. Defra, UK - Environmental Protection - Air Quality - Local Air Quality Management
6. [www.laqmsupport.org.uk](http://www.laqmsupport.org.uk)

# Appendices

## Appendix 1: QA:QC Data

### Diffusion Tube Bias Adjustment Factors

The nitrogen dioxide diffusion tube bias adjustment spreadsheet, provided on the Review and Assessment website [Defra, UK - Environmental Protection - Air Quality - Local Air Quality Management](#) is used to obtain the bias adjustment factor, 0.99 was used for this Progress Report

### Discussion of Choice of Factor to Use

The National Bias Adjustment Factor was used as WDDC did not operate co-location study during 2009. This commenced in December 2009 and will be reported in 2011 Progress report.

### PM Monitoring Adjustment

WDDC does not currently monitor PM<sub>10</sub>'s in the district

### QA/QC of automatic monitoring

The analyser is maintained by the local authority, by way of fortnightly manual calibrations, in accordance with the manufacturer's instructions. Additionally, a service contract ensures that full calibration and reference checks are carried out on a six monthly basis.

Data collected by the analyser is downloaded three times a day. Daily checks are made to ensure that the analyser is not showing any faults. These are dealt with straight away, and logged for the engineer's information when a full calibration is undertaken.

Once the manual calibrations are carried out, the calibration factors are applied to the previous two weeks worth of data. At this time, the data are screened to ensure that any spurious data are accounted for, or excluded. This provides a method to establish whether the analyser is working correctly, or high pollution episodes can be identified.

Once this validation is carried out the data are ratified, at approximately six months intervals. Any possible drift in the analyser's daily calibration can be identified and adjusted and correction factors applied if they are needed.

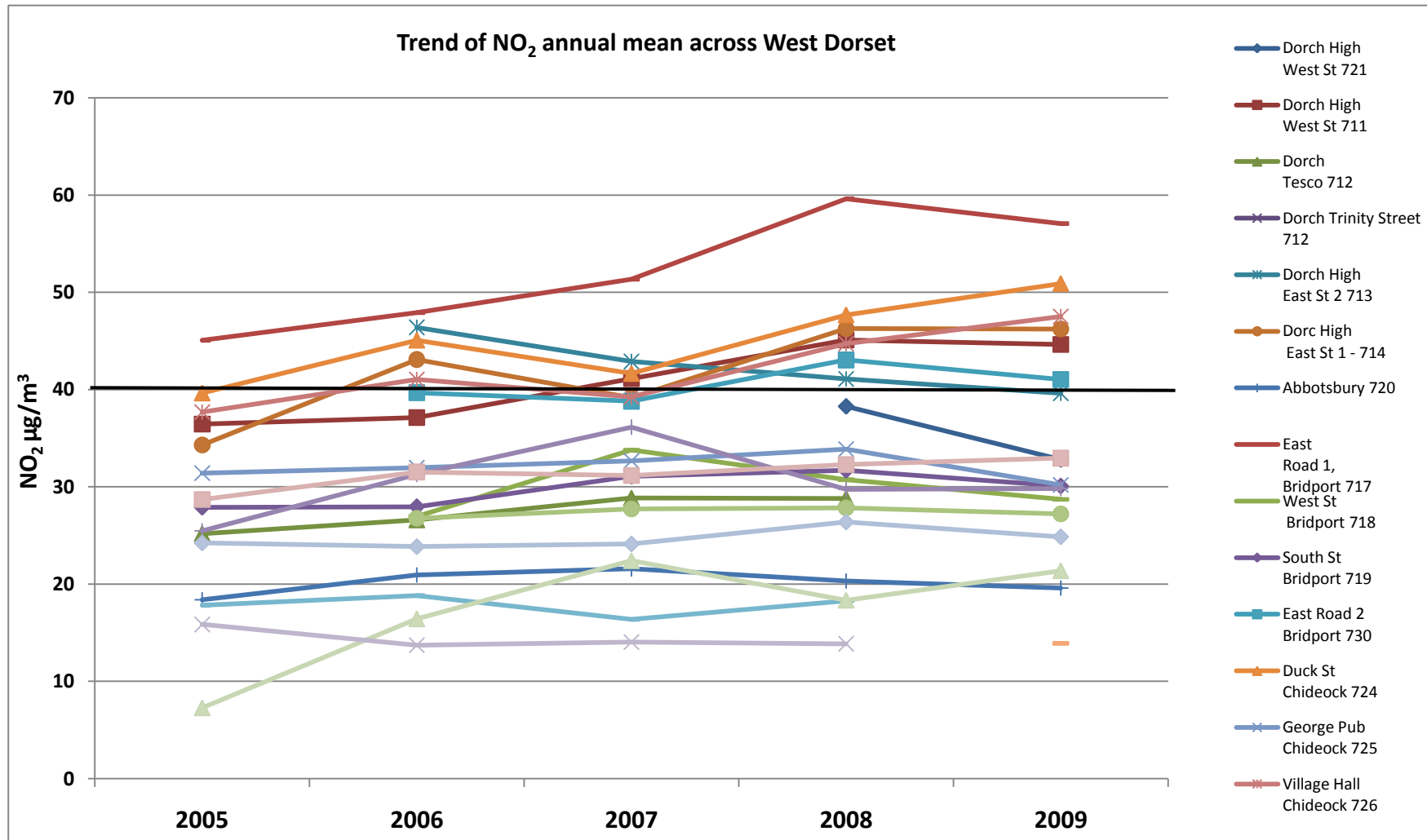
### **QA/QC of diffusion tube monitoring**

The diffusion tube monitoring programme follows the NETCEN methodology. Diffusion Tubes are supplied and analysed by Gradko International Limited, who are UKAS accredited. Gradko International Limited, supply and analyse the diffusion tubes, which are a preparation of 50% TEA (triethanolamine) / Acetone. The tubes are handled in accordance with the instructions within Technical Guidance LAQM.TG(09) Box A1.7.

Gradko International demonstrated a satisfactory performance, rating good, in the Workplace Analysis Scheme for Proficiency (WASP) for analysis of NO<sub>2</sub> diffusion tubes, October 2008 – October 2009.

## Appendix 2:

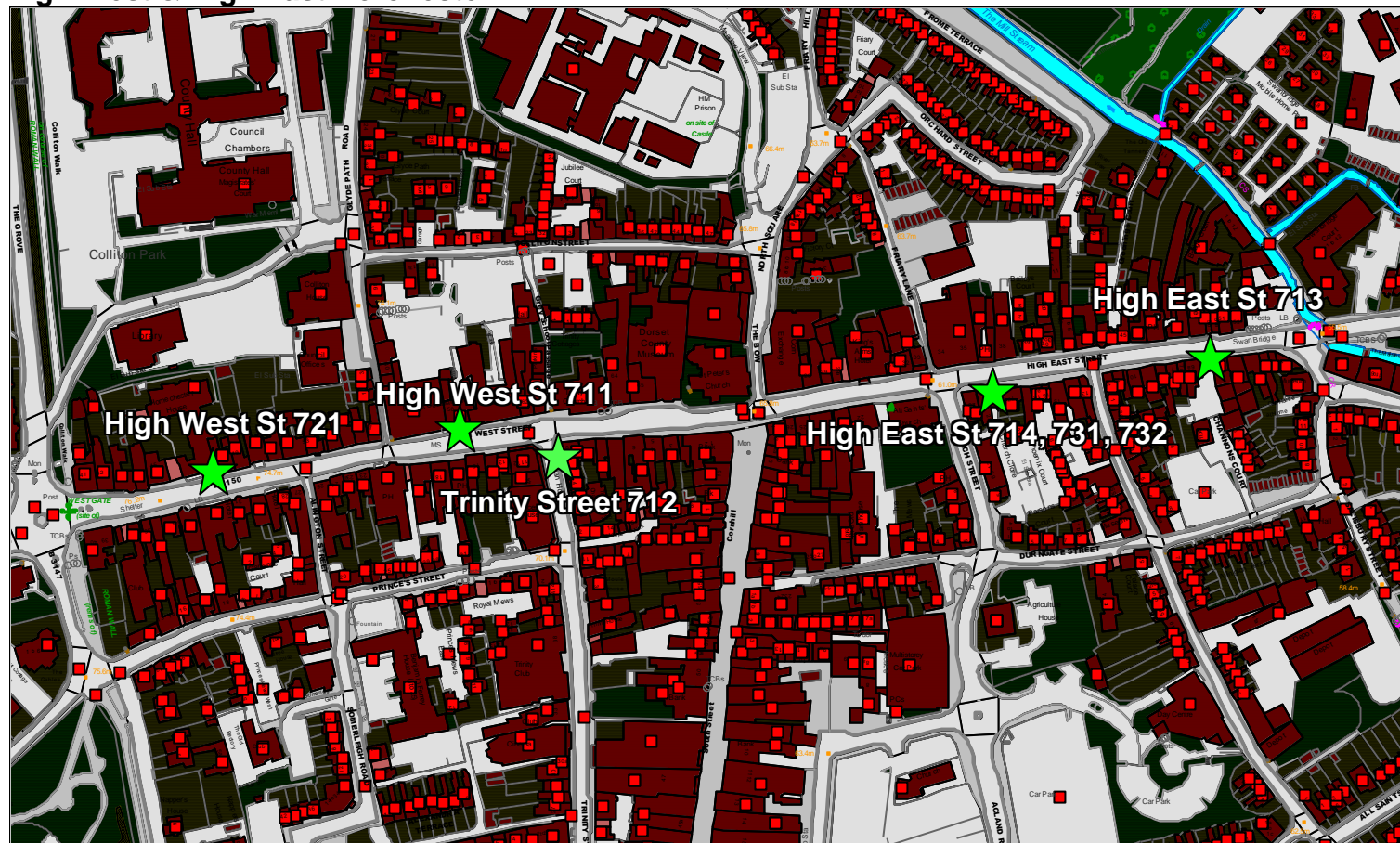
### Trends in annual mean nitrogen dioxide concentration measured at diffusion tube monitoring sites



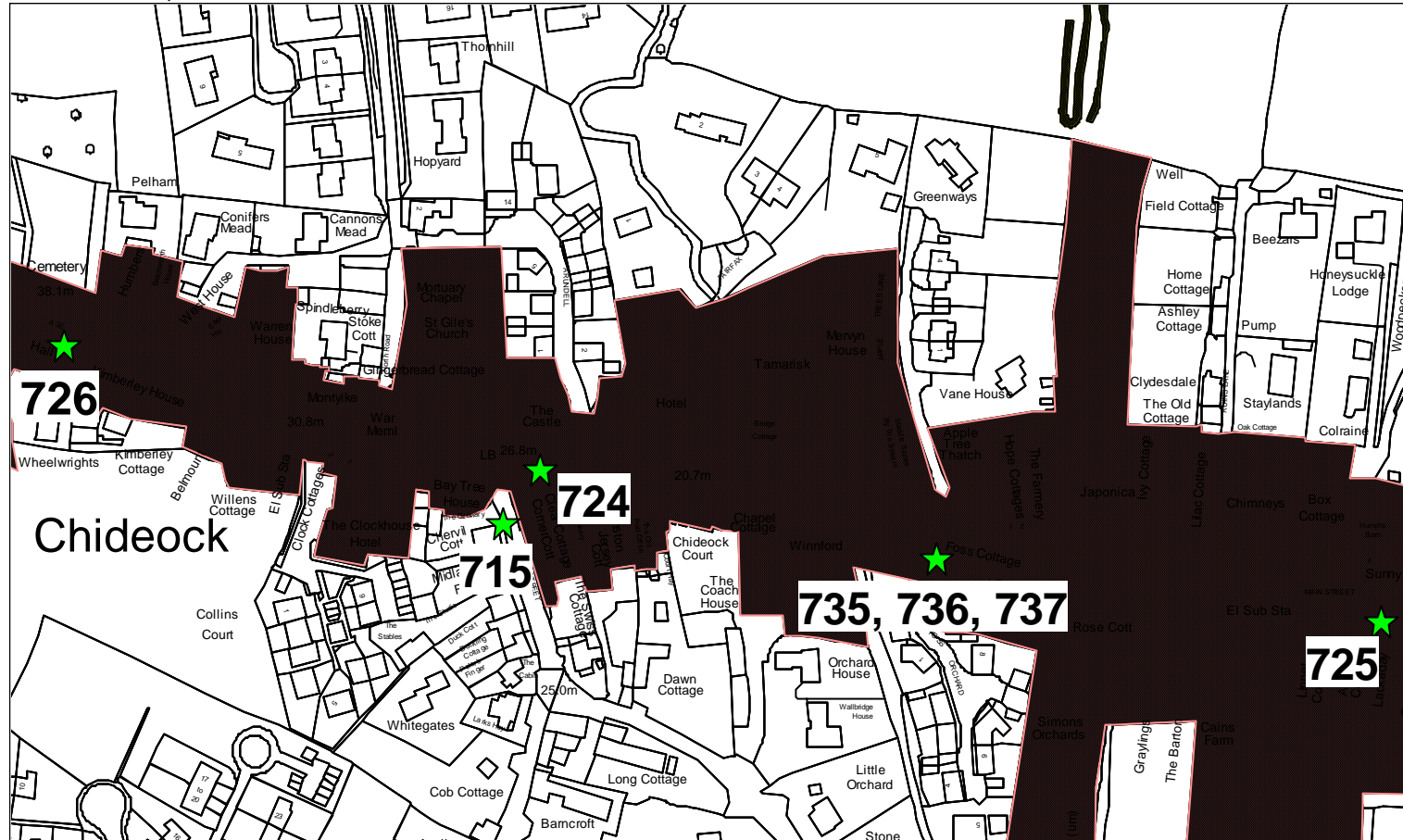
## Appendix 3

### Maps of Non-Automatic Monitoring Sites

#### High West & High East Dorchester



### Main Street, Chideock







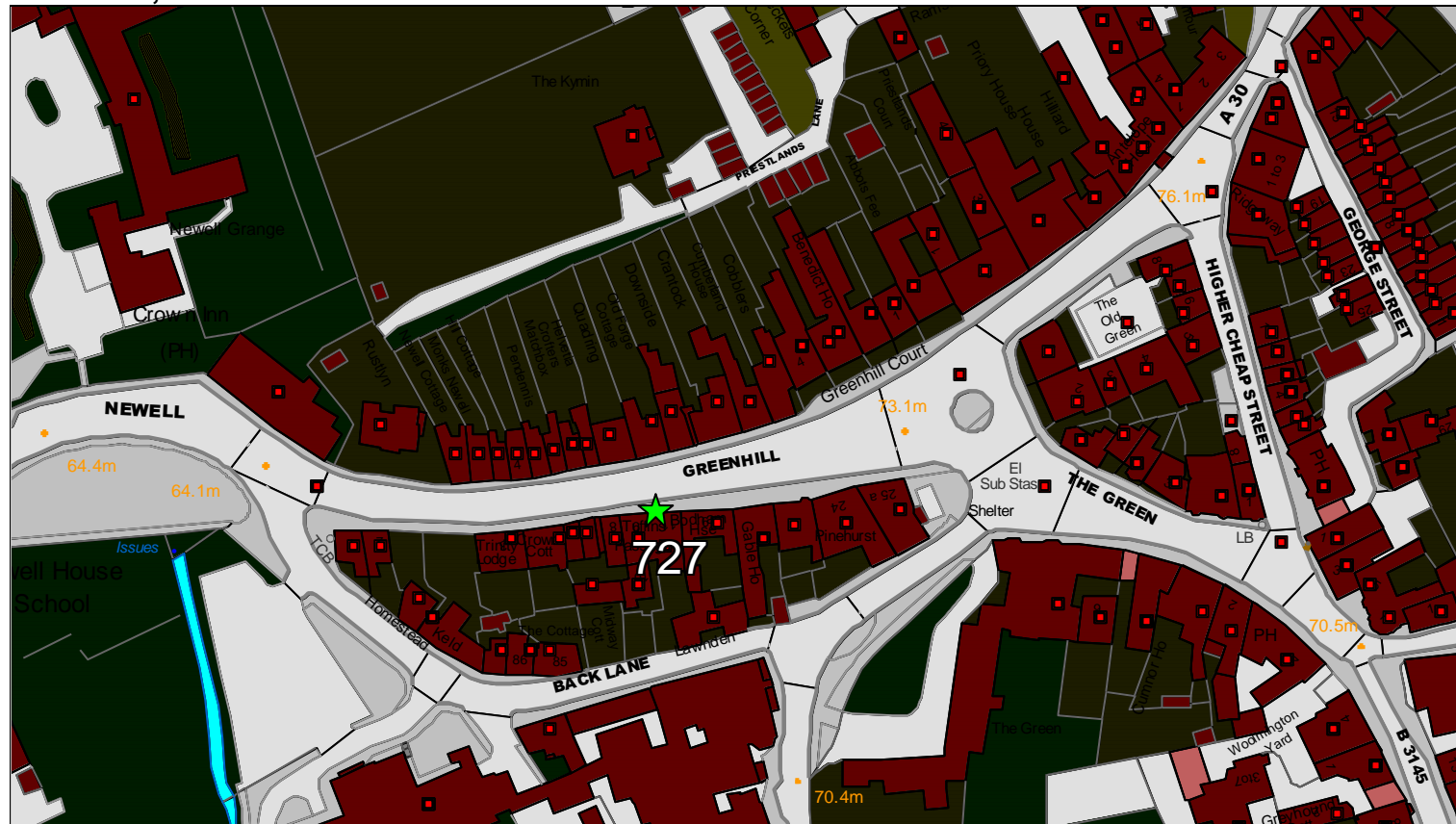
South Street & West Street, Bridport







**Green Hill, Sherborne**





**Abbotsbury**



Beaminster

