



2011 Air Quality Progress Report for North Dorset District Council

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

April 2011

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Executive Summary

- Previous Review and Assessments of air quality in the North Dorset District Council area have reached conclusions which have generally not required the authority to proceed with further investigations or to declare any Air Quality Management Areas (page 5).
- The one exception was the need to undertake a Detailed Assessment in respect of particulates ('PM₁₀') in the vicinity of a poultry farm in the south of the district, identified in the 2009 USA (page 6). The result of this exercise also concluded that there was no need to progress beyond the initial investigation.
- As a result of the above, no Action Plans have been implemented which require reporting of progress.
- No new road or other transport sources, or commercial & domestic sources have been identified which will require further investigation (p. 8 – 9)
- A limited number of industrial sources, some with fugitive/uncontrolled emissions, have been listed for further investigation as part of the 2012 Updating, Screening and Assessment process (p. 8 – 9).
- It is therefore proposed to submit this Progress Report; the next step will be the USA necessary in 2012.

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1 Introduction

1.1 Description of Local Authority Area

The District of North Dorset is located in the south west of England, bordering Somerset and Wiltshire. It is predominantly a rural area with very little industry. The five major market towns in the District are Blandford Forum, Gillingham, Shaftesbury, Stalbridge and Sturminster Newton. To the south and east of the District lies the Dorset Downs, Cranborne Chase & West Wilshire Downs, both are recognised as Areas of Outstanding Natural Beauty (AONB). The Blackmore Vale and Limestone Ridges occupy the northern and western part of the District, although not officially designated as AONB but both are recognised as contributing to the general attractiveness of the area. Population number in the District is estimated to be 68,600 in 2007 and is likely to increase to 72,100 by 2014.

A map showing the boundary of the District is shown in Figure 1.1.

Figure 1.1: Map of North Dorset



1.2 Purpose of Progress Report

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

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

1.3 Air Quality Objectives

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

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

Pollutant	Concentration	Measured as	Date to be achieved by
Benzene	16.25 $\mu\text{g}/\text{m}^3$	Running annual mean	31.12.2003
	5.00 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2010
1,3-Butadiene	2.25 $\mu\text{g}/\text{m}^3$	Running annual mean	31.12.2003
Carbon monoxide	10.0 mg/m^3	Running 8-hour mean	31.12.2003
Lead	0.5 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2004
	0.25 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2008
Nitrogen dioxide	200 $\mu\text{g}/\text{m}^3$ not to be exceeded more than 18 times a year	1-hour mean	31.12.2005
	40 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2005
Particles (PM₁₀) (gravimetric)	50 $\mu\text{g}/\text{m}^3$, not to be exceeded more than 35 times a year	24-hour mean	31.12.2004
	40 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2004
Sulphur dioxide	350 $\mu\text{g}/\text{m}^3$, not to be exceeded more than 24 times a year	1-hour mean	31.12.2004
	125 $\mu\text{g}/\text{m}^3$, not to be exceeded more than 3 times a year	24-hour mean	31.12.2004
	266 $\mu\text{g}/\text{m}^3$, not to be exceeded more than 35 times a year	15-minute mean	31.12.2005

1.4 Summary of Previous Review and Assessments

1.4.1 Round 1 - 1999

The Round 1 assessment of air quality concluded that there was no likelihood of exceedence of any of the air quality objectives in the district. There were no significant industrial or domestic sources and no roads over 20 000 vehicles per day (the criteria for Stage 2 review and assessment for nitrogen dioxide at that time). As a result, North Dorset District Council was not required to proceed to Stage 2 of the LAQM procedure.

1.4.2 Updating, Screening & Assessment - 2003

The purpose of the Updating, Screening and Assessment report (“USA”) was to build upon the Round 1 report produced in 1999. The conclusion to the 2003 report stated:

*The Updating and Screening Assessment for North Dorset District Council indicates that the objectives for all seven pollutants regulated by the Air Quality Regulations 2000 and the Air Quality (England) Amendment Regulations 2002 will be met by their target years. This is on the basis of having considered changes to the emission sources, relevant exposure, new objectives and any other changes that have taken place since the first round of assessment. North Dorset District Council is **not** therefore expected to move to a detailed assessment for any pollutant.*

1.4.3 Updating and Screening Assessment - 2006

The Executive Summary to the 2006 report stated:

An Updating and Screening Assessment (USA) has been performed for the seven UK criteria pollutants in the District of North Dorset. The aim of this assessment is to determine whether there is the potential for exceedences of any of the UK national air quality objectives. If this potential is identified a Detailed Assessment is recommended.

The results of this USA indicate that a Detailed Assessment will not be required for any of the seven pollutants assessed. None of the UK air quality objectives are likely to be breached within North Dorset District.

1.4.4 Updating and Screening Assessment - 2009

An Updating and Screening Assessment (USA) of air quality was undertaken in 2009 on behalf of North Dorset District Council (North Dorset DC) by consultants Faber Maunsell.

At that time there was no Air Quality Management Area (AQMA) in place in the District of North Dorset. Road traffic was considered to be the main emission source of pollutants within the District.

None of the UK air quality objectives for all seven pollutants excluding particulate matter (PM₁₀) were predicted as likely to be exceeded within the District. Consequently, a Detailed Assessment was not required for any of the six key pollutants. However, the USA did identify potential exceedences of PM₁₀ at one poultry farm in the District – East Down Farm, Winterborne Whitechurch.

A Detailed Assessment was undertaken which included a period of monitoring of particulates in the vicinity of the farm. The report (January 2010) of that exercise concluded: *'From the available evidence there are no grounds for proceeding further with assessment of air quality in this location although it is recommended that developments at the site be reviewed on a regular basis provided the criteria for assessment of poultry farms in the Technical Guidance remain unchanged.'*

2 New Monitoring Data

2.1 Summary of Monitoring Undertaken

2.1.1 Automatic Monitoring Sites

Apart from the particulate monitoring previously undertaken in relation to the discrete PM₁₀ 'Detailed Assessment' referred to above, no automatic monitoring has been deemed necessary following the earlier USA reports.

2.1.2 Non-Automatic Monitoring

Non-automatic monitoring has not been deemed necessary following previous USA reports.

3 New Local Developments

3.1 Road Traffic Sources

North 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.

3.2 Other Transport Sources

North 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.

3.3 Industrial Sources

North Dorset District Council has identified the following new or previously unidentified local developments which may impact on air quality in the Local Authority area.

- Lowbrook Farm, Belchalwell - Biodigester
- Blackmore Vale Dairy, Shaftesbury - Biodigester

These will be taken into consideration in the next Updating and Screening Assessment, scheduled for 2012.

3.4 Commercial and Domestic Sources

North 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.

3.5 New Developments with Fugitive or Uncontrolled Sources

North Dorset District Council has identified the following new or previously unidentified local developments which may impact on air quality in the Local Authority area.

- Oil & Water Ltd, Wincombe Business Park, Shaftesbury
- Waste Transfer Station, Butts Pond, Sturminster Newton
- East Down Poultry Farm (site of previous Detailed Assessment) is likely to increase stocking to 490,000 by the time of the USA in 2012

These will be taken into consideration in the next Updating and Screening Assessment, scheduled for 2012.

4 Planning Applications

North 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.

5 Air Quality Planning Policies

There are no policies specifically dealing with air quality in the adopted Structure Plan or Local Plan. However, there are more general policies dealing with pollution that also refer back to national policy. The relevant part of the Structure Plan, where paragraph 12.7 and Implementation Policy C are relevant:

12.7

New development should not increase levels of pollution, and Implementation Policy C seeks to ensure that this aspect is taken into account when proposals are under consideration. PPG 23, 'Planning and Pollution Control', advises that planning authorities should consult pollution control authorities, for example, Her Majesty's Inspectorate of Pollution, the Environment Agency and local authority environmental health departments, in order that they can take account of the scope and requirements of the relevant pollution control. Implementation Policy C is a reminder of this advice.

The relevant part of the structure plan can be accessed via the following link:

http://www.bournemouth.gov.uk/Library/PDF/Living/Planning/Planning_Policy/Regional_Strategic/Structure_Plan/Monitoring.pdf

In the Local Plan, Policy 1.8 sets out a series of “standard assessment criteria” which any development should meet. Criterion (i) requires compliance with the Local Plan’s Sustainable Development Strategy, one of the aims of which is “*to promote energy efficiency, conserve resources and avoid pollution*”.

The link to the Local Plan webpage:

<http://www.northdorsetlocalplan.co.uk/text/book.htm>.

6 Local Transport Plans and Strategies

The next version of the Local Transport Plan (LTP 3) has been out to public consultation very recently and can be viewed here:

<http://www.dorsetforyou.com/localtransportplan>.

This plan will cover the whole of the Dorset Sub-region including Bournemouth and Poole.

Draft LTP 3 has an associated draft Health Strategy, which refers to the issue of air quality and can be viewed from this page:

http://dorsetjointltp-consult.limehouse.co.uk/portal/dorset_joint_local_transport_plan/bpd_ltp3/bpd_draft_ltp3?tab=files

At present there are two LTPs; one covering rural Dorset and another covering the SE Dorset conurbation. The LTP for rural Dorset includes indicators and targets relating to air quality, which can be viewed here

<http://www.dorsetforyou.com/media.jsp?mediaid=97124&filetype=pdf>

7 Climate Change Strategies

In Dorset, climate change is tackled mainly through the Renewable Energy Strategy, the Energy Efficiency Strategy and the LTP, which integrate together as set out on this diagram:

<http://www.dorsetforyou.com/media.jsp?mediaid=143171&filetype=pdf>.

The individual documents can be downloaded from this page:

<http://www.dorsetforyou.com/395102>.

8 Conclusions and Proposed Actions

8.1 Conclusions from New Monitoring Data

With the exception of PM₁₀ monitoring undertaken for the Detailed Assessment reported previously, no new monitoring has been undertaken; exceedence of other AQ objectives has not previously been suspected. No AQMAs have been declared.

8.2 Other Conclusions

The Detailed Assessment in respect of PM₁₀ concentrations near a poultry farm was undertaken at a time when the capacity of the farm was approximately 440,000 birds. The present stocking capacity for the site has reduced in the interim to 360,000, although it is expected to rise again in the future to around 490,000.

Other industrial sources have been identified at paragraphs 3.3 & 3.5 above; however, no immediate action is required as these sites will be considered during the Updating, Screening and Assessment due in 2012.

8.3 Proposed Actions

With the exception of PM₁₀ monitoring undertaken for the Detailed Assessment reported previously, no new monitoring has been undertaken. No AQMA has previously been declared and no Action Plans have previously been required.

As a consequence, it is not deemed necessary to undertake a Detailed Assessment at this time.

It is therefore proposed to submit this Progress Report; the next step will be the USA necessary in 2012.

9 References

List of documents referred to in this report:

- First Stage Review and Assessment of Air Quality for North Dorset – 1999
- Round 2 Updating Screening & Assessment – April 2003
- Updating and Screening Assessment – May 2006
- Updating and Screening Assessment for North Dorset – April 2009
- Detailed Assessment for North Dorset District Council – January 2010
- Bournemouth, Dorset & Poole Structure Plan (CSP28)
- North Dorset District-Wide Local Plan to 2011 (1st Revision) Adopted 31st January 2003
- The draft joint Local Transport Plan for Bournemouth, Poole, and Dorset 2011 – 2026
- Bournemouth, Dorset and Poole Renewable Energy Strategy (2005)
- Bournemouth, Dorset and Poole Energy Efficiency Strategy (2009)

Appendices

Appendix A: QA/QC Data

Appendix B: Local Authority Permitted Processes

Appendix C: Environment Agency Permitted Processes.

Appendix A: QA:QC Data

Diffusion Tube Bias Adjustment Factors

Diffusion tube monitoring has not been required.

PM Monitoring Adjustment

PM monitoring has not been required.

QA/QC of automatic monitoring

Automatic monitoring has not been required.

Appendix B: Public Register of Local Authority Permitted Processes

<u>Public Register of Permitted Processes in North Dorset</u>	<u>Permitted date</u>
Production of pre-mix concrete / cement batching Hansons, Gannets Quarry, Todber, Sturminster Newton, Dorset, DT10 1HS	01.09.92
Coating of metal and plastic where >5t organic solvent used in 12m ACL Structures, Holland Way Industrial Estate, Blandford Forum, Dorset, DT11 7TG	13.03.97
Snashall Steel, Pulham Business Park, Pulham, Dorchester, Dorset, DT2 7DX	07.10.99
Powder Coating where > 20t coating powder used in 12m Hospital Metalcraft, Blandford Heights Industrial Estate, Blandford Forum, Dorset, DT11 7TE	20.08.93
Dextra Lighting, Brickfields Business Park, Gillingham, Dorset, SP8 4PX	28.05.09
Waste Oil Burner (<0.4MW rated thermal input) Ashley Wood, Tarrant Keyneston, Blandford Forum, Dorset, DT11 9JJ	05.11.92
C & O Tractors, Blandford Heights Industrial Estate, Blandford Forum, Dorset, DT11 7TF	06.08.01
C J Cox, Bagber, Sturminster Newton, Dorset, DT10 2HT	30.01.97
Crews Garage, Unit 25d, Sunrise Business Park, Higher Shaftesbury Road, Blandford Forum, Dorset, DT11 8ST	01.04.03
Ford Fuel Oils Limited, Gibbs Marsh Trading Estate, Stalbridge, Dorset, DT10 2RU	08.03.07
Petrol Vapour Recovery Chantry Field SS, Chantry Fields, Gillingham, Dorset, SP8 4UA	18.12.98
Cornwall Group Service Station, Blandford Rd, Shillingstone, Blandford Forum, DT11 0BE	11.12.98
Damory SS, Salisbury Road, Blandford Forum, Dorset, DT11 7LP	15.12.98
Forge Garage, Bourton, Gillingham, Dorset, SP8 5PZ	12.12.01
Ivy Cross SS, Shaftesbury, Dorset, SP7 8DS	16.12.98
Redpost SS, Winterbourne Zelston, Blandford Forum, Dorset, DT11 9EU	13.01.99
Ring St SS, Stalbridge, Dorset, DT10 7NQ	09.12.98
Riverside Garage, West Stour, Gillingham, Dorset, SP8 5RJ	25.11.99
Tesco SS, Stour Park, Blandford St Mary, Dorset, DT11 9PU	28.10.98
Tesco SS, Christys Lane Shaftesbury, Dorset SP7 8PF	27.09.04
Mobile Crushing Plant Mark Farwell Plant Hire, Down End Farm, Stourpaine, Blandford Forum DT11 8SY	21.06.05
A D Mills Contracting, Henstridge airfield, Henstridge, Templecombe Somerset, BA8 0TN	10.09.10

Dry Cleaners

Cavell Dry Cleaners, 23 High Street, Gillingham, Dorset SP8 4AA	26.03.07
Impressed Dry Cleaners, 9 Barnack walk, Blandford Forum, Dorset, DT11 7AL	26.03.07
Johnsons Stalbridge Linen Services, Christys Lane, Shaftesbury, Dorset, SP7 8PH	19.04.07
Market Place Dry Cleaners, market Place, Sturminster Newton, Dorset, DT10 1AS	26.03.07
Blandford Laundry Services, Shaftesbury Lane, Blandford Forum, Dorset, DT11 7EG	18.12.07

Appendix C: List of Environment Agency Permitted Processes

Faccenda Group, Shillingstone Farm, Okeford Fitzpaine, Blandford Forum, DT11 0RQ POULTRY FARM
J & G Environmental Ltd, Holland Way Ind Est, Blandford Forum, DT11 7TA WASTE TRANSFER
Walston Poultry Farm Ltd, East Down Farm, Winterborne Whitechurch, Blandford Forum, DT11 9AS POULTRY FARM
Walston Poultry Farm Ltd, Thorpe Farm, Winterborne Kingston, Blandford Forum, DT11 7BH POULTRY FARM
Old Stour Farm Ltd, Woodville, Stour Provost, Gillingham, Dorset, SP8 5SN POULTRY FARM
Thrive Unique Ltd, Middle Farm, Stalbridge Weston, Sturminster Newton, DT10 2LA POULTRY FARM
Oil and Water Ltd, 20, Wincombe Business park, Shaftesbury, SP7 9QJ WASTE TRANSFER/TREATMENT
Savage Cat Farm, Boweridge Hill, Gillingham, SP8 5QR POULTRY FARM
Farmergy Ltd, Lowbrook Farm, Belchalwell, Blandford Forum, DT11 0EQ BIODIGESTER AND COMBUSTION
Ferns POULTRY FARM Back Lane, Kingston, Hazelbury Bryan, Sturminster Newton DT10 2AN